19ME3451-APPLIED THERMODYNAMICS LABORATORY

Offering Branches	ME		
Course category:	Program Core	**Credits**	1.5
Course Type:	Practical	**Lecture-Tutorial-Practical:**	0-0-3
Prerequisites	Engineering Thermodynamics, Applied Thermodynamics	**Continuous Evaluation:**	25
		Semester End Evaluation:	50
		Total Marks:	75

Course Outcomes

Upon successful completion of the course, the student will be able to

CO1	**Test** the performance of different types of petrol engine and diesel engine.	L1
CO2	**Disassembly and assembly** of engine.	L2
CO3	**Assess** the performance of reciprocating air compressor.	L3
CO4	**Calculate** calorific values among different types of solid, liquid and gaseous fuels.	L4
CO5	**Estimate** the residue percentage of given fuel and properties of Refrigeration & Air Conditioning.	L3

LIST OF EXPERIMENTS (Any Ten of the following covering all co's)

Syllabus

Exp. No.	Content	Mapped CO
1	Valve timing diagram of 4-stroke diesel engine	CO1
2	Port timing diagram of 2-stroke petrol engine.	
3	Performance of 4-stroke single cylinder diesel engine.	
4	I.C. Engines Air/Fuel Ratio and Volumetric Efficiency.	
5	I.C. Engines Heat Balance.	
6	Morse test on multi cylinder petrol engine.	
7	Retardation test	
8	Assembly and disassembly of diesel and petrol engines	CO2
9	Performance of two stage reciprocating air compressor	CO3
10	Junker's gas calorimeter.	CO4
11	Bomb calorimeter.	
12	Canradson's carbon residue tester.	CO5
13	Performance of Refrigeration Test Rig.	
14	Study the properties of Air Conditioning Tutor.	

Course coordinator **HOD**