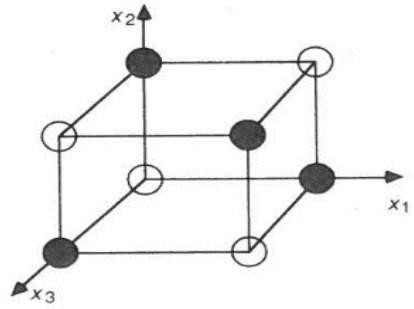
HW# 8
Application of Neural Network (CpE 520)
Due date: Oct. 19th, 2021

Q.1: Use the back-propagation algorithm to train the following two fully connected neural networks in order to compute a set of weights and bias levels for the two networks (b) an extended input feature for a single neural network, if Fig (b) configuration does not converge try more combinations, (c) a 3-layer neural network as shown below to solve the binary Parity-3 problem shown in (a). Do not forget to add a bias input for each neuron not shown in the diagram. Plot the learning curves for the training process for both networks. Provide all the trained weights for both networks.

x_1	x_2	x_3	y
1	1	1	1
1	0	0	1
0	1	0	1
0	0	1	1
0	0	0	0
1	0	1	0
0	1	1	0
1	1	0	0



(a) Parity-3 problem