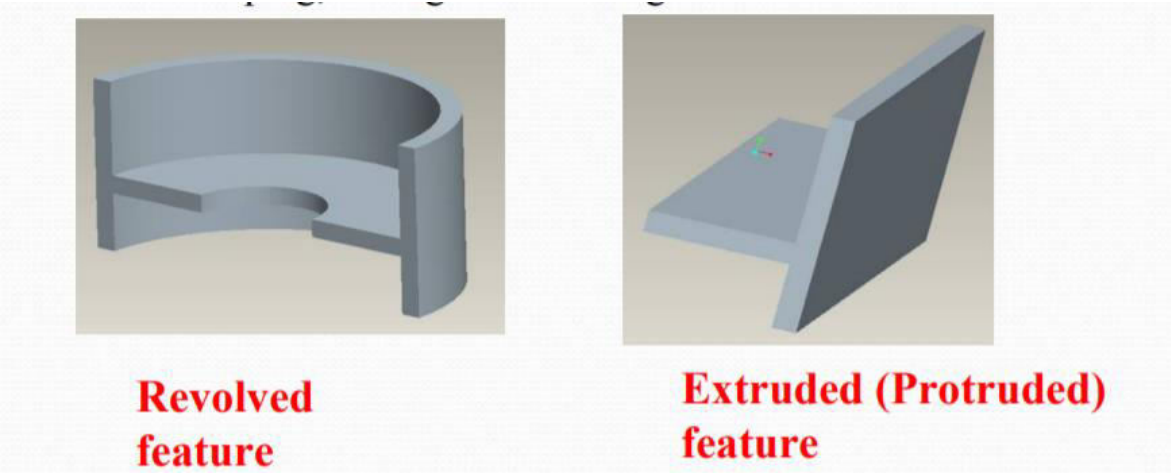
Operation performed

Extrude Feature, Revolve Feature, Sweep, Loft, Fillet, Chamfer

Sketched Feature

- Create a feature from the sketch by extruding, revolving, sweeping, lofting and blending.



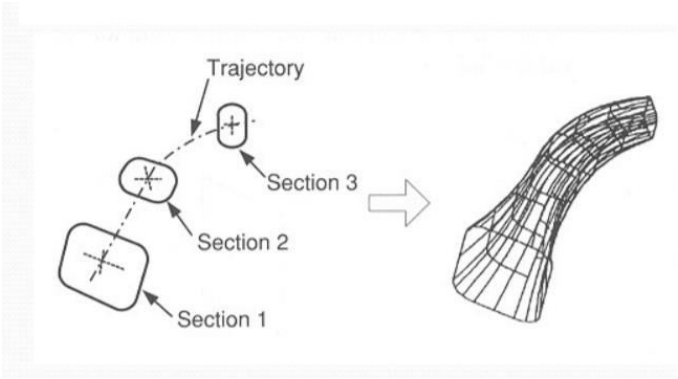
Sweeping

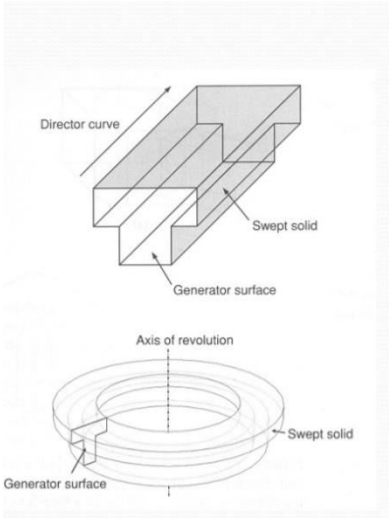
- Linear
- Extrusion
- Non – linear 1. Sweep a cross section along a guide curve

2. “BLEND” two cross section linearly.(linear sweep between two section)
3. Sweep two cross section along a guide curve.
4. “LOFT” – to blend two cross section. (like 2 & 3)

Operation performed

Sweeping: Sweeping is a modeling function in which a planar closed domain is translated or revolved to form a solid. When the planar domain is translated, the modeling activity is called translational sweeping; when the planar region is revolved, it is called swinging, or rotational sweeping





Lecture No 38 Topic: Finite Element Analysis

In finite element method, the structure to be analyzed is subdivided into a mesh of finite sized elements of simple shape, and then the whole structure is solved with quite easiness.

Common FEA Applications

Mechanical/Aerospace/Civil/Automotive Engineering

Structural/Stress Analysis

Static/Dynamic

Linear/Nonlinear

Electromagnetic Fields

Fluid Flow

Soil Mechanics

Biomechanics

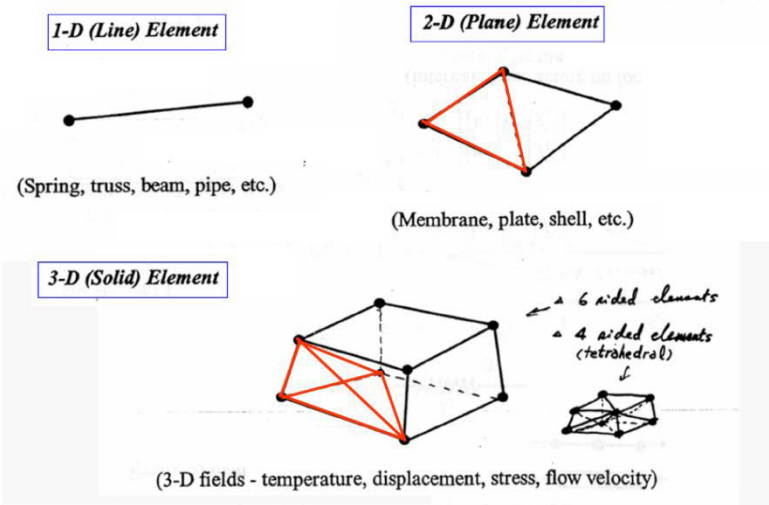
Acoustics

Heat Transfer

Discretization

Model body by dividing it into an equivalent system of many smaller bodies or units (finite elements) interconnected at points common to two or more elements (nodes or nodal points) and/or boundary lines and/or surfa

Types of Finite element



Elements & Nodes - Nodal Quantity