عنوان مقاله:

APLICATION OF A GENERAL PROCEDURE FOR SELECTING AND SCALING REAL EARTHQUAKE RECORDS FOR IRANIAN DESIGN SPECTRA

محل انتشار:

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خلاصه مقاله:

Nonlinear time history analysis as the most accurate and robust analysis method is getting popularity as reliable and competent programs are becoming easily accessible for the earthquake engineering community. A crucial issue in applying time history analysis procedures making it difficult for design practice, to select appropriate record and scale factor, is a contemporary research area. Different seismic codes suggest various guidelines for selecting and scaling proper accelerograms. However, it is generally accepted that scaling the accelerograms to match a design spectra is one of the acceptable methods nevertheless; it is dependent on the structural period and site characteristics. In this study a general method, based on minimizing error between the scaled specific earthquake spectra and a target design spectra in a least square sense, is applied in order to identify acceptable records as well as proper scale factors to be used in time history analyses. Earthquake record groups suitable for selection has been proposed for soil type classifications as well as seismic zones for Iranian seismic code aimed at facilitating the use of time history analysis procedures in practical circumstances

کلمات کلیدی:

Scaling Earthquake Records, Selecting Earthquake Records, Design Spectra

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/115465