

IEEM 系統模擬, Fall 2017

Wednesday 9:00–12:00
National Tsing Hua University

Depart. of IEEM

Instructor:

Professor Wheyming Song 桑慧敏
Office: 815, Engineering Building No.1; Phone: 5742659 (office)
Office Hour: Thr 10:00–12:00

TA: 蘇意筑

Office: 706-1
Office Hour: W 14:00–16:00

Reference books and notes:

1. FlexSim 6 – 3D Simulation Software
2. Barry L. Nelson, *Stochastic Modeling*, McGraw-Hill International Editions, 1995.
3. Law and Kelton, *Simulation Modeling and Analysis*, McGraw-Hill, 1982.
4. Please prepare lessons before class on NTHU-iLMS System Simulation

The course will be taught primarily from CLASS NOTES.

Prerequisites: Basis of Probability , Statistics, and Computer Programming.

Goal: The goal is to describe these tools in a way that exploits your common sense and intuition about dynamic systems, but also enables you to use the simulation software (Flexsim 6), probability, and statistics at your proposal to perform a detailed analysis. At the end of this semester, you learn how to use Flexsim to analyze stochastic systems. You should also learn much more about probability and statistics.

Content: Three major parts

- Basic Tasks:
 - input modeling (random numbers, random variate generation)
 - modeling (MS Excel and Flexsim)
 - output analysis (statistics)
- Advanced Tasks: common random numbers (CRN)
- Projects: Physical Examination (PE) and Manufacturing Process (MP)

Grading:

Home Work	20%
Quiz	20%
Mid-Term Exam. 1	20%
Mid-Term Exam. 2	20%
Projects	20%