

MARATHA VIDYA PRASARAK SAMAJ'S
KARMAVEER ADV. BABURAO GANPATRAO THAKARE
COLLEGE OF ENGINEERING

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No: CA/1542
 & Approved by AICTE New Delhi Vide Letter No: 740-89-32 (E) ET/98
 AISHE Code - C-41622

www.kbtcoe.org

Mechanical Engineering Department

Academic Year – 2020-21	Class: BE
Semester – 8	Date : 02/07/2021
CO: CO1,CO3,CO4,CO5	PO: PO3,PO7,PO9

Innovative Teaching Methods

Title of Innovation method/activity: Innovative Teaching Learning Method (Group case study) for Practical aspects of Design of various mechanical systems.

1. Name of Faculty: Mr.S.Y.Pawar

2. Subject: Mechanical System Design

3. Objective of Method:

- I. Create the awareness of Design of various mechanical systems
- II. Design of various Mechanical components and understanding their functions.
- III. Practical Case study and its details.

4. **Topic Covered through Activity:**

Practical Aspects of Various Mechanical Systems Design

5. **Description of method with Benefits (8 – 10 lines):**

Benefits of method:

- It helps students to gain good knowledge about a topic or appropriate answer to a question.
- It teaches students to share ideas with classmates and builds oral communication skills.
- It helps focus attention and engage students in comprehending the practical case studies.
- The **Group case study activity** gives students the opportunity to feel more comfortable sharing their thoughts and to work in group.

The method:

Monitor and support students as they work together and represent data in the following manner.

Abstract: (Minimum 200 words)

Keywords:

1. Introduction
2. Learning Outcomes
3. System Description
4. Classes and Objects used in the System
5. Methods and Constructors
6. Interfaces and Packages used in the implementation
7. References

Roles and Responsibilities

- **Teacher**
 - Develop the awareness among the students about the industrial applications of various mechanical systems design.
 - Selection of various mechanical systems design for the study .
 - Provide the study material in the form of ppt / videos
 - Remain available during the completion of task.
 - Prepare assessment methodology.
- **Student**
 - Go through all the material provided on given various mechanical systems design
 - Once topic assigned, understand it and solve in group and discuss any doubt with his group members.
 - Actively participate in group and contribute by means of discussion
- **Group**
 - Form the group of members as per the guidelines by teachers.
 - Understand and discuss to finalize the best solution for the assigned task.
 - Assign the work within the group to achieve the task within stipulated time period.

6. Assessment Tools

Sr. No	Evaluation Criteria	Max. Mar	Level 1	Level 2	Level 3
1	Understanding	10	<ul style="list-style-type: none"> • Good knowledge of the issues, • Complete analysis • Appropriate Answers to Questions. 	<ul style="list-style-type: none"> • Adequate knowledge of the issues, • Partial analysis • Answers questions, but often with little insight. 	<ul style="list-style-type: none"> • Inadequate knowledge of the issues, • Incomplete analysis • Inappropriate Answer
2	Report writing	10	<ul style="list-style-type: none"> • Appropriate content • Proper formatting • Ethical practices 	<ul style="list-style-type: none"> • Less relevant content • Fairly appropriate • Ethical practices 	<ul style="list-style-type: none"> • Inappropriate content • No formatting • Ethical practices
3	Timely Submission	5	<ul style="list-style-type: none"> • Submission within deadline 	<ul style="list-style-type: none"> • Submission within week 	<ul style="list-style-type: none"> • Late submission

7. Evaluation sheet of attendee

Roll Number	Name	Topic Name	Marks (Out of 25)
81	Sunil Chanappa Mali	Design consideration for Gearbox of any Jeep model	16
82	Gandhali Sunil Mhalas		19
83	Shriram Kailas Mhasan		15
84	Darshana Sanjay Moha		17
85	Ajay Rajendra More		15
86	Shivam Jeetendra More	Design of material handling system for coal industry	18
87	Dushyant Sanjay Mulmu		20
88	Mansi Nitin Nankar		18
89	Neha Ukha Saokar		16
90	Tejas Rajendra Netawa		19
91	Kalpesh Satish Nikam	Design of Pressure Vessel for Petrochemical industry	17
92	Nikita Bhausaheb Nikam		19
93	Saurabh Yuvaraj Nikam		17
94	Pratik Chindhu Patade		15
95	Akshay Dilip Patil		17
96	Aniket Rajendra Patil	Design consideration for Gearbox of a Harvester Machine	19
97	Dhanashri Rajendra Pat		17
98	Ganesh Hiranman Patil		17

