II Year II Semester	**L**	**T**	**P**	**C**
Code:20ME4104	**0**	**0**	**3**	**1.5**

FLUID MECHANICS & HYDRAULIC MACHINERY LAB

Course Objective:

1. To impart practical exposure on the performance evaluation methods of various flow measuring equipment.
2. To impart practical knowledge on the evaluation of hydraulic turbines and pumps.

Note: Any 10 Experiments from the below

1. Impact of jets on Vanes.
2. Performance Test on Pelton Wheel.
3. Performance Test on Francis Turbine.
4. Performance Test on Kaplan Turbine.
5. Performance Test on Single Stage Centrifugal Pump.
6. Performance Test on Multi Stage Centrifugal Pump.
7. Performance Test on Reciprocating Pump.
8. Calibration of Venturi meter.
9. Calibration of Orifice meter.
10. Determination of friction factor for a given pipe line.
11. Determination of loss of head due to sudden contraction in a pipeline.
12. Turbine flow meter.

Virtual Lab Links:

- http://fm-nitk.vlabs.ac.in/
- http://eerc03-iiith.vlabs.ac.in/

Course Outcomes:

At the end of the course, the student will able to:

CO1: Calibrate flow measuring devices such as Venturimeter and orifice meter
CO2: Determine friction factor in pipes
CO3: Determine minor losses in the pipes.
CO4: Understand the performance of hydraulic turbine and pumps under different working conditions.