

Advanced Soil Structure Earthquake Resistance Design

2 units (selection)

Tsuneo Ohsumi · PROFESSOR / GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, CIVIL AND ENVIRONMENTAL ENGINEERING, INTELLIGENT STRUCTURES AND MECHANICS SYSTEMS ENGINEERING

Target This subject is concerned with earthquake resistance design. The aim of this subject is to understand parameter setting with seismic wave and epicenter. The purpose of this lecture is to let the students understand the methods and the modeling for earthquake resistance design.

Outline Central issues of this lecture are the parameter setting for earthquake resistance design, to understand earthquake resistance design methods. This lecture is carried out by the use of power point with motion pictures.

Style Lecture

Keyword *Soil Structure, Earthquake Resistance Design, Immediate Evaluation Method*

Fundamental Lecture “[Earthquake Engineering](#)”(1.0), “[Geotechnical Engineering](#)”(1.0)

Relational Lecture “[Advanced Geotechnical Engineering](#)”(0.5), “[Advanced Earthquake Engineering](#)”(0.5)

Requirement Students are required to have a good knowledge of undergraduate level structural dynamics and soil mechanics.

Goal To understand the Earthquake Resistance Design and Earthquake information systems.

Schedule

1. Guidance
2. Seismic wave and Epicenter
3. Performance-Based Seismic Design for Soil Structures
4. Input Ground Motion for Earthquake Resistance Design
5. Parameter setting for Earthquake Resistance Design
6. Bridge
7. Underground Structure
8. Soil Structure
9. Dam
10. Quay wall
11. Electricity Facility
12. Earthquake information systems
13. Immediate Evaluation Method
14. Earthquake Seismograph Network

15. Summary

16. Test

Evaluation Criteria Based on attendance, Evaluation by Reports and test score. Over 60% marks is necessary to pass.

Textbook Not specified.

Reference To be introduced in the class.

Contents <http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216689>

Student Able to be taken by only specified class(es)

Contact

⇒ Teacher of course

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