



“Techno – Social Excellence”
MarathwadaMitraMandal’s
INSTITUTE OF TECHNOLOGY (MMIT)
Lohgaon, Pune-411047.

“Mechanized Design Application”
Department of Mechanical Engineering

Course Name: Metrology & Quality Control **Class: TE Mechanical Engineering**
Course Code: 302045 **(2015Pattern)**

Course Objectives:

Students are expected to –

1. Select suitable instrument / gauge / method of inspection for determining geometrical and dimensional measurements.
2. Calibrate measuring instruments and also design inspection gauges.
3. Understand the advances in Metrology such as use of CMM, Laser, Machine Vision System for Metrology etc.
4. Select and apply appropriate Quality Control Technique for given application.
5. Select and Apply appropriate Quality Management Tool and suggest appropriate Quality Management System (QMS).

Course Outcomes:

- CO1 - Understand the methods of measurement and selection of measuring instruments ,standards of measurement
- CO2 - Identify and apply various measuring instruments
- CO3 - Explain tolerance, limits of size, fits, geometric and position tolerances and gauge design
- CO4 - Recommend the Quality Control Techniques and Statistical Tools appropriately
- CO5 - Analyze the Data collected
- CO6 - Develop an ability of problem solving and decision making by identifying and analyzing the cause for variation and recommend suitable corrective actions for quality improvement