

Mechanical Engineering Department

Academic Year: 2020-21	DIVISION: A & F
Class: F.E.	DATE: Div A: 18/06/2021 Div F: 18/06/2021
Course Outcome: CO1 and CO3	Program Outcome: PO1, PO9, PO10 & PO12

Innovative Teaching Method

Title of Innovative teaching method: Activity of Mind Map by MIRO

1. **Name of faculty:** Mr. M. N. Sonawane
2. **Subject:** Engineering Graphics
3. **Objective of method:**
 - I. To improve information recording
 - II. To shows how different facts and ideas are related
 - III. To enhances creative problem solving.
4. **Topic covered through activity:** Basics of Engineering Graphics and Conic curves
5. **Description of method with benefits**

Mind mapping is simply a diagram used to visually represent or outline information. It is a powerful graphic technique you can use to translate what's in your mind into a visual picture. Since mind mapping works like the brain does it allows you to organize and understand information faster and better.

Benefits:

- I. Mind mapping increases your creativity and productivity because it's an excellent tool to let you generate more ideas, identify relationships among the different data and information, and effectively improve your memory and retention.
- II. This activity allows you to quickly generate creative and even unique ideas in less time.
- III. By using a single page or space you can already place a huge amount of information and check its connections.
- IV. The use of colours, images, and keywords in mind mapping aids in enhancing your memory and retention.

Roles and responsibilities:

Teacher

- I. Introduce basic aspects of Engineering Graphics and Engineering Curves theoretically and graphically.
- II. Introduce the MIRO platform for making effective Mind-Map by actually demonstrating how to draw the same on this platform

Student

- I. Understand basics of power plant and different essential parts of power plant and go through virtual industrial visit
- II. Actively participate in group and contribute by means of discussion
- III. Draw the mind map on MIRO and submit the PDF/image on Google classroom.

Group

- I. Form the group of members as per the guidelines by teachers.
- II. Understand and discuss to finalize the best solution for the assigned task.
- III. Assign the work within the group to achieve the task within stipulated time period.

6. Assessment tools:

Assessment of following Mind Map will be done according to Rubrics given below.

	Poor (1)	Good (2)	Very Good (3)	Excellent (4)
Structure	Mark-1	Mark-2	Mark-3	Mark-4
Exploratory	Mark-1	Mark-2	Mark-3	Mark-4
Relationships	Mark-1	Mark-2	Mark-3	Mark-4
Connections between Sections	Mark-1	Mark-2	Mark-3	Mark-4
Extent of Coverage	Mark-1	Mark-2	Mark-3	Mark-4

(A) Structure: Non-linear structure provides a complete picture of your ideas.

(B) Exploratory: Map shows complex thinking about the meaningful relationships between ideas, themes, and the framework.

(C) Relationships: Relative importance of ideas is indicated and both simple and complex relationships are mapped very effectively.

(D) Connections: Information is presented clearly and allows for a high level of understanding.

(E) Extent of Coverage: Map shows complex thinking about the meaningful relationships between ideas, themes, and the framework.

