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Unsaturated Soils: A fundamental interpretation of soil behaviour

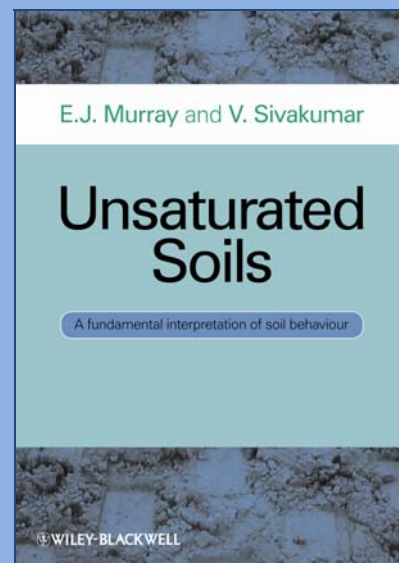
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V. Sivakumar; Queen's University Belfast, UK

This book examines the mechanical properties of unsaturated soils. It provides students and researchers in geotechnical engineering with a framework for understanding soil behaviour at a fundamental level and a model for interpreting experimental data. It also offers practitioners a deeper appreciation of the important characteristics of unsaturated soils.

Unsaturated Soils draws on analogous behaviour in physics and chemistry to explain important phenomena, while the authors have kept the theoretical part of the book interesting but thorough. The behaviour of soils is influenced by many factors, but is compliant with the general laws of thermodynamics that provide broad principles to which all material behaviour adheres. The theoretical analyses are based on sound thermodynamic principles and provide a rigorous methodology, justified by comparison with soil test data, by which to predict and investigate the mechanical behaviour of unsaturated soils.

This book:

- Provides engineers with a deeper appreciation of key characteristics of unsaturated soils
- Covers a rapidly advancing area of study, research and engineering practice
- Provides students and researchers a framework for understanding soil behaviour
- Shows how to interpret experimental data on strength and compression
- The book addresses subject matter not addressed in other books on the subject



Paperback ~ 304 pages
August 2010
ISBN 13: 978-1-4443-3212-4

£69.99 / €87.90 / \$112.99

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