عنوان مقاله:
Seismic Retrofit of Reinforced Concrete Columns with Steel Jackets of Different Thicknesses

محل انتشار:
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خلاصه مقاله:
There are different methods of retrofitting the columns such as Concrete Jackets, Steel Jackets or Composite covers like FRP. In this research, the behavior of the structures due to Steel Jacketing of columns is considered. So columns of a moment resisting reinforced concrete frame with two spans and two stories were wrapped in steel jackets of different thicknesses. The results of nonlinear static analysis of frame using the software of "OpenSees Navigator" show that the base shear of the structure increases about 23%. Also, as the results show, this method of retrofitting of columns enhances the ductility of the structure in the range of 65% to 81% depending on the thickness of jacket. While increasing the steel jacket thickness increases the ductility of the studied structures, it has no considerable effect on improving the base shear.

کلمات کلیدی:
Steel Jacketing, Retrofit, Ductility, Pushover Analysis, Opensees Navigator