

Digital Image Processing

Lab Assignment – 6

1. For the given image 'image1.gif', use the **opening** technique with the appropriate structuring element. Your mission is to separate the circles from the lines. Save your image as 'circle.png' and 'line.png'. The 'circle.png' image should contain only circles, and the 'line.png' image should contain only lines.
2. In real world applications closing can be used to enhance binary images of objects obtained from thresholding. In this problem you will use the concept of **closing** to compute the skeleton of 'image2.png'. Compute the area of the shape of image.
3. 'Image3.jpg' and 'image3_2.jpg' are 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. [hint: combine image enhancement, edge detection and morphology]