



Techno-Social Excellence
Marathwada Mitra Mandal's
INSTITUTE OF TECHNOLOGY (MMIT)
Lohgaon, Pune-411047.

“Mechanized Design Application”
Department of Mechanical Engineering

Course Name: Applied Thermodynamics

Class: SE Mechanical Engineering

Course Code: 202048 (2019 Pattern)

Course Objectives:

1. To determine COP of refrigeration cycle and study Psychrometric properties and processes.
2. To study working of engine, Actual, Fuel-Air and Air standard cycle and its Performance.
3. To understand Combustion in SI and CI engines and factors affecting performance parameters
4. To study emission from IC Engines and its controlling method, various emission norms.
5. To estimate performance parameters by conducting a test on I. C. Engines.
6. To determine performance parameters of Positive displacement compressor.

Course Outcomes:

On completion of the course, learner will be able to

- CO1. DETERMINE COP of refrigeration system and ANALYZE psychrometric processes.
- CO2. DISCUSS basics of engine terminology, air standard, fuel air and actual cycles.
- CO3. IDENTIFY factors affecting the combustion performance of SI and CI engines.
- CO4. DETERMINE performance parameters of IC Engines and emission control.
- CO5. EXPLAIN working of various IC Engine systems and use of alternative fuels.
- CO6. CALCULATE performance of single and multi-stage reciprocating compressors and DISCUSS rotary positive displacement compressors