Mechanical Engineering Department

Academic Year: 2024-25 **Class:** Second Year **Semester:** II

Course Outcome: CO1, CO2, CO3, CO4, CO5, CO6

Programme Outcome: PO1, PO5, PO10, PO12

Innovative Teaching Method

Title of Innovative teaching method: Use of Psychrometry App

1. **Name of faculty**: Dr. D. B. Uphade
2. **Subject**: Applied Thermodynamics
3. **Objective of method:**
   i. To create awareness among students about mobile application of Psychrometry App.
   ii. To understand the easy and ready use of Psychrometry App in field.
   iii. To read the Psychrometric property values for the actual data point values.
   iv. To apply the actual data point values for Psychrometric process.

4. **Topic covered through activity:** Understand the Psychrometric properties of moist air and identify the different processes.

5. **Description of method with benefits**
   In this activity teacher assigned specific Psychrometric process to group of students. After that students need to think about detail locating the first point of process. After that student will get sufficient time to gather information about details of process. After that students need to locate the point on chart as per their skills and prepare snap-image and upload it on Google Classroom. Teacher will analyse their performance on the criteria mentions in rubrics.

   Benefits:
   i. It will make students to think and study in depth readily and easily available Psychrometric point and processes.
   ii. It will provide platform to improve their soft skills, discuss among group of students and students will learn about how to use modern mobile app in the field.
6. **Roles and responsibilities:**
   Teacher
   i. Assign particular process to the students and guide them about the activity.
   ii. Observe and check point located and processes marked by each student.
   iii. Observe processes marked by students during assessment and evaluate the performance of individual student as per criteria mentioned below (Rubrics).

Student

i. Detail study of process which is assigned by teacher.
ii. Prepare process and mark it on Psychrometric app.

7. Assessment tools with rubrics:

Assessment will be done by subject teacher on the basis of following rubrics

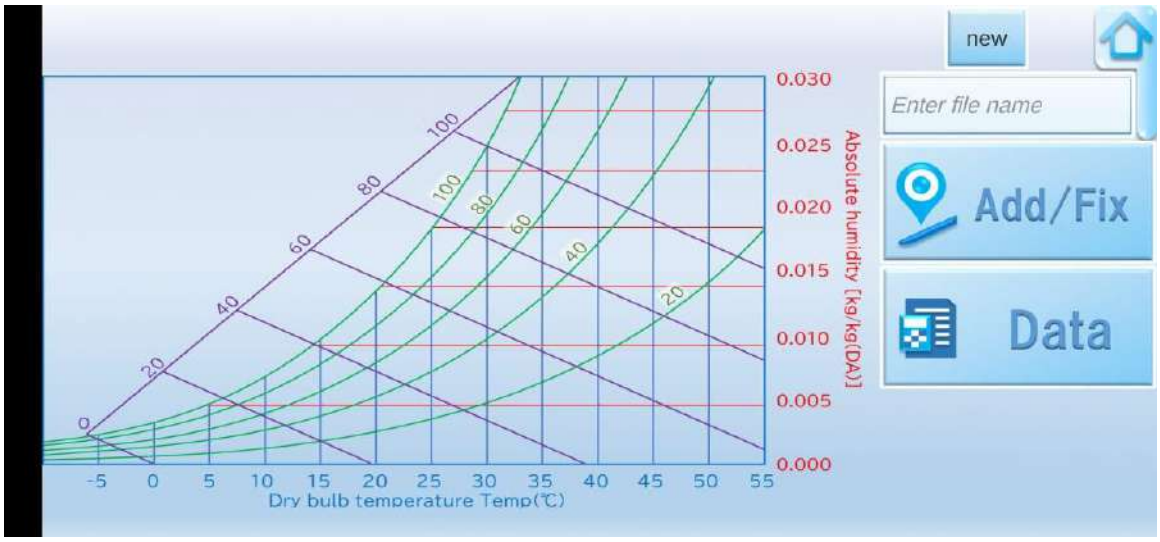
A	B	C
Understanding	Demonstration	Questions & Answers
02	05	03

8. Evaluation sheet of Attendees

Sr. No	Name of Student	A	B	C	Marks (Out of 10)
62	Prasad Londhe	3	4	3	**10**
63	Yogesh Madage	2	4	3	**9**
64	Abhijit Mahajan	2	5	3	**10**
65	Maithili Chavan	2	5	3	**10**
66	Yash Malode	2	3	3	**8**
67	Shubham Matsagar	2	3	2	**7**
68	Pratik Mhaisdhune	2	4	2	**8**
69	Shivam Mitke	2	3	2	**7**
70	Aakash Mohane	2	3	2	**7**
71	Gaurav More	2	5	2	**9**
72	Yash More	2	3	2	**7**
73	Sachin Nagare	2	4	3	**9**
74	Sanchit Nagare	2	3	2	**7**
75	Prasad Nalawade	2	5	3	**10**
76	Shantanu Nimbalkar	2	3	2	**7**
77	Pratik Pachore	2	5	2	**9**
78	Sakshi Pachorkar	2	5	3	**10**
79	Shlok Pardeshi	2	5	3	**10**
80	Parth Bhangre	2	5	3	**10**
81	Shubham Pathade	2	4	3	**9**
82	Aaditya Patil	2	5	3	**10**
83	Piyush Patil	2	5	2	**9**
84	Rushikesh Patil	2	3	2	**7**
85	Siddhi Patil	2	5	3	**10**
86	Tejas Patil	2	3	2	**7**
87	Viraj Patil	2	5	2	**9**

