

RAMCO INSTITUTE OF TECHNOLOGY
Department of Mechanical Engineering
Academic Year 2021 – 2022 (Odd Semester)

Innovative practice(s) description

Course code and title : CE8394 Fluid Mechanics and Machinery
Name of the Instructor(s) : Mr.M.Ashok Kumar, AP (SG)/Mechanical
Dr.P.Sureshkumar, ASCP/Mechanical
Date & Time : 29.10.2021 & 1.20 PM to 2.10 PM

Theory to Practice – Major and Minor losses and Flow Measurement Devices

To explain the working of any machine, instrument and concept to the students, Theory to practice (T2P) is one of the best methods. In the subject CE8394 Fluid Mechanics and Machinery the Unit II is through circular conduits, in this topic losses due to friction and minor losses are important concept for selecting the pipe material for the particular fluid flow applications. In order to make our student to understand the concept of major and minor losses, the students were taken away to the fluid mechanics and machinery laboratory and the experiments on the major and minor losses were conducted and the head losses due to the friction was calculated and compared for the two different material's pipe 1. GI Pipe and PVC Pipe. Through this activity all the students were clarifying doubts in major and minor losses. In addition to that the flow measurement devices orifice meter, venturimeter and rotameter working were also demonstrated.



OUTCOME:

- The students will be able to calculate the loss in head due to major and minor losses
- The students will be able to explain the working of the flow measurement devices

This activity helps in attaining the following CO – PO & PSO mapping:

Course Outcome / Programme Outcome	PO1	PO2	PO5	PO9	PSO3
CO2 – Calculate the major and minor losses associated with pipe flow in piping networks	3	3	1	1	3