

عنوان مقاله:

EFFECTS of CONFINED CONCRETE MODELS on SIMULATING RC COLUMNS UNDER MONOTONIC LOADING

محل انتشار:

پنجمین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1386)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Alireza Mortezaei - *Ph.D. student and Lecturer, Islamic Azad University – Semnan Branch, Semnan, Iran*

Ali Kheyroddin - *Associate Professor, Engineering Faculty, Semnan University, Semnan, Iran*

خلاصه مقاله:

Material models are the base of computer simulation analysis of structure. Many confined concrete models have been put forward until now; however, there are few comparative studies on effect of confined concrete models on structural member analysis. In this paper, four models are selected as the representatives and applied to nonlinear analysis program for space frames which is based on the beamcolumn element using the finite element flexibility method and the fiber model. Park's test on columns that are combined axial and bending under monotonic loading are taken as the calibrations, comparisons to material and structural member level are drawn and the analytical results of various models are discussed. From this study it is concluded that despite the significant difference in the stress-strain curve of each confinement model the difference in structural member analysis reduces obviously but still remarkable. The simulation using Mander model shows better agreement with the experimental results.

کلمات کلیدی:

simulation, confined concrete, structural member, nonlinear analysis

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/16229>

