



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with ‘A’ Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**COURSE NAME : 19EC513 – IMAGE PROCESSING AND COMPUTER
VISION**

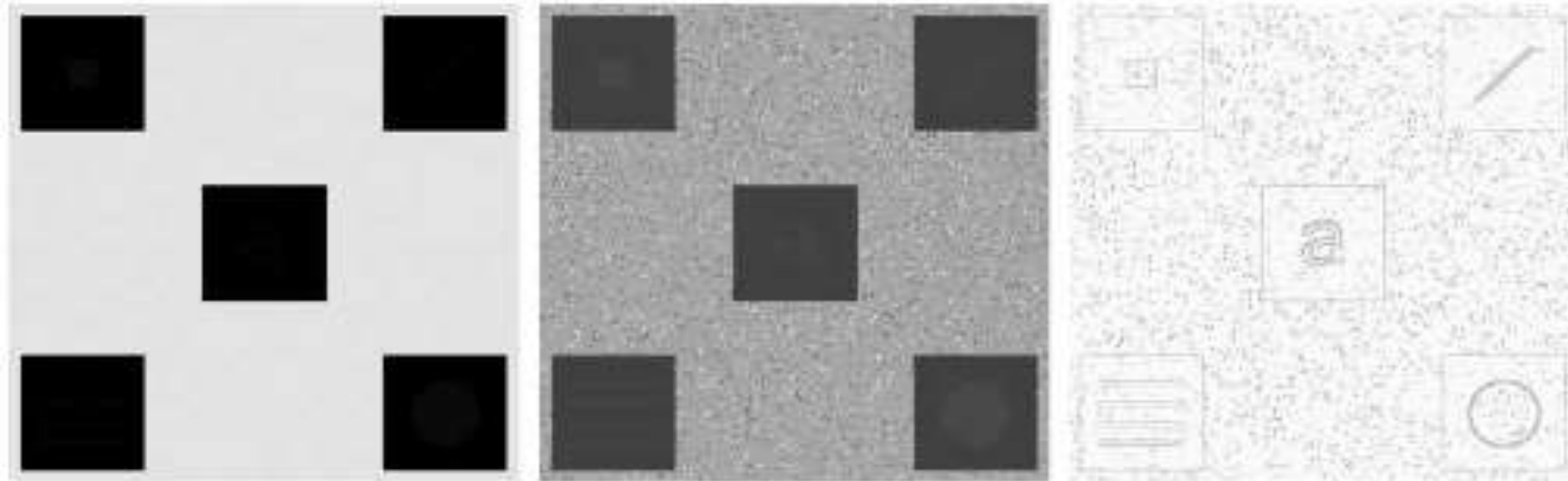
III YEAR / V SEMESTER

Unit II- IMAGE ENHANCEMENT AND RESTORATION

Topic : Histogram statistic for image enhancement

Histogram statistic for image enhancement / 19EC513/ IMAGE PROCESSING AND COMPUTER VISION
/Mr.S.HARIBABU/ECE/SNSCE

Histogram statistics for image enhancement



a b c

FIGURE 3.26 (a) Original image. (b) Result of global histogram equalization. (c) Result of local histogram equalization applied to (a), using a neighborhood of size 3×3 .

