

# **CE 1109: Surveying**

**Credit: 4.00**

**Contact hours: 4.0 hrs/week**

## **Syllabus:**

1. Reconnaissance survey
2. Linear measurements / Chain Survey
- 3. Traverse survey**
4. Plane table survey
5. Levelling & contouring
6. Calculation of areas and volumes
- 7. Problems on heights & distances**
- 8. Curves and curve ranging, transition curve, vertical curve**
- 9. Tacheometry: introduction, principles and problems on tacheometry**
- 10. Astronomical surveying: definition, instruments, astronomical corrections, systems of time**
- 11. Photogrammetry: introduction of terrestrial photography, aerial photography, reading of photo mosaic, scale**
12. Project surveying
13. Errors in surveying
- 14. Remote sensing**
- 15. Introduction and application of global positioning system (GPS) and geographical information system (GIS)**

## **Reference Books:**

- 1. A text book of surveying – M. A. Aziz & M. Shajahan**
- 2. Surveying (Volume I, II, III – Dr. B. C. Punmia**
- 3. Surveying (Volume I, II) – S. K. Duggal**
- 4. Surveying & Levelling – N N Basak**
- 5. Surveying & Levelling – S. V. Kulkarni**