

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

NPTEL Video Course - Mechanical Engineering - Fundamentals of Operations Research

Subject Co-ordinator - Prof. G. Srinivasan

Co-ordinating Institute - IIT - Madras

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

Lecture 1 - Introduction to Linear Programming Formulations

Lecture 2 - Linear Programming Formulations (Continued...)

Lecture 3 - Linear Programming Solutions- Graphical Methods

Lecture 4 - Linear Programming Solutions - Simplex Algorithm

Lecture 5 - Simplex Algorithm-Minimization Problems

Lecture 6 - Simplex Algorithm - Initialization and Iteration

Lecture 7 - Simplex Algorithm - Termination

Lecture 8 - Introduction to Duality

Lecture 9 - Primal Dual Relationships, Duality Theorems

Lecture 10 - Dual Variables and the Simplex Tables

Lecture 11 - Simplex Algorithm in Matrix Form Introduction to Sensitivity Analysis

Lecture 12 - Sensitivity Analysis Transportation Problem (Introduction)

Lecture 13 - Transportation Problem, Methods for Initial Basic Feasible Solutions

Lecture 14 - Transportation Problem-Optimal Solutions

Lecture 15 - Transportation Problem - Other Issues

Lecture 16 - Assignment Problem - Hungarian Algorithm

Lecture 17 - Assignment Problem - Other Issues Introduction to Dynamic Programming

Lecture 18 - Dynamic Programming - Examples Involving Discrete Variables

Lecture 19 - Dynamic Programming - Continuous Variables

Lecture 20 - Dynamic Programming - Examples to Solve Linear & Integer Programming Problems

Lecture 21 - Inventory Models - Deterministic Models

Lecture 22 - Inventory Models - Discount Models, Constrained Inventory Problems, Lagrangean Multipliers, Conco