



Department of Electrical and Electronics Engineering Academic Year 2023 – 2024 (Even Semester)

Degree, Semester & Branch: IV Semester B.E. EEE

Course Code & Title: EE3401 Transmission and Distribution

Name of the Faculty member: Mrs. G. Sivapriya

Innovative Practice Description

- **Unit / Topic:** Unit I / Types of Transmission line and Distribution line conductors
- **Course Outcome:** CO1
- **Topic Learning Outcome:** TLO2
- **Activity Chosen:** One Minute Paper

- **Justification:**

The chosen topic - types of conductors have 3 types in transmission and distribution conductors. Since in each type student going to calculate the inductance and capacitance value. After teaching the concept, I thought of conducting this activity for enabling the students to give the difference between each type of conductors which enhance their learning level and as a teacher I can judge the understanding level of the students.

Time Allotted for the Activity: 10 Minutes

- **Details of the Implementation:**

After completing the topic, I gave 5 minutes for the students to think about the topic without writing anything.

Total Strength: 63

Reporter: Myself

At the end of the class

- ✓ I asked the students to think about various types of conductors in transmission and distribution lines for 5 minutes.
- ✓ I told them to write as much as they remember for 3 minutes.
- ✓ Finally, I collected the papers from the students. (2 minutes)



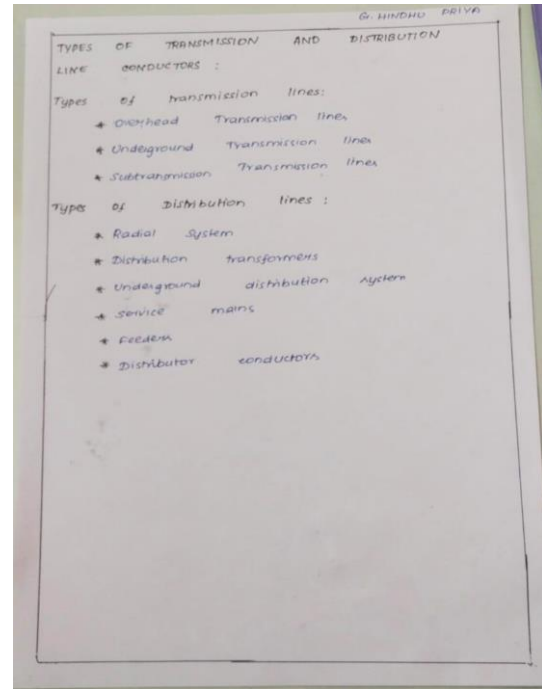
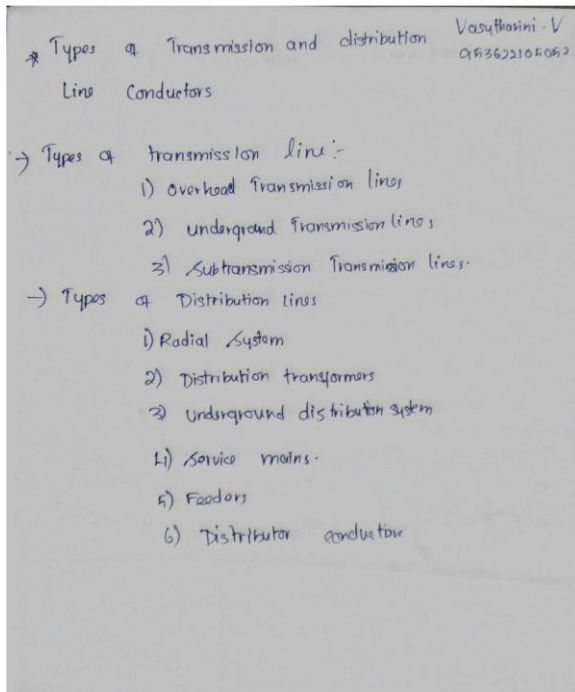
• CO – PO / PSO mapping:

CO	PO1	PO2	PO3	PO8	PO9	PO10	PO12	PSO1
CO1	3	2	2	1	1	1	2	2

• PO / PSO mapped:

Innovative practice	PO10
	1
Justification for correlation	Due to this activity, student’s written communication will be enhanced. So it is slightly correlated.

