IMPROVED IMAGE RETRIEVAL USING IMAGE NOISE REMOVAL TECHNIQUE

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ABSTRACT

Technology brings image data more interesting and more usage for various applications. Creation of quality image information are challenging tasks today. Today every information's are produced in terms of images, quality images only produced good information's and result, so it is necessary to the user community produced quality images. This paper brings a new filtering technique for corrupted and noisy image files. Most of the existing technique removes the error but quality of the images get spoiled. Proposed technique removes the noise in stepwise process, each step particular nose information get removed. This helps to preserve the quality of input image. Experimental results verified that proposed technique produced quality images.

Keywords — Image retrieval, noise removal, image pixel, histogram value, duplicate elimination, mining.

I. INTRODUCTION

Instead of text based information technology brings image based inputs. This image based functions are used many fo the fields today. Image and motion images are play very important role it helps in various application such as education s, medical, military, space and more. Image information give more-clear and accurate content for the user community. But most of the images are spoiled due to various factors, images are not captured by quality camera or user are not trained properly to handle the images. Due to this quality of the image are corrupted and it introduce noise or unwanted information on the input data sets. This bad quality image produces many unconstructive effects in image processing. For this image filters are required to remove this kind noise in the image data sets. Many techniques and filters are used currently for removing error on the image set, one the technique fuzzy based technique. This mapping function also called association functions. Image distinctiveness are extended into association functions. This association functions are evaluated based on the value assigned with that function, values zero and one are accepted. Another advantage is their using this technique any user knowledge is easily converted to rule based information, satisfied information only accepted. This function is based on rule based functions such as bad or good, long or short, high or low. In image processing this function is helpful find the difference between the two image or pixel value high or low by using image threshold technique.

Technique uses two differences of information either accepted or unaccepted information. For any value only one value considered, normally this difference not identified by human by own without using any techniques. In pixle value difference this value helps to differentiate one pixel to other pixel, values are high or not high. In some cases, this value difference is very high, on those situations use the moderate value mean difference between the two data set points.

Image base analysis done with help of image base colors such as red, green and blue. Proposed technique works well based on the image color model, quality of indivial color are identified with help of this value the differences are identified and it corrected. Given input image are first create collection of lesser values. Based on this construction information are processed either by systematically or any technique are used to perform. Proposed technique logically good for arithmetic construction for any computation operations.

II. EXISTING SYSTEM

In image processing image quality is one of the most important for information extraction technique, un quality image retrieve un quality output for this image input data set should maintained high quality data sets. For this before processing the operation, image preprocessing application such as image noise are removed first. This noise removal is one of the most important application in digital image processing. Number of image restoration technique available most of this technique are based on image filtered concepts example image wavelet technique. This image restoration technique one of the most developments stages in researchers and most growing filed today. Other number of filtering functions are used for image restoration such as image filtering using incomplete disparity equation. This filtering functions are used for image restoration.

A. Proposed System

Any image analysis techniques are based on constructing image based color model such as red, green and blue. Images are made of pixel every pixel are assigned a value using this value image pixel calculation are done. This value helps the user to find the difference between the images and find error values easily. In the proposed technique image frame constructed after in the frame unwanted information i.e. noisy image pixel are identified, then further discover phase also identified. In the affected or error pixels are identified this value is replaced with most similar values identified with help of image frame comparison technique. Find the similar frame and pixel values that values are replaced with noisy pixel this way unwanted i.e. noisy pixels are removed successfully. In the proposed technique image basic color model are used ie with help of red, blue and red.

a) Advantages in proposed system

- Image restoration are effective. Technique are easy to implement and finding relationship between images are esay. No pre-calculation is required.
- Image noisy operation done in two phases it reduces the users burden.

III. Experimental setup

A. User Verification: In Authentication module new user can register their details and registered user login their account. In order to use this paper, user needs to register. Only registered persons will be able to access the service. So, an unaut-horized user can't access this service. If any user enters incorrect details in login page, then the login form will have terminated. When user gives a correct username and password, Control will be transferred to main form. User can perform the operations,

B. Input video to frames

User can't directly implement this concept on video. So here user needs select any of the noise video to convert it into frames by mentioning the time sequence according to which number of frames will be created in a temporary folder. Any one of this can be chosen and used for performing the process of removing impulse noise from that particular image.

C. Image noise removal

a) Image post: Here user Chooses a Particular image with impulse noise from local system and post it. From that particular image user can de noise the impulse noise and can get a new without impulse noise.

b) De noise: De noising process is done here. Errors are removed using three step filtering process. Converting the error free pixel are done based on the pixel quality and affected pixel information. Only affected or noisy pixel are reconstructed based on the reference image frame. Pseudo code for noise removal:

```
{try {this.Cursor=Cursors.WaitCursor;
Bitmap newImage=filter.Apply(image);
if (host.CreateNewDocumentOnChange)
 {host.NewDocument(newImage);} else
 {if (host.RememberOnChange)
{if (backup!=null)backup. Dispose ();
backup=image;}else{image.Dispose( );}
 Image=newImage; UpdateNewImage( ); }
```

b) *Detecting edges:* Detecting edges is another technique for finding noisy pattern in image mining. In image mining input frame are constructed in the first step, every frame is analyzed based on available image pixel quality, three basis image color values are used Red, green and blue with help of this value image pixel brightness sharp, quality factors are considered. In this technique image edges are constructed based on the reference image frame edges are compared and recti-fied.

