Abstract

Emerging trend of using waste material in soil stabilizing or soil strengthening is being working out all over the world in present days. The main reason behind this trend is the excessive production of waste like fly ash, plastics, rice husk ash (RHA) which is not only hazards but also creating deposition problems. Using some of these waste materials in construction practice will reduce the problem in a great extent. However before using these materials in practice, systematic analysis of the experimental result is a must so that it should not create a new problem. With this objective, in the present paper describes some results with probable analytical discussion of starting of a new research programme. RHA has been used with a small
amount of lime of different quantity to stabilize a highly plastic soil. The percentage by weight of
virgin soil has been partially replaced by RHA and lime to improve its strength property as CBR
value. Series of laboratory tests like soaked and un-soaked CBR; compaction has been
performed to evaluate the effects of the foreign materials on virgin soil. Result showed that only
use of RHA decreases the strength whereas in addition of RHA with soil, a very little amount of
lime improves the soil property to a great extent. Subsequently, result shows that for the mix,
the optimum moisture content (OMC) increases and the maximum dry density (MDD)
decreases.

References

  J.T. 11(4): 246-250
  International Journal of Research and Reviews in Applied Sciences, December, Volume 1,
  Issue 3, pp. – 209 – 217
- Eskioglou, P. and Oikonomou, N. (2008), "Protection of Environment by the Use of
  Fly Ash in Road Construction"; Global NEST Journal, Vol. 10, No 1, pp 108-113
- McEntire, J. (2004), "Recycled Materials: Substitutes for Mining Products Used in
  Road Construction"; for the Rural Conservation Alliance, Cerrillos
  Alluvial Soil Strengthened With Pond and Rice Husk Ash for Construction of Road
  Subgrade"; The 12th International Conference of International Association for Computer
  Methods and Advances in Geomechanics (IACMAG), October, Goa, India
  of Rice husk ash stabilized expansive soil."; International Journal of Civil and Structural
  Engineering, Volume 1, No 4, pp. – 939 – 948
- Yulianto, F. E., Mochtar, N. E. (2010). "Mixing of rice husk ash (RHA) and lime for
  peat soil stabilization"; Proceedings of the First Makassar International Conference on
  Civil Engineering, March

Index Terms

Computer Science	Emerging Trends in Technology

Keywords

Rice Husk Ash  Lime  Cbr  Omc  Mdd  Soil Stabilizing