

# Department of Mechanical Engineering

## Heat Transfer Laboratory

### ❖ Objective :-

- Students will learn different modes of Heat Transfer.
- Students have to analyze the real Heat Transfer problem with basic concept of Heat Transfer used in Engineering.



### ❖ List of experiments:

- To determine the thermal conductivity of metal bar/ liquid/ insulating material.
- To study the Heat Transfer in unsteady state.
- To find the thermal conductivity of heat pipe.
- To find the Natural convection for flow over a circular pipe.
- To find the forced convection for flow over a circular pipe.
- Comparison of overall heat transfer coefficient and effectiveness for double pipe heat exchanger.
- Determine of emissivity of a grey surface.

❖ **List of Equipment:**

- Thermal conductivity of metal bar apparatus.
- Thermal conductivity of insulating material apparatus.
- Thermal conductivity of Liquid apparatus.
- Unsteady state Heat Transfer apparatus.
- Heat pipe apparatus.
- Natural convection apparatus.
- Forced convection apparatus.
- Emissivity power apparatus.