



## **Report Requirements**

### **Two parts (lab and research)**

Groups: maximum 5 students

### **First: Lab part**

#### **1- Calibration of Pressure Gauge Using Dead Weight Tester**

1. Objective
2. Tables of observation and results
3. Sample of calculations
4. Graph (Gauge reading on x-axis, Actual pressure on y-axis) straight line
5. Conclusion

#### **2- Determination of the Centre of Pressure of a Plane Surface Immersed In Water Using Hydrostatic Pressure Apparatus**

1. Objective
2. Tables of observation and results add error in each reading ( $E\% = \frac{X_{th} - X_{ex}}{X_{th}} * 100$ )
3. Sample of calculations
4. Conclusion

#### **3- Secondary Losses in Bends and Fitting**

1. Objective
2. Tables
3. Sample of calculations
4. Conclusion

#### **4- Calibration of Orifice Meter**

1. Objective
2. Tables
3. Sample of calculations
4. Graphs [2 graphs]
  - a.  $V_{act}$  vs  $V_{th}$  slope= $C_v$  (straight line)
  - b.  $Q_{act}$  vs  $Q_{th}$  slope= $C_d$  (straight line)
5. Conclusion



## **5- Bernoulli's Experiment and Calibration for Venturi-Meter**

1. Objective
2. Tables
3. Sample of calculations
4. Graphs [2 graphs]
  - a.  $V_{act}$  vs  $V_{th}$  slope= $C_v$  (straight line)
  - b.  $Q_{act}$  vs  $Q_{th}$  slope= $C_d$  (straight line)
  - c. Hydraulic gradient
5. Conclusion

### **Second: research part**

This part is about 3 topics

### **Notes:**

- Any **hand written** parts will be rejected.
- Any **copied parts** on the report both reports will be rejected.