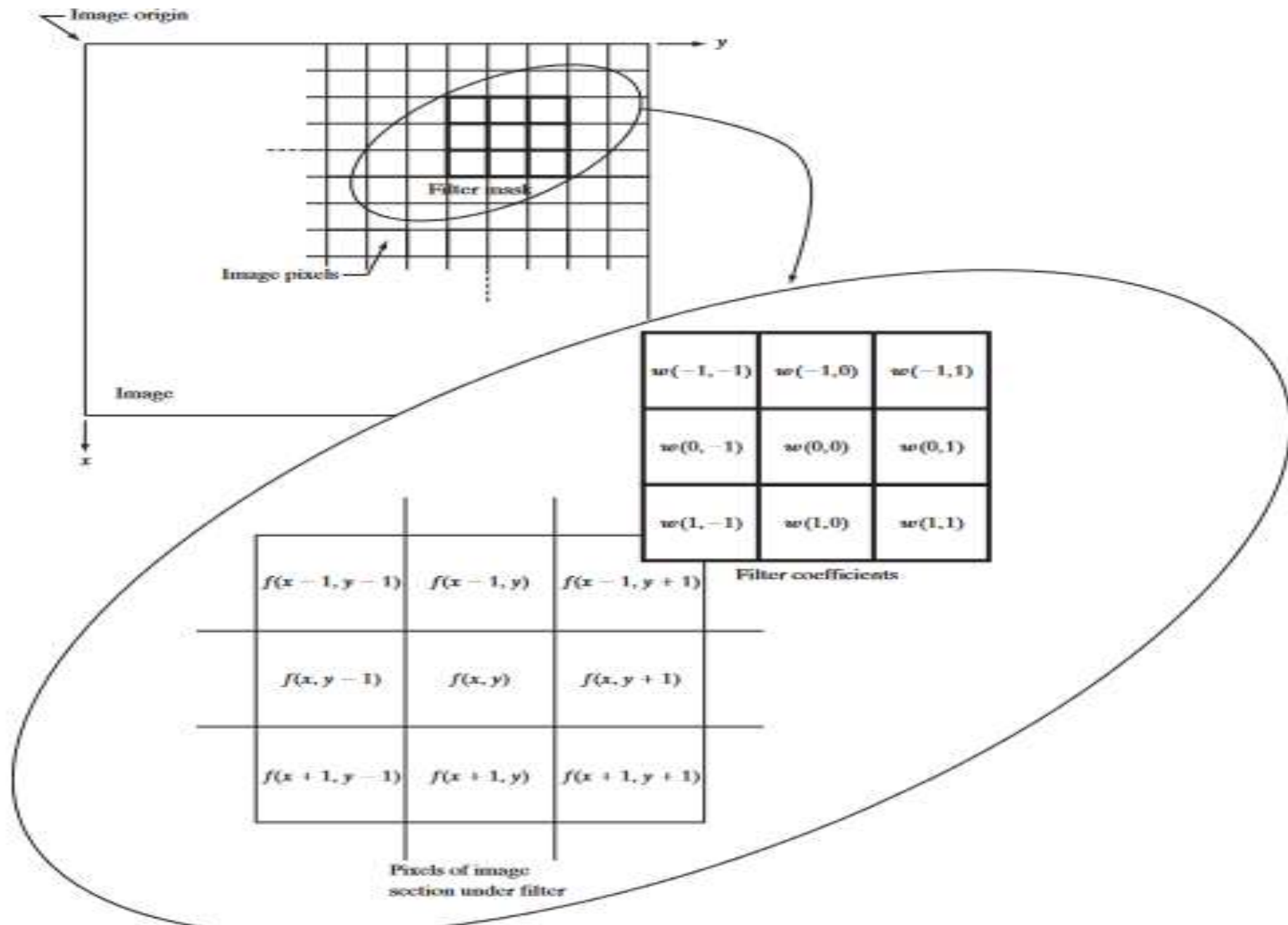


The mechanics of linear spatial filtering using a neighborhood. At any point (x, y) in the image, the response, g , of the filter is the sum of products of the filter coefficients and the image pixels encompassed by the filter

$$g(x, y) = w(-1, -1)f(x - 1, y - 1) + w(-1, 0)f(x - 1, y) + \dots \\ + w(0, 0)f(x, y) + \dots + w(1, 1)f(x + 1, y + 1)$$

In general, linear spatial filtering of an image of size with a filter of size is given by the expression: where x and y are varied so that each pixel in visits every pixel in f.w

$$g(x, y) = \sum_{s=-a}^a \sum_{t=-b}^b w(s, t)f(x + s, y + t)$$





Any Query????

Thank you.....