

Elementary Surveying: An Introduction to Geomatics

Probable Table of Contents (English)

1. Introduction to Surveying and Geomatics
2. Basic Concepts of Measurements and Errors
3. Distance Measurement Techniques
4. Angle Measurement and Direction Systems
5. Leveling and Elevation Determination
6. Survey Computations and Coordinate Geometry
7. Traverses and Traverse Computations
8. Topographic Surveying and Mapping
9. Horizontal and Vertical Curves
10. Construction Surveying Principles
11. Global Positioning System (GPS) Fundamentals
12. Geographic Information Systems (GIS)
13. Photogrammetry and Remote Sensing
14. Hydrographic Surveying
15. Route and Highway Surveying
16. Boundary and Cadastral Surveying
17. Electronic Data Collection and Processing
18. Total Stations and Modern Surveying Instruments
19. Adjustment of Observations and Least Squares
20. Mapping, Contours, and Digital Terrain Models
21. Geodetic Surveying Fundamentals
22. Satellite-Based Positioning Systems
23. Survey Project Management and Field Procedures
24. Legal Aspects and Ethics in Surveying
25. Applications of Geomatics in Civil Engineering

Appendices

- Mathematical and Trigonometric Tables

- Coordinate Geometry Formulas
- Survey Symbols and Conventions
- Units and Conversion Factors
- Field Notes and Sample Calculations
- Glossary of Surveying Terms
- References and Index