**LABORATORY STUDY ON SOIL STABILIZATION USING FLY ASH MIXTURES**

**ABSTRACT**

The degree and level of soil engineering problems run high and become multifold in case of expansive soils which exhibit the typical character of swelling and shrinkage. The wide spread of the black cotton soil in Chitradurga region has posed challenges and problems to the construction activities. A task was therefore undertaken to investigate and improve the engineering properties of the black cotton soils of Chitradurga so that, a better understanding is facilitated for the civil engineering practitioners, while dealing with these soils. The Bellary Thermal Power Station (BTPS) at Kudutini (Bellary Dist, Karnataka), located at about 150 km. from Chitradurga generates huge quantity of fly ash and the fly ash management is posing serious problem. Considering the proximity and availability aspects, the fly ash was chosen to be used for the task, as a stabilizer of black cotton soil. The paper investigates the effect of Bellary fly ash treatment to the black cotton soils of Chitradurga on their index, compaction and strength properties in an effort to improve their behavior