

Site corrected ground motion prediction for EEW system of the NCREE-net in Taiwan

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Occurrence of earthquakes still could not effectively be predicted owing to technology limitation, development of Earthquake Early Warning System (EEWs) will be an efficacious way to reduce possible loss of lives and properties. The accuracy of ground motion prediction now still is not enough in engineering application and it is one of the most unsolved problems for EEWs. Station correction and site correction had been tested in Ilan, Taiwan region and the results showed site correction could significant improve accuracy of PGA prediction. Meanwhile, a broadband seismic network constructed from National Center for Research on Earthquake Engineering (NCREE) will be tested first in this study. Single station correction of source parameters prediction of each site will construct for regional or on-site purpose. Next, two-stages ground motion prediction equation based on abovementioned seismic source parameters will use for progressing site correction of PGA prediction to reach the target of reducing possible errors. Which means if the station correction and site corrected ground motion prediction method for EEWs could apply widely for different region it could help the disaster prevention project and emergency operation plan in the future.