

RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL

New Scheme Based On AICTE Flexible Curricula

Mechanical Engineering, V-Semester

ME505- FEM/CFD Lab

List of Experiments (Please Expand it)

1. To study fundamentals of Computational Fluid Dynamics (CFD)
2. To perform CFD analysis of lid driven cavity in Open-Foam
3. To perform CFD analysis of square tube in Open-Foam
4. To perform CFD analysis of a 2D-plate in Open-Foam
5. To perform CFD analysis of bifurcated blood vessel in FEM
6. To study fundamentals of Finite element method and FEA
7. To perform FEM analysis of deep drawing process in FEM
8. To study fundamentals of Sci-Lab
9. To perform matrix operations in Sci-lab
10. To plot 2D & 3D graphs in Sci-lab

References:

1. Versteeg H; An introduction to Computational Fluid Dynamics (The Finite Volume Method);Pearson
2. Jiyuan Tu; Computational Fluid Dynamics: A Practical Approach; Butterworth-Heinemann.
3. Gokhale NS; Practical Finite Element Analysis; Finite to Infinite
4. Seshu P; Finite element analysis; PHI.
5. Reddy JN; Introduction to the Finite Element Method;McGraw Hill Inc.
6. Das VV; Programming in Scilab 4.1; New Age International Publishers.
7. Verma A K; Scilab : A Beginner's Approach; Cengage publishers.