



# RAMCO INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi & Affiliated to Anna University  
Accredited by NAAC & An ISO 9001:2015 Certified Institution  
NBA Accredited UG Programs: CSE, EEE, ECE and MECH

Department of Civil Engineering

Academic Year 2022– 2023 (Even Semester)

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

Course Code & Title: CE3402 & Strength of Materials

Name of the Faculty member (s): Mr.V.Ragavan

## Innovative Practice Description

- Unit / Topic: Unit III / Deflection – Simply supported Beam

- Course Outcome: CO3

- Topic Learning Outcome: TLO7

- Activity Chosen: Theory to Practical

- Justification:

The calculation of deflection value for simply supported beam as learnt as their theory subjects. So in order to give a practical exposure students are taken to strength of materials 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	PSO2
CO1	3	1

(1 – Low      2 – Moderate      3 – High)

- PO / PSO mapped:

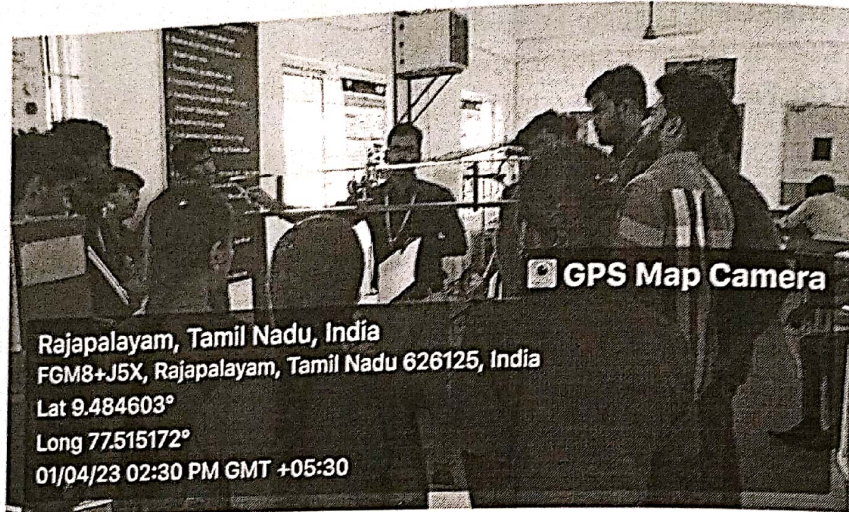
Innovative practice	PO1	PSO2
	3	3
<b>Justification for correlation</b>	To solve the problem the student will apply the mathematical, science and engineering fundamentals	Calculate the deflection value of simply supported beam under the central point load condition.



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- 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 to determine the deflection of beam.

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

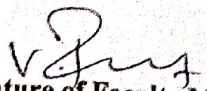
- This activity was important to help the students to identify the bridge the gap between oral learning and hands-on experience.
- The students will be to identifying the types of beam and to calculate the deflection value of simply supported beam.

- ❖ *Challenges faced in implementation:*

Initially, I have planned the activity for 15 minutes but this activity extended more than 20 minutes to determine the deflection value of simply supported steel beam.

### References:

- ❖ Rajput R.K. "Strength of Materials (Mechanics of Solids)", S.Chand & company Ltd., New Delhi, 2018.
- ❖ Timoshenko.S.B. and Gere.J.M, "Mechanics of Materials", Van Nos Reinhold, New Delhi 1999.

  
Signature of Faculty Member

  
HOD

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