

عنوان مقاله:

Investigation of the Effects of Recorded and Simulated Earthquakes on Buildings with Different Heights Using the ASCE 7-22

محل انتشار:

فصلنامه زلزله شناسی و مهندسی زلزله، دوره 26، شماره 2 (سال: 1403)

تعداد صفحات اصل مقاله: 9

نویسندگان:

Pouya Hassani - Ph.D. Student, Department of Civil Engineering, Urmia University, Urmia, Iran

Sallar Rasti - Ph.D. Student, Department of Civil Engineering, Urmia University, Urmia, Iran

Saeed Tarverdilo - Professor, Department of Civil Engineering, Urmia University, Urmia, Iran

خلاصه مقاله:

This paper considering two buildings different in height as a case study to inquiries into the effect of recorded and spectrally matched ground motions (simulated ground motion). Model of structures are developed using design procedure of Chapter 12 of ASCE 7-22 and linear analysis is adopted using requirements of Chapter 16 of ASCE 7-22. In this study, the effects of recorded and simulated ground motions on drift distribution and also floor acceleration are investigated. It could be seen that all of the structures, when subjected to simulated ground motions, give acceptable performance, even though this is not the case with amplitude-scaled ground motions.

کلمات کلیدی:

Seismic Safety, scale factor, spectrally matched, amplitude scaling, Performance-based design

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/2046363>

