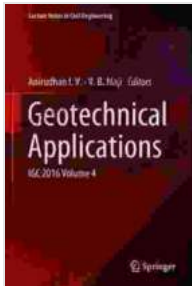


Geotechnical Characterisation and Geoenvironmental Engineering: A Comprehensive Guide



Geotechnical Characterisation and Geoenvironmental Engineering: IGC 2024 Volume 1 (Lecture Notes in Civil Engineering Book 16) by Wayne Neely

★★★★★ 5 out of 5

Language : English
File size : 8756 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 418 pages



Geotechnical characterisation and geoenvironmental engineering are essential disciplines in the field of civil engineering. They provide the foundation for understanding the behaviour of soil, rock, and groundwater, and for designing and constructing safe and sustainable infrastructure.

This comprehensive guide covers all aspects of geotechnical characterisation and geoenvironmental engineering, from basic theory to advanced applications. It is written by a team of experts with decades of experience in the field, and provides a wealth of practical information and case studies.

Part 1: Geotechnical Characterisation

The first part of this guide covers the principles of geotechnical characterisation. This includes:

* Soil mechanics: The study of the behaviour of soil under load. * Rock mechanics: The study of the behaviour of rock under load. * Groundwater hydrology: The study of the movement and distribution of groundwater.

The guide also covers the different methods used to characterise soil, rock, and groundwater, including:

* In-situ testing: Tests performed on soil or rock in its natural state. * Laboratory testing: Tests performed on soil or rock samples in a laboratory. * Geophysical testing: Tests that use geophysical methods to characterise soil, rock, and groundwater.

Part 2: Geoenvironmental Engineering

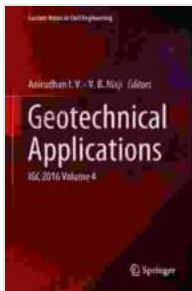
The second part of this guide covers the principles of geoenvironmental engineering. This includes:

* Contamination assessment: The identification and characterisation of contaminants in soil, rock, and groundwater. * Remediation: The process of cleaning up contaminated soil, rock, and groundwater. * Geosynthetics: The use of synthetic materials to improve the performance of soil and rock. * Numerical modelling: The use of computer models to simulate the behaviour of soil, rock, and groundwater.

The guide also covers the different applications of geoenvironmental engineering, including:

* Landfill design and construction * Brownfield redevelopment *
Environmental impact assessment * Climate change adaptation

This comprehensive guide is an essential resource for anyone involved in geotechnical characterisation and geoenvironmental engineering. It provides a wealth of practical information and case studies, and covers all aspects of these important disciplines.



Geotechnical Characterisation and Geoenvironmental Engineering: IGC 2024 Volume 1 (Lecture Notes in Civil Engineering Book 16) by Wayne Neely

★★★★★ 5 out of 5

Language : English
File size : 8756 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 418 pages



Corrosion and Its Consequences for Reinforced Concrete Structures

Corrosion is a major threat to reinforced concrete structures, leading to significant deterioration and potential failure. This article provides a comprehensive overview of...



Discover the Enigmatic World of Pascin in "Pascin Mega Square"

Immerse Yourself in the Captivating World of Jules Pascin "Pascin Mega Square" is a magnificent art book that delves into the enigmatic world of Jules...