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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