## FLUID MECHANICSLABORATORY

Location: ROOM NO. 101 & 107, WORKSHOP BUILDING, ADIT

## **Introduction of Lab:**

The objective of Fluid Mechanics laboratory is to determine the various parameters related to fluid flow in pipes, channels etc. The Fluid Mechanics laboratory is having equipments to carry out experiments like determination of meta centric height of a floating vessel, verification of the Bernoulli's energy equation, study of transition from laminar to turbulent flow, determination of velocity profile for pipeline flow, determination of coefficient of discharge for obstruction flow meter (Venturi meter/orifice meter), determination of discharge coefficient for various notches, determination of hydraulic coefficients for flow through an orifice, determination of friction coefficient for pipes of various diameters and calculation of minor head losses in pipes.

The facilities available in laboratory include:

(1) Losses in Pipe Fittings (2) Reynold's Apparatus (3) Free & force Vortex Apparatus (4) Flow over Notches Apparatus (5) Metacentric Height of Ship Model (6) Bernoulli's Theorem Verification Setup (7) Losses in Friction Setup (8) Flow Measurement by Venturimeter and Orifice Meter (9) Flow Through Orifice and Mouthpiece

Laboratory also has set up of Open channel flume, Pelton wheel turbine, Francis Turbine. Kaplan Turbine and Centrifugal Pump.

## CIVIL ENGINEERING DEPARTMENT, A.D.PATEL INSTITUTE OF TECHNOLOGY