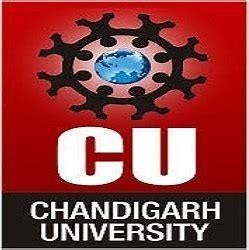
 

UNIVERSITY INSTITUTE OF ENGINEERING

**Department of Computer Science & Engineering**

**(BE-CSE/IT-6th Sem)**



**Subject Name:** Soft Computing Lab

**Subject Code:** 21CSP-377

# Submitted to: Submitted by:

Faculty name: Er. Manjinder Kaur Ma’am

Name: Nakul Sharma UID: 21BCS7585

Section: 903 Group: A



**INDEX**

**Name: Nakul Sharma UID:21BCS7585**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Ex. No** | **Name of Experiments** | **Date** | **Conduct (MM: 12)** | **Viva (MM: 10)** | **Worksheet (Record) (MM: 8)** | **Total (MM: 30)** | **Remarks** | **Signature (with date)** |
| 1.1 | To perform Union, Intersection and Complement operations. |  |  |  |  |  |  |  |
| 1.2 | Plotting various membership functions. |  |  |  |  |  |  |  |
| 1.3 | Using Fuzzy toolbox to model tips value. |  |  |  |  |  |  |  |
| 1.4 | To implement a Fuzzy Inference System (FIS) for which the inputs, output and rules are given as below. |  |  |  |  |  |  |  |
| 2.1 | Generate ANDNOT function using McCulloch- Pitts neural net. |  |  |  |  |  |  |  |
| 2.2 | Hebb Net to classify two dimensional input patterns in bipolar with given targets. |  |  |  |  |  |  |  |
| 2.3 | Perceptron net for an AND function with bipolar inputs and targets. |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2.4 | To write a MATLAB program to calculate the weights using Hetero- associative neural net for  mapping of vectors |  |  |  |  |  |  |  |
| 3.1 | Write a matlab program to find the weight matrix of an auto associative net to store the vector (1 1 -1 -1). Test the response of the network by presenting the same pattern and recognize whether it is a known  vector or unknown vector. |  |  |  |  |  |  |  |
| 3.2 | To write a MATLAB program to train and test the back propagation neural network for the generation of XOR  function. |  |  |  |  |  |  |  |