

CE6026 Soil Dynamics (土壤動力學) 2008

Class time (上課時間) : Tue. (週二) 14:10 - 17:00

Instructor (教師) : Chiang, Chine Chung (江健仲), Office: EB407

Text : 1. F. E. Richart, J. R. Hall, R. D. Woods, *Vibrations of Soils and Foundations*,
(教科書) Prentice-Hall, Inc.

2. Steven L. Kramer, *Geotechnical Earthquake Engineering*, Prentice-Hall, Inc.

Reference : 1. Braja M. Das, *Principles of Soil Dynamics*.

(參考書) 2. Braja M. Das, *Fundamentals of Soil Dynamics*.

3. S. Prakash, *Soil Dynamics*.

[e-learning (輔助教學網頁) : <http://elearning.yuntech.edu.tw/> (網路學園)]

outline : 1. waves in elastic medium (彈性介質中之波動)

(課程大綱) 2. waves in layered systems (層狀系統中之波動)

3. behavior of dynamically loaded soils (動力荷重下之土壤行為)

4. lab and field measurements (試驗室與現地試驗量測)

5. liquefaction factors, analysis and evaluation

(液化影響因素、液化分析與潛能評估)

6. soil improvement and liquefaction prevention

(地盤改良與液化防治)

Grading : class participation (課堂參與)、homework(作業)、report(報告) 30% ,

(評量方式) mid-exam(期中考) 30% , final exam(期末考) 40% .

(all homeworks and reports should keep the drafts)

(所有作業與報告，請自行保留底稿。)

Tentative Teaching Plan(暫定教學計畫表) :

week	date	topic	remarks
1	2020. 9. 15	Introduction	(緒論)
2	9. 22	waves in elastic medium (1)	(彈性介質中之波動 1)
3	9. 29	waves in elastic medium (2)	(彈性介質中之波動 2)
4	10. 6	waves in layered systems (1)	(層狀系統中之波動 1)
5	10. 13	waves in layered systems (2)	(層狀系統中之波動 2)
6	10. 20	behavior of dynamically loaded soils(1)	(動力荷重下之土壤行為 1)
7	10. 27	behavior of dynamically loaded soils(2)	(動力荷重下之土壤行為 2)
8	11. 3	SASW methods	(表面波譜法)
9	11. 10	《mid-exam》	《期中考期間》
10	11. 17	lab tests	(試驗室試驗)
11	11. 24	field measurements	(現地試驗量測)
12	12. 1	liquefaction causes & evaluation	(液化原因與評估)
13	12. 8	liquefaction factors	(液化影響因素)
14	12. 15	liquefaction analysis	(液化分析)
15	12. 22	soil improvement	(地盤改良)
16	12. 29	liquefaction prevention	(液化防治)
17	2021. 1. 5	soil dynamics and liquefaction	(土壤動力與液化)
18	1. 12	《final exam》	《期末考期間》

