## Research Article

# APPLICATION OF HANDLING IMAGE IN DATABASE

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### ARTICLE INFO

### ABSTRACT

The research made an attempt to know the application of handling images in database with special reference to medicine field. In order to know the uses of handling images in database such as illegal producers make engravings of trademark and logos in the tablets. Using this technique the study helps to identify the duplicate materials and also helps to find out the originality of the medicine. To find the illegal producers of these medicines, a huge database of images of tablets, and the raw materials used are collected. This method of research involves collecting the images of the materials and a detailed test will be made to assess the originality of the medicines. However, if the database of medicines or tablets contains numerous similar images then the quality test for the same has to be conducted.

## INTRODUCTION

Image processing is a method to perform some operations on an image, in order to get an enhanced image or to extract some useful information from it. It is a type of signal processing in which input is an image and output may be image or characteristics/features associated with that image. Nowadays, image processing is among rapidly growing technologies. It forms core research area within engineering and computer science disciplines too.

### Image Processing Basically Includes the Following three steps

- Importing the image via image acquisition tools;
- Analysing and manipulating the image;
- Output in which result can be altered image or report that is based on image analysis.

There are two types of methods used for image processing namely, analogue and digital image processing. Analogue image processing can be used for the hard copies like printouts and photographs. Image analysts use various fundamentals of interpretation while using these visual techniques. Digital image processing techniques help in manipulation of the digital images by using computers. The three general phases that all types of data have to undergo while using digital technique are pre-processing, enhancement, and display, information extraction.

### Image Processing Strategies

There are two sorts of strategies utilized for image processing: Simple image processing or visual methods of image preparing: utilized for printouts and photos.

### Advanced Image Processing

Preparing computerized images by utilizing a PC. This strategy incorporates three stages for processing images in figure 1.2: pre-preparing, upgrade and show, data extraction. Let us quickly characterize each of those stages:

- ✓ Image pre-processing or image rebuilding comprises of revising the image from various blunders, clamor and geometric mutilations.
- ✓ Image upgrade enhances the visual part of the image, after the amendment of blunders, to encourage the observation or interpretability of data in the image.
- ✓ Information extraction uses the PC's basic leadership ability to recognize and remove particular bits of data or pixels.

The distinctive image processing strategies utilized as a part of the Phone Reader Project help in removing the content contained in the image taken by the client.

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For this situation, advanced PCs are utilized to handle the image. The image will be changed over to advanced frame utilizing a scanner – digitizer then procedures it. It is characterized as the subjecting numerical representations of articles to a progression of operations keeping in mind the end goal to get a fancied result. It begins with one image and delivers an adjusted form of the same. It is in this manner a procedure that takes a image into another.

The term advanced image preparing for the most part alludes to processing of a two-dimensional image by a computerized PC. In a more extensive setting, it suggests advanced processing of any two-dimensional information. A computerized image is a variety of genuine numbers spoke to by a limited number of bits.

The principle advantage of Digital Image Processing methods is its versatility, repeatability and the preservation of original data precision.
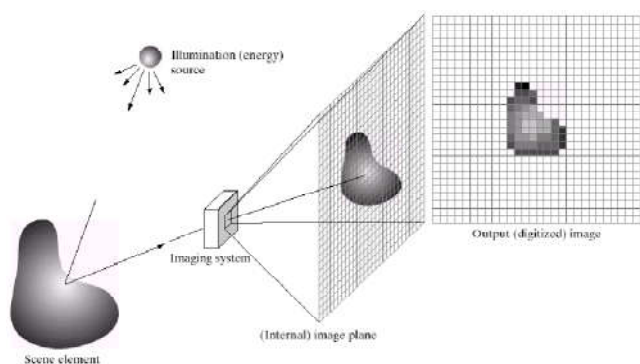


**Figure 1.2** Three stages for processing images

### Review of Literature

Rahul Singh (2015) a image is being utilized all over however commotion may degenerate the nature of the image. Clamor is made either in image obtaining or transmission or some other reason. Numerous scientists are spotlights on the clamor diminishment and attempt to make sense of the ideal arrangements. This paper concentrates on different image denoising systems and their advantages and disadvantages also.

