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Stabilization of Clay Soil using Egg Shell Powder and Quarry Dust

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Abstract : Soil is one of the most important materials used in a variety of construction project including earth work and earth dam. The clay soil reveals high strength in dry condition, but exhibit low strength in wet condition. Thus variation in the characteristic behavior of the clay soil result major problem in the engineering properties during construction. So many different approaches are made in order to improve the soil characteristics stratum. Quarry dust exhibit high shear strength for the benefit of Geotechnical material. Egg Shell powder composition is similar to that of lime so it increases the soil stabilization. In this project sample of clay in Neelambur (Coimbatore) made the basic test for that soil sample. After analyzing the properties from the sample, Quarry dust has been replaced in proportion of 10%,20%,30%,and 40% and Egg Shell Powder has been added in proportion of 20% (constant). The laboratory tests are conducted in Geotechnical properties. By adding Egg Shell Powder and Quarry dust the behavior of the Engineering property is improved. From the investigation of this project is the combination of Quarry dust and Egg Shell Powder is more effective than the addition of Quarry dust or Egg Shell Powder alone for the improvement of the properties of clay soil. **Keywords :** Clay Soil, Egg Shell Powder, Quarry dust, Stabilization.

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