88	Shivam Patole	2	4	2	**8**
89	Ajinkya Pawar	2	5	2	**9**
90	Krushna Pawar	2	4	2	**8**
91	Sarthak Pawar	2	5	3	**10**
92	Sumit Pawar	2	5	3	**10**
93	Dipak Pund	2	4	2	**8**
94	Krushna Raut	2	5	3	**10**
95	Yash Sainkar	2	5	3	**10**
96	Harshada Sangale	2	5	2	**9**
97	Darshan Sarode	2	4	2	**8**
98	Chetan Shelke	2	4	2	**8**
99	Tejaswini Shelke	2	5	2	**9**
100	Om Shewale	2	5	3	**10**
101	Aaditya Shirsath	2	5	2	**9**
102	Ishwar Sonar	2	5	2	**9**
103	Anshul Sonawane	2	5	2	**9**
104	Shubham Sonawane	2	5	3	**10**
105	Sujal Sonawane	2	5	3	**10**
106	Tushar Sonawane	2	5	3	**10**
107	Vedant Sonawane	2	5	3	**10**
108	Aniruddha Surwade	2	5	3	**10**
109	Aniket Tambade	2	5	2	**9**
110	Aary Tambat	2	5	3	**10**
111	Atharv Tarle	2	5	2	**9**
112	Sanika Thete	2	5	3	**10**
113	Jyoti Thok	2	5	3	**10**
114	Viraj Thube	2	3	2	**7**
115	Jayesh Ugale	2	5	2	**9**
116	Pranjal Varade	2	5	3	**10**
117	Vedanti Nikam	2	2	2	**6**
118	Gaurav Vidhate	2	5	3	**10**
119	Sumit Vyavahare	2	5	3	**10**
120	Sakshi Vyavhare	2	5	2	**9**
121	Sahil Wagh	2	5	3	**10**
122	Shrawani Wagh	2	4	3	**9**
123	Sakshi Waje	2	5	3	**10**

