Assignment –2

Digital Filters for Edge Enhancement

1. Consider an array of 8x10 with the following DN values.

    Rows 1-2 : 30

    Rows 3-5 : 35

    Rows 6-8 : 30

    Apply Laplacian filter and check whether it has any effect.

2. For the data given in Problem 1, apply N89E directional filter and compare the contrast ratio enhancement with that obtained from problem 1.

3. For the data given in Problem 1, apply N45W directional filter and comment on edge enhancement

4. Consider an array of 6x15 as follows

    Columns 1-3   : 50

    Columns 4-5   : 60

    Columns 6-10   : 50

    Columns 11-13 : 40

    Columns 14-15 : 50

    Apply Laplacian filter. Also apply any two weighing factors and compare edge enhancement capabilities.

5. For the data given in example problem for Directional filters, apply Laplacian filter and compare edge enhancement capabilities.