

عنوان مقاله:

Application of SPT test for assessment of liquefaction potential

محل انتشار:

سومین کنفرانس بین المللی معماری، عمران، شهرسازی، محیط زیست و افق های هنر اسلامی در بیانیه گام دوم انقلاب (سال: 1402)

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خلاصه مقاله:

Standard Penetration Testing (SPT) is a widely used method for soil investigation and characterization, introduced by ASTM in the ۱۹۵۰s. SPT has been used extensively in geotechnical engineering and earthquake engineering, including to evaluate soil liquefaction potential. Liquefaction occurs when saturated soil loses its strength and stiffness due to the buildup of pore water pressure during an earthquake. The relationship between SPT and liquefaction was first proposed by Seed in the ۱۹۷۰s, who developed a relationship between the SPT blow count and the cyclic stress ratio. Since then, SPT has been used to design earthquake-resistant structures, but it has limitations, and it is important to use SPT results in conjunction with other soil investigation methods to obtain a more complete understanding of the soil properties and liquefaction potential.

کلمات کلیدی:

Spt, Liquefaction

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