

**SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES,  
CHITTOOR -517127  
(AUTONOMOUS)  
DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING**

**B.TECH II-I SEM (E.C.E)**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>

**SUB CODE: 16EEE215**

**PRINCIPLES OF ELECTRICAL ENGINEERING LAB**

( ANY TEN OF THE FOLLOWING)

**OBJECTIVES :**

- To apply transients response of first order RL and RC circuits
- To provide practical experience for the determination of two port network parameters
- To conduct and analyze the load test on DC shunt machines.
- To conduct various test on Transformer.

1. TIME RESPONSE OF FIRST ORDER RL AND RC CIRCUITS
2. DETERMINE Z ( IMPEDANCE ) PARAMETERS OF A GIVEN TWO-PORT NETWORK
3. DETERMINE Y ( ADMITTANCE ) PARAMETERS
4. DETERMINE ABCD ( TRANSMISSION PARAMETERS ) OF A GIVEN TWO-PORT NETWORK
5. DETERMINE THE h ( HYBRID ) PARAMETERS
6. DETERMINE THE g PARAMETERS
7. MAGNETIZATION CHARACTERISTICS OF D.C SHUNT GENERATOR  
DETERMINATION OF CRITICAL FIELD RESISTANCE.
8. SWINBURNE'S TEST OF DC SHUNT MACHINE.
9. BRAKE TEST ON DC SHUNT MOTOR. DETERMINATION OF PERFORMANCE CHARACTERISTICS.

10. OC & SC TESTS ON SINGLE- PHASE TRANSFORMER TO FIND THE EFFECIENCY.

11. REGULATION OF SINGLE- PHASE TRANSFORMER.

12. SPEED CONTROL OF DC MOTOR.

**Course Outcomes:**

At the end of the course, students will able to

- Understand transient response of first order system
- Determine two port network parameters
- Analyze the results obtained from direct and indirect tests for prediction of performance of DC machines and the transformers
- Conduct various test on Transformer

**University Nominee**  
Dr.G.V.Marutheswar  
Professor, EEE Dept.  
S.V.U CE Tirupathi

**Subject Expert**  
Dr.T.Gowri Manohar  
Professor, EEE Dept.  
S.V.U.C.E,Tirupathi

**Subject Expert**  
Dr. V.Rajnikanth  
Professor,Dept. of EEE,  
S.K.I.T, SriKalahasti

**Industry Expert**  
Mr. K.Somashekar M.Tech  
SE in Electrical department  
SAPA Alluminium company,  
Kuppam

**Alumni Student**  
Mr.K. Hemachandra Reddy  
Assistant Professor,Dept. of  
EEE, REVA  
University,Bangalore.

**Dept. BOS Chairman**  
Prof. Ramesh Halakurki  
HOD EEE  
SITAMS, Chittoor