عنوان مقاله:

Evaluation of the Shear Wave Velocity Using GMDH-Type Neural Network

محل انتشار:

چهارمین همایش بین المللی مهندسی ژئوتکنیک و مکانیک خاک ایران (سال: 1389)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

The use of the shear wave velocity is increasing to predict some geotechnical. In many cases the field geophysical and geotechnical investigations are implemented to measure in-situ shear wave velocity. Because these methods are not easy and economic to carry out in all cases, the empirical methods are more interesting. Shear wave velocity is influenced by many factors such as void ratio, state of stress, stress history, and many other soil parameters, and it is difficult if not impossible to simultaneously consider in an empirical model. The interactions between these factors and shear wave velocity are complex. Therefore, it is worthwhile to find a predictive model to correlate the shear wave velocity with main influenced parameters. In present study, a new model has been developed to predict the shear wave velocity using a group method of data handling (GMDH) type neural network. The proposed model shows an appreciable achievement in prediction of shear wave velocity.

کلمات کلیدی:

shear wave velocity, in situ tests, GMDH-type neural network, database