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Evaluation of Soil Properties on Clay Soil by using Mineral Admixtures and Human Ash

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Abstract : The clay soil is a problematic soil which cannot be directly used for the construction of structures because it has high swelling and high shrinkage. Various techniques are available to stabilize the soil to make better foundation for structures. Soil stabilization is the process of improving the engineering properties of the soil and thus making it more stable. This project deals with stabilization of clay soil by using mineral admixtures like lime with constant proportion of 1%, 3%, 5%, 7% & 9% and metakaolin with constant proportion of 2%, 4%, 6%, 8% & 10% and Waste material like human ash is added separately in various proportions like 0.5%, 1%, 1.5%, 2% & 2.5% to the soil with mineral admixtures. After the conclusion made from the laboratory test the optimum performance obtained is in **4% lime with 1.5% human ash** and **5% metakaolin with 1% of human ash**. Lime and Human ash combination can increase the maximum dry density(MDD) and Unconfined compressive(UCC) strength value of the soil.

Key Words : Clay soil, Mineral admixtures, Human ash, MDD and UCC value.

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