7. Evaluation sheet of Attendee

DIVISION A

Roll No	Name Of Student	(A) 4M	(B) 4M	(C) 4M	(D) 4M	(E) 4M	TOTAL 20M
1	Abin Biju	3	3	3	3	3	15
2	Arpita Sandip Aher	3	3	3	3	3	15
3	Manasi Vinod Ahire	3	3	3	3	3	15
4	Peerzada Adil Ahmad	AB	AB	AB	AB	AB	AB
5	Chetan Pundalik Bagul	AB	AB	AB	AB	AB	AB
6	Samruddhi Nitin Bhandare	AB	AB	AB	AB	AB	AB
7	Ekta Manoj Bhavsar	3	3	4	4	3	17
8	Raina Prashant Borase	3	3	4	4	3	17
9	Riddhi Pravin Borase	3	3	4	4	3	17
10	Sakshi Ashok Chavan	AB	AB	AB	AB	AB	AB
11	Prathamesh Govinda Danej	3	3	4	4	3	17
12	Rohan Ravi Dash	3	3	4	4	3	17
13	Pratik Rajendra Deore	4	4	4	4	3	19
14	Sudhanshu Jayant Deshmukh	3	3	4	4	3	17
15	Madhuri Rajendra Dhanwate	AB	AB	AB	AB	AB	AB
16	Siddhi Ashok Duseja	3	2	4	4	3	16
17	Parikshit Gajanan Ganage	AB	AB	AB	AB	AB	AB
18	Tejas Pankaj Gandhalikar	3	2	4	4	3	16
19	Shruti Datta Golesar	3	2	4	4	3	16
20	Vishal Annasaheb Gore	AB	AB	AB	AB	AB	AB
21	Chaitanya Anil Hire	AB	AB	AB	AB	AB	AB
22	Sakshi Subhash Jadhav	4	3	4	4	3	18
23	Aditya Ajit Joshi	AB	AB	AB	AB	AB	AB
24	Om Sanjay Agrawal	4	3	4	4	3	18
25	Parth Deepak Aher	4	3	4	4	3	18
26	Pradnya Bapu Aher	2	2	3	3	3	13
27	Swatej Raghunath Aher	2	2	3	3	3	13
28	Vaibhav Karbhari Aher	AB	AB	AB	AB	AB	AB
29	Zeeshan Ali Mohammad Baqir Ali	AB	AB	AB	AB	AB	AB
30	Hari Vijay Awankar	AB	AB	AB	AB	AB	AB
31	Darshan Sunil Bachhav	AB	AB	AB	AB	AB	AB
32	Manoj Navnath Bangar	3	3	3	3	3	15
33	Suraj Nivrutti Bhadane	3	3	3	3	3	15
34	Yash Deepak Bhadane	3	3	3	3	3	15
35	Yogita Dilip Bhamare	3	3	3	3	3	15
36	Vinay Sunil Borave	3	2	3	3	3	14
37	Pallavi Bhagwan Chaudhari	3	2	3	3	3	14
38	Divya Barku Chavan	3	2	3	3	3	14
39	Mohd Asif Ch Bashir Ahmad Choudhary	AB	AB	AB	AB	AB	AB

40	Arjun Prashant Deore	3	2	3	3	3	14
41	Ritesh Rakesh Deore	4	3	4	4	4	19
42	Vaibhav Keshav Deshmukh	4	3	4	4	4	19
43	Urmila Sanjay Dhawaskar	AB	AB	AB	AB	AB	AB
44	Atharva Subhash Aher	4	3	4	4	4	19
45	Harshali Vijay Ahirrao	4	3	4	4	4	19
46	Jayesh Vikas Ahirrao	3	3	3	3	3	15
47	Rupali Vijay Avhad	2	3	3	3	2	13
48	Aditya Deepak Bagul	3	3	3	3	3	15
49	Suraj Dattatry Bajare	2	3	3	3	2	13
50	Abhishek Pundlik Bankar	2	3	3	3	2	13
51	Avantika Dilip Benake	4	4	4	3	3	18
52	Suraj Santosh Wankhede	4	4	4	3	3	18
53	Yash Rajendra Deshmukh	4	4	4	3	3	18
54	Shravani Manoj Aher	4	4	4	3	3	18
55	Sohan Bharat Rajkule	4	4	4	3	3	18
Number Of Students Appeared For The Exam							40
Total Marks Scored By All Students							645
Average Marks							16.13
Target Value							40
Number Of Students Scoring More Than Target Value							40
Percentage Of Students Scoring More Than Target Value							100

DIVISION F

Roll No	Name Of Student	(A) 4M	(B) 4M	(C) 4M	(D) 4M	(E) 4M	TOTAL 20M
1	Aaditya Santosh Patil	3	4	4	3	3	17
2	Divya Shivaji Patil	3	4	4	3	3	17
4	Shruti Jitendra Patil	AB	AB	AB	AB	AB	AB
5	Vineet Sandeep Patil	3	4	4	3	3	17
6	Shweta Kishor Pawar	3	2	4	3	2	14
7	Utkarsh Sanjay Pawar	AB	AB	AB	AB	AB	AB
8	Shailesh Pyarelal Pawara	AB	AB	AB	AB	AB	AB
9	Niranjan Ranganath Pekhale	AB	AB	AB	AB	AB	AB
10	Shubham Ramkrishna Rajput	3	2	4	3	2	14
11	Tejas Ravindra Rokade	4	4	4	4	3	19
12	Rounak Pankaj Sahni	4	4	4	4	3	19
13	Om Rajendra Shewale	4	4	4	4	3	19
14	Ayush Dinesh Suryawanshi	4	4	4	4	3	19
15	Pratik Ramrao Suryawanshi	4	4	4	4	3	19
16	Vaishnavi Dilip Tajane	4	4	4	4	4	20
17	Eshwari Pravin Tambat	4	4	4	4	4	20
18	Rutuja Dipak Thakare	4	4	4	4	4	20
19	Nitin Balu Tupsamundre	4	4	4	4	4	20