99	Jayesh Ramchandra Pat		17
100	Nachiket Sanjay Patil		17
101	Niraj Shridhar Patil	Design of material handling system for Pharma Industry	19
102	Piyush Sunil Patil		19
103	Prachi Rajendra Patil		19
104	Rutuja Sunil Patil		16
105	Siddharth Sunil Patil		17
106	Tushar Suresh Patole		Design of material handling system for Maruti Suzuki industries
107	Akash Rajendra Pawar	21	
108	Ankita Sunil Pawar	18	
109	Mayur Ravindra Pawar	18	
110	Meghana Rajendra Paw	17	
111	Pranali Rajendra Pawa	Design of IC Engine components for any 4 -wheeler	
112	Priyanka Gauttam Pawa		15
113	Yash Krishna Pawar		14
114	Pradip Bhagwan Paygh		16
115	Prakash Mohan Prajap		12
116	Keturaj Komalsing Rajp	Design of Pressure Vessel for Natural Gas industry	18
117	Mangesh Vijay Rakibe		12
118	Pranav Mohan Randive		19
119	Aniket Shashikant Rasa		17
120	Amruta Mukund Rayate		17
121	Rushiprasad Raghunath	Design consideration for Gearbox of Mahindra Bolero Vehicle	18
122	Vyomkesh Jeetendra Sa		17
123	Preethesh Tanmoy Sen		21
124	Jishan Chandbhai Shaikh		17
125	Eshwary Arun Shardul		17
126	Abhishek Sunil Shelke	Design of Pressure Vessel for offshore industries	15
127	Danish M Salim Shikalik		20
128	Vaibhav Dnyaneshwar S		17
129	Darshan Tanaji Shirsat		20
130	Pooja Sanjay Shirsath		19
131	Akash Nandkumar Somv		19
132	Anuja Kailas Sonar		20

133	Harshali Shivaji Sonaw	Design consideration for Gearbox of Multi spindle Drilling machine	17
134	Vitthal Kondiba Surava		17
135	Priya Hemant Talele		21
136	Abhishek Satish Thorat	Design of material handling system for sugar industry	18
137	Chinmay Charudatta Vya		18
138	Mansi Bhikan Wable		17
139	Tushar Anil Wagh		17
140	Kunal Suresh Warke		14
141	Nikhil Jaywant Wedhan	Design of IC Engine components for Honda City	16
142	Alankar Nitin Bhalerao		18
143	Saurabh Sanjayrao Des		17
144	Avinash Sanjay Kumar J		15
145	Gaurav Sunil Kumavat		18
146	Jayesh Dipak Pardeshi	Design of material handling system for chocolate Industry	14
147	Mehul Shamji Patel		14
148	Swapnil Sudam Dholi		17
149	Bhushan Balu Shinde		10
150	Vikrant C. Vadnere		17
151	Yash Dinesh Suryawans	Design of IC Engine components for any 2 -wheeler	18
152	Sagar Babulal Patil		17
153	Vishwas Sampat Devgir		17

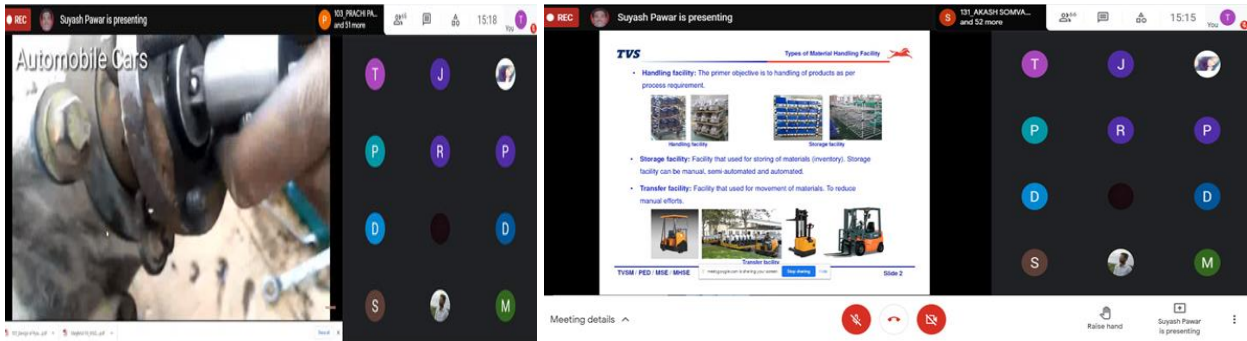
Student responses: Uploaded on google classroom :- class code:- nvlxfcx

Impact Analysis :- Google form link:- <https://forms.gle/moQJoBKo81sYZ32X9>

S.N.	4- Excellent	3- High	2- Moderate	1- Slight
1. How Much do you find explanation or notes or presentation material or Video of particular topic helpful (CO1/CO3/CO4/CO5)?	51.5%	39.2 %	9.3%	—
2. How Much do would rate understanding of topic (CO1/CO3/CO4/CO5)?	49.5 %	39.2 %	11.3%	—
3. Does the covered topic are helpful to understand the concept (PO9)?	58.9%	28.4%	11.6%	1.1%

4. Does the group members communicate effectively on given topic (PO10) ?	53.2%	31.9%	13.8%	1.1%
5. Does the content of covered topic will be remember for life long (PO12)?	54.6%	34.5%	11.3%	—
6. Would You Like To Participate in This Methodology again ?	Yes	No	—	—
	95.9%	4.9%	—	—

8. Activity Picture



9. For review and critique contact: e-mail address of faculty and HOD
pawar.suyash@kbtcoe.org

Mr.S.Y.Pawar
Subject In charge

Dr.S.P.Mogal
Module Coordinator

Dr.A.B.Kakade
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