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| **19ME2L02** | **Mechanical Engineering Lab** | **EEE** |

**COURSE OBJECTIVES**

1. To equip the students with basic knowledge in boilers ,internal combustion engines and dynamometers.
2. To impart practical exposure on the performance evaluation methods of various flow measuring equipment, hydraulic turbines and pumps.

**COURSE OUTCOMES**

At the end of the lab student able to

1. Utilize the knowledge about boilers ,internal combustion engines and dynamometers in various real world problems.
2. Predict major and minor losses in various piping system.
3. Predict performance characteristics of Turbines and Pumps.
4. Calibrate Venturi meter and Orifice meter.

**List of Experiments:**

1. Study of Cochran and Babcock & Wilcox boilers.
2. Study the working & function of mountings and accessories in boilers.
3. Study of 2-Stroke & 4-Stroke petrol engines.
4. Study of 2-Stroke & 4-Stroke diesel engines.
5. Study the various types of dynamometers.
6. Determination of friction factor for a given pipeline.
7. Calibration of Venturi meter.
8. Calibration of Orifice meter.
9. Performance Test on Pelton Wheel.
10. Performance Test on Single Stage Centrifugal Pump.
11. Performance Test on Reciprocating Pump.
12. Bernoulli’s apparatus.

**NOTE**: Any 10 of the above 12 experiments are to be conducted.