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عنوان مقاله:

PEAK GROUND ACCELERATIONPREDICTION FOR CRITICAL AFTERSHOCKS

محل انتشار:

هشتمین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1398)

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نویسندگان:

Elham Rajabi - *Postdoctoral Fellow, School of Civil Engineering, Iran University of Science and Technology, Narmak, Tehran ۱۶۸۴۶, Iran*

Gholamreza Ghodrati Amiri - *Professor, School of Civil Engineering, Iran University of Science and Technology, Narmak, Tehran ۱۶۸۴۶, Iran*

Vida Ghasemi - *Research Assistant, School of Civil Engineering, Iran University of Science and Technology, Tehran, Iran*

خلاصه مقاله:

This paper proposes a methodology using learning abilities of artificial neural networks in order to predict the peak ground acceleration of critical aftershocks based on the features of successive earthquakes. At first, a set of recorded consecutive earthquakes which has been contained critical main shocks and aftershocks is selected based on effective peak acceleration (EPA) from PEER and USGS . In the following, the idealized multilayer artificial neural networks were designed and trained to estimate the peak ground acceleration of critical aftershocks. In this regard, two -layer feed-forward (MLFF) neural networks are used. The results indicate that the networks have learned to generalize the unseen information very well and reflect good precision in the simulation of the peak ground acceleration of critical aftershocks.

کلمات کلیدی:

Critical Aftershock, Artificial Neural Network, Peak Ground Acceleration, As-Recorded Main shocks, Seismic Sequence Phenomena

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