c) Smoothing image:

After successfully find the noisy image pixel it is necessary to remove those value and replace the de-noisy functions. Previous steps ensure image edge det-ecting removes the image edge function effectively. In the same, this function helps normalize the image frames. For this each image region is determined by the value of the denote pitch in the region. For this image preprocessing technique plays important role here. User need to find the minimum error value need to calculate this value minimum than other noisy values. This minimum noisy value helps to compute image

denote pitch value use this value image smoothing are done effectively. This Process perform rest of the ima-ge frames.

d) *Sharpening images:* Follows to the image smooth-ing next step is image sharpening. This process perf-orm image sharpening and reforms the affected image edges. Procedure for image sharpening code show below, this process is applied all affected image fra-mes.

```
{SharpenExForm form=new Sharpen ExForm
( );form. Image = image; if(form.Show
Dialog( )=DialogResult.OK){Apply Fil-
ter(form.Filter);}
```

Table 1 Type of video Cartoon duplication removal

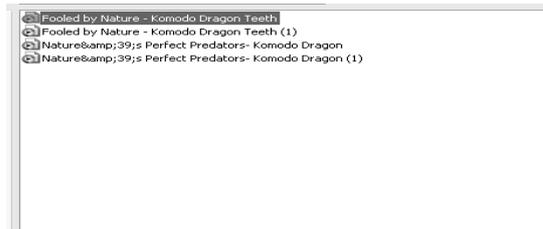| S.No	Video name	Number of Input frames	Number of output frames	Duplicate frames removed
1	Cartoon	7	6	1
2	Graphics	16	10	6
3	News	15	14	1
4	Globe	15	13	2
5	Song	15	14	1

IV. Experimental outcomes

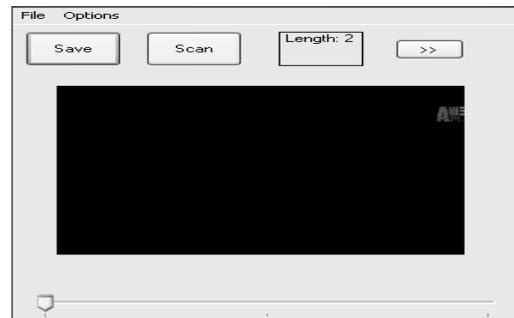Fig.1: Selecting input video file

Fig. 2: Dynamic input convert of static inputs.

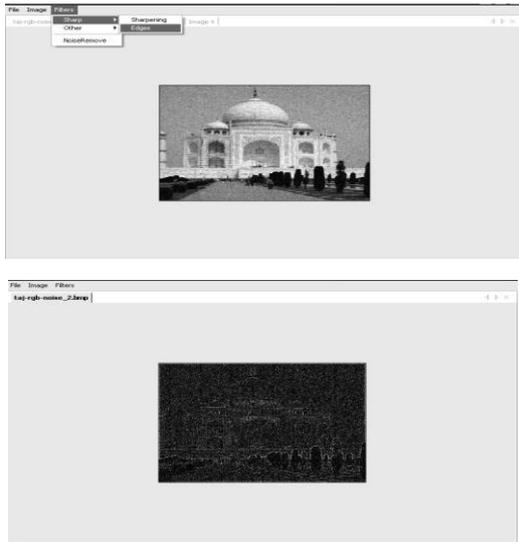Fig. 3: Input video frame removing noise using filtering impulse
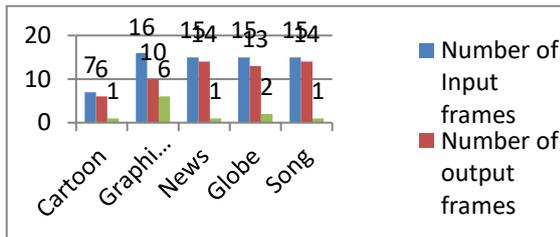
Fig. 4 performing image edge diction

Fig. 5: Output performance of proposed technique

Table 2: Frame values corresponding gray value

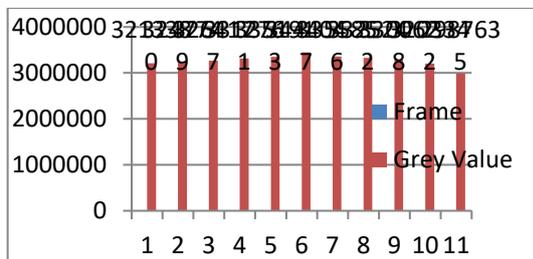| Frame	Grey Value
1	3213380
2	3247749
3	3264177
4	3312761
5	3351913
6	3444047
7	3355856
8	3325242
9	3300628
10	3203342
11	2987635

Fig. 6 Frame count VS Gray value

V. CONCLUSION AND FUTURE ENHANCEMENT

Today image mining plays very important role for many applications. Processing of image files are most challenge task for many researchers, due to this today image mining one of the most thruster area for many researchers. Selecting the appropriate image gives better results, but images are created with number of error factors. The most challenging task are remove the error values. Removing of errors or noisy function from the input image frames are done step by steps, In the pro-

posed technique filtering functions with help of basic color band are effectively used. Image comparison are done effectively.

A. Future enhancement

Creation of any digital images are easy one, producing quality images are most challenge task for the users. These images are dishonored due to many factors. This factor affects most of the image mining operations, this factor affects the concert factor of image mining. Proposed technique used image filtering technique method may further extend with other filtering operations and produce better results.

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