

Meinon Reservoir Project: An improved seismic hazard analysis for Meinon reservoir by site-dependent GMPEs

*CHIH HSUAN SUNG¹, CHYI TYI LEE¹

1. Institute of Applied Geology, National Central University

Lee *et al.* (1999, 2002) corrected relevant geomorphic and geologic data, earthquake catalogs, strong motion accelerograms and GPS network measurements to perform analysis and to evaluate the suitability and the sufficiency of previous design earthquake for the Meinong reservoir. They used the strong-motion data recorded (M_w greater than 4.0, R_{epi} smaller than 300 km, Depth smaller than 40 km) by stations within 50 km of Meinong reservoir to build the first “site-dependent ground-motion prediction model” in Taiwan. The results show that this method reduces the standard deviation of residuals effectively. Finally, they also used this standard deviation of the site-dependent ground-motion prediction model into uniform hazard response spectra of Meinong reservoir.

Keywords: site dependent, prediction model, uniform hazard response spectra, standard deviation