NPTEL Video Course - Electronics and Communication Engineering - Adaptive Signal Processing

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Co-ordinating Institute - IIT - Kharagpur

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

Lecture 1 - Introduction to Adaptive Filters
Lecture 2 - Introduction to Stochastic Processes
Lecture 3 - Stochastic Processes
Lecture 4 - Correlation Structure
Lecture 5 - FIR Wiener Filter (Real)
Lecture 6 - Steepest Descent Technique
Lecture 7 - LMS Algorithm
Lecture 8 - Convergence Analysis
Lecture 9 - Convergence Analysis (Mean Square)
Lecture 10 - Convergence Analysis (Mean Square)
Lecture 11 - Misadjustment and Excess MSE
Lecture 12 - Misadjustment and Excess MSE
Lecture 13 - Sign LMS Algorithm
Lecture 14 - Block LMS Algorithm
Lecture 15 - Fast Implementation of Block LMS Algorithm
Lecture 16 - Fast Implementation of Block LMS Algorithm
Lecture 17 - Vector Space Treatment to Random Variables
Lecture 18 - Vector Space Treatment to Random Variables
Lecture 19 - Orthogonalization and Orthogonal Projection
Lecture 20 - Orthogonal Decomposition of Signal Subspaces
Lecture 21 - Introduction to Linear Prediction
Lecture 22 - Lattice Filter
Lecture 23 - Lattice Recursions
Lecture 24 - Lattice as Optimal Filter
Lecture 25 - Linear Prediction and Autoregressive Modeling
Lecture 26 - Gradient Adaptive Lattice
Lecture 27 - Gradient Adaptive Lattice
Lecture 28 - Introduction to Recursive Least Squares
Lecture 29 - RLS Approach to Adaptive Filters

Lecture 30 - RLS Adaptive Lattice
Lecture 31 - RLS Lattice Recursions
Lecture 32 - RLS Lattice Recursions
Lecture 33 - RLS Lattice Algorithm
Lecture 34 - RLS Using QR Decomposition
Lecture 35 - Givens Rotation
Lecture 36 - Givens Rotation and QR Decomposition
Lecture 37 - Systolic Implementation
Lecture 38 - Systolic Implementation
Lecture 39 - Singular Value Decomposition
Lecture 40 - Singular Value Decomposition
Lecture 41 - Singular Value Decomposition