NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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NPTEL Video Course - Electrical Engineering - NOC: Stochastic Control and Communication
Subject Co-ordinator - Prof. Ankur A. Kulkarni
Co-ordinating Institute - IIT - Bombay
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Decision Making under Uncertainty
Lecture 2 - Expected Utility Theory - I
Lecture 3 - Expected Utility Theory - II
Lecture 4 - Expected Utility Theory - III
Lecture 5 - Role of Information in Decision Making
Lecture 6 - State Space Modelling of Sequential Decision Making, Example of Inventory Control
Lecture 7 - Inventory Control Problem (Continued...)
Lecture 8 - Policy-A Closed Loop Solution to Stochastic Control Problem
Lecture 9 - Introduction to Markov Decision Processes (MDP)
Lecture 10 - Types of Policy in MDP
Lecture 11 - Interpreting randomised decision rules
Lecture 12 - Stationary Transition Probability: State Diagram Representation and example of Markov policies
Lecture 13 - Example of History Dependent Policies
Lecture 14 - Complexity of the problem using brute force approach
Lecture 15 - Principle of Optimality
Lecture 16 - Dynamic Programming Algorithm
Lecture 17 - DP Algo applied to Inventory Control Problem
Lecture 18 - DP Algo applied to Inventory Control Problem (Continued...)
Lecture 19 - DP Algo applied to Inventory Control Problem (Continued...)
Lecture 20 - Optimal Stopping Problem
Lecture 21 - Optimal Stopping Example: Secretary Problem
Lecture 22 - Optimal Stopping Example: Secretary Problem (Continued...)
Lecture 23 - Optimal Stopping Example: Secretary Problem (Continued...)
Lecture 24 - Linear System Quadratic Cost Problem
Lecture 25 - Linear System Quadratic Cost Problem (Continued...)
Lecture 26 - Solving it via DP algorithm (Continued...)
Lecture 27 - Equivalence between Optimal HR Policyand optimal Markov Deterministic Policy
Lecture 28 - Stochastic Control under incomplete state information
Lecture 29 - Stochastic Control under incomplete state information (Continued...)
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Lecture 30 - Stochastic Control under incomplete state information: Example
Lecture 31 - Stochastic Control under incomplete state information: Example (Continued...)
Lecture 32 - Stochastic Control under incomplete state information: Example (Continued...)
Lecture 33 - Stochastic Control under incomplete state information: Example (Continued...)
Lecture 34 - LO systems with Imperfect Information - I
Lecture 35 - LO systems with Imperfect Information - II
Lecture 36 - LQ systems with Imperfect Information - III
Lecture 37 - LO systems with Imperfect Information - IV
Lecture 38 - Filtering - I
Lecture 39 - Filtering - II
Lecture 40 - Kalman Filtering - I
Lecture 41 - Kalman Filtering - II
Lecture 42 - Kalman Filtering - III
Lecture 43 - Belief State Formulation - I
Lecture 44 - Belief State Formulation - II
Lecture 45 - Information Structures - I
Lecture 46 - Information Structures - II
Lecture 47 - Witsenhausen Problem - I
Lecture 48 - Witsenhausen Problem - II
Lecture 49 - Witsenhausen Problem - III
Lecture 50 - Witsenhausen Problem - IV
Lecture 51 - Witsenhausen Problem - V
Lecture 52 - Witsenhausen Problem - VI
Lecture 53 - Witsenhausen Problem - VII
Lecture 54 - Team Decision Theory - I
Lecture 55 - Team Decision Theory - II
Lecture 56 - Team Decision Theory - III
Lecture 57 - Team Decision Theory - IV
Lecture 58 - Team Decision Theory - V
Lecture 59 - Team Decision Theory - VI
Lecture 60 - Team Decision Theory - VII
Lecture 61 - Communication Theory - I
Lecture 62 - Communication Theory - II
Lecture 63 - Communication Theory - III
Lecture 64 - Communication Theory - IV
Lecture 65 - Communication Theory - V
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