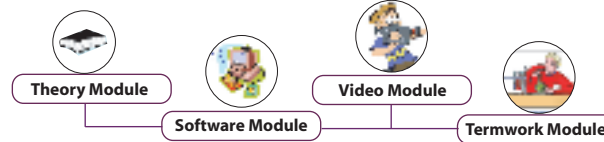


Electrical Power Systems



Introduces, Global e-Learning System in Education & Training in the form of Learning Resources with Computer Aided Instructions



System Requirement:- IBM-PC Compatible Min P-III with Window-OS, 128 MB RAM/Multimedia Kit

Theory module

Features : Theory, Figures, Photographs, Animations with Controller, Highlighter Tool, Note Creation Facility, Systematic Page Navigation, Printing Facility.

List of Topics

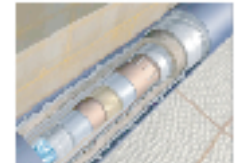
Generation



Load Curve, Load Duration, Different Factors Connected with Generating Stations such as Load Factor, Demand Factor, Diversity Factor, Plant Capacity Factor, Annual Plant Use Factor, Concept of Base Load & Peak Load Stations & Interconnected Operation.

Underground Cable

Classification, Construction of Cable, XLPE Cables, Requirements of insulating Materials, Insulation Resistance, Capacitance, Dielectric Stress in Single Core / Multi Core / Sheathed / Armoured Cables.



Grading Cables



Capacitance Grading & Inter Sheath Grading, Causes of Failure of Underground Cables, Cable Faults & Location of Faults.

Major Electrical Equipment in Power Stations

Alternators, Transformers, Bus-Bars Exciters & Excitation Systems, Voltage Regulators, Switches & Isolators, Reactors, Carrier Current Equipments (P.L.C.C.) Control Panels, Metering & Other Control Room Equipments in Generating Stations.



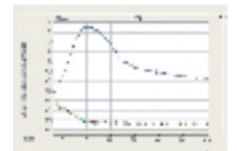
Overhead Line Insulators



Material of Insulators, Types of Insulators, Pin Type, Suspension Type, Strain Type Insulators, Voltage Distribution Along String of Suspension Insulators, String Efficiency, Equalization of Potential Across Each Unit.

Constants of Transmission Line

Resistance of Line, Skin Effect & its Effects, Proximity Effect Inductance of Single Phase Two Line, Flux Linkage of One Conductor of One Group, Inductance of Composite Conductor Line, Concept of G.M.R. & G.M.D., Inductance of Three Phase Line with Equilateral Spacing, Inductance of Parallel Circuit Three Phase Line, Three Phase Line with Equilateral Spacing, Double Circuit Three Phase Line.



Circuit Representation of Lines & Generalized Circuit Constants

Classification of Lines Based on Length as Short, Medium & Long Lines, Representation of Lines as 'Pi' & 'Tee' Circuits Using R, L & C Parameters Voltage & Current Relations for Short & Medium Lines Only.

Mechanical Design of Overhead Lines

Types of Conductors, Line Supports, Spacing Between the Conductors, Length of Span, Calculation of Sag, Equal & Unequal Supports, Effect of Ice & Wind Loadings.



Branch offices