

Experimental Investigation of Soil Corrosion and Electrical Resistance in Depth by Geoelectrical Method

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Abstract : Determining soil engineering properties is essential for geotechnical problems. In addition to high cost, invasive soil survey methods can be time-consuming, so geophysical methods can be an excellent choice to determine soil characteristics. In this study, geoelectric investigation using the Wenner arrangement method has been used to determine the amount of soil corrosion in soil layers in a project site as a case study. This study aims to assess the degree of corrosion of soil layers to a depth of 5 meters and find the variation of soil electrical resistance versus depth. For this purpose, the desired points in the study area were marked and specified, and all withdrawals were made within the specified points. The collected data have been processed by standard and accepted methods, and the results have been presented in the form of calculation tables and curves of electrical resistivity with depth.

Keywords : Wenner array, geoelectric, soil corrosion, electrical soil resistance

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