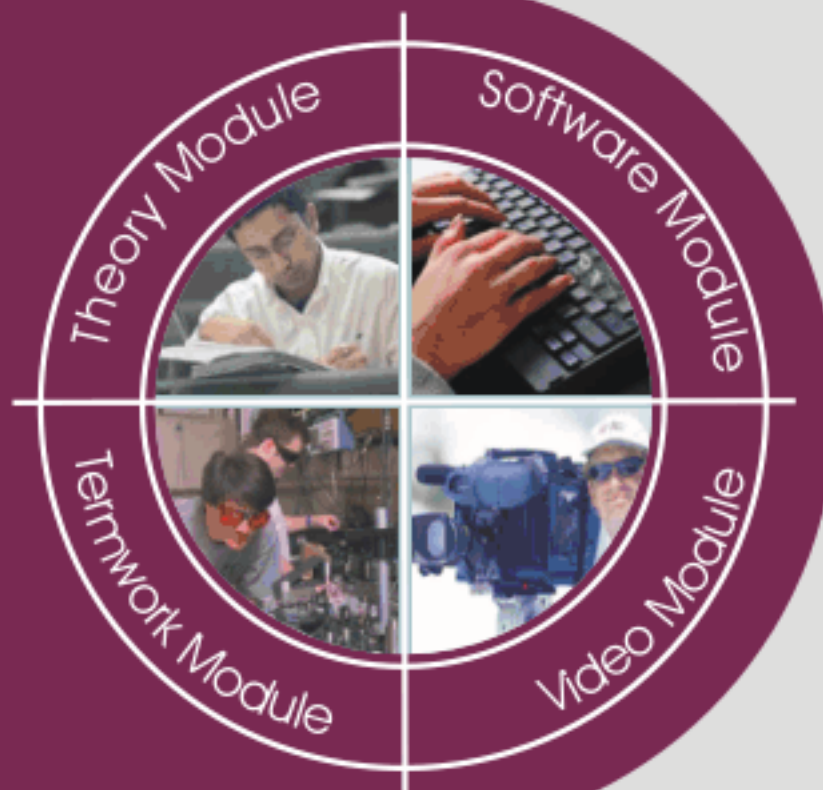


Computer Aided Instructions & Learning Resources

In Subjects of Mechanical & Electronics Engineering with Simulation

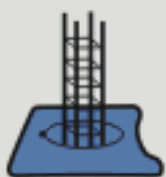
First in INDIA to bring **REVOLUTION IN ENGINEERING EDUCATION**

CAI and LRs



CAI and LRs Benefits

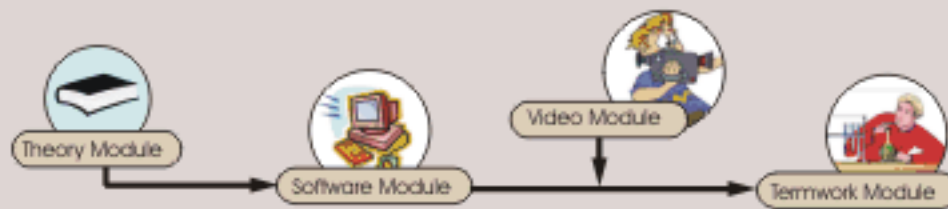
- Single tool to bring Institute, teacher and student together with equal Contribution.
- Audio visual aids demonstrate the practical aspects at the time of learning.
- Bringing change in the mind set to think of further improvements in education
- Packages developed with latest tools and techniques offering the necessary ease of use while understanding complex engineering processes.



SoftTech
Engineers Pvt. Ltd.

An ISO 9001:2000 Company

SoftTech Engineers Pvt. Ltd. Pune Introduces, First time in INDIA, the New Educational system in Engineering in the form of Computer Aided Learning Resources.

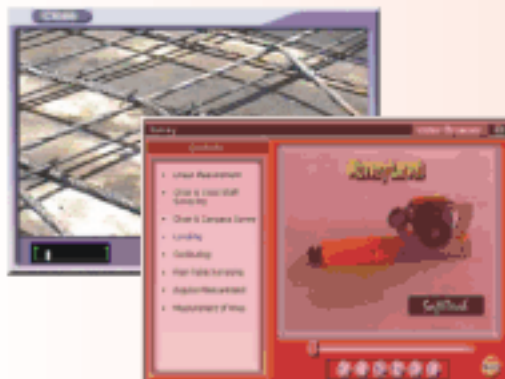
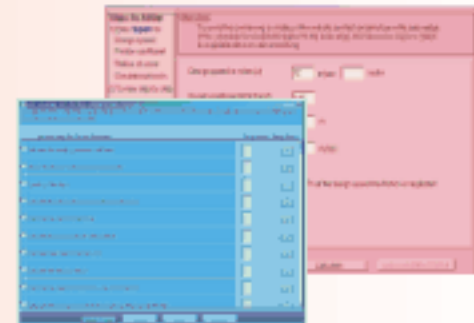


Theory Module

- **Theory** : Complete theory in the form of point for easy process of learning
- **Animations**: For easy understanding of concepts and procedures
- **3D Models**: To understand the real life model
- **Page wise Note Facility**: Create your own notes as per your requirements
- **Sketches**: For better visualization of topics.
- **Voice Recording Facility**: Add your own voice and personalize the learning.

