COURSE CODE	COURSE NAME	L	T	P	CREDIT	YEAR OF INTRODUCTION
101009/EE122S	PRINCIPLES OF ELECTRICAL ENGINEERING LAB	0	0	2	1	2021

1. Preamble

Electrical Workshop is intended to impart skills to plan and carry out simple electrical wiring. It is essential for the practicing engineers to identify the basic practices and safety measures in electrical wiring.

2. Prerequisite

Nil

3. Syllabus

Familiarization of electrical Elements, sources, measuring devices and transducers related to electrical circuits.
Determination of resistance temperature coefficient Verification of Network Theorem (Superposition, Thevenin, Norton, Maximum Power Transfer theorem).
Simulation of R-L-C series circuits for XL>XC , XL< XC.
Simulation of Time response of RC circuit.
Verification of relation in between voltage and current in three phase balanced star and delta connected loads.
Demonstration of measurement of electrical quantities in DC and AC systems

4. Text Books

1. A. E. Fitzgerald, Kingsely Jr Charles, D. Umans Stephen, '*Electric Machinery*', 6th Edition, Tata McGraw Hill.
2. B. L. Theraja, Chand and Company Ltd., *A Textbook of Electrical Technology*, Vol. I, New Delhi.
3. V. K. Mehta, S. Chand and Company Ltd., '*Basic Electrical Engineering*',New Delhi.
4. J. Nagrath and Kothari, '*Problems of Basic Electrical Engineering*', 2nd Edition, Prentice Hall of India Pvt. Ltd.

5. Reference Books

1. T. K. Nagsarkar and M. S. Sukhija, '*Basic of Electrical Engineering*', Oxford University Press.
2. D. J. Griffiths, '*Introduction to Electrodynamics*', 4th Edition, Cambridge University Press.
3. William H. Hayt & Jack E. Kemmerly, ' *Engineering Circuit Analysis*', McGraw-Hill Book Company Inc.
4. Smarjith Ghosh, '*Fundamentals of Electrical and Electronics Engineering*',Prentice Hall (India) Pvt. Ltd.

6. Course Outcomes

After the completion of the course the student will be able to

CO1: Familiarization of Electrical Elements
CO2: Resistance measurement and system response to various R-L-C circuits
CO3: DC and AC measurement

7. Mapping of Course Outcomes with Program Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1						3						1
CO2	2									1		
CO3	2			1		1		1	2	2		2

8. Assessment Pattern

Continuous Internal Evaluation Pattern:
Attendance : 20 marks
Class work/ Assessment /Viva-voce : 50 marks
End semester examination (Internally by college) : 30 marks

9. Mark Distribution

Total	CIE	ESE
100	70	30

10. End Semester Examination Pattern

Written Objective Examination of one hour.

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