## عنوان مقاله:

SEISMIC RESPONSE OR MULTI-STORY UNBALANCED R/C DUAL BUILDINGS. II: EFFECTS OF PERPENDICULAR SHEAR-WALLS AND TWO-WAY ECCENTRICITY

## محل انتشار:

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## نویسندگان:

m.s Birzhandi, - *Department of Civil Engineering Isfahan university of technology, Isfahan, Iran*

A.M Halabian - *Department of Civil Engineering Isfahan university of technology, Isfahan, Iran*

## خلاصه مقاله:

The seismic response of bi-eccentric plan asymmetric RC dual lateral load resistant multi-story buildings are investigated subjected to an assemblage of ordinary and near-fault ground motions. Previous studies on the linear and non-linear earthquake response of asymmetric structures often have considered the eccentricity in one direction and therefore, the earthquake excitation and the resisting elements have been only in one direction. In the present research, to evaluate the influences of the multi-component excitations on the 3D response of asymmetric structures, resisting elements and eccentricities are studied in the both directions to represent the realistic conditions. These 3D effects are studied in the wide rang of eccentricity values for the 8-, 14- and 20-stories models. The used approach of modelling is more accurate for multi-storey dual lateral load resistant structures, because it redefines the stiffness from the strength in each time step. The torsional responses of models including the ductility demands for stiff and flexible edges elementsare normalized to the corresponding values of the symmetric cases. One of the results shows that single eccentric asymmetric models subjected to uni-directional excitation parallel to the resisting elements overestimate the ductility demands of the flexible edge elements specially in the range of low lateral periods.

## کلمات کلیدی:

Two Way Eccentricity, Nonlinear Torsion, Unbalanced Structures, DuctilityDemand

## لینک ثابت مقاله در پایگاه سیویلیکا: