



GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Bachelor of Vocation (B.Voc.), 1st Semester

Branch: Solar & Renewable Energy

Subject Name: Fundamental of Electrical Engineering-1 Lab

Subject Code: 1110706

Type of course: Core

Prerequisite: None

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		C	Theory Marks		Practical	
					ESE (E)	PA(M)	ESE (V)	PA (I)
0	0	4	2	0	0	30	20	50

L- Lectures; T- Tutorial/Teacher Guided Student Activity; P- Practical; C- Credit; ESE- End Semester Examination; PA- Progressive Assessment

Contents:

Sr. No.	Practical / Hands on Exercise	Teaching Hrs.
1	To study different Electrical and Electronic symbol	2
2	To know various Electrical Equipment & Instruments and their Operations	2
3	To verify the Ohm's Law	4
4	To verify the laws of Resistance when connected in series	4
5	To verify the laws of Resistance when connected in parallel	4
6	Verification of Kirchoff's Current Law	2
7	Verification of Kirchoff's Voltage Law	2
8	To verify the Superposition theorem	2
9	To verify the Thevenin's theorem	4
10	To Verify the Norton's theorem	2
	Total	28

Course Outcomes:

Sr. No.	CO Statement	Marks % Weightage
CO-1	Understand the basic concepts of Electrical engineering.	30%
CO-2	Apply fundamental rules to solve Electrical Circuit	30%
CO-3	Apply fundamental Electrical theorem to solve Electrical Circuit	40%

Major Equipment:

DC Source, Ammeters, Voltmeters, Wattmeter, Resistors, Rheostat, Capacitors and Inductors of appropriate rating. Multimeters, Digital storage oscilloscope.

List of Open Source Software/learning website:

1. www.nptel.ac.in
2. <http://www.scilab.org/>
3. <http://www.vlab.co.in/>