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

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NPTEL Video Course - Electronics and Communication Engineering - Digital Circuits and Systems
Subject Co-ordinator - Prof. S. Srinivasan
Co-ordinating Institute - IIT - Madras
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction To Digital Circuits
Lecture 2 - Introduction To Digital Circuits
Lecture 3 - Combinational Logic Basics
Lecture 4 - Combinational Circuits
Lecture 5 - Logic Simplification
Lecture 6 - Karnaugh Maps And Implicants
Lecture 7 - Logic Minimization Using Karnaugh Maps
Lecture 8 - Karnaugh Map Minimization Using Maxterms
Lecture 9 - Code Converters
Lecture 10 - Parity Generators And Display Decoder
Lecture 11 - Arithmetic Circuits
Lecture 12 - Carry Look Ahead Adders
Lecture 13 - Subtractors
Lecture 14 - 2?'S Complement Subtractor and BCD Adder
Lecture 15 - Array Multiplier
Lecture 16 - Introduction to Sequential Circuits
Lecture 17 - S-R, J-K and D Flip Flops
Lecture 18 - J-K and T Flip Flops
Lecture 19 - Triggering Mechanisms of Flip Flops and Counters
Lecture 20 - Up/Down Counters
Lecture 21 - Shift Registers
Lecture 22 - Application of shift Registers
Lecture 23 - State Machines
Lecture 24 - Design of Synchronous Sequential Circuits
Lecture 25 - Design using J-K Flip Flop
Lecture 26 - Mealy and Moore Circuits
Lecture 27 - Pattern Detector
Lecture 28 - MSI and LSI Based Design
Lecture 29 - Multiplexer Based Design
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Lecture 30 - Encoders and Decoders

Lecture 31 - Programmable Logic Devices

Lecture 32 - Design using Programmable Logic Devices (Continued)

Lecture 34 - MSI and LSI based Implementation of Sequential Circuits

Lecture 35 - MSI and LSI based Implementation of Sequential Circuits (Continued)

Lecture 36 - Design of circuits using MSI sequential blocks

Lecture 37 - System Design Example

Lecture 38 - System Design Example (Continued)

Lecture 39 - System Design using the concept of controllers

Lecture 40 - System Design using the concept of controllers (Continued)
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