

DESIGN ACTIVITY 2

Consider the Kernel size 3 x 3.

a1 a2 a3

a4 a5 a6

a6 a7 a8

Example values of the kernel.

unfiltered values		
5	3	6
2	1	9
8	4	7

Consider the kernel size is 3 x 3 on image data. Write MPI program to perform the following tasks.

1. Identify the Minimum number, let us say mn.
2. Identify the Maximum number, let us say mx.
3. The average of these two numbers is i.e., $Av = (mn + mx)/2$ will be stored in the output of the pixel position a5 i.e., instead of 1.

Implement in MPI and feed input as a lena image data value enclosed. You can use any gray scale image data and generate output.