Co-operation offer

The Geotechnical Laboratory
Department of Environmental Engineering
Cracow University of Technology

The Geotechnical Laboratory

The Geotechnical Laboratory at Department of Environmental Engineering of Cracow University of Technology is equipped with the following devices:

Triaxial apparatus ELE

This apparatus is designed to set strength, stiffness and seepage parameters of soils. Three types of triaxial tests can be conducted ie. CD, CU and UU. This apparatus consists of a pressure cell (up to 1700 kPa) in which soil samples with 38mm to 100mm of diameter can be tested, actuator that allows displacement controlled loading programs with 9,99999 mm/min to 0,00001mm/min speed, two oil pumps that may generate max 1700 kPa of pressure, set of sensors (pressure, displacement, change of volume), ADU recorder and device for water venting.

Rowe's consolidometer (ELE)

This device allows to measure stiffness properties of soils, seepage coefficient and consolidation coefficient for different drainage and loading conditions. It allows also to measure pore water pressure at any stage of loading program. Results are registered by the ADU recorder.

Rowe's consolidometer (ELE)

The CPTU system consists of the probe Memocone MKII produced by Swedish company ENVI AB (probe+recording system) and hydraulic actutator completed by GEOMOR-TECHNIK SP Z O.O. company

The Memocone probe is an electric probe that registers cone resistance qc, sleeve friction fs and pore water pressure u2.

This device allows to set stratification of subsoil and to set up all major geotechnical properties like effective friction angle, undrained shear strength, densification ratio and stiffness moduli.

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CBR - California index of subsoil bearing capacity

This index is used to estimate bearing capacity of subsoil in road construction. Based on this index and using certain correlation formula one may set moduli Ev1 and Ev2.

CBR - California index of subsoil bearing capacity

This is a modern device to test soil properties and their state in situ conditions. Based on these measurements one may set stratification of subsoil and to set up stress history (OCR), coefficient of pressure at rest (Ko), stiffness moduli and strength parameters.

ARES system with equipment

ARES system allows to carry out the following geophysical surveys in 2D and 3D mode:

- Resistivity measurements, i.e. Electrical Resistivity Tomography (ERT), Vertical Electrical Sounding (VES), Resistivity Profiling (RP) and Self Potential (SP);
- Induced Polarisation (IP) imaging (up to 10 adjustable IP Windows).

CTT Politechnika Krakowska

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