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### Geotechnical Properties of Black Cotton Soil Stabilized with Fly Ash and Geogrids

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**Abstract :** Geotechnical properties of black cotton soil may need to be improved by stabilization to make such soils suitable for construction of highway pavements. Stabilization of such soils has been traditionally depend on treatment with lime, cement, chemicals and waste materials, etc. fly ash is a waste material obtained from thermal power stations. This paper presents the results of stabilization of local black cotton soil with fly ash and geogrid. Series of laboratory tests have been conducted with varying percentage of these stabilizers, added individually with and without geogrids, to determine their optimum percentages. From the results, it is observed that CBR value, for both soaked and unsoaked conditions, increases substantially by addition of 25% of fly ash with double layer of geogrids. The pavement designed with these improved values of CBR indicated a marked reduction in its thickness leading to economy in the construction of road pavements on or using clayey soils.

**Keywords :** Fly ash, Geogrid, Black Cotton soil, Stabilization, CBR.

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