



NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY
SERGARH-756060, BALASORE (ODISHA)
(Approved by AICTE& affiliated to SCTE&VT, Odisha)



LESSON PLAN

SUBJECT: EEPC203(ELECTRICAL CIRCUITS)

Name Of The Faculty :- Er. Soumyajit Rout

Branch :- Electrical Engineering

Academic Year : 2025-26

Semester :- 3rd

Examination :- 2025 (w)

CHAPTER WISE DISTRIBUTION OF PERIODS

Sl.No.	Name of the chapter as per the Syllabus	No. of Periods as per the Syllabus	No. of periods actually needed
1	Single Phase A.C Series Circuits	7	10
2	Single Phase A.C Parallel Circuits	8	11
3	Three Phase Circuits	8	12
4	Network Reduction and Principles of Circuit Analysis	5	7
5	Network Theorems	9	11
6	Two Port Network	8	9
Total Period:		45	60

Sign of Faculty

Sign of H.O.D.

Name of the programme: Diploma in Electrical Engineering	Semester: 3rd	Name of the Teaching Faculty: Er. Soumyajit Rout	
		Academic Year : 2025-26	Examination : 2025 (W)
Course Code: EEPC203 TH-2	Course Year: Second Year	No. of Classes Alloted Per Week :	4
		Planned Classes Required to Complete the Course	60
Week	Class Day	Topics to be Covered	
1 st	1 st	Single Phase A.C Series Circuits 1.1 Generation of alternating voltage	
	2 nd	1.2 Phasor representation of sinusoidal quantities	
	3 rd	1.2 Phasor representation of sinusoidal quantities	
	4 th	1.3 R, L, C circuit elements its voltage and current response	
2 nd	1 st	1.4 R-L, R-C, R-L-C combination of A.C series circuit 1.4.1 Impedance, reactance, impedance triangle	
	2 nd	1.4.2 Power factor, active power, reactive power, apparent power	
	3 rd	1.4.3 Power triangle and vector diagram	
	4 th	1.4.4 Resonance, Bandwidth	
3 rd	1 st	1.4.5 Quality factor and voltage magnification in series R-L, R-C, R-L-C circuit	
	2 nd	1.4.5 Quality factor and voltage magnification in series R-L, R-C, R-L-C circuit	
	3 rd	2.1 R-L, R-C and R-L-C parallel combination of A.C. circuits 2.1.1 Impedance, reactance, phasor diagram, impedance triangle	
	4 th	2.1 R-L, R-C and R-L-C parallel combination of A.C. circuits 2.1.1 Impedance, reactance, phasor diagram, impedance triangle	
4 th	1 st	2.1.2 Power factor, active power, apparent power, reactive power, power triangle	
	2 nd	2.1.2 Power factor, active power, apparent power, reactive power, power triangle	
	3 rd	2.1.2 Power factor, active power, apparent power, reactive power, power triangle	
	4 th	2.2 Resonance in parallel R-L, R-C, R-L-C circuit	
5 th	1 st	2.2 Resonance in parallel R-L, R-C, R-L-C circuit	
	2 nd	2.3 Bandwidth, Quality factor and voltage magnification	
	3 rd	2.3 Bandwidth, Quality factor and voltage magnification	
	4 th	Revision on Power factor, active power, apparent power, reactive power, power triangle	

Week	Class Day	Topics to be Covered
6th	1st	Revision on Power factor, active power, apparent power, reactive power, power triangle
	2nd	3.1 Phasor and complex representation of three phase supply
	3rd	3.1 Phasor and complex representation of three phase supply
	4th	3.2 Phase sequence and polarity
7th	1st	3.3 Types of three-phase connections
	2nd	3.3 Types of three-phase connections
	3rd	3.4 Phase and line quantities in three phase star and delta system
	4th	3.4 Phase and line quantities in three phase star and delta system
8th	1st	3.5 Balanced and unbalanced load
	2nd	3.6 Neutral shift in unbalanced load
	3rd	3.6 Neutral shift in unbalanced load
	4th	3.7 Three phase power, active, reactive and apparent power in star and delta system
9th	1st	3.7 Three phase power, active, reactive and apparent power in star and delta system
	2nd	4.1 Source transformation
	3rd	4.2 Star/delta and delta/star transformation
	4th	4.2 Star/delta and delta/star transformation
10th	1st	4.3 Mesh Analysis
	2nd	4.3 Mesh Analysis
	3rd	4.4 Node Analysis
	4th	4.4 Node Analysis
11th	1st	5.1 Superposition theorem
	2nd	5.1 Superposition theorem
	3rd	5.2 Thevenin's theorem
	4th	5.2 Thevenin's theorem

Week	Class Day	Topics to be Covered
12 th	1 st	5.3 Norton's theorem
	2 nd	5.3 Norton's theorem
	3 rd	5.4 Maximum power transfer theorem
	4 th	5.4 Maximum power transfer theorem
13 th	1 st	5.5 Reciprocity Theorem
	2 nd	5.5 Reciprocity Theorem
	3 rd	6.1 Open Circuit Impedance Parameters
	4 th	6.1 Open Circuit Impedance Parameters
14 th	1 st	6.2 Short Circuit Admittance Parameters, Transmission Parameters, Hybrid Parameters
	2 nd	6.2 Short Circuit Admittance Parameters, Transmission Parameters, Hybrid Parameters
	3 rd	6.2 Short Circuit Admittance Parameters, Transmission Parameters, Hybrid Parameters
	4 th	6.2 Short Circuit Admittance Parameters, Transmission Parameters, Hybrid Parameters
15 th	1 st	6.3 Interrelationship of Two Port Network
	2 nd	6.3 Interrelationship of Two Port Network
	3 rd	6.4 Inter Connection of Two Port Network
	4 th	6.4 Inter Connection of Two Port Network



Sign of Faculty



Sign of H.O.D.