

FLUID

MECHANICS

The objective of this laboratory is to determine the various parameters related to fluid flow in pipes. At present it is equipped with various stand-alone equipment to carry out experiments like determination of metacentric 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 & forced 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 Venturi and Orifice Meter
9. Flow Through Orifice and Mouthpiece Apparatus
10. Impact of Jet Apparatus

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