Power System Analysis - Video course

Lecture	Topics to be covered
1,2	Introduction to Power System Analysis
2,3	Single Line Diagram and Per Unit System
4-8	Transmission line Parameters
9-10	Modeling of Transmission Lines
11-12	Steady State Operation of Transmission Lines
13	Review
14	Modeling of Transformers
15	Modeling of Generators and Loads (Steady State Operation)
16,17	Introduction to Power Flow Problem and Bus Admittance Matrix Formulation
18	Gauss-Seidel Iterative Solution
19, 20	Newton-Raphson Method for Power Flow
21, 22	Decoupled and Fast Decoupled Load Flow Solution Methods
23, 24	Gauss elimination and Sparsity Techniques
25	Review
26	Introduction to Short Circuit Analysis
27	Symmetrical Components
28	Sequence Networks
29-31	Short Circuit Calculations (L-G, L-L, L-L-G and 3-phase Faults)
32	Bus Impedance Matrix Formulation
33, 34	Short Circuit Calculation Using Bus Impedance Matrix
35	Review
36	Introduction to Transient Stability Analysis
37-39	Swing Equation, Equal Area Criterion
40	Review

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