Computational Geomechanics with Special Reference to Earthquake Engineering
Olgierd C. Zienkiewicz, A. H. C. Chan, M. Pastor, B. A. Schrefler, T. Shiomi

DESCRIPTION

Computational Geomechanics:

* introduces the full theory of dynamic and static behaviour of porous media and shows how computation can predict the deformations of a structure, subject to an earthquake or consolidation.

* introduces the use of numerical, finite element procedures for soil and rock mechanics problems which has increased rapidly throughout the last decade.

* provides a comprehensive survey of major, constitutive models, which can simulate soil behaviour rationally.

* explains practical procedures based on computational experience for real projects with particular emphasis on earthquake engineering.

Static problems which occupy a particular area of dynamics can also be solved by identical methods, making the book relevant to all researchers and engineers concerned with geomechanics. Earthquake Engineering is stressed throughout as it is in this field that the most difficult examples arise; however, other applications are also noted.
Olgierd Cecil Zienkiewicz, CBE, FREng, FRS was a British academic of Polish descent, mathematician, and civil engineer. He was born in Caterham, England. He was one of the early pioneers of the finite element method. Since his first paper in 1947 dealing with numerical approximation to the stress analysis of dams, he published nearly 600 papers and wrote or edited more than 25 books.

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