Laxdu Singh Charitable Trust's (Regd.)
THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY
(Approved by AICTE, Govt. of Maharashtra & Affiliated to University of Mumbai*)
(Accredited Programmes by National Board of Accreditation, New Delhi**)
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ISO 9001 : 2008 Certified
*Permanent Affiliated UG Programmes : • Computer Engineering • Electronics & Telecommunication Engineering • Information Technology (w.e.f.: A.Y. 2015-16 onwards)
**1st time Accredited UG Programmes : • Computer Engineering • Electronics & Telecommunication Engineering • Information Technology
**2nd time Accredited UG Programmes : • Computer Engineering • Electronics & Telecommunication Engineering • Information Technology • Electronics Engineering (3 years w.e.f.: 01-07-2016)

TCET/FRM/IP-02/10 Revision: B

Semester Plan
(Practical)

Semester: **VII** Course: **EXTC** Batches: **B2, B4**

Subject: Neural Networks and Fuzzy Logic (ETL-703) Class: **B.E EXTC- B** Batch size: 20 Students

Laboratory faculty in charge: Dr.Sujata Kulkarni Lab Assistant: Mr.Chandresh Yadav

Note: **Experiment planned as per University Curriculum**

Basic Experiments:

Sr. No.	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Batches	Planned Date	Completion Date	Remarks
1.	To implement Neural Network Based Basic logic (AND , OR) Functions	B4	19/07/17		
		B2	20/07/17		
2.	To implement McCulloch-Pitts Neutron model for XOR gate	B4	25/07/17		
		B2	27/07/17		
3.	To implement Hebb net to classify two dimensional input pattern and test for any input pattern.	B4	2/08/17		
		B2	03/08/17		
4.	To implement perceptron Training and testing for OR gate.	B4	09/08/17		
		B2	10/08/17		
5.	To implement back propagation algorithm	B4	16/08/17		
		B2	24/08/17		
6.	To find new weights by Kohenen self organization feature map for given set of input vector and weights.	B4	5/09/17		
		B2	31/08/17		
7.	To Perform various fuzzy set operations and implement fuzzy relation using max-Product and Max – Min Composition.	B4	12/09/17		
		B2	07/09/17		
Design/ Development Experiments:					
8.	Design and implement Fuzzy inference system for lift control	B4	19/09/17		
		B2	14/09/17		
9.	Design and implement Fuzzy inference system for washing machine	B4	26/09/17		
		B2	14/09/17		

Issued By: MR	Approved By: Principal

Group Learning Activity:

10.	Mini Project: Implement an Application of Neural Network	B4	4/10/17		
		B2	21/09/17		
11	Case Study: Importance of Neural Networks For Machine Learning	B4	18/10/17		
		B2	21/09/17		

1. **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). (Total 120 Hrs)**

The areas are :

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

Mini/ Major project : As per University Scheme

S.No	**Project Title/Group Size**	**Class**	**Type / Project Hours**	**Modes of Learning**	**Reference**
1.	Video Compression Using Fuzzy Logic	B.E EXTC-A	Application	Project Based Learning	http://ieeexplore.ieee.org/document/1540724/
2.	Cost effective real time blood component detection using Machine Learning	B.E EXTC-B	Application	Project Based Learning	https://www.packtpub.com › Books › Machine Learning with R - Second Edition

	Planned	Completed		Planned	Completed		Planned	Completed
No. of Prac	**Basic Exp:** 07 **Design Base Exp**: 02 **Group Learning:** 2 **Bridge Course:** 01 **Major Project:** 02		No. of Assignments	02		No. of Tutorial	00	--

DOSLNE:	DOSLE (engaged in some other dates):

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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.

Sd...	**Sd...**	**Sd....**
(Ms. Jeslin Edison) (Dr.Sangeeta Mishra)	**(Dr. Vinitkumar Dongre)**	**(Dr. R. R. Sedamkar)**
Name & Signature of Faculty	Signature of HOD	Signature of Principal / Dean Academic
Date:17 /07/2017	Date: 17/07/2017	Date: 17 /07/2017