Review of: "Enhancing Soil Stabilization in Soft Soils Through The Addition of Sand to Soil-Cement Piles: a Comprehensive Study"

MUTHU LAKSHMI Muthu Lakshmi[1]

1 Rajalakshmi Engineering College (REC)

Potential competing interests: No potential competing interests to declare.

Abstract

- It is mentioned that a soil-cement mixture, or just a cement mixture, is used to reinforce the soil, which is not correct. Reinforcements used for soil are generally natural fibres, synthetic fibres, geosynthetics, steel fibres, etc., which are good in tension. Remove the statement related to soil reinforcement.

Introduction

- Is there a cement of grade 425 available? Please clarify.
- Generally, cohesion is taken as half of the unconfined compressive strength in UCC tests. Then please clarify how cohesion is 0.2 - 0.3 times the unconfined compressive strength.
- Using which soil test did you get the internal friction angle value?
- Please clarify the below statements mentioned in the Introduction. How did you arrive at the relations given below?

The tensile strength is in the range of 0.15-0.25 times the unconfined compressive strength. The cohesion is (0.2 - 0.3) times the unconfined compressive strength, and the internal friction angle is between 20^o and 30^o. The deformation modulus E50 is in the range of 120-150 times the unconfined compressive strength.

- Table 1 - Mention the reference from where you got this data.
- Table 2 - What is "No additives" (column 2) and "No Sand" (column 3)? Table 2 is not clear in understanding.
- Table 3 - What is "No additives, no sand" (column 3)? Same issue in Tables 4 and 5. Tables 3, 4, and 5 are not clear in understanding.
- No citations of references mentioned in the body of the text.
- Remove "overall conclusion" under Conclusion.
- Only 16 references are referred to for this experimental work. More number of quality references to be referred to and cited.