Relationships Between SPT-N Value and Undrained Shear Strength of Fine-Grained Soils in Turkey\textsuperscript{†}

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**ABSTRACT**

In engineering applications, information obtained during soil explorations may be limited due to the difficulties encountered in sampling, testing and the costs involved. So, it is useful to determine properties of soils by using a small number of soil parameters that can be obtained easily. In this study the correlations between the SPT-N value and undrained shear strength ($c_u$) are examined and developed for types of fine-grained soils based on Standard Penetration Test (SPT) corrections and test type considered statistically, and comparisons are made with previous studies. It is observed that while the correlations proposed by Terzaghi and Peck (1967), commonly used in practice, and Stroud (1974) are compatible with those proposed by the current study, those proposed by the others have given quite high results.

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A Neural Network Approach for Endochronic Theory\textsuperscript{†}

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**ABSTRACT**

The endochronic model is based on the modeling of material structure according to inner time. The criticized side of the model is that model parameters cannot be adopted to other materials. Material parameters are found by iteration, experience or trial and error. The model by Ansal (1977) is taken and combined with the neural networks, in order to investigate the applicability of this prediction tool.

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