Abstracts

UNDRAINED STRENGTH OF K₀ NORMALLY CONSOLIDATED CLAYS BASED ON AN ANISOTROPIC YIELD FUNCTION

by

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Abstract

Undrained triaxial compression and extension stress strain behavior of saturated remolded clay consolidated under the K₀ stress condition is investigated. Test results indicate that the effective stress path is affected by the stress condition during consolidation. Based on the test results, the authors propose a new method of predicting the undrained compression and extension strength of K₀ normally consolidated clays using an anisotropic yield function, which is derived from the shape of the observed effective stress path. The applicability of the proposed method is examined by comparing the calculated and observed undrained shearing behaviors.

Key words: normally consolidated clay, undrained shear strength, yield function

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Flight Dynamic Analysis of Radio-Controlled Helicopter

By

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Abstract

The flight dynamics of a radio-controlled helicopter was analyzed in order to develop a stability augmentation system (SAS) for a safer flight control system. Experimental results are also shown to validate the validation of our approach. Data for a successful flight have been obtained and the scenery of the flight test is given at the same time.

Keywords: Radio Control, Helicopter, Flight Dynamic Analysis, Pitch Damping, Flight Experiments

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