

## **ABSTRACT**

This project paper explores the phenomenon of excavations, the various methods of deep excavations and slope stability analysis of the resulting cut slopes. The methods of slope stability analysis have been discussed and the most suitable one chosen for analysis and the determination of factors of safety against failure. The routine procedure includes comparing a number of admissible surfaces selected according to the site profile, and then modeling the site conditions using the GeoStudio software, which offers a mathematically reliable search for the factors of safety of the associated critical slip surfaces. The factors of safety generated were compared with the minimum empirically agreed slope factors of safety, and the best cut configuration for the excavation was suggested.