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 **: CAD / CAM Laboratory**

Subject Code **:ME8681 (EVEN Semester)** **Regulations:** R17

List of experiments recommended as per Anna University

LIST OF EXPERIMENTS:

1. 3D GEOMETRIC MODELLING 30 PERIODS

1. Introduction of 3D Modelling softwareCreation of 3D assembly model of following machine elements using 3D Modelling software
2. Flange Coupling
3. Plummer Block
4. Screw Jack
5. Lathe Tailstock
6. Universal Joint
7. Machine Vice
8. Stuffing box
9. Crosshead
10. Safety Valves
11. Non-return valves
12. Connecting rod
13. Piston
14. Crankshaft

* Students may also be trained in manual drawing of some of the above components

2. Manual Part Programming. 30 PERIODS

(i) Part Programming - CNC Machining Centre

    a) Linear Cutting.
    b) Circular cutting.
    c) Cutter Radius Compensation.
    d) Canned Cycle Operations.

(ii) Part Programming - CNC Turning Centre

    a) Straight, Taper and Radius Turning.
    b) Thread Cutting.
    c) Rough and Finish Turning Cycle.
    d) Drilling and Tapping Cycle.

3. Computer Aided Part Programming

    e) CL Data and Post process generation using CAM packages.
f) Application of CAPP in Machining and Turning Centre.