

## عنوان مقاله:

Investigating dynamic instability of RCS frames in five- and twenty- story buildings under earthquake lateral loading

## محل انتشار:

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## نویسندگان:

Saeed Ahmad Zadeh - *Master of Civil engineering structures, Department of Civil Engineering, Islamic Azad university of Marand*

Mohammad Hossein Habashi Zadeh - *PhD in Civil Engineering Structures, Department of Civil Engineering, Islamic Azad university of Marand*

## خلاصه مقاله:

In this research seismic behavior of RCS frames against earthquakes will be studied, and their stability will be examined. Accordingly, the primary designs will be three-dimensional (3D) frames, then they will be considered as two-dimensional, examining frames' dynamic instability. Structures will be examined in two heights (five and twenty stories) and two bays (three and five) and their heights and widths will be symmetrical. First of all modelling and design phases are discussed, then results of structures' linear analysis will be provided. Next OPENSEES and its analytic applications will be introduced briefly. After that building material, used for modeling proposed frames, their behavior and their analysis with ANSYS software will be discussed. Generals of incremental dynamic analysis and selecting earthquake records will be provided for studying structures seismically. Then summary curves of incremental dynamic analysis is developed, and fragility curves, developed for studying probability of seismic vulnerability, will be examined. Finally, various charts showing processing results will be compared according to near-fault records.

## کلمات کلیدی:

RCS, linear analysis, near-fault earthquake, OPENSEES

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/709263>

