عنوان مقاله:

Dynamic analyses of the improved ground under near and far-field earthquake

محل انتشار:

کنفرانس عمران,معماری و شهرسازی کشورهای جهان اسلام (سال: 1397)

تعداد صفحات اصل مقاله: 11

نویسندگان:

,Sara Kavousi - *M.Sc. student of Civil Engineering, Science and Research Branch, Islamic Azad University, Tehran*

Ahad Bagherzadeh-khalkhali - *Assistant Professor, Department of Civil engineering, Science and Research Branch, ,Islamic Azad University, Tehran, Iran*

خلاصه مقاله:

Stone column reinforced composite foundation is a widely used ground treatment method. This method is commonly used for improving soft ground like soft clay and loose sands. This paper examines the influence of stone columns on the dynamic response of the ground conditions and overlying constructed embankments. Dynamic analyses of un-improved and improved grounds using the finite difference approach are performed. For dynamic analysis is simulated as amplitude modulated non-stationary process. A MATLAB code is developed to generate earthquake ground motions. Also, dynamic response of the embankment placed on the stone column reinforced composite foundation under near-field and far-field seismic input motions is investigated. The results of the dynamic analyses predict that the ground improved by stone columns will respond as a stiffer profile than the original ground

کلمات کلیدی:

seismic motion, dynamic analysis, stone column, clayey deposits, near and far-field earthquakes