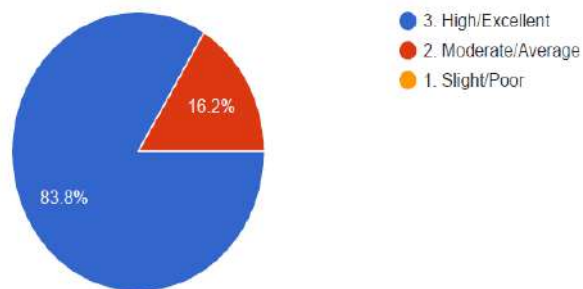
20	Kaveri Anandrao Waghchoure	4	4	4	4	4	20
21	Nandini Sanjay Wani	4	4	3	4	4	19
22	Manas Sudhir Yeole	4	4	3	4	4	19
23	Tanuja Sharad Pagar	4	4	3	4	4	19
24	Manish Yashwant Patil	AB	AB	AB	AB	AB	AB
25	Pranav Prabhakar Patil	4	4	3	4	4	19
26	Pratik Rajendra Rane	2	3	3	3	3	14
27	Siddhant Bajirao Sadgir	2	3	3	3	3	14
28	Pranav Shantaram Salunke	2	3	3	3	3	14
29	Aayush Kiran Shinde	2	3	3	3	3	14
30	Geeta Sandeep Shinde	2	3	3	3	3	14
31	Mansi Madhukar Shinde	2	3	4	3	3	15
32	Udayan Sachin Shinde	2	3	4	3	3	15
33	Yash Sandeep Shirsat	AB	AB	AB	AB	AB	AB
34	Aditya Kanhaiyalal Sonawane	2	3	4	3	3	15
35	Saurabh Anil Sonawane	2	3	4	3	3	15
36	Vaishnavi Devendra Sonwane	4	4	4	4	4	20
37	Tejashree Ajit Thete	4	4	4	4	4	20
38	Samruddhi Anil Wadgaonkar	4	4	4	4	4	20
39	Vedant Ramesh Wadje	4	4	4	4	4	20
40	Pratik Nanasaheb Zinjurde	4	4	4	4	4	20
41	Tejas Subhash Patil	3	2	3	3	2	13
42	Vaibhav Sandeep Pawar	3	2	3	3	2	13
43	Sahil Ramhari Pawase	3	2	3	3	2	13
44	Vedant Manoj Pingale	3	2	3	3	2	13
45	Gaurav Dhanaji Rayate	3	2	3	3	2	13
46	Rahul Sabapathy	3	3	3	3	3	15
47	Jiten Madhukar Shardul	3	3	3	3	3	15
48	Jaydip Dattu Shelake	3	3	3	3	3	15
49	Sumit Rameshwar Shelar	3	3	3	3	3	15
50	Ketan Kailas Shelke	AB	AB	AB	AB	AB	AB
51	Pranav Sunil Shinde	AB	AB	AB	AB	AB	AB
52	Rajesh Bhausahab Shinde	AB	AB	AB	AB	AB	AB
54	Chaitanya Nandu Thakare	2	2	3	2	2	11
55	Sahil Rajendra Thakur	AB	AB	AB	AB	AB	AB
56	Vimleshkumar Ramnaresh Yadav	AB	AB	AB	AB	AB	AB
57	Aditi Sudhir Patil	3	3	3	3	3	15
58	Harshada Raghunath Kalase	AB	AB	AB	AB	AB	AB
Number Of Students Appeared For The Exam							44
Total Marks Scored By All Students							731
Average Marks							16.61
Target Value							12
Number Of Students Scoring More Than Target Value							44
Percentage Of Students Scoring More Than Target Value							100

