NPTEL Video Course - Electrical Engineering - NOC:Digital Signal Processing

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Co-ordinating Institute - IIT - Madras

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

Lecture 30 - Complex conjugation
Lecture 31 - Time reversal
Lecture 32 - Differentiation in the Z-domain
Lecture 33 - Convolution in the time domain
Lecture 34 - Relationship between x[n] and X(1)
Lecture 35 - Initial Value Theorem
Lecture 36 - Final Value Theorem
Lecture 37 - Multiplication in the time domain
Lecture 38 - Parseval's Theorem
Lecture 39 - Partial Fractions Method
Lecture 40 - Power series method
Lecture 41 - Contour Integral Method
Lecture 42 - Contour Integral Method (Continued...)
Lecture 43 - Inverse DTFT
Lecture 44 - DTFT of Sequences that are not absolutely summable
Lecture 45 - Response to cos(?_0 n+?)
Lecture 46 - Causality and Stability
Lecture 47 - Response to suddenly applied inputs
Lecture 48 - Introduction to frequency response
Lecture 49 - Magnitude response and its geometric interpretation
Lecture 50 - Magnitude Response (Continued...)
Lecture 51 - Response of a single complex zero/pole
Lecture 52 - Resonator and Improved Resonator
Lecture 53 - Notch filter
Lecture 54 - Moving Average Filter
Lecture 55 - Comb filter
Lecture 56 - Phase response of a single complex zero
Lecture 57 - Effect of crossing a unit circle zero, wrapped and unwrapped phase, resonator phase response
Lecture 58 - Allpass Filter
Lecture 59 - Group delay and its physical interpretation
Lecture 60 - Zero-phase filtering, effect on nonlinear phase on waveshape
Lecture 61 - Zero-Phase Filtering, Linear Phase - 1
Lecture 62 - Linear Phase - 2
Lecture 63 - Linear Phase - 3
Lecture 64 - Linear Phase - 3
Lecture 65 - Linear Phase - 3
Lecture 66 - Linear Phase - 4, Sampling - 1
Lecture 67 - Linear Phase - 4, Sampling - 1
Lecture 68 - Linear Phase - 4, Sampling - 1