## Introduction

The Geotechnical Lab was established in 1990. The Geotechnical Lab is one of the largest laboratories in the Faculty of Engineering - Tanta University.

Soil mechanics and foundations are important and effective laboratories in the educational process, research and community service within the Department of Structural Engineering. Therefore, the laboratory contains the most modern devices used in the field of exploration and determination of
 mechanical properties of the soil and conduct field tests of all kinds. The laboratory is used in training students to conduct laboratory and field tests that determine the engineering characteristics of the soil, which qualifies them to the labor market in this area.

The laboratory also serves both graduate students in conducting the necessary tests for master's and doctoral dissertations as well as faculty research which helped in the publication of many international researches. The
 Soil Mechanics and Foundations Laboratory plays an active role in serving the community in terms of preparing soil reports, conducting field tests and preparing technical reports for engineering projects inside and outside Gharbia Governorate. The factory is contracted with many government agencies, including the Educational Buildings Authority and the Directorate of Housing in Gharbia to play an active role in advancing urban development within the Arab Republic of Egypt. The importance of this lab stems from the importance of the results you provide,
 which is the main entrance to design the rules and foundations for different installations and design of supporting structures for soil, tunnels and other underground constructions.

