

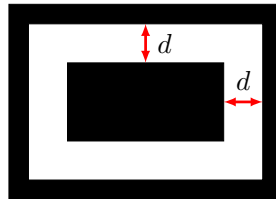
National Institute of Technology Rourkela
Department of Computer Science & Engineering
Lab Assignments, 2019

Subject: **Image Processing LAB**

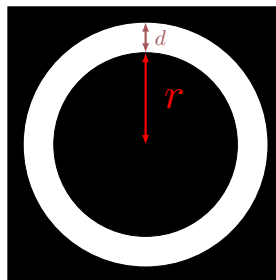
Subject Code: **CS-434**

Assignments 1

1. Write a code to create an athletic track of size given d (as taken from user) as given in following figure.



2. Write a code to create an athletic track of size given radius r and track width d (as taken from user) as given in following figure.



3. Synthesise and display image for the given 2D function

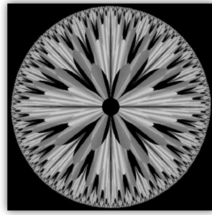
$$I(x, y) = 255 \cos[2\pi(x/50 + y/25)], 0 \leq x, y \leq 511$$

4. Perform Zoom-in and Zoom-out operation using nearest neighborhood for 'cameraman.tif' test image of size 256×256 .

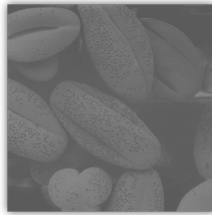
_____ x _____

Assignments 2

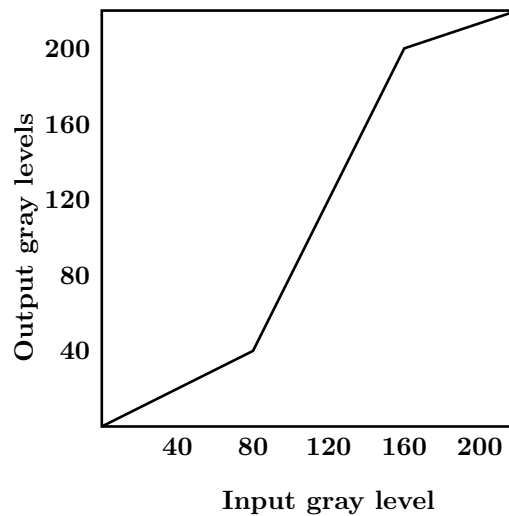
1. Perform bit plane slicing transformation on a given image ('fractal.png').



2. Find the histogram without using any in-built function for a given image ('grain.png').



3. Apply constant stretching to 'grain.png' by using the following mapping function and display the newly formed histogram of the image.



———— x ————