



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2040271 BASIC ELECTRICAL ENGINEERING LAB

B.Tech.II Year-II Sem

**L / T / P / C
0 / 0 / 2 / 1**

VISION

To empower the students to be technologically adept, innovative, self-motivated and responsible global citizen possessing human values and contribute significantly towards high quality technical education with ever changing world.

MISSION

M1	To offer high-quality education in the computing fields by providing an environment where the knowledge is gained and applied to participate in research, for both students and faculty.
M2	To develop the problem solving skills in the students to be ready to deal with cutting edge technologies of the industry.
M3	To make the students and faculty excel in their professional fields by inculcating the communication skills, leadership skills, team building skills with the organization of various co-curricular and extra-curricular programmes.
M4	To provide the students with theoretical and applied knowledge, and adopt an education approach that promotes lifelong learning and ethical growth.

LIST OF EXPERIMENTS

1. Verification of Ohms Law
2. Verification of KVL and KCL
3. Verification of superposition theorem.
4. Verification of Thevenin's and Norton's theorem.
5. Resonance in series RLC circuit.
6. Calculations and Verification of Impedance and Current of RL, RC and RLC series circuits.
7. Measurement of Voltage, Current and Real Power in primary and Secondary Circuits of a Single Phase Transformer.
8. Load Test on Single Phase Transformer (Calculate Efficiency and Regulation)
9. Three Phase Transformer: Verification of Relationship between Voltages and Currents (Star-Delta, Delta-Delta, Delta-star, Star-Star)



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2040271 BASIC ELECTRICAL ENGINEERING LAB

10. Measurement of Active and Reactive Power in a balanced Three-phase circuit.
11. Performance Characteristics of a Separately/Self Excited DC Shunt/Compound Motor.
12. Torque-Speed Characteristics of a Separately/Self Excited DC Shunt/Compound Motor.
13. Performance Characteristics of a Three-phase Induction Motor.
14. Torque-Speed Characteristics of a Three-phase Induction Motor.
15. No-Load Characteristics of a Three-phase Alternator.

COURSE OUTCOMES

CO Course Outcome

- C226.1 Understand basic electrical laws.
- C226.2 Analyze the response of different types of electrical circuits for different excitations.
- C226.3 Identify the measurement, calculation and relation between the basic electrical parameters and calculate the impedance and current of different circuits
- C226.4 Understand the basic characteristics of transformers and electrical machines.
- C226.5 Analyze the performance characteristics of DC and AC electrical machines.

PROGRAM EDUCATIONAL OBJECTIVES

PEO1	To induce strong foundation in mathematical and core concepts, which enable them to participate in research, in the field of computer science.
PEO2	To be able to become the part of application development and problem solving by learning the computer programming methods, of the industry and related domains.
PEO3	To gain the multidisciplinary knowledge by understanding the scope of association of computer science engineering discipline with other engineering disciplines.
PEO4	To improve the communication skills, soft skills, organizing skills which build the professional qualities, there by understanding the social responsibilities and ethical attitude.



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2040271 BASIC ELECTRICAL ENGINEERING LAB

PROGRAM SPECIFIC OUTCOMES

PSO1- APPLICATIONS OF COMPUTING:

Ability to use knowledge in various domains to provide solution to new ideas and innovations.

PSO2- PROGRAMMING SKILLS:

Identify required data structures, design suitable algorithms, develop and maintain software for real world problems.

PSO3-EXECUTIVE SKILLS:

Make use of computational and experimental tools for creating innovative career paths, to be an entrepreneur and desire for higher studies.

Do's & Don'ts

- Switch off the power and unplug equipment before performing service.
- Know where the fire extinguisher is located and how to use it.
- Report fires or accidents to your lecturer/laboratory technician immediately.
- Avoid food and drinks from your workspace.
- Systems operate under normal room temperature.
- Computer lab room's floor should be clean, dry and dust free.
- No one is allowed to delete information from the computer.
- Enter the computer lab quietly and work quietly.
- Do not change computer settings or backgrounds.
- Don't plug in external devices without scanning for computer viruses.
- SAVE all unfinished work to a cloud drive or jump drive.