# M.Sc. (Five Year Integrated) in Computer Science (Artificial Intelligence & Data Science)

#### Fourth Semester

## DIGITAL SIGNAL PROCESSING ASSIGNMENT

#### Submitted by

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### COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY (CUSAT)

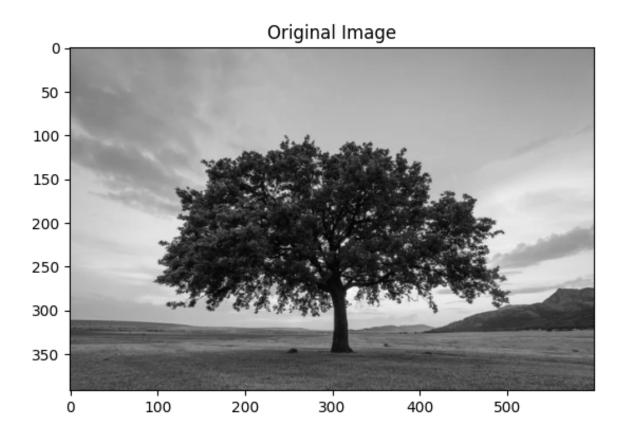
**KOCHI-682022** 

**MARCH 2024** 

### Contents

ORIGINAL IMAGE	1
LAPLACIAN KERNEL - 1	1
LAPLACIAN KERNEL - 2	3

#### ORIGINAL IMAGE

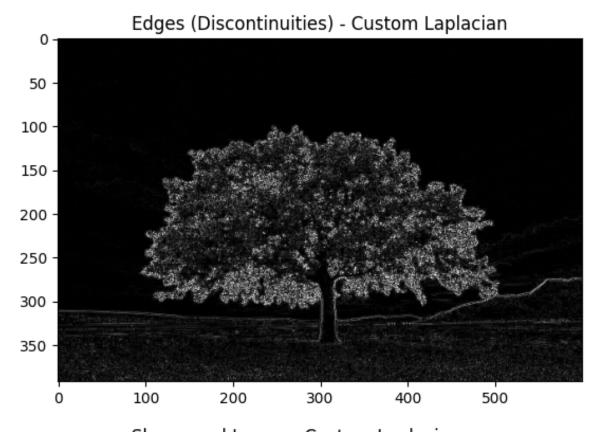


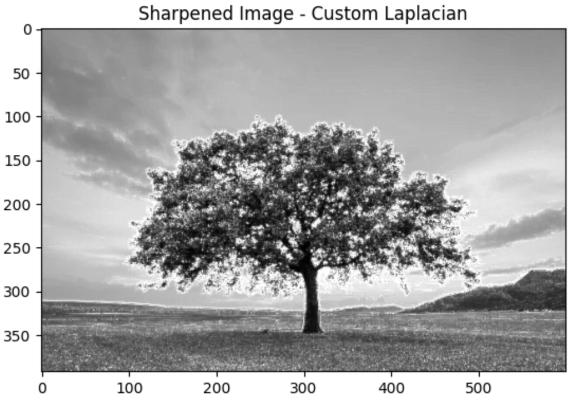
#### TYPE 1 - LAPLACIAN KERNEL

THE FIRST TYPE OF LAPLACIAN KERNEL IS GIVEN AS BELOW:

$$\begin{bmatrix} 0 & 1 & 0 \\ 1 & -4 & 1 \\ 0 & 1 & 0 \end{bmatrix}$$

#### OUTPUT





#### TYPE 2 - LAPLACIAN KERNEL

THE SECOND TYPE OF LAPLACIAN KERNEL IS GIVEN AS BELOW:

$$\begin{bmatrix} 1 & 1 & 1 \\ 1 & -8 & 1 \\ 1 & 1 & 1 \end{bmatrix}$$

#### OUTPUT

