

# AMCE09 ADVANCED SURVEYING

## UNIT-1 TRIGONOMETRICAL LEVELLING

- 1.1 Introduction, Heights And Distances, Base Of The Object Accessible, Base Of The Object
- 1.2 Inaccessible: Instrument Stations Not In The Same Vertical Plane As The Elevated Object,
- 1.3 Geodetical Observations, Axis Signal Correction (Eye And Object Correction), Determination Of Difference In Elevation,

## UNIT-2 TRIANGULATION

- 2.1 Geodetic Surveying, Classification Of Triangulation System, Triangulation Figures Or Systems, The Strength Of Figure, Routine Of Triangulation Survey,
- 2.2 Signals And Towers, Non-Luminous Or Opaque Signals, Base Line Measurement, Calculations Of Length Of Base, Measurement Of Horizontal Angles,
- 2.3 Satellite Station: Reduction To Centre, Extension Of Base: Base Net.

## UNIT-3 TOPOGRAPHIC SURVEYING

- 3.1 Introduction, Methods of Representing Relief, Contours And Contour Interval,
- 3.2 Characteristics Of Contours, Procedure In Topographic Surveying,
- 3.3 Methods Of Locating Contours, Interpolation Of Contours

## UNIT-4 ROUTE SURVEYING

- 4.1 Introduction, Reconnaissance Survey, Preliminary Survey, Location Survey,
- 4.2 Construction Survey.

### Reference Books:

1. Advanced Surveying -Total Station, GIS and Remote Sensing by Satheesh Gopi, R.Sathikumar and N. Madhu, Pearson publication
2. Surveying &levelling by R. Subramanian, Oxford Publication. (Best Books for Advanced Surveying)
3. GPS Satellite Surveying-Alfred Leick-Wiley
4. Remote sensing and Geographical Information System, By A. M. Chandra and S. K. Ghosh, Narosa Publishing House. (Best Books for Advanced Surveying)