NPTEL Video Course - Electrical Engineering - NOC:Network Analysis

Subject Co-ordinator - Prof. T.K. Bhattacharya

Co-ordinating Institute - IIT - Kharagpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 30 - Concept of Active and Reactive Power in A.C Circuit - II
Lecture 31 - Expression for Complex Power in A.C Circuit
Lecture 32 - Numerical Example
Lecture 33 - Mesh and Nodal Analysis in A.C Circuit, Introduction to Impulse Function
Lecture 34 - Odd and Even Functions, Relation between Unit Step and Impulse Function
Lecture 35 - Solution of Differential Equation with Impulse Excitation
Lecture 36 - Numerical Example when Excitation is Impulse
Lecture 37 - Self and Mutual Inductances - I
Lecture 38 - Dot Convention in Mutually Coupled Coils
Lecture 39 - Mutually Coupled Coils in Series and Parallel
Lecture 40 - Energy Stored in Mutually Coupled Coils
Lecture 41 - Steady State Response with Sinusoidal Excitation when the Coils are Mutually Coupled
Lecture 42 - Basics of Signals in Brief
Lecture 43 - Laplace Transform - I
Lecture 44 - Laplace Transform - II
Lecture 45 - Laplace Transform Applied to Circuit Analysis - I
Lecture 46 - Laplace Transform Applied to Circuit Analysis - II
Lecture 47 - Numerical Examples - I
Lecture 48 - Numerical Examples - II
Lecture 49 - General Second Order Circuit Analysis with L.T - I
Lecture 50 - General Second Order Circuit Analysis with L.T - II
Lecture 51 - Network Theorem - I
Lecture 52 - Network Theorem - II
Lecture 53 - Norton's Theorem
Lecture 54 - Thevenin Theorem
Lecture 55 - Star-Delta and Delta-Star Transformation
Lecture 56 - Telligen's Theorem
Lecture 57 - Reciprocity Theorem
Lecture 58 - Maximum Power Transfer Theorem
Lecture 59 - Graph Theory Applied to Network Analysis - I
Lecture 60 - Graph Theory Applied to Network Analysis - II
Lecture 61 - Graph Theory Applied to Network Analysis - III
Lecture 62 - Graph Theory Applied to Network Analysis - IV
Lecture 63 - Graph Theory Applied to Network Analysis - V
Lecture 64 - Mesh Analysis with Graph Theory
Lecture 65 - Nodal Analysis with Graph Theory
Lecture 66 - Cut-Set Analysis with Graph Theory
Lecture 67 - Numerical Examples of Network Analysis with Graph Theory
Lecture 68 - Circuit Analysis with Dependent Sources - I

Lecture 69 - Circuit Analysis with Dependent Sources - II
Lecture 70 - Circuit Analysis with Dependent Sources - III
Lecture 71 - Two Port Network - I
Lecture 72 - Two Port Network - II
Lecture 73 - Two Port Network - III
Lecture 74 - Two Port Network - IV
Lecture 75 - Two Port Network - V
Lecture 76 - Two Port Network - VI
Lecture 77 - Two Port Network - VII
Lecture 78 - Gyrator
Lecture 79 - Ideal Op - Amp
Lecture 80 - Examples of Ideal Op-Amp Circuits - I
Lecture 81 - Examples of Ideal Op-Amp Circuits - II
Lecture 82 - General Impedance Transfer Circuit and Concluding Remarks