

عنوان مقاله:

Random-Vibration-Based Response Spectrum Method for Multi-Support Structural Systems

محل انتشار:

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خلاصه مقاله:

A random vibration approach for the response analysis of linear multi-support structural systems, previously developed by the authors, is briefly reviewed. It serves as the basis for the formulation of a response spectrum method for the seismic response analysis of multiply supported structures. The response of a two-span beam subjected to spatially-varying earthquake ground motion is analyzed. The influence of uniform and varying local soil conditions, wave passage and incoherence effects on the response of the beam is studied. The significance of each effect is assessed and the relative importance of the pseudo-static and the dynamic response is examined. For comparison purposes, the results also include the cases of statistically independent and perfectly correlated ground motion input.

کلمات کلیدی:

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