C.U.SHAH UNIVERSITY

FACULTY OF: - Technology & Engineering
DEPARTMENT OF: -Electrical Engineering
BRANCH: Electrical Engineering
SEMESTER: - IV
COURSE:- B.Tech
CODE: - 4TE04ESP1
NAME – Simulation Practice

Teaching & Evaluation Scheme

Subject Code	Name of the Subject	Teaching Scheme (Hours)				Credits	Evaluation Scheme							
							Theory				Practical (Marks)			Total
							Sessional Exam		University Exam		Internal		University	
		Th	Tu	Pr	Total		Marks	Hrs	Marks	Hrs	Pr/Viva	TW	Pr	
4TE04ESP1	Simulation Practice	0	0	2	2	1	--	--	--	--	50	50	---	**100**

Objectives

- To study various electronics circuits software namely MATLAB, LabView etc.
- To study design and implementation of analog and digital circuits using different software related to electrical & electronics along with PCB design techniques.

Prerequisites

- Basics of Electrical and Electronics Circuits and Components design in Software Practice.

Course Outlines

Sr. No.	Course Contents	Hours
1	**Introduction of Electrical and Electronics Software :** Introduction of Psim, Multisim, MATLAB, Lab view.	06
2	**Psim:** Introduction of PSim Simulator and Applications	03
3	**MATLAB:** Introduction of MATLAB, Coding simulation and Applications	06
4	**Multi sim & Lab view:** Introduction of Multi sim & Lab view and Applications.	06
5	**PCB Design:** Introduction of PCB Design software and Applications.	05

Learning Outcomes

- The students would be able to design and implement various Circuits of electrical and electronics using various simulator software and design PCB layout.

Books Recommended

1. MATLAB: An Introduction with Applications, Almos Gilat, Wiley India Ltd., 2004.
2. Model Reduction for Circuit Simulation, Benner, Peter, Hinze, Michael, ter Maten, E. Jan W. (Eds.), ISBN 978-94-007-0089-5
3. Electronic Circuit & System Simulation Methods (SRE), Lawrence Pillage McGraw-Hill Professional; 1 edition (October 1, 1998)