عنوان مقاله:

Investigation of Soil and Quay wall Interaction under Seismic Loading

محل انتشار:

پنجمین همایش بین المللی صنایع فراساحل (سال: 1391)

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خلاصه مقاله:

Optimal design of quay walls against seismic forces has become a challenge for engineers. For countries that are placed on the earthquake belt, it is very important to investigate the strength and the behavior of quay walls againstearthquakes. In this study, the behavior of cantilever quay concrete walls which have been placed on the saturated cohesive soil is studied using finite element method. Pattern of the interaction between soil and this kind of structure is very complicated. Adding seismic forces to this would make the senario much more complicated. In this study, height of the quay walls, soil type, strength and the duration of the earthquake on the Bending moment against the wall are considered and pressure contribution behind the wall has been investigated. The results showed that the present numerical method can give a good estimation of the soil sidelong loading forces over the quay walls in both static and dynamic modes

کلمات کلیدی:

Quay walls, Seismic Loading, coupled interaction of Soil and Structure