

عنوان مقاله:

OPTIMAL RETROFIT OF STEEL MOMENT RESISTING FRAMES WITH ADDED VISCOUS DAMPERS

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خلاصه مقاله:

In this paper control of the seismic response of multi-storey steel moment resisting frames using optimally placed viscous dampers have been investigated. Therefore, five practical methods for optimal damper distribution have been investigated for two steel moment resisting frames with 8 stories. First four methods are based on simple design formulas that are based on some assumptions. The latter is simplified sequential search algorithm (SSSA) has been known as an efficient tool. Here some improvements have been proposed to enhance application of SSSA in practical design or retrofit of existing buildings. Also an efficiency index have been proposed based on sum on damper coefficients and maximum drift occurred in structure to compare resulted optimal configurations of viscous damper. Given results show that distribution of damper based on shear strain energy and improved SSSA may be efficient for practical engineers.

کلمات کلیدی:

Viscous Damper, Optimal Retrofit, Steel Frames

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