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Electromagnetics in frequency domain and in time domain; 2.5.3 Electrical resistivity imaging; 2.5.4 Microgravity; 2.5.5 Seismic refraction and seismic reflection; 2.6 Geotechnical investigation report; 2.6.1 Site reconnaissance and description; 2.6.2 Subsurface exploration (field exploration); 2.6.3 Laboratory testing; 2.6.4 Geotechnical engineering recommendations; 2.6.5 Appendix; Homework Problems; References; Chapter 3 Shallow Foundation Design
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3.3 Settlements of shallow foundations3.3.1 Vertical stress increase due to external load; 3.3.2 Elastic settlement; 3.3.3 Consolidation settlement; Homework Problems; References; Chapter 4 Introduction to Deep Foundation Design; 4.1 Introduction to deep foundations; 4.1.1 Needs for deep foundation; 4.1.2 Foundation types; 4.1.3 Driven pile foundation design and construction process; 4.2 Pile load transfer mechanisms and factor of safety; 4.3 Static bearing capacity of a single pile; 4.3.1 Nordlund method, for cohesionless soil; 4.3.2 -method, for undrained cohesive soil
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Sommario/riassunto

This accessible, clear, concise and contemporary text in geotechnical engineering design covers the major design topics, making it the one stop shop for students. Packed with self-test problems and projects, and with a detailed online solution manual, it presents the state of the art in engineering practice, including soil nail walls, liquefaction, earthquake foundation design and erosion controls. Geotechnical Engineering Design explains fundamental design principles and approaches in geotechnical engineering, offering an introduction to engineering geology, subsurface explorations, sh