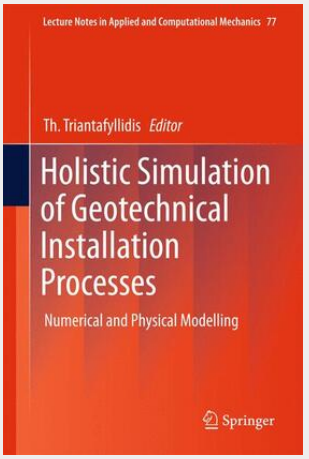
Triantafyllidis

Holistic Simulation of Geotechnical Installation Processes

Numerical and Physical Modelling



The book provides suitable methods for the simulations of boundary value problems of geotechnical installation processes with reliable prediction for the deformation behavior of structures in static or dynamic interaction with the soil. It summarizes the basic research of a research group from scientists dealing with constitutive relations of soils and their implementations as well as contact element formulations in FE-codes. Numerical and physical experiments are presented providing benchmarks for future developments in this field. Boundary value problems have been formulated and solved with the developed tools in order to show the effectivity of the methods. Parametric studies of geotechnical installation processes in order to identify the governing parameters for the optimization of the process are given in such a way that the findings can be recommended to practice for further use. For many design engineers in practice the assessment of the serviceability of nearby structures due to geotechnical installation processes is a very challenging task. Some hints about possible effects and their consideration are given in this book which may provide a help for such estimations which are still not possible to be given in a satisfactory manner.

The book provides suitable methods for the simulations of boundary value problems of geotechnical installation processes with reliable prediction for the deformation behavior of structures in static or dynamic interaction with the soil. It summarizes the basic research of a research group from scientists dealing with constitutive relations of soils and their implementations as well as contact element formulations in FE-codes. Numerical and physical experiments are presented providing benchmarks for future developments in this field. Boundary value problems have been formulated and solved with the developed tools in order to show the effectivity of the methods. Parametric studies of geotechnical installation processes in order to identify the governing parameters for the optimization of the process are given in such a way that the findings can be recommended to practice for further use. For many design engineers in practice the assessment of the serviceability of nearby structures due to geotechnical installation processes is a very challenging task. Some hints about possible effects and their consideration are given in this book which may provide a help for such estimations which are still not possible to be given in a satisfactory manner.

106,99 €
99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783319181691
Medium: Buch
ISBN: 978-3-319-18169-1
Verlag: Springer International Publishing
Erscheinungstermin: 27.06.2015
Sprache(n): Englisch
Auflage: 2015
Serie: Lecture Notes in Applied and Computational Mechanics
Produktform: Gebunden
Gewicht: 5148 g
Seiten: 250
Format (B x H): 160 x 241 mm