• Screenshot of the activity:





Reflective Critique:

❖ *Feedback of practice from students and other stakeholders:*

Students felt that writing about the given topic make them understand it well and able to recollect immediately.

❖ *Benefit of the practice:*

1. All the students were able to write the given topic.
2. After conducting the activity, I came to know that students understood the topic and they were able to explain it.

❖ *Challenges faced in implementation:*

1. Time utilization for conducting the activity
2. Some students were not be able to recollect and write immediately.

References:

- ✓ D.P.Kothari, I.J. Nagarath, 'Power System Engineering', Mc Graw-Hill Publishing Company limited, New Delhi, Second Edition, 2008.
- ✓ V.K.Mehta, Rohit Mehta, 'Principles of power system', S. Chand & Company Ltd, New Delhi, 2013
- ✓ <https://oncourseworkshop.com/self-awareness/one-minute-paper/>

Signature of Faculty Member

HOD



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Innovative Practice Description

- **Unit / Topic:** Unit II / Corona
- **Course Outcome:** CO2
- **Topic Learning Outcome:** TLO5
- **Activity Chosen:** Think Pair Share

- **Justification:**

The chosen topic – corona provides safety to the transmission lines and reduces flash over. After teaching the concept, I thought of conducting this activity for making the students to provide knowledge about corona and its effects which enhance the learning level and as a teacher I can judge the understanding level of the students.

Time Allotted for the Activity: 10 Minutes

- **Details of the Implementation:**

After completing the topic, the students will be paired with their neighbors, 4 students as a group.

Total Strength is 63, Number of Pairs – 16

Photographer: Myself

Reporter: Myself

At the end the Class (Last 10 minutes)

- I asked the students to **think** about corona, factors affecting corona and its loss for 2 minutes.
- Then I told them to **Pair** with their neighbors and discuss about the concept of corona in transmission line for another 2 minutes.
- Then, I selected 1 Pair from each column randomly and ask them to **share** about corona and its advantages. (6 minutes)
- Finally, I summarized the points again about corona in transmission line.



- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO8	PO9	PO10	PO12	PSO1
CO2	3	3	3	1	1	1	2	2

- **PO / PSO mapped:**

Innovative practice	PO9
	1
Justification for correlation	Due to this activity, student's team work is getting enhanced. So it is slightly correlated.

- **Screenshot of the activity:**



Reflective Critique:

- ❖ **Feedback of practice from students and other stakeholders:**

Students felt that discussing with the team members and sharing the concept with everyone make them understand it well and enhanced their knowledge.

- ❖ **Benefit of the practice:**

1. All the students were able to share the topic given in an effective way.
2. Students understood the concept which was reflected from their answers during sharing session.

- ❖ **Challenges faced in implementation:**

1. Time utilization for conducting the activity
2. Slow learners were not able to recollect and present some points during sharing session.



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References:

- ✓ D.P.Kothari, I.J. Nagarath, 'Power System Engineering', Mc Graw-Hill Publishing Company limited, New Delhi, Second Edition, 2008.
- ✓ V.K.Mehta, Rohit Mehta, 'Principles of power system', S. Chand & Company Ltd, New Delhi, 2013
- ✓ <https://www.readingrockets.org/strategies/think-pair-share>

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Innovative Practice Description

- **Unit / Topic:** Unit III / Types of Towers
- **Course Outcome:** CO3
- **Topic Learning Outcome:** TLO6
- **Activity Chosen:** Visible Quiz

- **Justification:**

The chosen topic - types of towers have 4 types of line supports for overhead line conductors. Since each type has its own definition and limitation, after teaching the concept, I thought of conducting this activity for enabling the students to differentiate between each types of line supports which enhance their learning level and as a teacher I can judge the understanding level of the students.

Time Allotted for the Activity: 10 Minutes

- **Details of the Implementation:**

After completing the topic, I gave 3 minutes for the students to think about the topic without writing anything.

