

عنوان مقاله:

(Damage Assessment of Reinforced Concrete Buildings Considering Irregularities (RESEARCH NOTE

محل انتشار:

ماهنامه بین المللی مهندسی، دوره 32، شماره 10 (سال: 1398)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Pritam Hait - Civil Engineering Department, NIT Silchar, Assam, India

Arjun Sil - Civil Engineering Department, NIT Silchar

Satyabrata Choudhury - Civil Engineering Department, NIT Silchar, Assam, India

خلاصه مقاله:

Structural damage can be controlled in performance based seismic design (PBSD) according to the requirement under a certain hazard level. During strong ground motion (GM) such buildings suffer minor to major damages depending on the shaking level of GM. The available damage assessment methods are complex, tedious and time-consuming procedure. In the present study, a simplified empirical model has been proposed that computes the GDI in a single step using the engineering demand parameters (EDPs) namely joint rotation, Inter storey drift (IDR), peak roof displacement. It has been found that the proposed method gives results of GDI near to Park-Ang model. It has been observed that the ground storey suffers maximum damage for all cases. Further, a relationship has been established between ground story DI and global DI. The proposed model effectively berlongferestimates reliable DI .and could be used as a powerful tool for estimating seismic damage in buildings, especially for massive structures

کلمات کلیدی:

Damage Assessment, Engineering Demand Parameter, Local and Global Damage Index, Non-linear time history analysis, Reinforced Concrete Framed Building

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/962732>

