

عنوان مقاله:

Loss Modeling for ۲۰۱۷ Sarpol-e Zahab Earthquake

محل انتشار:

فصلنامه زلزله شناسی و مهندسی زلزله, دوره 20, شماره 4 (سال: 1398)

تعداد صفحات اصل مقاله: 12

نویسندگان:

Parisa Shahbazi - *International Institute of Earthquake Engineering and Seismology (IIEES), Tehran*

Babak Mansouri - *International Institute of Earthquake Engineering and Seismology (IIEES), Tehran*

خلاصه مقاله:

The November ۱۲, ۲۰۱۷ Sarpol-e Zahab earthquake (Mw ۷.۳) occurred at ۱۸:۱۸ GMT (۲۱:۴۸ local time) and affected vastly the western part of Iran especially the Kermanshah province. The death toll was at least ۶۲۰, the total number of injured people just the day after the earthquake was ۵۳۴۶ and around ۷۰۰۰۰ people were left homeless. This study aims to estimate the distribution of physical damages to the building stock using our domestic model and to calculate and validate the associated casualties under Sarpol-e Zahab earthquake event using a global model with some modifications. This region has been chosen because it has suffered major losses due to the recorded high PGA value of ۶۸۴ gal and also due to the fact that some adequate field surveys and documentations were completed for this event. Since accurate building distribution maps are not available or accessible, to develop a spatial building database, a dasymetric mapping technique has been employed by merging a grid world population distribution map and the national census data. OpenQuake platform is utilized to simulate the ground motion field and to assess the physical damages and human loss. The results were compared with the actual observed data and showed relatively a proper match.

کلمات کلیدی:

Sarpol-e Zahab earthquake, Seismic Hazard, Lossmodeling, Physical damage, Human loss, OpenQuake

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1298396>

