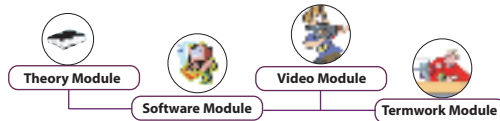


in subject of Surveying-I

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



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 numerical modules, Access to Videos at appropriate locations.

List of Topics

Linear Measurements



- n View the measuring instruments
- n See the details of the chain
- n Know how to Range a line in animation
- n Study intervening of raised ground by animation
- n Know the Direct method of chaining

Chain & Cross Staff Surveying

- n View in animation how to measure Perpendicular & Oblique offsets
- n Know the various field problems and their solutions
- n Learn how to take offsets of a curved detail
- n View how to tackle the obstacles in chaining
- n Watch the animated field book



Chain & Compass Survey



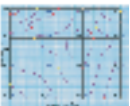
- n Learn how to take reading of prismatic compass
- n Know the back bearing & fore bearing. Know the relation between them
- n View how to calculate included angles
- n View animated plotting of traverse
- n Learn closing error adjustment

Levelling

- n Know the Profile levelling & Cross-section levelling through animation
- n See the details of Levelling staff
- n Observe Simple levelling and differential levelling
- n Study how to enter readings in levelling field book
- n Study the difficulties in levelling



Contouring



- n Observe the contours of natural features
- n Know the characteristics of contours
- n Study the various methods of contouring
- n Learn the interpolation of contours through animation

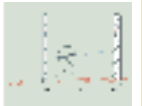
Plain Table Surveying



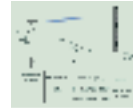
- n Study the various instruments used in Plane Table surveying
- n Observe the radiation method, intersection method through animation
- n View how to adjust the closing error
- n Study the animated resection method
- n Observe two point method through animation

Angular Measurements

- n Observe how to make permanent adjustment of theodolite
- n Know how to measure Horizontal & Vertical angles with theodolite
- n Observe measurement of direct & deflection angles
- n Study Reiteration method through animation
- n Study Theodolite traversing



Tacheometry



- n Study the principal of Stadia method
- n Learn the various methods of Fixed hair system

Measurement of Area

- n Learn various methods of area calculation
- n View the Planimeter
- n Learn Simpson's rule & Trapezoidal rule



Simple Curves



- n Observe the various types of curves
- n Know the elements of a curve
- n See in animation how to set the curve by Long chord method
- n View how to set curve by Rankine's method

Software Module

Calculation programs for : True length of survey line by Direct Method, Distance Method, Multi-Chain Method True area by Elongated Chain, Shortened Chain, Offset & Obstacle Problems, Area Calculations, Conversions of W.C.B.s to R.B.s, Interior angles of a Traverse, Rise and Fall method, HI method, Longitudinal Cross-sectioning, Gale's Traverse Table, Transit Rule, Determination of Gradient, Simple Curve, Offsets from Tangent, Rankine's Method....



Video Module



Videos on chain, tape, cross staff, optical square, prismatic compass, Abney level, Dumpy level, Auto level, levelling staff, tripod, alidade, theodolite, Total station, Planimeter, Digital Planimeter, etc.

Teamwork Module

Contains assignments on various topics covering Subjective questions, Objective questions, Random selection of Objective type questions, Numerical assignments, Video assignments, Drawing assignments.

