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

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NPTEL Video Course - Electrical Engineering - NOC: Electrical Equipment and Machines: Finite Element Analysis
Subject Co-ordinator - Prof. Shrikrishna V. Kulkarni
Co-ordinating Institute - IIT - Bombay
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Course Outline and Introduction
Lecture 2 - Analytical and Numerical Methods
Lecture 3 - Revisiting EM Concepts
Lecture 4 - Revisiting EM Concepts
Lecture 5 - Revisiting EM Concepts
Lecture 6 - Revisiting EM Concepts
Lecture 7 - Revisiting EM Concepts
Lecture 8 - Revisiting EM Concepts
Lecture 9 - Revisiting EM Concepts
Lecture 10 - Revisiting EM Concepts
Lecture 11 - FEM
Lecture 12 - Finding Functional for PDEs
Lecture 13 - Whole Domain Approximation
Lecture 14 - 1D FEM
Lecture 15 - 1D FEM
Lecture 16 - 1D FEM
Lecture 17 - 2D FEM
Lecture 18 - 2D FEM
Lecture 19 - 2D FEM Scilab Code
Lecture 20 - 2D FEM Code
Lecture 21 - Computation of B and H Field and Method of Weighted Residuals
Lecture 22 - Galerkin Method
Lecture 23 - Calculation of Leakage Inductance of a Transformer
Lecture 24 - Calculation of Inductance of an Induction Motor and a Gapped-Core Shunt Reactor
Lecture 25 - Insulation Design Using FE Analysis
Lecture 26 - Quadratic Finite Elements
Lecture 27 - Time Harmonic FE Analysis
Lecture 28 - Calculation of Eddy Current Losses
Lecture 29 - Eddy Losses in Transformer Windings
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- Lecture 30 Torque Speed Characteristics of an Induction Motor and FE Analysis of Axisymmetric Problem
- Lecture 31 Permanent Magnets
- Lecture 32 Permanent Magnets
- Lecture 33 Periodic and Antiperiodic Boundary Conditions in Rotating Machines
- Lecture 34 FE Analysis of Rotating Machines
- Lecture 35 Voltage Fed Coupled Circuit Field Analysis
- Lecture 36 Current Fed Coupled Circuit Field Analysis
- Lecture 37 Transient FE Analysis
- Lecture 38 Nonlinear FE Analysis
- Lecture 39 Computation of Forces using Maxwell Stress Tensor
- Lecture 40 Computation of force using virtual work method