**Aim: Implementation of Single layer Perceptron Learning Algorithm.**

The perceptron learning rule :Training patterns are presented to the network's inputs; the output is computed. Then the connection weightswjare modified by an amount that is proportional to the product of

 the difference between the actual output, y, and the desired output, d, and

 the input pattern, x.

**The algorithm is as follows:**

1. Initialize the weights and threshold to small random numbers.

2. Present a vector x to the neuron inputs and calculate the output.

3. Update the weights according to:



where

 d is the desired output,

 t is the iteration number, and

 eta is the gain or step size, where 0.0 < n < 1.0

4. Repeat steps 2 and 3 until: