

HEAT TRANSFER LABORATORY

Heat transfer laboratory has various equipment for the study of three basic heat transfer phenomena i.e., conduction, convection and radiation practically. These experiments are inculcating certain innovative skills in the students making them to use the above experimental setups as starting point to take up higher level experimental studies in Heat Transfer. This laboratory is equipped with Lagged Pipe Apparatus, Composite Wall Apparatus, Emissivity Measurement Apparatus, Pin-Fin Apparatus, Natural Convection Apparatus, Shell and Tube Heat Exchanger, Stefan-Boltzmann Apparatus, Parallel Flow Counter Flow Heat Exchanger, Critical Heat Flux Apparatus, Two Phase Flow Apparatus and Heat Pipe.



List of Equipments:

1. Heat Transfer Through a Composite Slab
2. Heat Transfer Through a Lagged Pipe
3. Heat Transfer Through a Concentric Sphere
4. Thermal Conductivity of a Metal Rod
5. Heat Transfer In Pin Fin
6. Transient Heat Conduction Apparatus

7. Heat Transfer In Forced Convection
8. Heat Transfer In Natural Convection
9. Parallel and Counter Flow Heat Exchanger
10. Emissivity Apparatus
11. Stefan Boltzmann Constant Apparatus
12. Critical Heat Flux Apparatus
13. Heat Pipe Apparatus
14. Two Phase Flow Apparatus

List of Experiments:

1. Overall heat transfer coefficient of a composite slab
2. Heat transfer through a lagged pipe
3. Heat transfer through a concentric sphere
4. Thermal conductivity of a metal rod
5. Heat transfer in pin fin
6. Experiment on transient heat conduction
7. Heat transfer in natural convection
8. Effectiveness of parallel and counter flow heat exchangers
9. Emissivity of a given surface
10. Determination of stefan boltzmann constant
11. Determination of critical heat flux
12. Study of heat pipe and its demonstration
13. Study of two phase flow