8. Impact analysis

Sr. No.	3- High/Excellent (%)	2 - Moderate /Average (%)	1-Slight/Poor (%)
1. Did you understand the cover and objective of the Mind map by MIRO task?	83.8	16.2	--
2. Do you find that methodology is helpful to cover the content of syllabus?	88.8	11.3	--
3. Does this helps you for building a good team?	75	21.3	3.7
4. Does the content covered are relevant and will be helpful as a Life-long learning?	81.3	17.5	1.2
5. Can you want to conduct such activity again?	76.3	22.5	1.2

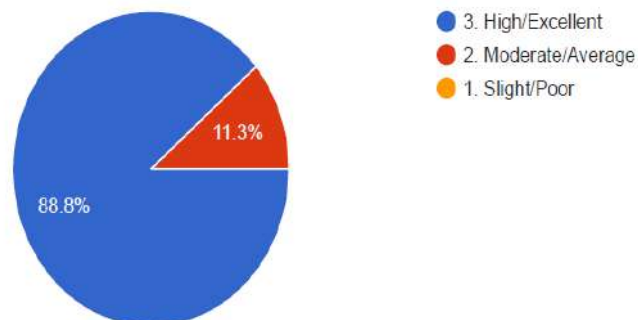
Q.1 Did you understand the cover and objective of the Mindmap by MIRO task?

80 responses



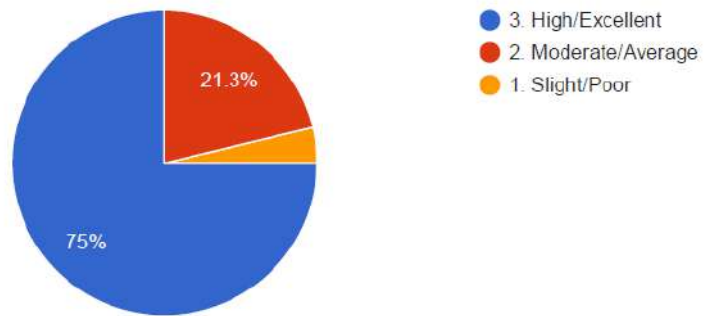
Q.2 Do you find that methodology is helpful to cover the content of syllabus?

80 responses



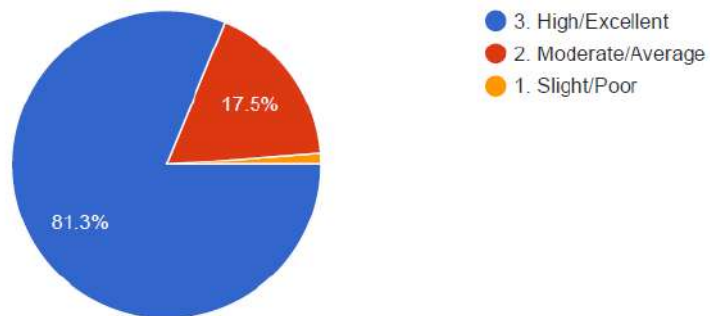
Q.3 Does this helps you for building a good team work?

80 responses



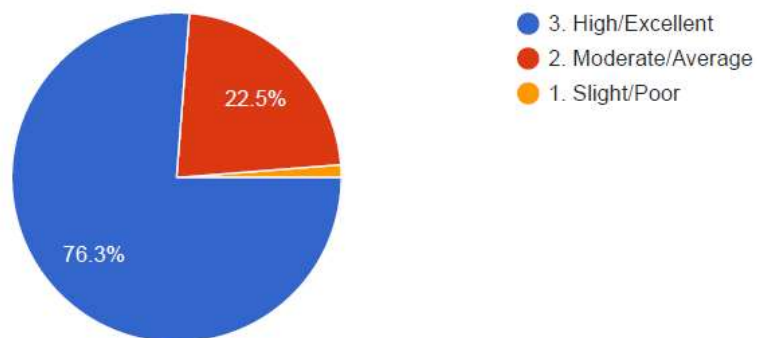
Q.4 Does the content covered is relevant and helpful for life long learning

