

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

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The publication concerns the issue of soil improvement with cement, a popular method of strengthening the subsoil. It is worth noting the difference between soil stabilization (top layers) and the deep strengthening methods mentioned in the introduction (piles, etc.). It should be clearly stated that the considerations concern deep reinforcement. Compressive strength values also occur outside the declared range (500-4000 kPa), many factors influence the obtained values, it is important what the soil-cement layer is to be used for. Similarly, deformation moduli depend on the substrate present under the cement-bound layers. In addition to determining the natural humidity of the soil, it is important to determine the optimal humidity for which the maximum density of the soil skeleton is obtained. Determining the optimal humidity is necessary because soil that is too dry or too wet will not achieve the designed strength and load-bearing parameters. It is important to test the grain size of the added sand. To what extent does the proportion of sand change the parameters of the mixture (university of grain size, water permeability, number of grains >2 mm constituting the load-bearing capacity of the soil skeleton).

The article should be supplemented with:

- testing the grain size of soil materials and changing the grain size of individual mixtures,
- assessment of the compressive strength of the binder (cement / additive) because the cement strength class itself is important in the final compressive strength of the cement-soil composite
- charts of the obtained values, which are more clear and useful in interpretation than tabular summaries- statistical analysis of the obtained results.