TCET



Revision: A

Semester: BE - VIII

TCET/FRM/IP-02/10

Semester Plan (Practical / tutorials / Assignment) Course: B.E ETRX

Batches: BE ETRX

Subject: Artificial Intelligence BE EXC7052 Laboratory faculty In-Charge: Mrs. Jyoti Kori

Batch Size: 20 students Class: B.E ETRX Lab Assistant / Attendant: Mrs. Sarita Tiwari

Note: Experiments are planned as per University Curriculum

Basic Experiments

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks	
1	Write a program to implement single layer perception	20/07/2017			
2	Write a program to implement of fuzzy set operation.	27/07/2017			
3	Write a program for fuzzy inference system.	14/09/2017			
4	Write a program for back propagation learning algorithm and analyse its parameters from the ouput. 31/08/2017				
5	Write program & display five defuzzification methods supported in the Fuzzy Logic Toolbox	21/09/2017			
Design / Development Experiments:					
Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks	
1	Design multilayer feed forward network using back propagation algorithm	24/08/2017			
2	Implement fuzzy logic controller toolbox and customise the values of motor for different load settings. (motor control)	10-05-2017			
3	Write a program to Single Discrete Perceptron Training Algorithm (SDPTA)	09-07-2017			
4	Write a program to implement bidirectional associative memory network using single Hebbian laerning into BAM	08-10-2017			
5	Design McCulloch Pitts net for AND classifier and linear separability pattern.	08-03-2017			
Group Le	earning Activity				

Assignments Т

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks
1	Assignment 1: (Fundamental architectures of NN) Mod-1 Understanding of basic NN Mod-2 Basic concepts of NN and apllications	Week 5		
2	Assignment 2: (NN for real time applications) Mod-3 Understanding of supervised NN Mod-4 Understanding of unsupervised NN	Week 10		
3	Assignment 3: (Fuzzy logic Controller) Mod-5 Fuzzy set operations, fuzzifications methods	Week 14		



	II. Case Study			
	TITLES			
Sr. No	Experiments / Tutorials / Assignment	Planned Date	Completion Date	Remarks
	(Planning with use of Technology)			
1	Case study on real time systems or appliactions like Pattern recognition,	Week 10		
1	weather forecasting,etc	WEEK IU		
	III. Mini Project			

Mini / Minor Projects Objective: To get hands on experience to execute projects with respect to student choice in the following areas. (30 Hrs / Semester / Student).

The areas are : **3. Interdisciplinary**

1. Research 2. Core 3. Interdisciplinary 4. Application

Major project : As per University Scheme

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Type of Project	Modes of Learning	Reference
1	Design of neural net for image processing applications	Research	Technical paper Publication and Presentation	refer and study technical papers /
2	Develop a fuzzy neural applications	Application	Technical paper Publication and Presentation	journals such as; IEEE, ACM, Elsewire.

IV. Bridge Course

Bridge courses Objective: Bridging of gaps with respect to prerequisites and industry skills or to carry out research in that particular field. (30 Hrs / Semester / student)

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks
1	Introduction to Neural Network and Fuzzy systems toolbox (MATLAB)	Week 4		
	V. Project			

Sr. No	Sr. No Experiments / Tutorials / Assignment (Planning with use of Technology)		Modes of Learning	Reference
1	Digital image processing and classification using NN	Research		
2	Design of motor control using fuzzy neural model.	Research		

No. of Practical		No. of Assignments		No. of Tutorial	
Planned	Conducted	Planned	Conducted	Planned	Conducted
Basic Experiment : 05					
Design Base					
Experiment . 05					
Group Learning : 03		3		0	
Bridge Course 1					
Minor Project : 00					
Project ::: 02					

DOSLNE:

DOSLE (engaged in some other dates):

Group activities are required to be added with the practical related to course to enhance the learning activity of the student in the course. Group activity includes: Group presentation, new experiment design, mini projects etc. **Note:**

1. The practical plan date and completion date shall be in compliance. For any non-compliance reason(s) required to be stated in remark column.

2. Learning objective and outcome shall be clearly stated with each of experiments/ tutorials/ assignments and are required to be mapped at the end of the semester.

3. Entry for DOSLE (engaged on some other date) shall be done with proper mapping to DOSLNE.

Name & Signature of Faculty	Signature of HOD	Signature of Principal / Dean Academic
Date: 17/07/2017	Date:	Date: