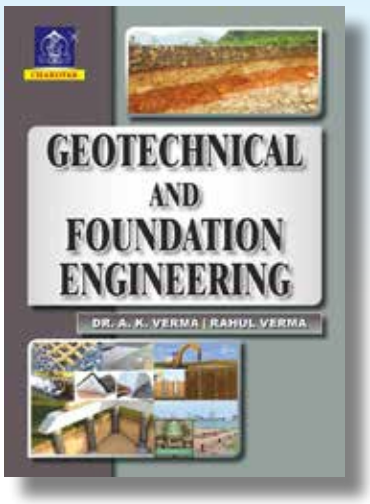

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GEOTECHNICAL AND FOUNDATION ENGINEERING

By
A. K. Verma, Rahul Verma

JUST RELEASED

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NEW

ABOUT THE BOOK

This book presents the basic principles involved in analysis and design in the field of Geotechnical and Foundation Engineering written in a simple manner. The subject matter is characterized by comprehensive as well as methodical, easy-to-follow style and canvassed along with theory, variety of examples and useful tables. Each topic of the book has been arranged in such a way that reader is empowered with an in-depth knowledge of the subject. Latest Codes of Indian Standards have been applied for solving the problems.

The outline of the book is as mentioned below:

Chapter 1 through 4 deal with the basic soil characteristics and its classification.
Chapter 5 discusses clay mineralogy and soil structures.
Chapter 6 and 7 deal with hydraulic characteristics of the soil i.e., effective stress, capillarity and permeability as well as seepage through soils.
Chapter 8 discusses the stress distribution in soils due to surface loads.
Chapter 9 through 13 deal with the shearing strength and its applications such as soil compaction, shear strength of soils, arching in soils and braced cuts, lateral earth pressure and stability of slopes.
Chapter 14 discusses the compressibility characteristics of the soils and consolidation.
Chapter 15 through 17 deal with the foundation analysis and design of shallow and deep foundation including advanced topics, which will be useful not only to under graduate students but to post graduation students and consultants.
Chapter 18 deals with the topic of flexible retaining structures and cofferdams.
Chapter 19 focuses on geosynthetics: application and design.
Chapter 20 gives an overview of laboratory experiments and insight into construction field equipment.
At the end Multiple Choice Questions (MCQ) have been given as Appendix which cover the entire syllabus of Geotechnical and Foundation Engineering.

Salient features of the book:

- 384 Neatly drawn self explanatory sketches
- 135 Useful tables
- 165 Typical solved examples
- 151 Questions at the end of the chapters
- 19 Laboratory experiments.

The book in the present form will prove to be extremely useful to the students preparing for the Degree examinations in Civil Engineering and Architecture of all the Indian Universities, Diploma examinations conducted by various Boards of Technical Education, Certificate Courses as well as for the A.M.I.E., U.P.S.C., G.A.T.E., I.E.S., and other similar competitive and professional examinations. It should also be an immense use to practicing Civil Engineers.

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