Software Module

Calculation Programs to Provide Instant solutions for numerical and faster way to analyze with various values. With this professor can teach various types of problems with different values in the class very easily.



Video Module

Visual Aids on various topics for Practical visualization of the topics. No need to carry instruments in class while teaching as Video Clips from laboratory and sites are available to help you.

Termwork Module

Interactive Knowledge Tests covering Subjective questions, Objective questions with random lection, Numerical assignments, Video assignments and Drawing assignments.

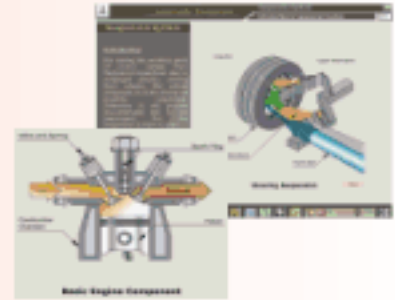


Subjects of Mechanical Engineering

Automobile Engineering

Automobile Engines : Engine Principles and Fundamentals, Constructional Features of Automobile Engine Components, Engine Cooling System Theory, Lubrication Systems, Fuel Systems, Ignition Systems

Automobile Chassis : Transmission Systems, Automotive Chassis, Suspension Systems, Wheels and Brake Systems



Refrigeration and Air Conditioning

Introduction to refrigeration, Refrigeration Cycles, Vapour Absorption System, Refrigerants, Vapour Compression System Components, Air Conditioning and Psychrometry, Principles of Load Estimation, Air Distribution System, insulation, Air Conditioning System

Thermal Engineering

Sources of Energies, Fundamental Concepts and Laws of Thermodynamics, Ideal Gases, Steam and Steam Boilers, Steam Turbines and Condensers, I. C. Engine and Testing, Gas Turbine, Air Compressor, Principles of Refrigeration, Power Generation Systems

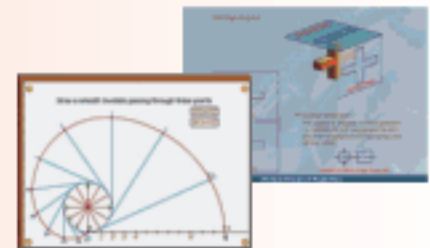


Theory of Machines

Fundamentals, Types of Mechanisms, Study of Some Common Mechanisms, Velocity and Acceleration in Mechanisms, Cams and Followers, Power Transmission Devices, Flywheels and Governors, Brakes and Dynamometers, Friction and Clutches

Engineering Drawing

- Lines, Lettering, Dimensions & Scales • Orthographic Projections & Isometric Projections • Interpretation of Given Views • Curves Used, Engineering Practice & Loci of Points
- Projection of Points, Lines, Planes and Solids • Intersection of Surface of Solids, Section of Solids • Computer Aided Drawing



Engineering Mechanics

Statics

- Introduction: Various axioms related to mechanics
- Analysis of bodies in equilibrium
- Equilibrium of force systems involving frictional forces
- Engineering application of two force and multi force members
- Force systems in space

Dynamics

- Kinematics of a particle
- Kinetics of particles
- Kinematics of rigid bodies
- Kinetics of rigid bodies

Subjects of Electronics Engineering

Basic Electronics



- Introduction to electronics
- Semiconductor theory
- Rectifier circuit
- Filter circuit
- Zener Diode & its applications
- Bipolar junction diode
- Field effect transistor
- Transistor amplifiers
- Transistor AF power amplifier.

Electronics materials and components

- Conducting, Insulating
- Semiconductor materials
- Magnetic materials
- Fixed variable and non linear resistors & capacitors
- Connections and wires
- Inductor and transformer
- Relays and displays
- Microphones, speakers and batteries
- Integrated circuits and surface mount devices
- PCB



Electronic measuring instruments

- Fundamentals
- Measuring parameters
- Units of measurement and instruments
- Frequency and time measurement.
- Oscilloscope
- Generators
- Wave analyzers
- Digital instruments
- Transducers
- High frequency measurement



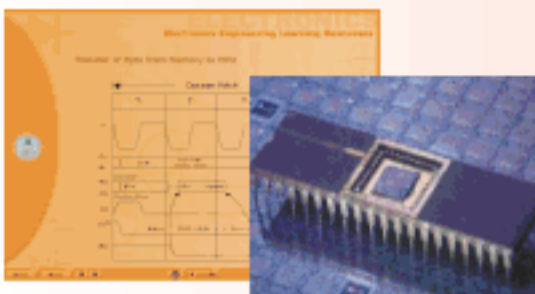
Communication systems

- Introduction to electronic
- Communication
- Amplitude modulation
- AM receiver
- Frequency modulation
- AM receiver
- Frequency modulation
- FM radio receiver
- Antenna
- Transmission line
- Wave propagation
- Modulation techniques



Microprocessor

- Microprocessor and its based systems
- The 8085 microprocessor
- Machine cycles and their timings
- 8085 instruction set and programming
- 8085 system with memory and input/output interfacing
- 8085 interrupts



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ENGINEERS PVT. LTD.

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ISO 9001:2000 Company

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