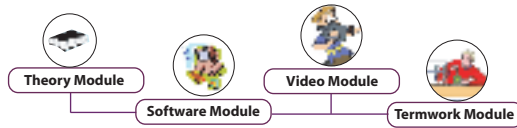


Industrial Electronics



System Requirement:- IBM-PC Compatible 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, Access to Videos at appropriate locations.

List of Topics

SMPS and UPS



working of switching regulator IC, SMPS, merits, demerits and applications, Need of UPS, Classification of UPS, merits, demerits and applications.

Industrial Circuits

Operation and working of the following industrial circuits, triac as a switch, phase control circuit, flasher circuits, emergency light system, battery charger, Batch counter, flame failure control, photo tachometer.



Electronic Timer



Working of typical timer circuits, DC timer using UJT and SCR, Ultra precise long time delay, long time delay, AC timer, Sequential time rand IC 555 timer.

Resistance Welding

Basic resistance welding, types of resistance welding, block diagram and working of SCR line contactor, synchronous weld control, sequential timer for welding and energy storage welding.



High Frequency Heating



Introduction and need of high frequency heating, Operation of dielectric and induction heating (no mathematical explanation) ,Merits, demerits and application of dielectric and induction heating.

Speed Control of AC and DC Motors



Speed and torque of dc motor[no mathematical derivation] , Speed control of dc motors using SCRS by armature voltage control method, Speed control of ac Motors(induction motors).

NC and CNC Machine

Introduction to NC,CNC and DNC, Advantages and disadvantages of NC and CNC machine (only with respect to awareness level).

