102-1 Preliminary Syllabus, Da-Yeh Univ

Information

Title		Serial No. / ID	1344 / MAV4035
Dept.		School System / Class	4 1
Lecturer		Full or Part-time	
Required / Credit	Optinal / 3	Graduate Class	Yes
Time / Place	( )789 / H727	Language	Chinese

Introduction

Finite Element Method (FEM) is a powerful tool for the numerical solution of a wide range of engineering problems. With advances in CAD systems, complex problems can be modeled easily. Several alternative configurations may be tested on a computer before first prototype is built.

In FEM, a solid model representing a complex member or a structure as a whole is discretized into simple or particular geometric subregions called finite elements. The material properties and governing relationships are considered over these elements and expressed in terms of the unknown values at element corners. An assembly precess, duly considering the loading and constraints, results in a set of simultaneous equations. Solution of these gives the approximate behavior.

Outline

1.Introduction of CAE
2.Introduction of ANSYS
3.Finite Element Model
4.Advanced Technique in Building FE
Model
5.Solid Model
6.Mesh Generation
7.Force Application
7.Analysis Examples

Prerequisite

Mechanics of Materials
Computer Knowledge