

## Lesson Planning

**Name of the Institute** : CRSSIET SILANI-KESHO, JHAJJAR  
**Name of the teacher** : Mr. SANDEEP YADAV  
**Department** : Electrical  
**Subject & Code** : Electrical circuit analysis , PCC-EE-201 G  
**Branch/Semester** : EE 3rd Semester

Chapter Covered	Topic
Section-A  INTRODUCTION:	Superposition theorem,
	Thevenin theorem
	Norton theorem, Node and Mesh Analysis
	Maximum power transfer theorem
	Reciprocity theorem, Concept of duality and dual networks.
	Compensation theorem
	Analysis with dependent current and voltage sources
Section-B:	Solution of firsts for Series and parallel R-L, R-C, R-L-C circuits
	Solution of second for Series and parallel R-L, R-C, R-L-C circuits
	ratings initial and final conditions in network elements
	forced and free response, time constants
	steady state and transient state response.
	Hurwitz polynomials, positive real functions.
	Properties of real immittance functions
	Synthesis of LC driving point immittances, Synthesis of RC driving point impedances
	Synthesis of RC impedances or RL admittances,
	Section-C
Three phase circuits. Mutual coupled circuits,	

	Dot Convention in coupled circuits.
Section-D:	Review of Laplace Transform,
	Analysis of electrical circuits using Laplace Transform for standard inputs
	convolution integral, inverse Laplace transform
	transformed network with initial conditions.
	Transfer function representation. Poles and Zeros.
	Two Port Networks, terminal pairs
	relationship of two port variables
	impedance parameters, admittance parameters,
	transmission parameters
	hybrid parameters
	interconnections of two port networks
	TRANSMISSION LINES: Calculation of line parameters
	Synthesis of $Y_{21}$ and $Z_{21}$ with R ohm terminations Network
	Tropology
	Graph Theory