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Abstract Details

Title: Stabilization Soil Using Different Types of Admixtures

Author: Mukesh Kumar

Abstract: Utilization of industrial waste materials in the improvement of problematic soils is a cost efficient and environmental friendly method. It helps in reducing disposal problems caused by the various industrial wastes. However, it is essential to understand the performance of these waste products prior to use. The present paper evaluated the potential of granulated blast furnace slag (GBS) with fly ash to stabilize a soft soil. Soft soil samples were collected from Tatibandh-Atari, rural road of Raipur, Chhattisgarh. This soil was classified as CI-MI as per Indian Standard Classification system (ISCS). Different amounts of GBS, i.e. 3, 6, and 9% with different amount of fly ash i.e 3%, 6%, 9% and 12% were used to stabilize the soft soil. The performance of GBS with fly ash modified soils was evaluated using compaction and california bearing ratio (CBR) test. Based on these performance tests, optimum amount of GBS with fly ash was determined as 3% fly ash + 6% GBS. Reasonable improvement has been observed for unsoaked and soaked CBR value of soils with this optimum amount.

Keywords: Admixture, Flyash, GBS