



APPLICATIN OF SHALLOW SEISMIC REFRACTION AND DC RESISTIVITY MAGING METHODS ARROUND EL GIZA- PYRAMID AREA,EGYPT.

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The Giza necropolis plateau and its valuable pyramid, the one of the seven world miracles, are considered as the most characteristic examples of the ancient Egyptian civilization. They are attractive for tourists and for different scientific and archeological project. Therefore, it is interesting to carry out geophysical survey including seismic refraction and multi-electrode direct current resistively imaging methods for mapping different rock units of the pyramids area and studying any groundwater infiltration that might have a negative impact on the archeological remains.

The results have indicated the presence of a geoseismic layer of high velocity corresponding to the dolomitized limestone that constitutes the main lithologic unit of the pyramid plateau. It is overlain at some localities by moderate and/or low velocity layers. The low velocity one is interpreted as the surface layer consisting of friable sand and fragments of limestone. The moderate velocity layer is referred to the fractured-marly limestone that might be affected by the percolation of the groundwater from rainfall and drainage systems giving relatively low resistivities as inferred from 2D resistivity imaging results. The archeological remains such as caves, mysterious, tombs, and / or secret rooms may be present as indicated by localized anomalous sensitivities.