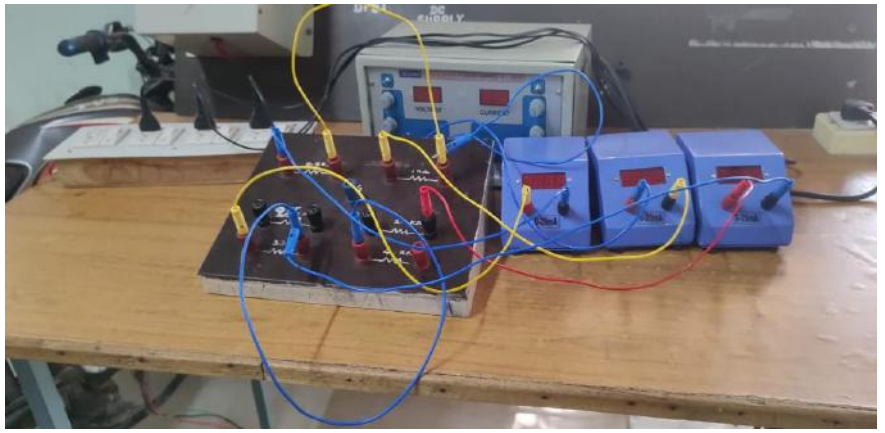
MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

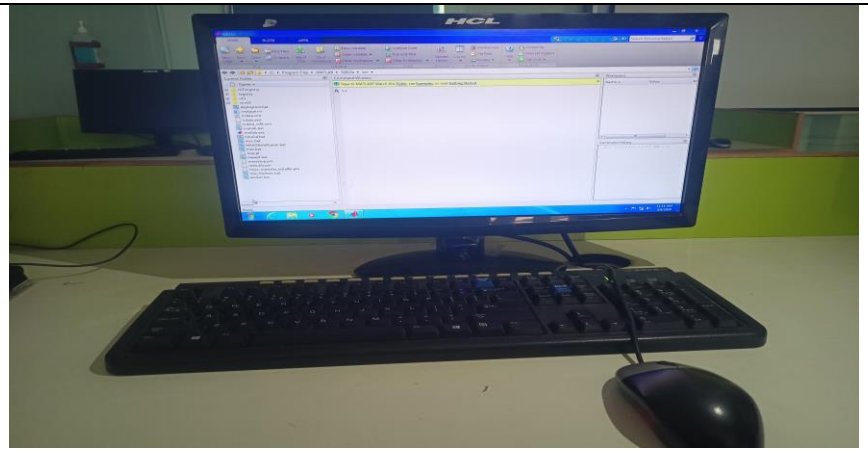
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

B. Tech I Year I & II Semester – R 23

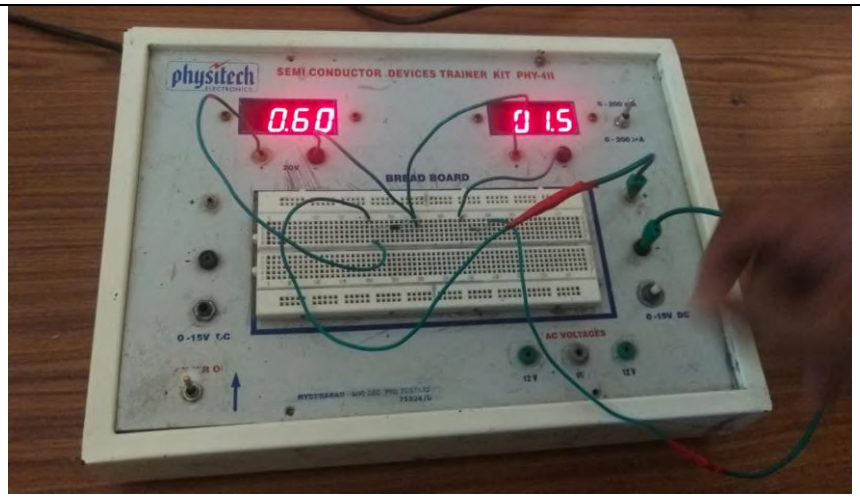
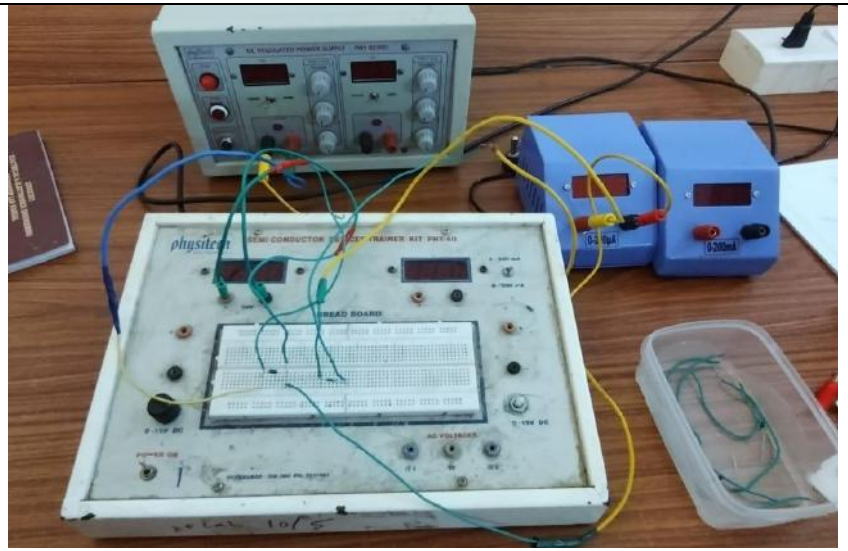
ELECTRICAL AND ELECTRONICS ENGINEERING LABORATORY – 23EEE201

