Fluid and hydraulics lab.



Device Name: Hydraulic Bench

Used For: designed as a portable and self –contained service module for the range of accessories.

Experiment associated with

it: Bernoulli's theorem apparatus.Orifice and jet flow apparatus.Open channel.Impact of water jet.

Courses associated with it:

Fluid mechanics and hydraulics.



Device Name: center of pressure.

Used For: To determine the position of the center of pressure on the rectangular face of the partially or entirely submerged object in the water.

Experiment associated with

it: center of pressure.

Courses associated with it:

Fluid mechanics.

Device Name: Orifice and jet

flow. **Used For:** To study the flow

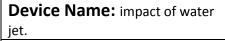
through an orifice and determine the discharge coefficient, velocity coefficient and the actual jet profile.

Experiment associated with

it: orifice and jet flow.

Courses associated with it:

Fluid mechanics.



Used For: To produce and measure force resulted by a water jet when it strikes a target.

Experiment associated with

it: impact of water jet.

Courses associated with it:





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Fluid mechanics.

Device Name: fluid friction measurement.

Used For: To demonstrate the friction loss in pipes, valves and other fittings. To determine experimentally the relationship between friction factor and Reynolds number for flow of water in a pipe.

Experiment associated with

it: Fluid friction.

Courses associated with it:

Fluid mechanics.

Device Name: hydraulic flow demonstrator.

Used For: demonstration of various flow phenomena.

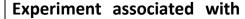
Experiment associated with

- Slow and fast flow.
- Hydraulic jump.
- Flow beneath sluice gate.
- through rectangular sharp crested weir.



Device Name: Series and parallel pump test.

Used For: • To study the relation between head and flow rate of two pumps where connected in parallel or series.



it: Series and parallel pumps.

Courses associated with it: hydraulic.



