

RESEARCH CENTRE FOR TRANSPORTATION ORIENTED GEOTECHNICAL ENGINEERING



Dr. RAMAKRISHNA HEGDE

In the Economic development of any country, Transportation Engineering plays a major role. Development of transportation system should be given the top priority. Road transportation is a very important mode of transportation amongst three modes of transportation. There is a lot of scope for research in this area to attain the economy in road transportation system. Development of Land transportation either road or railway is directly linked to the geotechnical aspect of the land along which the alignment is going to pass. Laying the pavement of a road-way or setting up of a high-speed railway track mainly depends upon the condition of the sub grade below it. Knowledge on techniques for improving of the soil properties such as strength and stability used for construction of pavement is very much essential. Performance of Pavement mainly depends upon the soil on which it rests. Thus, study on the characteristics of soil should be made before it is used as sub-soil for the pavement. Unless we have a good subgrade with good bearing capacity either naturally or artificially, we cannot have the road or railway to offer services in the long run. Most of the times, locally available soil which is poor in strength may not meet the required design criteria to use it as subgrade. Hence, stabilisation of soil plays an important role to increase the stability and to reduce the construction cost by making the best use of locally available materials. Proper compaction has a great role in the increase of stability which effects soil properties, such as strength, strain characteristics, permeability, compression, swelling and water absorption. Hence, there is lot of scope in the area of ground improvement in Road and Railway system. In the Srinivas University “Transportation oriented Geotechnical research centre”, there is a lot of scope to carry out research in the field of alternative materials, waste materials, new resinous material, innovative pavement material, rigid pavement etc.

Members:

Prof. Shrinath Rao K

Mr. Bhavani Shankar

Journal Publication:

1. George, Varghese, Santosh G., Hegde, Ramakrishna, Prashanth, Durga, L.A., Gotamey, Dwarika, Ravishankar, A.U. (2012) A Model Study on Accelerated Consolidation of Coir Reinforced Laterite and Blended Shedi Soil with Vertical Sand Drains for Pavement Foundations, Int. Journal of Earth Sciences and Engineering, ISSN 0974-5904, Vol. 05, No. 01, pp. 141-148

2. Hegde, Ramakrishna, George, Varghese, Gotamey, Dwarika, and Ravishankar, A.U. (2011) Effect of Coir Reinforcement and Vertical Drains on the Settlement Properties of Laterite Soil, NITK Research Bulletin, Vol. 20, No. 2, pp. 30-41.
3. Hegde, Ramakrishna, George, Varghese, Gotamey, Dwarika, and Ravishankar, A.U. (2011) "Settlement Studies in Partially Compacted Lateritic Soil with and without Coir Reinforcements and Vertical Drains", Proc. National Conference on Recent Development in Civil Engineering - 2011 (RDCE-2011), 13-14 January, Manipal Institute of Technology, Manipal, Karnataka (Abstract Published) pp.13.
4. Hegde, Ramakrishna, George, Varghese, Kumar, Nirmal A.G., Prashanth, Durga, L.A., and Santosh G. (2012) Model Study on Accelerated Consolidation of Coir Reinforced Lateritic Lithomarge Soil Blends with Vertical Sand Drains for Pavement Foundations). Open Journal of Soil Science, 2012, 2, 320-332 doi:10.4236/ojss.2012.23038. Online September 2012, (<http://www.SciRP.org/journal/ojss>)
5. George, Varghese, Hegde, Ramakrishna, Vishnuvardhana, M., Santosh G., Gotamey, Dwarika (2012) "Accelerated Consolidation of Coir Reinforced Lithomargic Laterite Soil Blends with Vertical Sand Drains for Pavements." Electronic Journal of Geotechnical Engineering, Paper #12.177, Vol. 17, Bund. O, July, pp. 2115-2133. Available at <http://www.ejge.com/2012/Abs12.177.htm>; <http://www.ejge.com/2012/Ppr12.177alr.pdf>.
6. Prathibha S. Shetty, Swathi T. Shetty, Ramakrishna Hegade, C.M. Ravi Kumar, K.S. Babu Narayan and D. Venkat Reddy, "Fragility Estimates of RC Building Using Etabs", *Global Journal of Earth Science and Engineering*, 2014, 1, 49-56
7. Dr. Ramakrishna Hegde, "A study on strength characteristic of concrete by replacing coarse aggregate by demolished column waste", *International Journal of Engineering Research and technology*, vol 7 issue 6 June 2018.
8. Nagaraja A, Shilpa S, Ramakrishna Hegde," Study on Compressed Stabilised Earth Blocks by Using Master Cast and Master Emaco Chemicals", *International Research Journal of Engineering and Technology* Volume: 05 Issue: 06, JUNE 2018.
9. Nagaraja A, Shilpa S, Ramakrishna Hegde," Study on Compressed Stabilised earth blocks by using Chemical Admixture", *International Research Journal of Engineering and Technology (IRJET)* Volume: 05 Issue: 06, June 2018.
10. Nagaraja A, Ramakrishna Hegde, Narayana Hebbar, Shrinath Rao K, "An Experimental approach for the investigation of Fresh water at Srinivas University Campus, Mukka, Mangaluru, Karnataka, India, "International Research Journal of Engineering and Technology (IRJET), Volume: 05 Issue: 07, July 2018.
11. Dr. Ramakrishna Hegde, "comparative study on seismic analysis by considering shear wall and optimization techniques for varying floor levels", *International Research Journal of Engineering and technology*, vol 5 issue 7 July 2018.