

THERMODYNAMICS LAB

Name of Lab In-charge: Mr. Amardeep

Name of technical assistant: Mr. Kapil Sharma

Course Outcomes:

S. No.	Course Outcomes
1	To understand the construction and working principles of 2 stroke and 4 stroke I. C. engines using petrol and diesel.
2	To understand the construction and working principles of fire tube and water tube boilers.
3	To understand the construction and working principles of steam engine.
4	To understand the construction and working principles of gas turbine.
5	To understand the working principle of steam turbine and difference between Impulse and Reaction turbine.

List of Equipment:

1. Lancashire boiler model
2. Locomotive boiler Model
3. Babcock & Wilcox Boiler model
4. Steam engine Model
5. Two stroke Petrol engine
6. Four stroke single cylinder Diesel engine
7. Four stroke four cylinder petrol engine
8. Hydraulic jack model
9. Two stroke petrol engine model
10. Two stroke Diesel engine model
11. Four stroke petrol engine model
12. Four stroke Diesel engine model
13. Model of gas turbine
14. Model of braking system
15. Model of impulse turbine
16. Model of reaction turbine

List of Experiments:

Sr. No.	As per AKTU	Performed/ Not performed
1	Study of Fire Tube boiler.	YES
2	Study of Water Tube boiler.	YES
3	Study and working of Two stroke petrol Engine.	YES
4	Study and working of Four stroke petrol Engine.	YES

5	Determination of Indicated H.P. of I.C. Engine by Morse Test.	
6	Prepare the heat balance sheet for Diesel Engine test rig.	
7	Prepare the heat balance sheet for Petrol Engine test rig.	
8	Study and working of two stroke Diesel Engine.	YES
9	Study and working of four stroke Diesel Engine.	YES
10	Study of Velocity compounded steam turbine.	YES
11	Study of Pressure compounded steam turbine.	YES
12	Study of Impulse & Reaction turbine.	YES
13	Study of steam Engine model.	YES
14	Study of Gas Turbine Model.	YES

Pictures of Labs: