



Auto Air Conditioning Lab

Courses Covered:

1. Automotive HVAC Lab (AUT-343)

**DEPARTMENT OF AUTOMOTIVE ENGINEERING
TECHNOLOGY
PUNJAB TIANJIN UNIVERSITY OF TECHNOLOGY,
LAHORE**

Course Title: Automotive HVAC Lab (AUT-343)

List of Experiments:

1. Determining Coefficient of Performance (COP) Using Temperature Readings in Carnot Cycle Study of four stroke spark ignition engine model
2. Effect of Condenser Temperature on Airconditioning Cycle Efficiency
3. Influence of Evaporator Temperature on System Performance
4. Energy Consumption Analysis of Refrigeration System
5. To determine the power input, heat output and coefficient of performance of Air conditioner based on Vapor Compression refrigeration cycle
6. To determine enthalpy, dew point temperature and saturation temperature of refrigerants Vapor Compression Refrigerator cycle (VCRC)
7. To plot the vapor compression cycle on the p-h diagram and compare with the ideal cycle.
8. To compare relative humidity of air at inlet and outlet of HVAC Unit
9. Determine the dry bulb temperature, wet bulb temperature, dew point temperature and enthalpy of air at inlet and outlet of HVAC Unit.
10. To study and verify the cooling and humidification in HVAC unit.

List of Equipment's:

1. Vapor Compression cycle demonstration Unit (Quantity = 01).
2. HVAC unit (Quantity = 01).
3. Automotive Air conditioning Unit (Quantity = 01).



Figure 1 Automotive Air conditioning Unit (Quantity = 01).



Figure 2 VCS demonstration Unit



Figure 3 HVAC Unit