HYDRAULIC ENGINEERING LAB

The lab session is designed to give the students hands-on experience with the equipment, methods, and procedures to be followed in Hydraulic engineering lab. The main objective of this course is to understand the types of flow, flow losses in pipes, and characteristics of the centrifugal pumps.

Experiments:

-Energy losses in pipes:

a. For Turbulent flow

b. For Laminar flow

-Energy losses in bends:

a. For a short elbow of 90°

b. For a medium elbow of 90°

c. For a curve of 90°

d. In a miter (angle of 90°)

e. For flow direction diverter elements

f. For a 20/40 widening

g. For a 40/20 narrowing

h. For a membrane valve

-Laminar flow visualization,

-Centrifugal pumps characteristics

-Computer controlled deep bed filter unit

MAJOR EQUIPMENT:

-Centrifugal Pump Characteristics
-Computer Controlled Deep Bed Filter Unit

-Computer controlled fluid friction in pipes with hydraulic bench

-Computer controlled pipe network unit, with hydraulic bench

-Energy Losses In Bends

-Energy Losses In Pipes

-Flow Visualization In Channels

-Laminar Flow Demonstration

-Computer controlled drainage and seepage tank

-Computer controlled flow channel