Ajay Kumar Boyat (2015) clamor is dependably exhibits in computerized images amid image securing, coding, transmission, and preparing steps. Clamor is extremely hard to expel it from the advanced images without the earlier information of commotion model. That is the reason, audit of commotion models are fundamental in the investigation of image denoising systems. In this paper, we express a brief review of different clamor models. These commotion models can be chosen by investigation of their beginning. Along these lines, we display a total and quantitative investigation of commotion models accessible in advanced images.

Gursharan Kaur (2016) image preparing is a developing innovation and image is utilized as a part of different fields like restorative and training. Image may degenerate because of the commotion. To evacuate this clamor, in this paper, strategies and different channels are portrayed. Commotion diminishment is the primary concentration to hold the nature of the image. Image quality diminishes in view of the image procurement or transmission. Before applying further preparing on the image, commotion ought to expel from the image. In this paper,

different innovations and in addition their channels to recognize and evacuate the clamor are talked about.

### Objective of the Study

To assess the originality of the medicines.

## METHODS



**Figure 1** Example of imprint on a drug tablet

The prints are given for technical evaluation. The database has the images of the synthetic piece of tablet, and all its characteristics like shape, height, weight and breadth. As shown in the above figures, illegal producers make engravings of trademark and logos in the tablets. The sample image is shown in Figure 1.

To find the illegal producers of these medicines, a huge database of images of tablets, and the raw materials used are collected. If the stamp of the tablet or medicine is found in a any manufacturer, then the analyst has to check the stamp and the tablet imprints. By this method of random testing of tablet imprints and the stamp one can identify whether a particular medicine has been delivered correctly or not.

This method of research involves collecting the images of the materials and a detailed test will be made to assess the originality of the medicines. However, if the database of medicines or tablets contains numerous similar images then the quality test for the same has to be conducted.

The tablets will be photographed using side light. The images of the tablets are procured with a camera which has source from side light. This will bring about contrasts in the images of the image because of light varieties brought on by contrasts in edge of occurrence of the source of light. There is also another option as the tablet itself may be damaged and the image may not be recognizable. As the 3D image is taken using a normal camera, one has to consider the shadows as well. Moreover, tablets can be somewhat moved or turned. In like manner, the strategy for substance based recovery of the database images of medicinal tablets ought to be harsh to pivot, interpretation, under different conditions of light.

## CONCLUSIONS AND DISCUSSION

In this study we have shown that the effective method to search the image from the database of medicinal tablets are by using shape portrayal techniques available in MPEG-7 system. The significant components of the shape are captured by Curvature Scale Space representation technique. The test set has got better

results using log-polar shape portrayal by searching on a larger scale.

To make pre-defined imaged, log polar mixed with curvature scale space can be used as tool in future.

The research impact was limited to the three different tests and tablets database which are used for this study. We can also see that the damaged image of the tablets cannot be recovered with accurate precision. The portrayal of printed image that is feed in the database need to be used to search those images of damaged tablets.

In further exploration 3 Dimensional-images that are procured by light gear of coded nature will be used by contrasting with look alike images, as we know that image profundity data will enhance recovery considerably.
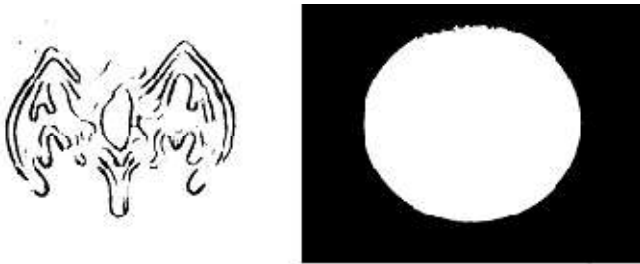


**Figure 2** Splitting of shape of tablet and image with the algorithm described

On the off chance that a stamp contains recognizing attributes, we can easily see that those characteristic are easily recognizable in the tablet. So, we have to identify those characters of the tablet before making of the database, so that it helps to analyze easily.

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