

1. Fluid Pressure and different methods of its Measurement.
2. Archimedes principles and floating bodies.
3. Velocity and acceleration in two dimensional flow, Newton's law for fluids and its application in simple cases.
4. Continuity equation and its application for ideal fluid.
5. Bernoulli's equation and its application for ideal fluid.
6. Laminar and turbulent flow in pipes and Reynolds experiments.
7. Dimensional Analysis and Similarity
8. Steady flow in pipes.
9. pressure losses in pipe networks, joints and exit connections.
10. Flow of viscous fluid in pipes.

**The research should include:**

**1. INTRODUCTUN:**

This section may show the importance of the subject, its working principles, types, materials, maintenance, the methods used to enhance the performance ...etc.

**2. LITRATURE REVIEW:**

It should provide a background information and a review of the existing literature.

**3. SOLVED EXAMPLE:**

The Student Should Give one Solved Example.

**4. CONCLUSIONS:**

which summary the main trend and main results

**5. RECOMMENDATIONS FOR FUTURE WORK:**

The student can suggest one technique to enhance the performance of the selected topic

**6. LIST OF REFERENCE (Written as follows):**

Author's name , "Research Title" Journal name, volume Number, Year, Pages.