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SOIL STABILIZATION USING WASTE FIBRE MATERIALS

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ABSTRACT

The main objective of this study is to investigate the use of waste fibre materials in geotechnical applications and to evaluate the effects of waste polypropylene fibres on shear strength of unsaturated soil by carrying out direct shear tests and unconfined compression tests on two different soil samples.The results obtained are compared for the two samples and inferences are drawn towards the usability and effectiveness of fibre reinforcement as a replacement for deep foundation or raft foundation,as a cost effective approach.

Structures that are constructed on the expansive soil may have occurred several damages due to its hill swell-shrinkage behaviour. So,these type of soil ned to be stabilized in order to increase the shear strength of the soil,durabilty of the soil as well as to prevent from the erosion. Various case studies have been carried out for these types of soil to increase the soil properties .In this case study raw fibre known as polypropylene fibre have been used to increase the soil properties and interlocking of the soil and has become the one of the major practices used in construction work.

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