

عنوان مقاله:

Optimized seismic analysis of intake towers interacting with dam, reservoir and foundation

محل انتشار:

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خلاصه مقاله:

In this article, different parameters sensitivity analysis on the dynamic response of cylindrical intake towers interacting with concrete dam, foundation, internal and surrounding water of the tower is studied. The tower is modelled and verified using three-dimensional finite elements according to Euler-Lagrangian approach in both frequency and time domains. In order to carry out a parametric study Taguchi optimization method is employed to distinguish the most influential ones. Thus the iteration algorithm and number of numerical tests are designed. The models are tested longitudinal horizontal. The evaluation of the results indicated that the the surrounding water depth were the most .effective factors on the base shear coefficient and frequency ratio, respectively under Taft record on hard soil

کلمات کلیدی:

Intake tower, Interaction intake tower- dam- foundation-reservoir, seismic response, Hydrodynamic pressure, Optimization method

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