

عنوان مقاله:

Simultaneous Effect of Vertical and Horizontal Components of Earthquake on Seismic Response R/C components of Earthquake on Seismic Response R/C frames with asymmetric spans

محل انتشار:

دومین کنفرانس بین المللی آکوستیک و ارتعاشات (سال: 1391)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Hossein Abdollahi Parsa - Graduate Student, Faculty of Civil Engineering, Kharazmi University, Tehran, Iran

Peyman Homami - Assistant Professor, Faculty of Civil Engineering, Kharazmi University, Tehran, Iran

خلاصه مقاله:

During previous years, several studies have been done on vulnerability of structures against earth-quakes. In seismic analyses of these studies only horizontal components of earthquake were considered and little attention was paid to vertical acceleration especially in near fields. Investigation of records shows that vertical peak ground acceleration (PGA) can approach horizontal (PGA) to a great extent or even go beyond it in some cases. In the present paper, the influence of vertical acceleration on structure responses has been investigated by comparing behaviors of different members of three moment resisting R/C frames first by considering horizontal component alone and then by considering vertical and horizontal components simultaneously under three near field records. Results show that vertical component has much influence on axial force of the columns as well as on vertical displacement of mid-points of the beams in different stories; however it has little influence on lateral displacement of the stories

کلمات کلیدی:

Vertical Component; Near Field; Non-linear time history analysis

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/188665>

