

عنوان مقاله:

(Seismic Retrofitting of Reinforced Concrete Structures (Case study of six storey building

محل انتشار:

سومین کنفرانس بین المللی مقاوم سازی لرزه ای (سال: 1389)

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خلاصه مقاله:

This study highlights the principles of assessing and retrofitting of structures against seismic events. Furthermore, modern retrofitting techniques using a case study of a six storey reinforced concrete gravity design building is illustrated. The application of Finite Element procedure to investigate the seismic performance of a building with the introduction of retrofitting techniques is discussed. The methods that have been used to improve the load bearing capacity individual structural elements such as steel and concrete jacketing and application of fibre reinforced polymer (FRP) composites are discussed. The importance of improving ductility of the structural connections of the building is also discussed. Other than that, methods that have been implemented to improve the overall stability are outlined with respect to shear walls and shear core. Finally, the importance of base strengthening is highlighted to withstand the base shear result by the expected seismic loading. Finally, conclusions are drawn by highlighting the outcome of the study.

کلمات کلیدی:

Earthquake, Retrofitting, Assessment, FEM analysis

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