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VASAVI COLLEGE OF ENGINEERING (Autonomous)
IBRAHIMBAGH, HYDERABAD-31

Department of Computer Science and Engineering

Artificial Intelligence

Activity : Virtual Lab

Topic : Neural Networks

Class : V Semester

Date : 14-10-2022

Time : 10.40 to 12.40

Virtual labs are used to provide remote-access to simulation-based Labs in various disciplines of Science and Engineering. Perceptron implementation and other neural network applications shown in virtual lab. Simulation of weight updation in each iteration is shown in the lab

Machine Learning > Machine Learning Lab > Implementation of AND/OR/NOT Gate using Single Layer Perceptron

Implementation of AND/OR/NOT Gate using Single Layer Perceptron

Aim

To understand the working of neural networks using AND, OR, NOT Gates implemented through a single neuron of the neural network.

AND Gate Neural Network (NN)

$w_1 = 1$
 $w_2 = 1$
Threshold: 0

$Y = w_1 * X + w_2 * Y$
 $= 1 * (X=0) + 1 * (Y=0)$
 $= 0$

$Z = F(Y)$
 $= 1$

Threshold: 0

$Y = 0 \Rightarrow Z = 1$