

عنوان مقاله:

Evaluation of the strength characteristics of clayey soils stabilized with rice husk ash and cement

محل انتشار:

چهارمین کنفرانس ملی مهندسی ژئوتکنیک ایران (سال: 1398)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Sadegh Ghavami - School of Civil Engineering, Iran University of Science and Technology, Tehran, Iran

Hadi Nematpour - School of Civil Engineering, Allaodole Semnani Institute of Higher Education, Garmsar, Iran

Mehرداد Rajabi - Department of Civil Engineering, Islamic Azad University, South Tehran Branch, Tehran, Iran

Mohammad Hossein Mobini - Department of Civil Engineering, University of Science and Culture, Tehran, Iran

خلاصه مقاله:

Portland cement is widely used as a chemical admixture in ground improvement projects. However, cement production is facing tremendous challenges such as depleting natural resources, increasing costs of energy supplies, and environmental concerns due to CO₂ emission. Utilization of waste materials and industrial by-products in soil stabilization is a possible method of reducing the required cement quantity. Rice husk ash (RHA) is a highly reactive pozzolan generated from the burning of rice husk as an agriculture by-product of rice milling. This paper demonstrates the effect of using rice husk ash and cement on strength characteristics of clayey soils. In this regard, unconfined compressive strength and California bearing ratio tests were performed on combinations of the constituent materials. The results of study revealed significant improvement in soil strength after stabilization with cement and RHA.

.Addition of 10% rice husk ash is recommended as an optimum amount in soil stabilized with 3% cement

کلمات کلیدی:

Soil Stabilization, Rice Husk Ash, Cement, Strength

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/961508>

