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.

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Introduction

The introduction should provide a comprehensive overview of the relevant scientific and technical literature, with a particular focus on recent developments. In a typical scientific paper, the majority of cited sources are usually original research papers from peer-reviewed scientific journals, including review papers. However, the body text of the current paper and its literature list lack references to research papers from such journals.

The introduction should justify the necessity of this study, articulating clear, testable hypotheses, and describing the knowledge gap from earlier studies. Authors should emphasize the relevance, uniqueness, scientific novelty, and technological and environmental significance of this study compared to previous similar studies. The research problems addressed in this study should be clearly formulated in the context of bridging knowledge gaps from previous studies. While the current introduction covers most of these topics, further improvements are still advised.

Method of soil stabilization using inorganic binders

In addition to considering stabilizing agents, their selection may also depend on the pollution status of the soil. Soil stabilization may serve various purposes, including the immobilization of pollutants in the soil to prevent their spread into groundwater, surface waters, adjacent uncontaminated areas, and vegetation.

The chapters "Stabilizing Soil with Inorganic Binders: A Research Focus on ECO CSSB" and "Stabilizing Soil with Inorganic Binders: A Research Focus on ECO CSSB" would benefit from the inclusion of equations that describe the key physicochemical mechanisms involved in soil stabilization.

The paper would also benefit from including a "Materials and Methods" section, which is essential for providing detailed information about the materials used and describing all the analytical, testing, and data analysis methods in a manner that allows for the reproducibility of the entire experimental study with the subsequent data analysis.

It's important to address the lack of graphical representation of the results and statistical analysis in the current paper. Including visual representations of the data through graphs or charts can help readers better understand the findings. Additionally, a thorough statistical analysis can provide quantitative insights and strengthen the validity of the results.

Moreover, expanding the discussion section to include a more in-depth analysis of the effects of salt in soil on the processes related to soil stabilization would be beneficial. Comparing the findings to relevant scientific papers can provide additional context and enhance the overall understanding of the research.

The practical implications of this study on various aspects of soil stabilization technology should be discussed in more detail.

Conclusions

The conclusions should include a brief summary of whether the working hypothesis was confirmed or not.