Activity Images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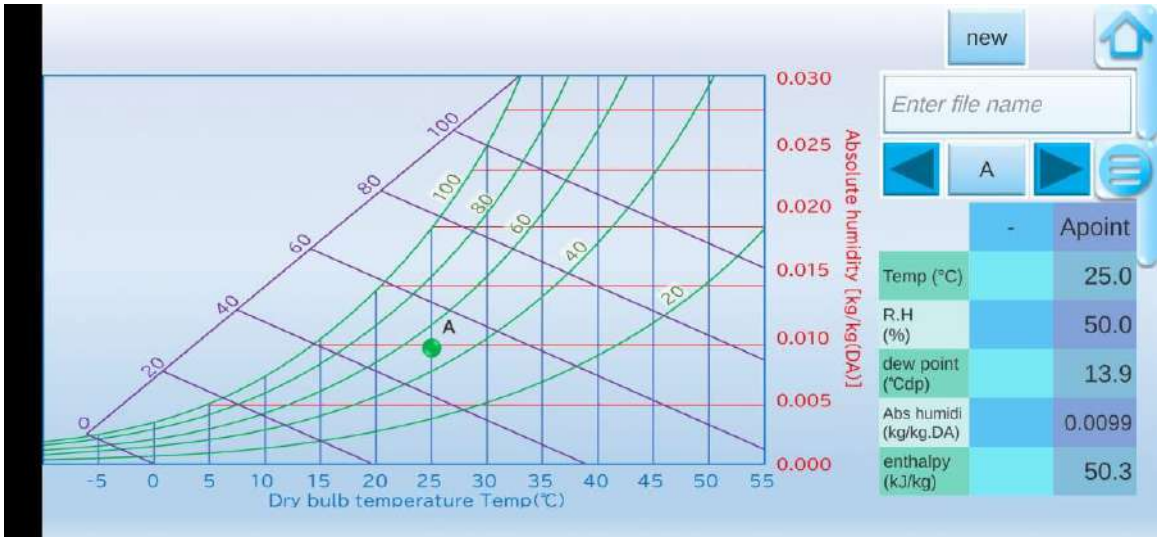
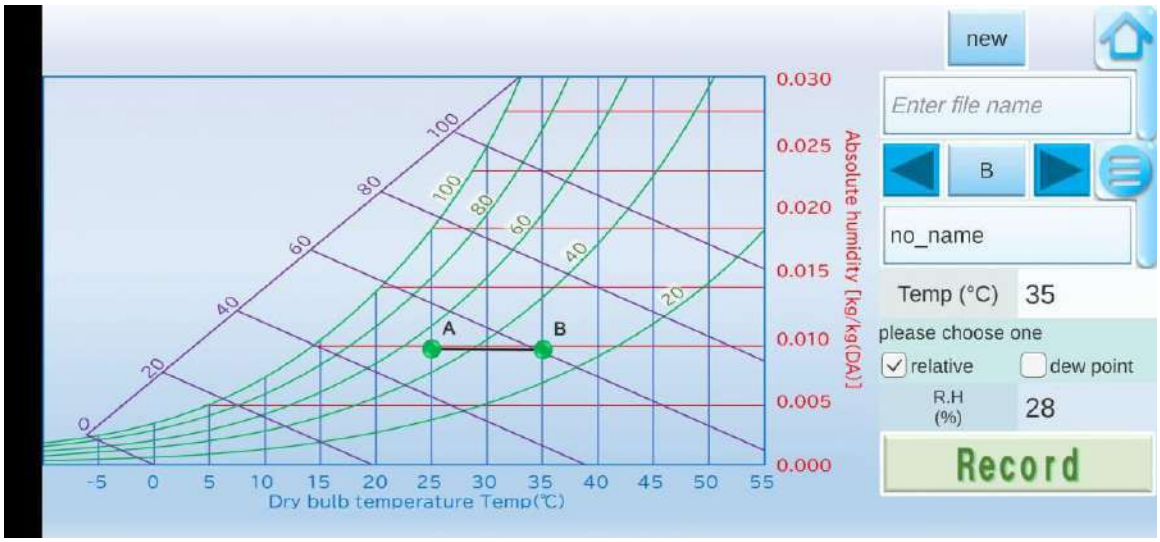
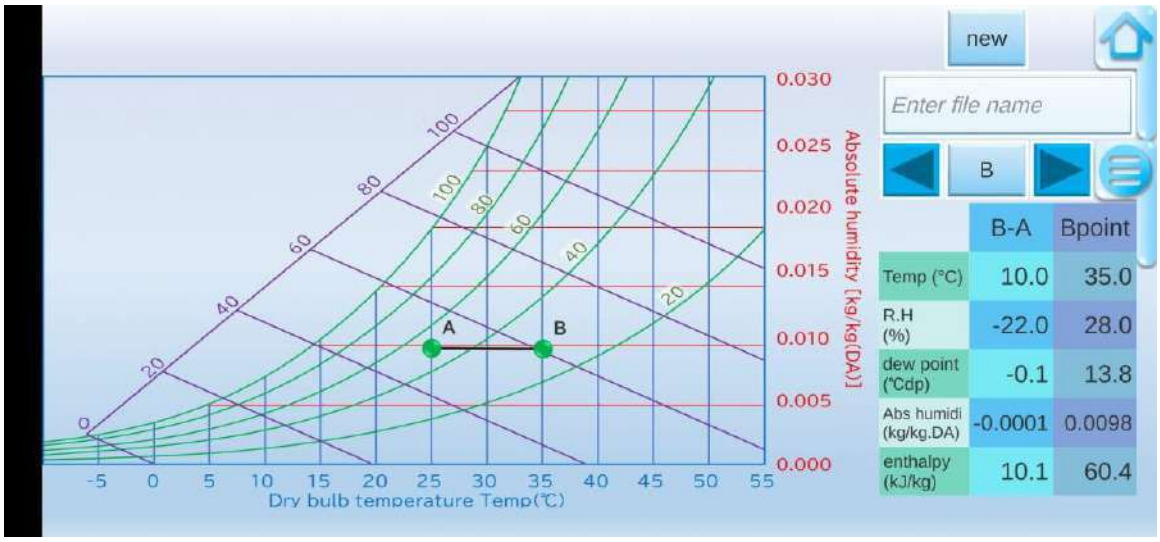
Enter file name
Add/Fix
Data
Absolute humidity [kg/kg(DA)]
Dry bulb temperature Temp(℃)


new
Enter file name
A
-
Apoint
Temp (°C) 25.0
R.H (%) 50.0
dew point (℃dp) 13.9
Abs humidi (kg/kg.DA) 0.0099
enthalpy (kJ/kg) 50.3
Absolute humidity [kg/kg(DA)]
Dry bulb temperature Temp(℃)


new
Enter file name
B
no_name
Temp (°C) 35
please choose one
relative
dew point
R.H (%) 28
Record
Absolute humidity [kg/kg(DA)]
Dry bulb temperature Temp(℃)



9. Impact Analysis

Sr. No	3 – High / Excellent	2 – Moderate / Average	1- Slight / Poor
1. Do you understand the objective of activity?	92.6	7.4	-
2. Do you find this activity helpful in understanding the key concept of topic?	82.1	17.9	-
3. Does this method help to improve demonstration skills and communication skills?	80.1	19.9	-
4. Does contents covered are useful in lifelong learning?	78.2	21.8	-
5. Do you want to participate such activity again?	83.7	16.3	-

10. For review and critics contact: e-mail address of faculty and HOD uphade.dinesh@kbtcoe.org, hod.mech@kbtcoe.org

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