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

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NPTEL Video Course - Management - NOC: Introduction to System Dynamics Modeling
Subject Co-ordinator - Prof. Jayendran Venkateswaran
Co-ordinating Institute - IIT - Bombay
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to Systems Thinking
Lecture 2 - Systems Thinking and System Dynamics
Lecture 3 - Causal Loop Diagram (CLD)
Lecture 4 - Guidelines to build CLD - I
Lecture 5 - Guidelines to build CLD - II
Lecture 6 - Guidelines to build CLD - III
Lecture 7 - Examples of CLD
Lecture 8 - Study Traffic Congestion using CLD - I
Lecture 9 - Study Traffic Congestion using CLD - II
Lecture 10 - Stock and Flow Diagram Brief History
Lecture 11 - Stock and Flow Diagram
Lecture 12 - Stock and Flow Diagram
Lecture 13 - Stock and Flow Diagram
Lecture 14 - Graphical Integration
Lecture 15 - Patterns of Behaviour
Lecture 16 - Dynamics of Positive Feedback systems
Lecture 17 - Doubling Time in Positive Feedback systems
Lecture 18 - Introduction to Modeling using Vensim software
Lecture 19 - Dynamics of Negative Feedback system
Lecture 20 - Dynamics of Negative Feedback System
Lecture 21 - Negative Feedback Loop
Lecture 22 - Dynamics of Negative Feedback System
Lecture 23 - Zero-Value Goal system, Positive and Negative Loop Systems
Lecture 24 - Dynamic of Simple Structures
Lecture 25 - Dynamic of Simple Structures
Lecture 26 - Dynamic of Simple Structures
Lecture 27 - Dynamic of Simple Structures
Lecture 28 - Dynamic of Simple Structures
Lecture 29 - Dynamic of Simple Structures
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Lecture 30 - Dynamic of Simple Structures
Lecture 31 - Diffusion Model and parameter estimation - I
Lecture 32 - Diffusion Model and parameter estimation - II
Lecture 33 - Bass Diffusion Model
Lecture 34 - Bass Diffusion Model (Continued...)
Lecture 35 - Modeling Delays
Lecture 36 - Modeling Delays
Lecture 37 - Modeling Delays
Lecture 38 - Delays
Lecture 39 - Delays
Lecture 40 - Delays
Lecture 41 - Second Order Systems
Lecture 42 - Second Order Systems
Lecture 43 - Modeling Oscillations - Part I
Lecture 44 - Modeling Oscillations - Part II
Lecture 45 - Modeling Non-linear Relations
Lecture 46 - Modeling Non-linear Relations
Lecture 47 - Formulation Non Linear Relationship Table Functions - Part I
Lecture 48 - Formulation Non Linear Relationship Table Functions - Part II
Lecture 49 - Stock Management Structure - Part I
Lecture 50 - Stock Management Structure - Part II
Lecture 51 - Supply Chain Models - I
Lecture 52 - Supply Chain Models - II
Lecture 53 - Supply Chain Models - III
Lecture 54 - Supply Chain Models - IV
Lecture 55 - Modeling Example
Lecture 56 - Testing System Dynamics Models
Lecture 57 - Testing System Dynamics Models
Lecture 58 - Testing System Dynamics Models
Lecture 59 - Model Validation and Policy design
Lecture 60 - Sensitivity analysis and policy analysis
Lecture 61 - Modeling Example
Lecture 62 - System Archetypes
Lecture 63 - Course Wrap-up
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