**FINGER PRINT BASED AUTHENTICATION USING SOFT COMPUTING**

Implementation Steps: Flow Diagram.

Feature Point Extraction(Bifurcation Point, Ridge Point etc.)

Image Binarisation

If(p(x,y) >T) p(x,y)=1 else p(x,y)=0

Find out the Region of interest

Histogram Analysis (To normalize the pixel value)

De-noise the Acquired Image (Using GAUSSIAN MASK and SOBEL Operator)

Acquire The TEST Image

Acquire The IDEAL Image

ADVANCE THINNING

Rotation Invariant Thinning Process

Feature Point Extraction (Bifurcation Point, Ridge Point etc.)

Forming a minimum Spanning Tree (Basing on the Shortest Euclidian distance bet the points)

MATCHING two MST

Match == ‘Y’

No Match Found

Show % Of Matching

SIMPLE MINIMUM SPANNING TREE:

Label 0: (cost =0.4)

Label 1: (cost= 0.3)

Label 2: (cost=0.1)

***Total Cost: ((6 \* 0.4 =2.4) + (3\*0.3 = 0.9) + (1\*0.1 = 0.1)) = 3.4***