



RAMCO INSTITUTE OF TECHNOLOGY

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Department of Civil Engineering

Academic Year 2023– 2024 (Even Semester)

Degree, Semester & Branch: IV semester B.E Civil Engineering

Course Code & Title: CE3401 & Applied Hydraulic Engineering

Name of the Faculty member (s): Mrs.R.Kalaimani

Innovative Practice Description

• Unit / Topic: Unit V / Reciprocating Pump

• Course Outcome: CO5

• Topic Learning Outcome: TLO16

• Activity Chosen: Theory to Practical

• Justification:

The working principle of Reciprocating pumps as learnt as their theory subjects. so in order to give a practical exposure students are taken to hydraulics laboratory to show the experimental setup.

• Time Allotted for the Activity: 15 minutes

• Details of the Implementation:

Theoretical and practical knowledge are interconnected and complement each other — if one knows exactly HOW to do something, one must be able to apply these skills and therefore succeed in practical knowledge.

• CO – PO / PSO mapping:

CO	PO1	PO2	PO9	PSO4
CO1	3	3	1	3

(1 – Low 2 – Moderate 3 – High)

• PO / PSO mapped:

Innovative practice	PO1	PO2	PO9	PSO2
	3	3	1	3
Justification for correlation	To solve the problem the student will apply the mathematical, science and engineering fundamentals	Derive the formula using mathematics, natural science and engineering science to calculate the performance parameters	The tutorial hours are conducted by the concept of peer learning at that time the student's individual and team work is improved	Calculate the performance parameters of different types of Pumps



• Images / Screenshot of the practice:



• Reflective Critique:

❖ *Feedback of practice from students and other stakeholders:*

From this activity, the students have given the feedback as made to see lively the how a pump of reciprocating work.

❖ *Benefit of the practice:* (E.g.: Outcome attainment would have increased due to innovative practice over conventional practice)

- i. This activity was important to help the students to identify the bridge the gap between oral learning and hands-on experience.
- ii. The students will be to identifying the components and working principle of reciprocating pump

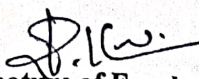
❖ *Challenges faced in implementation:*

Initially, I have planned the activity for 15 minute but this activity extended more than 20 minutes to explain the working principle of reciprocating pump

References:


❖ Jain.A.K., "Fluid Mechanics" (Including Hydraulic Machines), Khanna Publishers, Twelfth Edition, 2016.

❖ <https://medium.com/@amandaposthuma/theoretical-vs-practical-knowledge-86cab1113abd>


Signature of Faculty Member

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