

## UBCSAND Model Calibration for Generic Liquefaction Triggering Curves

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**Abstract :** Numerical simulation is a popular method used to evaluate the effects of soil liquefaction on a structure or the effectiveness of a mitigation plan. Many constitutive models (UBCSAND model, PM4 model, SANISAND model, etc.) were presented to model the liquefaction phenomenon. In general, inputs of a constitutive model need to be calibrated against the soil cyclic resistance before being applied to the numerical simulation model. Then, simulation results can be compared with results from simplified liquefaction potential assessing methods. In this article, inputs of the UBCSAND model, a simple elastic-plastic stress-strain model, are calibrated against several popular generic liquefaction triggering curves of simplified liquefaction potential assessing methods via FLAC program. Calibrated inputs can provide engineers to perform a preliminary evaluation of an existing structure or a new design project.

**Keywords :** calibration, liquefaction, numerical simulation, UBCSAND Model

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