

عنوان مقاله:

PERFORMANCE STUDY OF CONCRETE STRUCTURES OF HOSPITALS IN KERMAN, IRAN

محل انتشار:

هفتمین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1394)

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خلاصه مقاله:

Studying the vulnerability of buildings such as hospitals for decreasing the damages and immediate occupancy of therapeutic centers as well as hospitals, after the average earthquakes, is of paramount importance. In this article, two concrete structures of hospitals in Kerman as the most important hospitals of this province are evaluated by the non-linear static analysis and the Instruction for Seismic Rehabilitation of Existing Buildings NO.360 (First Revision). The first three stories' structure (with 3000 m² area) was designed and used in 1986 and 2002, respectively as well, the second, third and the fourth is one and two story's structure (with 3000, 1000, 500 m² area) was designed in 2013 and it is now under the construction. The performance of these hospitals in the Basic Safety Earthquake 1 (BSE 1) and in the Basic Safety Earthquake 2 (BSE 2) must be associated with immediate occupancy and life safety level, respectively. Based on the related assessment, it is shown that the first structure is not able to stand the target displacement of BSE 1 and it becomes unstable in a displacement less than the target displacement as its factors will be studied in detail. One of the other aims of this article was to study the design of the very high important buildings such as hospitals considering the current codes of designing in Iran; means that whether these codes could provide the real needs of the aforementioned buildings as the immediate occupancy during the average earthquakes and life safety level during the severe earthquakes (or not). So, studying these hospitals showed that the codes of seismic design could provide the real performance of these structures in the events such as average earthquakes.

کلمات کلیدی:

Concrete Structures of Hospitals, Seismic Rehabilitation, Performance Based Design, Pushover Analysis, Target Displacement

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