

# GEOMELETI



GEOTECHNICAL ENGINEERS & GEOLOGISTS

FIELD AND LABORATORY EQUIPMENT





**GEOMELETI is a Consulting Engineering Company**, managed and operated by experienced engineers / geologists committed to the art and science of Geotechnical / Infrastructure engineering, always aiming in giving high quality, simple and cost-effective solutions to the projects undertaken.

GEOMELETI, is staffed with experienced Engineers and Engineering Geologists and managed by P. Laskaratos and T. Katsoularis, having extensive experience respectively, among others, in all aspects of Geotechnical / Infrastructure Engineering (Renewable Energy Projects, Railway Projects, Hydraulic works, Road and Bridge design, Buildings / Foundation design, Tunnels, Slope design etc).

The Company has available modern equipment including drilling-rigs, in situ and laboratory testing devices for the Geotechnical Investigations and with the use of specialized software, can give reliable, fast and economical design solutions to all Geotechnical Problems.

### **SITE INVESTIGATIONS EQUIPMENT**

GEOMELETI having available all necessary Drilling equipment for the execution of sampling boreholes and in situ tests, consisting of eight Drilling Rigs, fully equipped with the appropriate samplers, casing of various types and diameters, etc, as well as the appropriate Equipment for In Situ Tests execution (Cone penetrometer testing, plate loading tests, in situ soil density measurements, etc), has the ability of performing a wide range of field Geotechnical and Geophysical Investigations, such as:

- Sampling Boreholes: On-shore / off-shore
- Trial Pits
- Special Sampling
- In situ permeability Testing
- Standard Penetration Tests (S.P.T.)
- Plate Loading Testing
- Wagon Drillings
- Cone Penetrometer Testing
- Pressuremeter Testing
- Trial Embankments
- Borrow Areas Investigations
- Geophysical Investigations

### **LABORATORY EQUIPMENT**

In collaboration with specialized Laboratory, certified by Greek State Laboratory YPEHODE (KEDE – YPEHODE) and accredited by ESYD, our company has the capability of performing the whole range of Laboratory testing in Soil Mechanics, Rock Mechanics, Concrete, Material Quality Control, Water, Soil and Rock Chemical Analyses, such as:

#### **Laboratory Testing in Soil**

- Sieve Analysis.
- Natural Moisture, Specific Gravity, Unit Weight.
- Atterberg Tests.
- Proctor and C.B.R Tests.
- Unconfined Compression Strength (UCS).

#### **Laboratory Testing in Rock**

- Uniaxial Compression Test.
- Point Load Test
- Brazilian Test.
- Schmidt Hammer Test



- Compressive Strength (oedometer test).
- Permeability (constant and variable head).
- Shear Strength Tests (UU,CD)
- Triaxial Compression Tests (CUPP, UU, CD).

#### Mineralogical and Chemical Analysis Tests

- |  |                                  |                             |
|--|----------------------------------|-----------------------------|
| • PH (water).                                  | • Cl- (water and soil).          | • CaCO <sub>3</sub> (soil). |
| • CO <sub>2</sub> (water).                     | • Conductivity (water and soil). | • Organics (soil).          |
| • NH <sub>4</sub> (water).                     | • Acidity, Alkalinity (water).   | • Concrete Testing          |
| • Mg <sup>++</sup> , Ca <sup>++</sup> (water). | • Acidity Degree (soil).         | • Concrete Composition.     |
| • SO <sub>4</sub> (water and soil).            |                                  |                             |

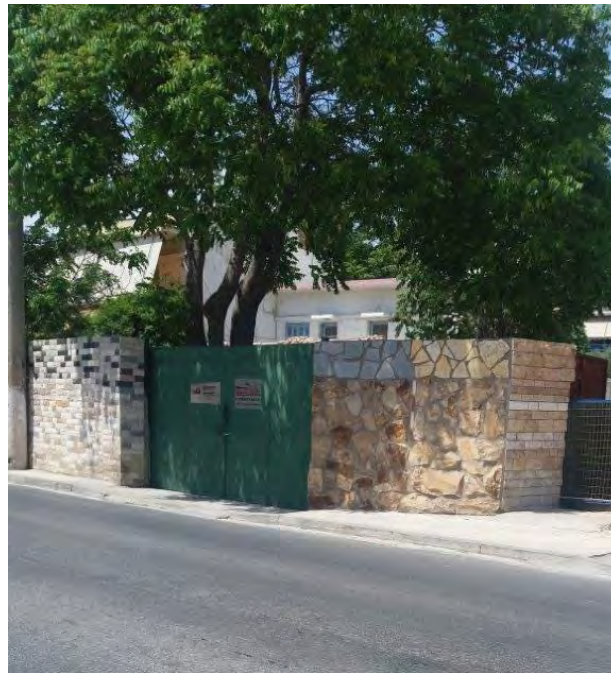
#### In Situ Sampling, Maintenance and Determination of Strength of Concrete Samples.

- Schmidt Hammer Tests, Ultrasound Tests, Pull-Starch Tests
- Determination of Aggregate Soundness.
- Los Angeles Test
- Sand Equivalent of Soils and Fine Aggregate

## FIELD EQUIPMENT







## Secondary Field Equipment Workshop in Attica Region



**Main Field Equipment Work-shop in Arta (North-West Greece) Region**





## Drilling Rigs



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**Drilling Rigs**



**CPTU, DPH**



**Mobile CPTU, DPH Unit**





**Light Dynamic Cone Penetrometer (DCP) equipment**



**Pressuremeter Test equipment**





**Static PLT equipment**



**Static PLT equipment**



**Dynamic PLT equipment**



**Dynamic PLT equipment**



**Drone DJI Phantom 4 (Advanced)**





**Resistivity Equipment**



**Terrameter SAS4000**



**Electrical Resistivity (ERT) Equipment**



**Rough Terrain Antenna GPR Equipment**







### Inclinometer Datalogger and Probe Equipment



## LABORATORY EQUIPMENT PHOTOS







**Sieve Analysis**



**Hydrometer**



**Atterberg Limits**



**Unconfined Compression**



**Consolidation Tests**





**Triaxial Testing**



**Shear Test**



**Uniaxial Compression Tests**



**Point Load Tests**





**xUltra-Sonic**



**Schmitt Hammer**



**Core Sampling**



## Chemical Testing

