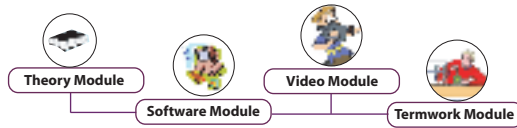


# Industrial Electronics



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 timer and 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).

