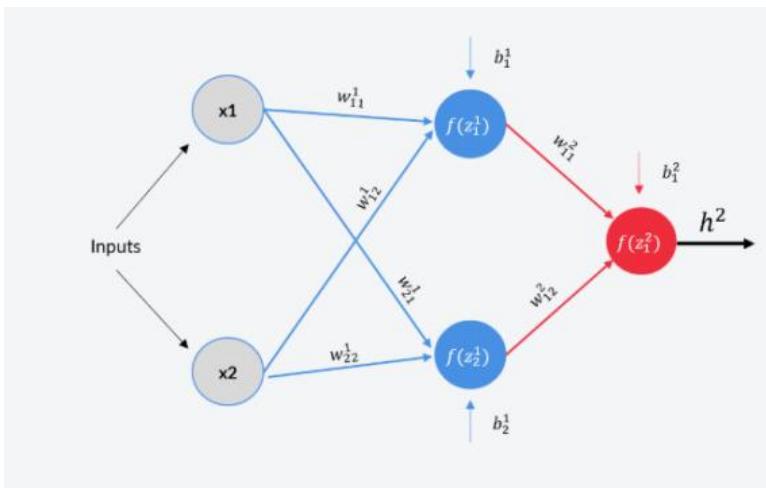


**Sardar Vallabhbhai National Institute of Technology
Surat-395007**

**Department of Artificial Intelligence
Deep Learning (AI302)**

Lab Practical– 1

- 1) Introduction of PyTorch Tensors and Basic Operations.
 - a) To understand PyTorch tensors, their initialization methods, and data types.
 - b) To perform tensor operations such as arithmetic, broadcasting, indexing, and reshaping.
 - c) To explore automatic differentiation using PyTorch's Autograd system.
- 2) Perform all linear algebra operation with Tensorflow.
- 3) Write a program to implement AND OR gates using Perceptron.
- 4) Implementation of XOR Problem using PyTorch Neural Network.
- 5) Implement Simple below Neural Network to solve regression problem.



References:

- https://www.tensorflow.org/api_docs/python/tf
- https://www.tensorflow.org/api_docs/python/tf/math
- https://www.tensorflow.org/api_docs/python/tf/linalg