Geoenvironment Control Engineering

2 units (selection)

Katsutoshi Ueno · Associate Professor / Geotechnical and Geoenvironmental Engineering, Civil and Environmental Engineering, Intelligent Structures and Mechanics Systems Engineering, Akitoshi Mochizuki · Part-time Lecturer

Target〉 This unit aims to cover basic concepts and technologies related to development and control of geoenvironment and ground-structure system for protection against natural and human-caused disasters. Interactive behaviours of over and under-ground structures under earthquake conditions as well as static conditions will be addressed employing results from numerical and physical models as well as those from field-observation data.

Outline〉 i)Learn framework of experimental apparatus and instruments for in-situ investigation and so forth. Then understand their basic principle, modification and basic comcepts. ii)practice of the method how to review techincal papers

Keyword〉 ***Image analysis, Triaxial compression test***

Goal〉 To understand methodology of engineering, i.e. experiments, site investigation, and their verification by analysis, and to develope basic ability in delopment of experimental equipments and instulments.

Schedule〉

1. Introduction
2. laboratory test, model test and site investigation
3. laboratory test, model test and site investigation
4. principle of measurements1
5. principle of measurements2
6. Image analysis 1
7. Model tests
8. Centrifuge model tests
9. Centrifuge model tests
10. Triaxial compression test1
11. Triaxial compresson test2
12. Cyclic triaxial compression test
13. Discussion on English paper
14. Discussion on English paper
15. Discussion on English paper
16. Summary

Contents〉 http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216687

Contact〉

⇒ Undecided

⇒ Ueno (A504, +81-88-656-7342, ueno@ce.tokushima-u.ac.jp) Mail (Office Hour: 学科の掲示を参照のこと)