SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES
(Autonomous)

II B.Tech I Semester

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16MEC217 FLUID MECHANICS AND MACHINERY LAB
(Common to MECH and EEE Branches)

Course Educational Objectives:

- ✓ To enable the students to have hands-on-experience in flow measurements using different devices.
- ✓ To perform characteristic study of pumps, turbines etc

List of Experiments

1. Calibration of venturimeter and orificemeter.
2. Determination of coefficient of discharge for small orifice by a constant head method.
3. Determination of coefficient of discharge for an external mouth piece by variable head Method.
4. Calibration of contracted rectangular notch and triangular notch.
5. Determination of coefficient of loss of head in a sudden contraction and friction factor.
6. Verification of Bernoulli's theorem.
7. Impact of jet on vanes.
8. Turbine flow meter.
9. Study of hydraulic jump.
10. Performance test on hydraulic turbine.
    a) Pelton wheel.
    b) Francis turbine
    c) Kaplan turbine
11. Performance test on centrifugal pump.
    a) Single stage centrifugal pump.
    b) Multi stage centrifugal pump.
12. Performance test on reciprocating pump.

Course Outcomes:

- ✓ Ability to use various flow measurement devices.
- ✓ Students will be able to evaluate the performance of different fluid machinery.