



SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

A Report on

SITE VISIT

Under the program of

Indian Geotechnical Society – Saintgits Student Chapter

Date: 18th June, 2022.

Location of Site: Ramankary, Alappuzha Dist.



ACKNOWLEDGEMENT

This site visit would not have been possible without the kind support of many people. We take this opportunity to acknowledge the Principal Dr. Josephkunj Paul C (Saintgits College of Engineering, Autonomous), Dr. Reebu Zachariah Koshy (HOD, Department of Civil Engineering) for giving us permission to visit the site. We also thank the faculty members who guided us throughout the site visit.

INTRODUCTION

The aim of the site visit was to make the students aware of the practical and field aspects of laying Geotextiles.

The site at Ramankary, Alappuzha District was taken as the site for visit since it had ongoing works for the laying of coir Geotextiles as part of the Rebuild Kerala Initiative. Krishna Kumar, Assistant Engineer, Rebuild Kerala Initiative was there as the industry expert to explain about the project

A total of 28 students and 3 faculty members visited the site.

DETAILS OF STUDY AT SITE:

During the site visit we learned about the importance of Geotextile in road construction and the stage wise construction procedure.

Geotextiles can be of natural geotextiles and artificial geotextiles. Among natural geotextiles – classified as Jute geotextiles and Coir Geotextiles. Because of easier availability, higher strength and life of coir, it is used most.

In road construction – coir geotextiles can be provided anywhere in the structure of pavement but generally it is preferred to provide above the subgrade, where it act as a reinforcement material, it will also act as a drainage material and thus enhance the life of the pavement. Coir geotextile remains a physical separation layer between the aggregates and subgrade soil to prevent migration of fines and thus preserve the structural thickness of aggregates by maintaining it clean. Ramankary, in Alappuzha district is a place where differential settlement occurs. Laying of geotextiles will make the settlement more uniform.

From the site, we observed that the subgrade is prepared to required compaction, then the layers of geotextile is laid followed by another. The rolls are then fixed to the sugrade using anchors at slopes inorder to avoid chances of movement. Each layer is then tied at a spacing of 1m. After geotextiles are laid, sub base layer is prepared using quarry waste and is compacted followed by final layers.

Following are few glimpses of the site visit:



Coir Geotextiles



Tying overlaps



Explanation by Faculty members



Preparation of Sub base

CONCLUSION:

By visiting the site, we got to know about the practical application of geotextiles in road construction, procedures for laying of coir geotextiles and its advantages.