

DISCIPLINE- ELECTRICAL ENGG	SEMESTER- 3 RD	NAME OF THE TEACHING FACULTY- SIBANI PANDA, LECT (ELECT)	
SUB- ELECTRICAL CIRCUITS	NO OF CLASSES/ WEEK – 3P	TIME PERIOD- 01.07.2026 TO 05.11.2026 NO OF WEEKS- 18	
SL NO	CLASS DAY	TOPIC TO BE COVERED	REMARK
1	1 ST DAY 2 ND DAY 3 RD DAY	Single Phase A.C Series Circuits 1.1 Generation of alternating voltage 1.2 Phasor representation of sinusoidal quantities 1.3 R, L, C circuit elements its voltage and current response	
2	1 ST DAY 2 ND DAY 3 RD DAY	1.4 R-L, R-C, R-L-C combination of A.C series circuit 1.4.1 Impedance, reactance, impedance triangle 1.4.2 Power factor, active power, reactive power, apparent power 1.4.3 Power triangle and vector diagram	
3	1 ST DAY 2 ND DAY 3 RD DAY	1.4.4 Resonance, Bandwidth 1.4.5 Quality factor and voltage magnification in series R-L, R-C, R-L-C circuit Single Phase A.C Parallel Circuits R-L parallel combination of A.C. circuits 2.1.1 Impedance, reactance, phasor diagram, impedance triangle 2.1.2 Power factor, active power, apparent power, reactive power, power triangle	
4	1 ST DAY 2 ND DAY 3 RD DAY	R-C and R-L-C parallel combination of A.C. circuits 2.1.1 Impedance, reactance, phasor diagram, impedance triangle 2.1.2 Power factor, active power, apparent power, reactive power, power triangle	
5	1 ST DAY 2 ND DAY 3 RD DAY	2.2 Resonance in parallel R-L, R-C, R-L-C circuit 2.3 Bandwidth, Quality factor and voltage magnification	
6	1 ST DAY 2 ND DAY 3 RD DAY	Three Phase Circuits 3.1 Phasor and complex representation of three phase supply 3.2 Phase sequence and polarity 3.3 Types of three-phase connections	
7	1 ST DAY 2 ND DAY 3 RD DAY	3.4 Phase and line quantities in three phase star and delta system 3.5 Balanced and unbalanced load 3.6 Neutral shift in unbalanced load	
8	1 ST DAY 2 ND DAY 3 RD DAY	3.7 Three phase power, active, reactive and apparent power in star and delta system INTERNAL 1	
9	1 ST DAY 2 ND DAY 3 RD DAY	Network Reduction and Principles of Circuit Analysis 4.1 Source transformation 4.2 Star/delta and delta/star transformation 4.3 Mesh Analysis	
10	1 ST DAY 2 ND DAY 3 RD DAY	4.4 Node Analysis Network Theorems 5.1 Superposition theorem	
11	1 ST DAY 2 ND DAY 3 RD DAY	5.2 Thevenin's theorem 5.3 Norton's theorem	
12	1 ST DAY 2 ND DAY 3 RD DAY	5.3 Norton's theorem 5.4 Maximum power transfer theorem 5.5 Reciprocity Theorem	
13	1 ST DAY 2 ND DAY 3 RD DAY	5.5 Reciprocity Theorem Two Port Network 6.1 Open Circuit Impedance Parameters 6.2 Short Circuit Admittance Parameters	
14	1 ST DAY 2 ND DAY 3 RD DAY	6.2 Short Circuit Admittance Parameters Transmission Parameters Hybrid Parameters	
15	1 ST DAY 2 ND DAY 3 RD DAY	6.3 Interrelationship of Two Port Network 6.4 Inter Connection of Two Port Network	
16	1 ST DAY 2 ND DAY 3 RD DAY	6.4 Inter Connection of Two Port Network INTERNAL 2	
17	1 ST DAY 2 ND DAY 3 RD DAY	REVISION	
18	1 ST DAY 2 ND DAY 3 RD DAY	REVISION VST	

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26.06.26