演 算 法
Algorithms

課程目標 Course Objective

This course will give a wide introduction to a variety of algorithms that can be applied to engineering problems with applications.

課程時間 Course Hours

Monday – Wednesday: 9:00 to 12:00 and 13:00 to 16:00
Thursday – Friday: 9:00 to 12:00

課程內容 Contents

- Basics of Algorithm Analysis
- Sorting and Median
- Divide and Conquer
- Greedy Algorithms
- Dynamic Programming
- Computational Geometry
- Randomized Algorithms
- Online and Sublinear Algorithms
- Selected Topics

課程參考書籍 Textbooks

- *T.H. Cormen, C.E. Leiserson, R.L. Rivest, C. Stein. Introduction to Algorithms.
- *Jon Kleinberg and Eva Tardos. Algorithm Design.
- R.C.T. Lee, R.C. Chang, S.S. Tseng, Y.T. Tsai. Introduction to the Design and Analysis of Algorithms.

課程評分方式 Grading

Attendance	20% (on-site)
Midterm Exam	40% (basic topics)
Final Exam	40% (advanced topics)