80 responses

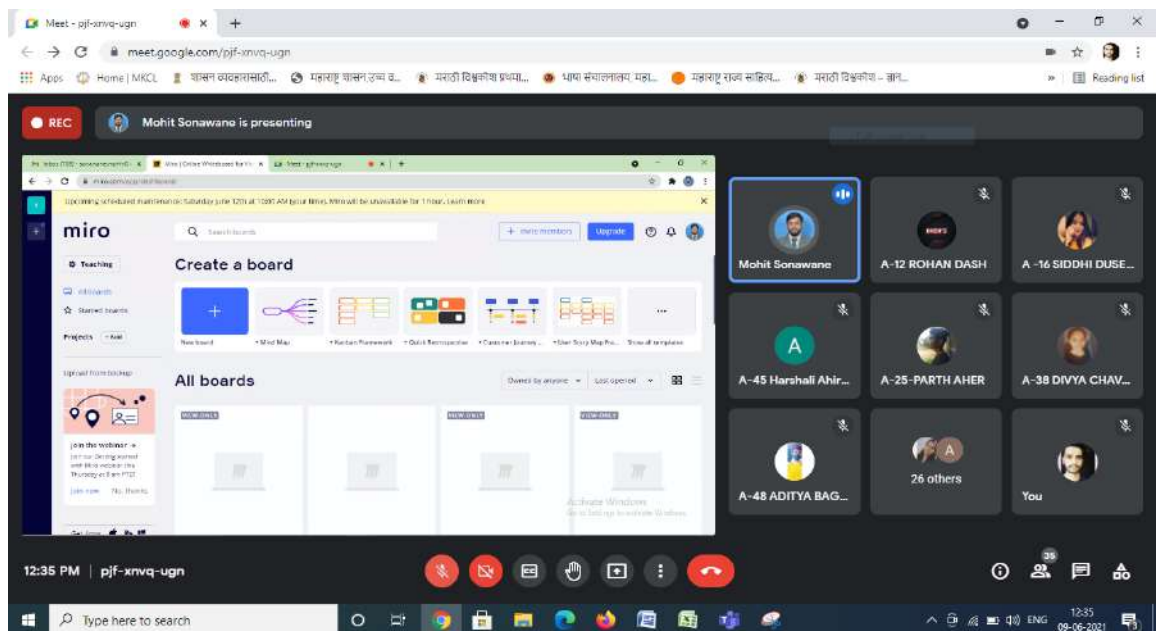
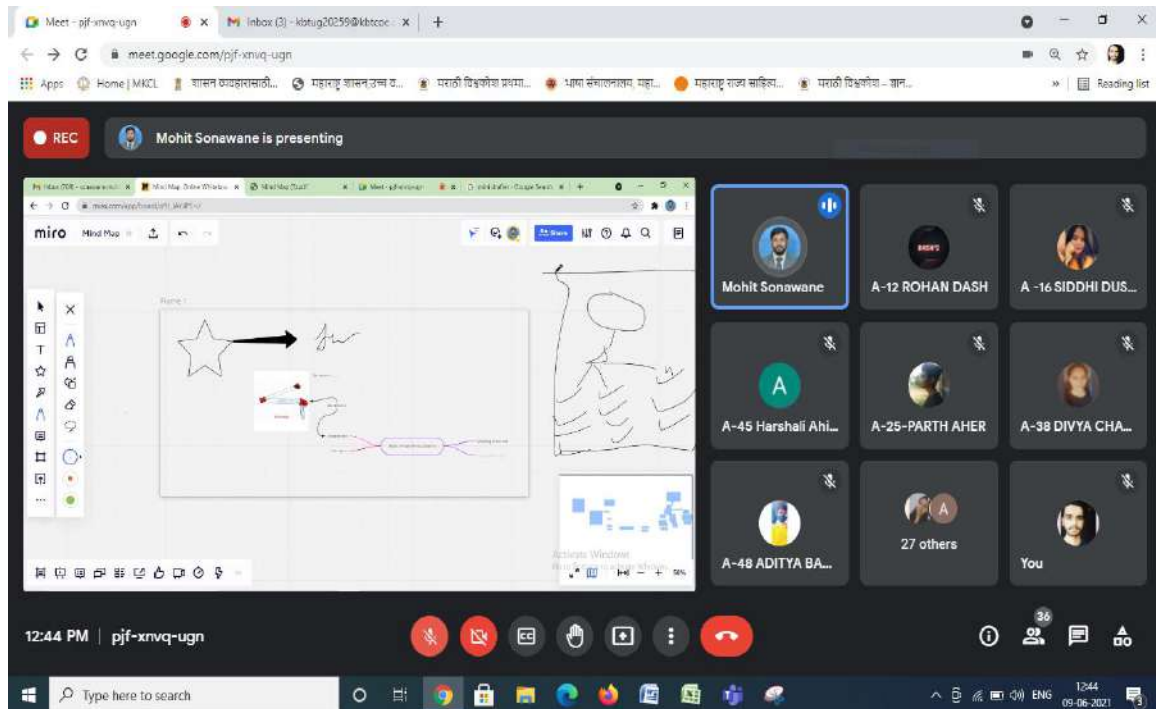


