MOHAMED SATHAK A J COLLEGE OF ENGINEERING

(Affiliated to Anna University Approved by AICTE, New Delhi)

Siruseri IT park, OMR, Chennai - 603103

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the Lab   **: Simulation and Analysis Laboratory**

Subject Code   **:ME8711 (ODD Semester)**   **Regulations:** R17

List of experiments recommended as per Anna University

LIST OF EXPERIMENTS:

A. SIMULATION

1. MATLAB basics, Dealing with matrices, Graphing-Functions of one variable and two variables
2. Use of Matlab to solve simple problems in vibration
3. Mechanism Simulation using Multibody Dynamic software

B. ANALYSIS

1. Force and Stress analysis using link elements in Trusses, cables etc.
2. Stress and deflection analysis in beams with different support conditions.
3. Stress analysis of flat plates and simple shells.
4. Stress analysis of axi – symmetric components.
5. Thermal stress and heat transfer analysis of plates.
6. Thermal stress analysis of cylindrical shells.
7. Vibration analysis of spring-mass systems.
8. Model analysis of Beams.
9. Harmonic, transient and spectrum analysis of simple systems.