



# ERODE SENGUNTHAR ENGINEERING COLLEGE

(An Autonomous Institution)

Approved by AICTE, New Delhi, Permanently Affiliated to Anna University - Chennai,

Accredited by National Board of Accreditation (NBA), New Delhi

National Assessment and Accreditation Council (NAAC), Bangalore with 'A' Grade


**PERUNDURAI - 638057, TAMILNADU, INDIA.**



## DEPARTMENT OF CIVIL ENGINEERING

### Significance of Innovations in Teachings

Statement of Clear goals, Use of appropriate methods, Significance of results, Effective presentation and Reflective critique:

Sl. No.	Innovative methods adopted and subject (Necessity for the course and Level of the students)	Statement of Clear goals	Significance of Results	POs/PSOs addressed	Effective presentation	Reflective Critique (Reviewed in DAAC meetings)
1	Peer Feedback/ Industrial Waste Management (VII Sem)	Students learned about the present status of pollution in India.	Students learnt essential know how and skills on the subjects by providing and receiving constructive feedback with an open mind and proper manners. Once the feedback is received, the students have to respond to it by explaining.	PO3, PO4, PO6, PO7, PO11, PSO3		DAAC Members enquired about the way in which this innovative method is adopted and gave comments to implement and improve it.






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2	<i>Cross over Teaching / Estimation and Costing (VII sem)</i>	Students imparted the basic field estimate knowledge of materials quantities calculation for kerb stone and Interlock block	Students had clarity of estimation by visualizing in experimental learning centre activity. Improvement in results noticed beside quality improvement in the students	PO1, PO2, PSO1, PSO3		Method was appreciated by the members of DAAC. Industry member commented that this method is extended to other building components.
3	<i>Inquiry based learning / Environmental Pollution Control</i>	In Inquiry based learning, each group discussed about the various diseases cause by water pollution to humans.	Instead of giving a lecture, the lesson is started by asking questions, presenting a problem or current case study or a scenario. As the faculty member serve as a facilitator, the student will research in that topic either independently or a group.	PO6, PO7, PSO3		DAAC Members appreciated and gave suggestions.
4	<i>Flipped Class Room / Concrete &amp; Highway Laboratory</i>	Students understand the knowledge on materials used in concrete mixes	Students are posted with videos and materials in the students Whatsapp group or Google classroom before actual classes. In the actual class, the students do discuss	PO1, PO2, PO4, PO7, PO8, PO9, PO10, PSO1		DAAC Members appreciated and suggested to post NPTEL videos.






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			and carry out study work as homework.			
5	<i>Project Based Learning / Structural Dynamics and Earthquake Engineering</i>	To learn about mode shape and modal frequency	It is a active learning method where faculty is serving as a guide and the students undergo learning journey over two or three semesters.	PO1, PO2, PO3, PO5, PO10, PO12, PSO1, PSO2		DAAC members commented that usefulness of this method for the initial third and fourth semester
6	<i>Personalized Learning / Structural Dynamics and Earthquake Engineering</i>	To learn about the analyzing the procedure of lateral load	Students who were found to be introverts/academically slow/reserved in the class have been given special coaching.	PO1, PO2, PO3, PO5, PO10, PO12, PSO1, PSO2		Parents of such students appreciated the method in the DAAC meeting and thank that faculty member and class advisor and wanted this method to be continued
7	<i>Peer Teaching / Water Supply Engineering</i>	To Understand the Pipe Materials used in water supply	The students were divided into groups. They were asked to choose the area of their interest within the subject thought. Student discuss within the group and by heart the principles, concepts, classification and examples etc., Each group is asked	PO1, PO2, PO3, PO4, PO6, PO7, PO9, PO10, PO11, PO12, PSO1		Industry Stakeholders of DAAC meeting commented that this method need to be followed for other also, because such method will help students constantly to enrich their knowledge by Interpersonal relationship, teamwork organization skills, leadership skills, communication skills and



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			<p>speaking out loudly and other group members learn and vice-versa</p>			<p>good attitude, besides self learning and self development.</p>
8	<p><i>Interactive Lessons / Fluid Mechanics and Machineries</i></p>	<p>In group discussion, each group discussed about the major and minor losses in pipes.</p>	<p>A series of Quiz questions are asked to the students and correct answers are explained.</p>	<p>PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO11, PO12, PSO1, PSO2, PSO3</p>		<p>DAAC Members enquired about the way in which this innovative method is adopted and gave comments to implement and improve it.</p>
9	<p><i>Design –Thinking Process / Hydraulic Laboratory</i></p>	<p>To determine the coefficient of discharge using the venturimeter.</p>	<p>The students are presented with problems and they are asked to find out strategy to give solutions. Issues are defined to the students and the potential of the students to address such issues are discussed.</p>	<p>PO1, PO2, PO3, PO4, PO6, PO7, PO9, PO11, PO12, PSO3</p>		<p>DAAC Members appreciated and confirmed about its usefulness in providing OBE.</p>






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10	<i>Jigsaw method /</i> Design of RCC Elements	To learn the reinforcement detailing in the structural elements in the building	Students are divided into small small groups and each groups have been given a sub topic of th main topic. Each group are asked to explore and develop their ideas. Then all the groups are asked to share their ideas and observations to form a big picture or broad applications / views	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO11, PO12, PSO1, PSO2, PSO3		DAAC Members enquired about the way in which this innovative method is adopted and gave comments to implement and improve it.
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