

FLUID MECHANICS AND MACHINERY LAB

Course Code: 22ME1108

L T P C

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Course Outcomes: At the end of the course, the student will be able to

CO1: demonstrate Bernoulli's theorem and calculate the discharge using various flow measuring devices

CO2: explain free and forced vortex flows and calculate the force exerted by jet on different vane configurations

CO3: determine major and minor losses in pipes

CO4: examine the working and performance of different types of turbines

CO5: assess the working and performance of reciprocating and centrifugal pumps

LIST OF EXPERIMENTS

Any twelve of the following experiments are to be performed.

1. Calibration of Venturi meter
2. Calibration of orifice meter
3. Verification of Bernoulli's theorem
4. Determination of friction factor for a given pipe line
5. Determination of minor losses in a pipeline
6. Determination of force exerted by fluid jet on different vanes
7. Performance test on Pelton wheel
8. Performance test on Francis turbine
9. Performance test on single stage centrifugal pump
10. Performance test on multi stage centrifugal pump
11. Performance test on reciprocating pump
12. Calibration of V-Notch
13. Determination of coefficient of discharge for an external mouthpiece