عنوان مقاله:

Improvement of the Contaminated Sandy Soil with Gasoline

محل انتشار:

سومین کنگره بین المللی عمران , معماری و شهرسازی معاصر (سال: 1398)

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نویسندگان:

M Khaleghi - *PhD student, Department of Civil Engineering, Iran University of Science & Technology*

A Soltani - *PhD student, Department of Civil Engineering, Rudehen Branch, Islamic Azad University*

N Shariatmadari - *Professor, Department of Civil Engineering, Iran University of Science & Technology*

I Amiri - *MSc, Department of Civil Engineering, Iran University of Science & Technology*

خلاصه مقاله:

Oil products can contaminate the soil in different ways. The oil pollutants are harmful contaminants that can lead to irrecoverable detriments to the environment. The petroleum pollutants not only contaminate the environmental but also, change the geotechnical properties of the soils. Therefore, it is important to investigate the geotechnical characteristic of oil-contaminated soils for engineering and environmental purposes that it is dependent on soil and contaminant type. Here, an extensive laboratory testing program was carried out to determine the effects of crude oil contamination on some of the geotechnical properties of sandy soils by Taguchi method. The results show that the compaction and uniaxial strength of the natural sand are declined due to physical and physicochemical interaction with contaminant, respectively. Aim to improve the properties of contaminated sand, the Portland cement is selected and the sand is mixed with grout according to Taguchi plan. The results show which the Portland cements can increase the unconfined strength of contaminated sand.

کلمات کلیدی:

Sandy soil, Gasoline, Contaminated soil, Uniaxial strength, Taguchi