World Academy of Science, Engineering and Technology
International Journal of Civil and Environmental Engineering
Vol:9, No:09, 2015

Evaluation of Site Laboratory Conditions Effect on Seismic Design Characteristics in Ramhormoz

Authors : Sayyed Yaghoub Zolfegharifar, Khairul Anuar Kassim, Hossein Khoramrooz, Khodayar Farhadiasl, Sadegh Jahan

Abstract : Iran is one of the world's seismically active countries so that it experiences many small to medium earthquakes annually and a large earthquake every ten years. Due to seism tectonic conditions and special geographical and climatic position, Iran has the potential to create numerous severe earthquakes. Therefore, seismicity studies and seismic zonation of seismic zones of the country are necessary. In this article, the effect of local site conditions on the characteristics of seismic design in Rahmormoz will be examined. After analyzing the seismic hazard for Rahmormoz through deterministic and statistical methods and preparing the necessary geotechnical models based on available data, the ground response will be analyzed for different parts of the city based on four inputs and acceleration level estimated for bedrock through the equivalent linear method and by means of Deep Soil program. Finally, through the analysis of the obtained results, the seismic profiles of the ground surface for different parts of the city will be presented.

Keywords : seismic microzonation, ground response, resonance spectrum, period, site conditions
Conference Title : ICCSEE 2015 : International Conference on Civil, Structural and Environmental Engineering
Conference Location : Istanbul, Türkiye
Conference Dates : September 28-29, 2015