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Study of Selected Soil Stabilization Material and the Cost Impact

Vijaykumar¹, V.Shivakrishna², S.Tejasri³, V.Prashanth⁴, K.Saipranathi⁵

¹Assistant professor, Department of Civil Engineering
St. Martin’s Engineering College, Hyderabad, Telangana, India.

⁴Email: nasarivijay1991@gmail.com

^{2,3,4,5} Students, Department of Civil Engineering
St. Martin’s Engineering College, Hyderabad, Telangana, India.

ABSTRACT:

The study is centred on the available techniques and procedures of soil stabilization and to keep geotechnical engineers abreast of the cheaper technologies with respect to soil stabilization and a need to do what is best in this field through a review of the most important techniques and additives for the soil. The economic factor represented by the costs aspects is a very important factor in major projects like highway projects. The article reviews the most important soil stabilization methods and the cheapest to select them as cheap and effective materials to increase load resistance at the same time. The study included three types of additives by reviewing the theoretical aspects, the fourth is field study concerned of the highway project by adding the cement residues conducting the laboratory test of the samples taken from the site. The soil was classified according to (AASHTO). The study proved that the addition of cement residues to clayey soil (base layer) improves its stabilization to limited limits. From the economical side of the material used will reduce the cost of soil stabilization by 45 % compared to classical materials.

Keywords: soil, soil stabilization, highways, insitu, clayey soil, cost

