



# Techno India NJR Institute of Technology

Academic Administration of Techno NJR Institute

## Syllabus Deployment

Name of Faculty	: Mr. Abhishek Sharma	Subject Code: 6ME
Subject	: Thermal Engineering Lab-1	
Department	: Mechanical Engineering	Sem: VI
Total No. of Labs Planned:	9	

### **COURSE OUTCOMES:**

At the end of this course students will be able to:

- CO1: Differentiate between SI & CI Engines.
- CO2: Differentiate between 2-stroke & 4-stroke Engines
- CO3: Understand theoretical and actual working cycles of SI & CI Engines.
- CO4: Demonstrate steering system.
- CO5: Demonstrate Ignition & Fuel Supply System.

S. N.	NAME OF EXPERIMENTS
1	Study of working of four stroke petrol engine and four stroke diesel engine with the help of cut section models
2	Study of working of two stroke petrol and two stroke diesel engine with the help of cut section models
3	To draw valve timing diagram for a single cylinder diesel engine
4	Study of various types of boilers
5	Study of various types of mountings and accessories
6	Demonstration of steering system and measurement of steering geometry angles and their impact on vehicle performance
7	Study of braking system with specific reference to types of braking system, master cylinder, brake shoes.
8	Study of transmission system including clutches, gear box assembly and differential box
9	Assembly and disassembly of above systems

## **TEXT/REFERENCE BOOKS**

1. MATHUR & SHARMA, INTERNAL COMBUSTION ENGINES,  
DHANPAT RAI & SONS
2. JOHN B. HEYWORD, INTERNAL COMBUSTION ENGINES  
FUNDAMENTALS, MCGRAW HILL