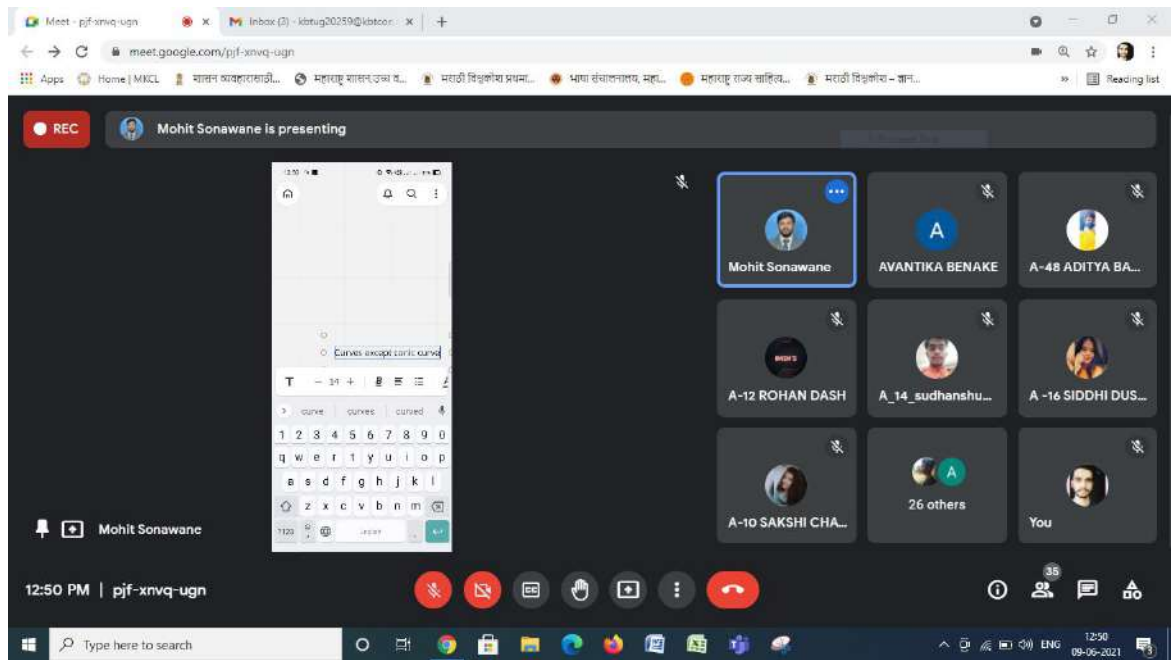
Q.5 Did you want us to conduct such activity again

80 responses



9. Activity Pictures:





10. Recorded Video Link:

<https://drive.google.com/file/d/1skGT3oukwemnuVTyw4TaP151e12h6o8Z/view>

11. For review and critique contact: e-mail address of faculty & HOD:

sonawane.mohit@kbtcoe.org & hod.mech@kbtcoe.org

Mr. M. N. Sonawane

Dr. V. C. Shewale

Subject In charge

H.O.D