Total Strength: 63

Photographer: Myself

At the end of the class

- ✓ I asked the students to think about various types of towers for 3 minutes.
- ✓ I asked them questions with multiple choices (A, B, C and D) by providing set of large cards imprinted with one of the four letters 5 minutes.
- ✓ Finally, I summarized the questions and answers to the students and cleared their doubts. (2 minutes)

- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO4	PO8	PO9	PO10	PO12	PSO1
CO3	3	3	3	1	1	1	1	2	2



- **PO / PSO mapped:**

Innovative practice	PO7
	1
Justification for correlation	Due to this activity, students will understand the impact of professional engineering solution for environment. So it is slightly correlated.

- **Screenshot of the activity:**



Reflective Critique:

- ❖ **Feedback of practice from students and other stakeholders:**

Students felt that answering the options about the topic by using cards is understandable & interesting and able to recollect it.

- ❖ **Benefit of the practice:**

1. All the students were able to answer the options given for the question.
2. After conducting the activity, I came to know that students understood the topic and they were able to explain it.

- ❖ **Challenges faced in implementation:**

1. Time utilization for conducting the activity
2. Some students were not able to recollect and answer immediately.

References:

- ✓ D.P.Kothari, I.J. Nagarath, 'Power System Engineering', Mc Graw-Hill Publishing Company limited, New Delhi, Second Edition, 2008.
- ✓ V.K.Mehta, Rohit Mehta, 'Principles of power system', S. Chand & Company Ltd, New Delhi, 2013
- ✓ https://www.ideaedu.org/Portals/0/Uploads/Documents/IDEA%20Papers/IDEA%20Papers/PaperIDEA_53.pdf

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Innovative Practice Description

- **Unit / Topic:** Unit V / Types of Substation and Layout, Methods of Grounding
- **Course Outcome:** CO5
- **Topic Learning Outcome:** TLO17
- **Activity Chosen:** Field Visit
- **Justification:**

The topic Substation Layout and Methods of Grounding has different types and used for various applications. After completing the topic, I took the students for field visit to enable the students to acquire more knowledge in observing the layout and grounding techniques.

Time Allotted for the Activity: 45 Minutes

- **Details of the Implementation:**

After completing the topic, I took the students to the RML 110kV Substation and shown them how the grounding is done and explained about the input power and power distribution across four Rajapalayam mills.

Total Strength: 63

Photographer: one student - Mr. U. Arulkumar

At the end of the visit

- ✓ I asked some students to measure the earth resistance. Few students voluntarily measured the resistance.
- ✓ I request all the students to discuss among themselves for 5 minutes.
- ✓ Finally, I asked questions to students about the substation layout and methods of grounding and the students answered well which shows the understanding of the topic through this field visit. (5 minutes)



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- CO – PO / PSO mapping:

CO	PO1	PO2	PO3	PO6	PO8	PO9	PO10	PO12	PSO1
CO5	3	3	3	2	1	1	1	2	2

- PO / PSO mapped:

Innovative practice	PO7
	1
Justification for correlation	Due to this activity, students will understand the impact of professional engineering solution for environment. So it is slightly correlated.

- Screenshot of the activity:





Reflective Critique:

❖ *Feedback of practice from students and other stakeholders:*

Students were interested in attending field visit and requested to conduct more such activities in future.

❖ *Benefit of the practice:*

- ✓ The assessment of effectiveness of the activity was good in a way that while asking questions, most of the students answered and shared many points.
- ✓ After conducting the activity, I understood that the students were able to recollect the points about substation and grounding methods.

❖ *Challenges faced in implementation:*

- ✓ Time is not enough for this activity, so I will allot more time in future.

References:

- ❖ D.P.Kothari, I.J. Nagarath, 'Power System Engineering', Mc Graw-Hill Publishing Company limited, New Delhi, Second Edition, 2008.
- ❖ V.K.Mehta, Rohit Mehta, 'Principles of power system', S. Chand & Company Ltd, New Delhi, 2013

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