**Fluid Flow Operation laboratory**

**Actual Photo of lab**

****

|  |  |
| --- | --- |
| **Faculty in charge** | **Mr. Prashant A. Giri** |
| **Laboratory Area** | 102 m2 |
| **Location** | C:02/02 |
| **Seating Capacity** | 20 Sharing with HTO Lab |
| **Infrastructure & Facility** | Water connectionsBlack Board, 2 Student’s Tables (Sharing with HTO Lab)2 Faculty Tables (Sharing with HTO Lab)20 Stools (Sharing with HTO Lab) |
| **List of Equipment Available** | 1. FLUIDIZATION
2. FLOW THROUGH NOTCHES
3. FLOW THROUGH HELICAL COIL
4. POWER CONSUMPTION IN AN AGITATED VESSEL
5. EFFLUX TIME OF TANK
6. FLOW THROUGH ANNULUS
7. FLOW THROUGH FIXED BED
8. AIR COMPRESSOR
 |
| **List of Experiments Performed** | **Odd Sem:**1. To determine pressure drop per unit bed length as a function of superficial velocity of fluidizing medium.
2. To determine the coefficient of discharge for Orificemeter.
3. To find the coefficient of discharge for a triangular and sharp-edged notch.
4. To compare the pressure drop in helical coil with that in a straight pipe of same length, inside diameter and surface roughness.
5. To determine the Reynolds’s number and hence the type of flow, either laminar or turbulent.
6. To determine the power number for different impellers
7. Determination of Viscosity of different densities Fluid by Measuring Efflux Time
8. To calibrate the given Rotameter and draw it in the calibration curve.
9. To estimate pressure drop for dry packing, wet drained packing and for two phase flow of air & water
10. Determination of Viscosity of different densities Fluids

**Even Sem: NA** |
| **Total Expenditure** | **Rs. 393,010.25** |