Perceptron

**Neuron**

A neuron is an information processing unit that receives signals from input links and sends an output signal through output links. The output signal is determined by applying an activation function to the input signals.

**Activation functions**

If the activation function is hard limit function, the neuron compares the weighted sum of its input signals with a threshold value. Hard limit functions are used in decision making for classification tasks.

y = 1 if weightedSum(X) >= threshold else –1

Step function

y = 1 if weightedSum(X) >= threshold else 0