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

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Potential competing interests: No potential competing interests to declare.

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

1- Introduce some mixtures to soils, it's good, but what was the soil like before such treatment? What kinds of parameters must be better? Explain this point of the job.

2- What are the definitions of ECO-CSB or ECO-CSSB? Are they added to the soil? What parameters have been considered?

3- The object of this study is to stabilize the weak soil?

4- I suggest that it is a good idea to write some words about the definitions of weak soil.

5- It is necessary to define the meaning of grade 425 or slag cement. For those who don't know the subject, please provide some explanations about this nomenclature, because people need to know what the relation is to grade 325; you must localize the reader.

6- The unconfined compressive strength typically ranges from 500 to 4000 kPa... Could you explain what the meaning or differences between these two dimensions are? What are the considerations more important if the CS is 500 or 4000?

7- The characterization of treatment options must be specified, but I think at the end of the paper. Besides, each specification needs to be explained because not everybody knows such terms.

8- Please define ECO and CSSB...

9- The authors mentioned electrochemical processes, could you explain such methods in the article? I didn't understand what kind of electrochemical process happened..? I saw some dissolution of salts, but not eletrochemical process. Please explain better this point.

10- The article must be separated into introduction, art state, EXPERIMENTAL PART. Especially this experimental part is absent because it was put in the work but in an aleatorius place... the article must be reorganized.

11- In the parts of the results, it is good to reorganize and explain better. I have difficulties to understand the results, but I

tried to interpretate the results. Then they must be revised. We need more explanations about the results, they are not well presented.

12- The tables have to be discussed. Table (to 18 days of assays) two showed no increment in the weight at 250 kg of cement, the measure at 200 kg/m3 showed a negative measure. This is showed in table 2. The other measures showed increasing values... Could you explain why?

13- But at 28 days of assays, the reduction of values occurred at 100 kg/m3. Some explanations for this?

14- The methodology of this job has to be revised.

15- If the participation of the dissolution of NaCl is important, this subject needs to be more explained. In the dissolution of NaCl, there is not an electrochemical aspect because the transfer of electrons don't happen.

16- If there is some electrochemical process that ECO-CSSB prevents, please explain this situation better. Please put the chemical action of ECO-CSSB.

17- The experimental part needs to be better localized within the job.

18- The authors must be able to explain all the tables; the tables need more explanations.

19- All the tables need to be more explained. For example, in table 4, there are no data at 300 l/m3 - why?

20- In table 5 – 28 days old, there is no diminution of any value at 100, 200, or 300 l/m3. Why in other results was there value diminution?

21- I suggest to improve the text structure, especially because the experimental part is diminishing.

22- References need to be updated because out of 16 references, 8 are references with 20 years....and only one of them is from 2019, and the references 6, 10, and 13 have no date.