**SOIL STABILIZATION USING PLASTIC WASTE**

**ABSTRACT**

Soil is the key element of this nature and all the basic needs of life such as food, house and cloths are fulfilled by the soil. Black Cotton soils with high potential for swelling and shrinking as a result of change in moisture content are one of the major soil deposits of India. Soil stabilization is the process which improves the physical properties of soil, such as shear strength, bearing capacity which can be done by use of controlled compaction or addition of suitable admixtures like cement, lime, sand, fly ash or by providing geo textiles, geo synthetics etc. The new technique of soil stabilization can be effectively used to meet the challenges of society, to reduce the quantities of waste, producing useful material from non-useful waste materials. Since the use of plastic in diversified forms such as chairs, bottles, polythene bags, etc., has been advancing speedily and its disposal has been a problem all the time regarding the environmental concern, using plastic as soil stabilizer would reduce the problem of disposing the plastic as well as increases the density and California Bearing Ratio (CBR) of soil in an economical way.

Different contents of plastic strips (% by weight varying from 0% to 8%) are added to the Black Cotton Soil and the optimum percentage of plastic strips in soil was found out by conducting California Bearing Ratio Test.

### **Keywords:** Black Cotton Soil, California Bearing Ratio, Plastic, Soil And Stabilization.