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

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NPTEL Video Course - Mechanical Engineering - NOC: Modelling and Simulation of Discrete Event System
Subject Co-ordinator - Dr. Pradeep K. Jha
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to Simulation
Lecture 2 - Concept of System, Model and Simulation
Lecture 3 - Time advance mechanism, Components of a simulation model
Lecture 4 - Program organization and logic, Steps in a simulation study
Lecture 5 - Simulation examples
Lecture 6 - Statistical Models in Simulation
Lecture 7 - Input probability distribution functions for discrete systems
Lecture 8 - Continuous distribution functions
Lecture 9 - Continuous distribution functions and empirical distribution functions
Lecture 10 - Problem solving on statistical models in simulation
Lecture 11 - Characteristics of a queueing system
Lecture 12 - Performance measures of queueing system
Lecture 13 - Analysis of a single server queueing system
Lecture 14 - Simulation of a single server queueing system
Lecture 15 - Computer representation of simulation of single server queuing system
Lecture 16 - Generation of Random Numbers
Lecture 17 - Issues and Challenges in Congruential Generators
Lecture 18 - Testing of random numbers
Lecture 19 - Generation of Random Variates
Lecture 20 - Problem Solving on Random Number and Random Variate Generation
Lecture 21 - Input modeling
Lecture 22 - Input modeling
Lecture 23 - Input modeling
Lecture 24 - Input modeling
Lecture 25 - Problem Solving on input modeling
Lecture 26 - Output analysis of a single system
Lecture 27 - Obtaining a specified precision
Lecture 28 - Comparison of alternative system configurations
Lecture 29 - Confidence Intervals for comparing more than two systems
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- Lecture 30 Problem Solving on output analysis of single and alternative systems
- Lecture 31 Introduction to simulation of manufacturing and material handling system
- Lecture 32 Issues in material handling system
- Lecture 33 Modeling of system randomness
- Lecture 34 Verification of simulation models
- Lecture 35 Model validity and credibility
- Lecture 36 Problem solving and case studies on simulation of manufacturing system
- Lecture 37 Introduction to Monte Carlo Simulation
- Lecture 38 Inventory Control Simulation using Monte Carlo Technique
- Lecture 39 In this lecture, Monte Carlo technique was used to solve inventory system problems
- Lecture 40 Problem solving on Monte Carlo Simulation