

Some Vandalizing Effects in Binary Images

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Abstract:

In this paper the author has presented two new effects where an original gray image has been processed to get vandalized binary images. In the first effect an image binarization process is applied. In the second effect edge detection method is applied to get vandalized binary Images. These two effects can find application in special effects imaging.

Keywords:

Imaging, vandalize, histogram, edge-detection, binary-image

1. INTRODUCTION

In imaging science various effects have enriched the field. In this paper author has introduced two novel vandalized effects on binary images.

Here author has chosen a gray image to process and to produce vandalized images. The vandalized images are nothing but mutilated images.

2. EXPERIMENTAL PROCEDURES

Here two methods that are done to get vandalized effects are

- i. Method 1 based on algorithm 1 (Figure 3)
- ii. Method 2 based on algorithm 2 (Figure 4)

The input sample image is figure 1 which has the histogram in figure 2. The figure 1 is a grayscale image and the histogram shows that image is mostly high key image.



Figure 1 : Sample Image

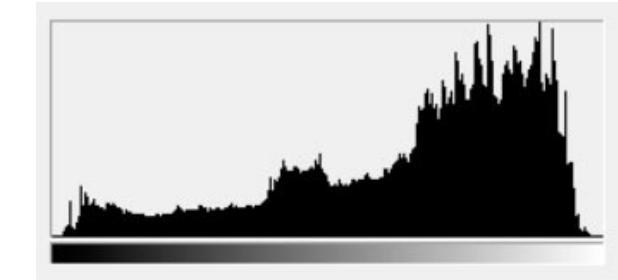


Figure 2: Histogram of figure 1

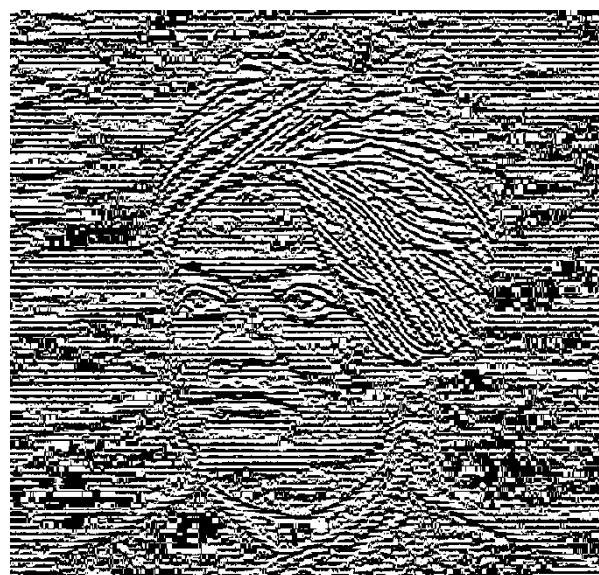


Figure 3. Vandalized Image 1



Figure 4. Vandalized Image 2

ALGORITHM 1

The sample input image of figure 1 is processed through some image binarization techniques as described as outline of the algorithm [3]

Outline of algorithm 1

1. Select the group of pixels in the vertically downward direction, of an image and move spirally along the columns.
2. Then thresholding is done on the above group of selected pixels serially, to get the final vandalized binary image.

ALGORITHM 2

The input image of figure 1 is processed to get the output image (Figure 4) which is based on gradient direction of edge detection algorithm like ‘Sobel’ or ‘Prewitt’.

5. REFERENCES

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3. RESULTS AND DISCUSSIONS

For Method 1: Vandalized image (figure 3) obtained by this method look like worm eaten picture on paper.

For Method 2: Vandalized image (figure 4) that we got looks like effaced stone or metallic image (eyes, lower part of the nose and mouth area).

4. CONCLUSIONS

Here the author has presented two new methods of binary image vandalizing produced from gray image through suitable algorithms.

In the first method an input gray image is vandalized using some halftoning method as suggested by author [3]

In the second method the input image is processed using some edge detection algorithm.

Application of these two methods is as special effects imaging.