

RO8511 CNC AND METROLOGY LABORATORY

DETAILED SYLLABUS

OBJECTIVES:

- To impart knowledge in CNC programming for turning and milling operations
- To use measuring systems for the geometrical measurements of gears and threads.
- To know the measurement of Taper Angle using Sine Bar

LIST OF EXPERIMENTS:

1. Study of the CNC machine
2. Programming and simulation of a lathe using any CAM package
3. Programming and simulation of a machining centre using any CAM package
4. Programming and operation of a CNC Lathe
5. Programming and operation of a CNC machining centre
6. Measurement of Taper Angle using Sine Bar
7. Optical profile projector – study of profile of gear tooth, screw threads.
8. Tool maker's microscope – to study cutting tool geometry, screw threads.
9. Tool wear and surface finish measurement.
10. Dimensional measurement of machined components using, bore gauge, air gauge and Height master