

Digital Image Processing

Lab Assignment – 5

1. 'Image1.jpg' is captured in a rainy environment. The raindrops have created noise in the image. Apply appropriate image processing techniques to reduce the noise arising due to the rain in the given image.
2. In 'image2.jpg', the relevant objects are obscured by the fog. Apply appropriate image processing techniques to enhance the region of interest (the car in this particular image).
3. There are many special uses of **Erosion**. One of the most common application using the erosion is to separate the touching objects in a binary image so that can be counted using a labeling algorithm. In this section just use the erosion method to display the circles in the image distinctly. Use the 'image5.gif' image for this purpose.
4. There are many other uses of **Dilation**. For example, it can be used to fill in small spurious holes ('pepper noise') in images. In this problem, read the 'image6.png' image. This image contains pepper noise. Use a suitable structuring element to dilate this image, hence removing the noise from the image. The image quality may not be that great.