

عنوان مقاله:

PUSHOVER ANALYSIS OF STEEL MOMENT FRAME ACCOMPANIED WITH RC SHEAR WALL OR STEEL BRACING

محل انتشار:

ششمین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1390)

تعداد صفحات اصل مقاله: 10

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خلاصه مقاله:

In this paper, the nonlinear behavior of dual structural systems in forms of steel moment resisting frames accompanied with reinforced concrete shear walls and steel moment resisting frames accompanied with concentrically braced frames, have been studied. Some parameters such as ductility factor of structure (μ), over-strength factor (R_s) and response modification factor (R) for the mentioned structures have been under assessment. To achieve these objectives, the 10-story buildings containing such structural systems used to perform the pushover analyses having different load patterns. These analyses are displacement based pushovers and modal pushover. Analytical results show that the steel moment resisting frames accompanied with concentrically braced frames system have higher ductility factor than the other one. However, the response modification factor for both systems is equal. And so it is demonstrated to achieve appropriate seismic performance, using the steel moment resisting frames accompanied with concentrically braced frames system can have more advantages than the other one. Regarding to the results, it appears that the C_d factor for the mentioned structural systems is more than the values which are in Iranian Seismic Code.

کلمات کلیدی:

Dual system, Steel moment resisting frame, Shear wall, Steel bracing, Reinforced Concrete, Seismic behavior

لینک ثابت مقاله در پایگاه سیویلیکا:

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