

COURSE DETAIL

COMPUTER AIDED ANALYSIS AND OPTIMIZATION OF INTEGRATED CIRCUIT

Country

Taiwan

Host Institution

National Taiwan University

Program(s)

National Taiwan University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Electrical Engineering

UCEAP Course Number

106

UCEAP Course Suffix**UCEAP Official Title**

COMPUTER AIDED ANALYSIS AND OPTIMIZATION OF INTEGRATED CIRCUIT

UCEAP Transcript Title

COMP OPTM INTG CIRC

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

The course outline is as follows:

[Lecture 1](#) - Introduction

[Lecture 2](#) - Formulation of Circuit Equations

[Lecture 3](#) - Direct Methods for Linear Systems

[Lecture 4](#) - Direct Methods for Sparse Linear Systems

[Lecture 5](#) - Iterative Methods and QR Factorization

[Lecture 6](#) - Krylov-Subspace Methods - I

[Lecture 7](#) - Krylov-Subspace Methods - II

[Lecture 8](#) - Solutions for Nonlinear Equations

[Lecture 9](#) - Modified Newton Methods

[Lecture 10](#) - Methods for Ordinary Differential Equations

[Lecture 11](#) - Multistep Methods

Lecture 12 - Large Timestep Issues

[Lecture 13](#) - Digital Systems Verification

Language(s) of Instruction

English

Host Institution Course Number

EE5043

Host Institution Course Title

COMPUTER AIDED ANALYSIS AND OPTIMIZATION OF INTEGRATED CIRCUIT

Host Institution Course Details

<http://ccf.ee.ntu.edu.tw/~cchen/course/simulation/simulation.htm>

Host Institution Campus

Host Institution Faculty

College of Electrical Engineering and Computer Science

Host Institution Degree

Host Institution Department

Graduate Institute of Electrical Engineering

Course Last Reviewed

2023-2024

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