NPTEL Video Course - Electrical Engineering - NOC:Fundamentals of Electric Drives

Subject Co-ordinator - Prof. Shyama Prasad Das

Co-ordinating Institute - IIT - Kanpur

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

Lecture 30 - Static Kramer drive and its closed-loop control, Introduction to synchronous motor
Lecture 31 - Various types of synchronous motors, Equivalent circuit and phasor diagram of cylindrical synchr
Lecture 32 - Phasor diagram of salient pole synchronous motor, Expression of power and torque for a salient p
Lecture 33 - Open-loop V/f control, Torque-speed characteristics, Self controlled synchronous motor drive emp
Lecture 34 - Detailed analysis of commutation of load commutated thyrisor inverter, Derivation of overlap ang
Lecture 35 - Low cost brushless DC motor (BLDCM), Trapezoidal permanent magnet AC motor
Lecture 36 - Trapezoidal permanent magnet AC motor, Derivation of power and torque, Closed-loop control of tr
Lecture 37 - Construction and operating principle of switched reluctance motor
Lecture 38 - Current/ voltage control for switched reluctance motor, operating modes of switched reluctance m
Lecture 39 - Current collector for mainline trains, Nature of traction load, Duty cycle of traction drives
Lecture 40 - Duty cycle of traction drives, Distance between two stops, Calculation of total tractive effort