LIST OF EXPERIMENTS

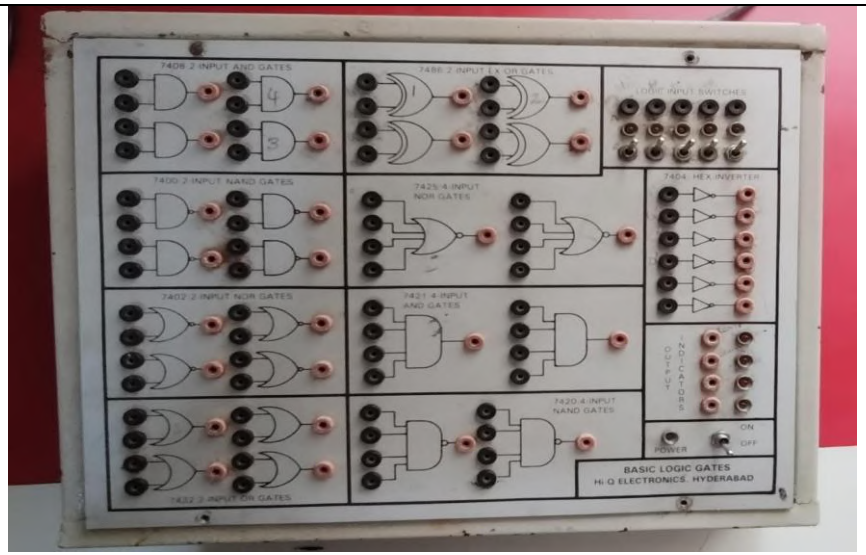
SI NO	NAME OF THE EXPERIMENTS	Equipment details	Image
1	Verification of KVL And KCL	1. RPS (Regulated Power Supply) – (0-30V) 2. Voltmeter – (0-30V) 3. Ammeter – (0-10mA) 4. Resistors	 

2	Verification of superposition theorem	1. RPS (Regulated Power Supply) – (0-30V) 2. Voltmeter – (0-30V) 3. Ammeter – (0-10mA) 4. Resistors	
3	Measurement of resistance using Wheatstone bridge	System Configuration 1. Model : HCL 2. Processor: i3 – 2nd Generation 3. RAM: 6 GB DDR3 4. HDD: 500 GB SATA 5. Monitor: 15.6”	
4	Magnetization characteristics of DC shunt generator	1. DC Motor: 220V, 1500 rpm, 3 HP, 9A. 2. Generator: 220V, 0.7 A 3. Voltmeter – (0-300V) 4. Ammeter – (0-2A) 5. Rheostat - 360Ω/1.6A, 145Ω/2.8A	

5	Measurement of power and power factor using single phase wattmeter	1. Autotransformer-1- Ø, 230/(0-270) V 2. Voltmeter (0 – 300) V MI 3. Ammeter (0 – 10) A MI 4. Wattmeter 300 V, 10 A, UPF 5. Resistive Load (Variable) 1- Ø, 230 V, 10 A,	
6	Measurement of Earth Resistance by using Megger	1. Megger-500V 2. Transformer-2KVA, 110/220V 3. DC Machine - 2.2kW	
7	Calculation of electrical energy for domestic premises	1. Energy meter-1- Ø, 230V,10A 2. Voltmeter – MI - (0-300) V 3. Ammeter - MI - (0-10) A 4. Autotransformer - 1- Ø, 230/ (0-270) V 5. Lamp load, 1- Ø, 230V,10A 6. Stopwatch	

8	Forward and reverse bias V-I characteristics of P-N Junction diode	1. P-n Junction diode 2. Regulated power supply - (0-15V) 3. Resistors 4. Ammeters -(0-200mA), (0-200µA) 5. Voltmeters - (0-20V), (0-60V)	
9	Plot V – I Characteristics of Zener Diode and its application as voltage regulator	1. Zener Diode (IN 4735A) 2. Resistors 3. Regulated Power Supply - (0-30)V DC 4. Digital Ammeter - (0-200)mA 5. Digital Voltmeter - (0-20)V DC	

10	Implementation of Half-Wave & Full-Wave rectifier	1. Center Tapped Transformer - 12V-0-12V 2. Diode - 1N4007 3. Capacitor - 1000µF 4. DSO - (0-30)MHz 5. Digital Multimeter	
11	Plot the characteristics of NPN Transistor under CB & CE configuration	1. Transistor BC 107 2. Resistors 3. Regulated power supply – (0-15V) 4. Voltmeters - MC (0-10) V, MC (0-1) V 5. Ammeters - MC (0-30) mA, MC(0-100 µA)	

12	Verification of truth table of AND, OR, NOT, NAND, NOR, EX-OR, AND EX-NOR gates using IC's	1. IC 7400, IC 7402, IC 7404, IC 7408, IC 7432, IC 7486, IC 74266 2. IC Trainer Kit	
13	Verification of truth tables of S-R, J-K& D-flip flops using respective IC's.	1. NOR Gate 2. NAND Gate 3. D-Flip Flop 4. JK-Flip Flop