

## عنوان مقاله:

Seismic behavior of Viscoelastic and Friction Passive Damping System in Steel Structures by Near Fault Field

## محل انتشار:

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## خلاصه مقاله:

In recent years, considerable attention has been paid to research and development of structural control devices, with particular emphasis on alleviation of wind and seismic response of buildings. The performance of these devices based on dissipating the energy due to dynamic loading, by creating particular deformation and mechanical applying. The operation of these devices causes that the energy of the other structural elements has been reduced and large deformation not to be occurred. Results of structures with dampers (viscoelastic damper, friction damper and combination of both dampers) were compared with the results of structures without damper. Increasing trend in dissipating energy was observed. Then, the behavior of these dampers in frames of 4, 8 and 12 stories was studied by modeling the damper directly. The analyses were conducted via nonlinear time history technique and by using earthquake records (near fault) scaled with peak acceleration and SAP 2000 14.2.2 software. Eventually for increasing the capability of the designer to select the effective control system, the efficiency of various dampers has been compared. A result of this study demonstrates that utilization of these dampers could improve seismic performance of moment resisting and reduce seismic response of structure.

## کلمات کلیدی:

Energy dissipating, Moment resisting frame, friction damper, viscoelastic damper

## لینک ثابت مقاله در پایگاه سیویلیکا:

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