STABILISATION OF SOFT SOIL USING LIME AND SHREDDED PLASTIC FIBRES

Project Report

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In partial fulfilment of the award of the Degree of

BACHELOR OF TECHNOLOGY
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Under the guidance of

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DECLARATION

We hereby declare that this submission is our own work and that to the best of our knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institutes of higher learning, except where due acknowledgement has been made in the text.

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CERTIFICATE

This is to certify that this report entitled **Stabilisation of Soft Soil Using Lime and Shredded Plastic Fibres** is a bona fide work done by

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under my supervision and guidance. This report is submitted to the National Institute of Technology Calicut in partial fulfilment of the requirement of the award of the degree of ***Bachelor of Technology in Civil Engineering*** during the year 2018-19.

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ABSTRACT

The tremendous pace of infrastructural developments is throwing up many geotechnical challenges to the Civil Engineers. Some problematic ground conditions include soft clay deposits, peat soils, recent fills, marine clays etc. Construction of structures on such soils is a challenging task because of low bearing capacity, high compressibility, tendency for lateral flow, etc. These grounds need treatment for the improvement in their engineering behaviour before the structure is built. This has led to extensive studies for environmentally sustainable and economically viable solutions. In this context, the large amount of plastic wastes in our environment may be utilized as a reinforcing material in combination with some pozzolanic materials to improve soil properties.

In our study, we focus on improving the engineering properties of soft soil by reinforcing it with shredded plastic fibres prepared from discarded plastic wastes in combination with lime.