Course Name:
Finite Element

Course Number:
20149

Credit:
3

Course Content (outline):

- Introduction
- Introduction to applied mechanics and methods for finding equations governing continuous systems
- Mathematical methods for approximate solving of equations
- Theory of finite element method, basics and concepts
- Finite element method for direct elements
- Finite element method for curved elements
- Finite element method for plate elasticity problems
- Finite element method for field Problems
- Finite element method for plate bending problems

References:

- Finite Element Analysis By: P. Seshu
- Introduction to the finite element method by: Desai and Abel
- Introduction to approximate solution techniques, numerical modeling and finite element method By: V.N. Kliakin
- Finite element Procedures by: Bathe
- The finite element method, Fifth Edition, By: Zienklewiez and Taylor
- The finite element Method By: Hughes
- Energy methods in applied mechanics, By: Langhnar