This book is an outcome of extensive experiences of practicing engineers who have worked in the professional field as well as those of research and teaching. The students and the practicing engineers, through the book, can share the knowledge and experience acquired during their long professional careers.

An engineer must know the basic design aspects even if he opts to be a construction engineer or a manager and, more so if he prefers to be a designer or a research worker. This has been kept in view.

The entire subject matter is treated in following 5 parts:

**PART I : GENERAL AND INDEX PROPERTIES**

1. ROCKS
2. SOILS
3. SOIL PARTICLES
4. DRY SOIL
5. SOIL MOISTURE
6. UNIT WEIGHT
7. SOIL CLASSIFICATION

**PART II : DERIVED PROPERTIES**

8. PERMEABILITY
9. SEEPAGE AND UPLIFT
10. DISTRIBUTION OF PRESSURE
11. COMPRESSIBILITY AND CONSOLIDATION
12. SHEAR STRENGTH
13. LABORATORY MEASUREMENT OF SHEAR STRENGTH
14. EARTH PRESSURES
15. BEARING CAPACITY

**PART III : FIELD INVESTIGATIONS**

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