

Thesis Title	Study of Mechanical Properties of Soil Cement mixed with Rubber Latex
Thesis Credits	3 Credits
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Abstract

This study focuses on increasing engineering properties of laterite soil using portland cement type 1 and rubber latex. Laterite soil specimens improved cement, and water which consist of 3 ratios (i) 6 : 1 : 0.7 (ii) 5.5 : 1.5 : 0.7 and (iii) 5 : 2 : 0.7. Rubber latex was mixed with water in different proportions of 5%, 7.5%, 10% and 12.5% to prepare the solutions which was further added to cement mortar. The strength test was done at 3, 7 and 28 days for dry cured. Absorption and of soil cement with rubber latex were also tested. The results of the study show that 5% rubber latex solution with water mixed with soil-cement in the proportion of 5 : 2 : 0.7 gives the best performance. Average strengths on 28th day were 150 ksc of compressive strength, 6 ksc of flexural strength and 21 ksc of tensile strength. Average water absorption was 6%. Thus, improvement of soil-cement with 5% of rubber latex solution of water gives the highest values.