

## The Evaluation of Soil Liquefaction Potential Using Shear Wave Velocity

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**Abstract :** The liquefaction resistance of soils can be evaluated using laboratory tests such as cyclic simple shear, cyclic triaxial, cyclic tensional shear, and field methods such as Standard Penetration Test (SPT), Cone Penetration Test (CPT), and Shear Wave Velocity (Vs). This paper outlines a great correlation between shear wave velocity and standard penetration resistance of granular soils was obtained. Using Seeds standard penetration test (SPT) based soil liquefaction charts, new charts of soil liquefaction evaluation based on shear wave velocity data were developed for various magnitude earthquakes.

**Keywords :** soil, liquefaction, shear wave velocity, standard penetration resistance

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