

## **Numerical study on pull-out behavior of a gravity-type anchorage for a suspension bridge**

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### **ABSTRACT**

This paper presents the results from finite-element analyses undertaken to provide insight into the pull-put behavior of gravity-type anchorages during pullout in various types of rocks. The emphasis is on evaluating the effect of coefficient of friction and embedded depth for gravity-type anchorages under pullout loading. Three-dimensional FE analyses were performed for different types of rock, embedded depths and coefficient of friction. An interface model was employed to simulate the friction behavior between the anchorage and rock. Based on this study, it is found that the displacement of the gravity type anchorage decreased with increase in coefficient of friction and embedded depth due to increased frictional resistance at the interface and increased passive resistance in front of the anchorage, respectively.

### **REFERENCES**

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