Department of Electrical and Electronics Engineering
Academic Year 2022 – 2023 (Even Semester)

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

Course Code & Title: EE3401 Transmission and Distribution

Name of the Faculty member: Mr.D.Karthik Prabhu

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: 57

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)

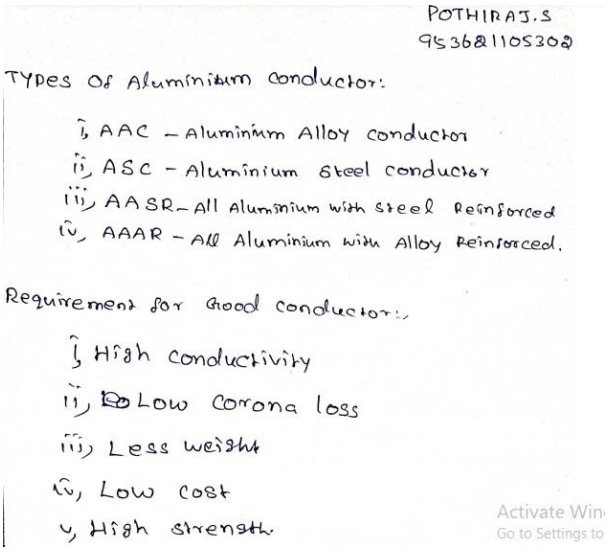
- **CO – PO / PSO mapping:**

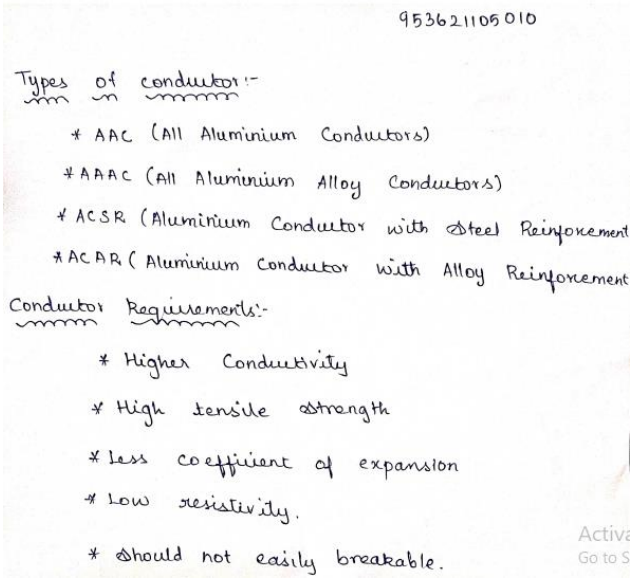
CO	PO1	PO2	PO3	PO8	PO9	PO10	PO12	PSO1
CO1	3	2	2	1	1	1	2	2

- **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 could 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**

Department of Electrical and Electronics Engineering
Academic Year 2022 – 2023 (Even Semester)

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

Course Code & Title: EE3401 Transmission and Distribution

Name of the Faculty member: Mr.D.Karthik Prabhu

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 54, Number of Pairs – 14

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.
- Finally, 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
CO1	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.

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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Department of Electrical and Electronics Engineering
Academic Year 2022 – 2023 (Even Semester)

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

Course Code & Title: EE3401 Transmission and Distribution

Name of the Faculty member: Mr.D.Karthik Prabhu

Innovative Practice Description

- **Unit / Topic:** Unit III / Types of Insulators
- **Course Outcome:** CO3
- **Topic Learning Outcome:** TLO10
- **Activity Chosen:** Demonstration
- **Justification:**

After teaching the concept, I thought of conducting this activity for making the students to give the exposure about the different types of Insulators and their application areas which enhance the learning level and as a teacher I can judge the understanding level of the students.

Time Allotted for the Activity: 15 Minutes

- **Details of the Implementation:**

After completing the topic, three minutes is given to the students to think about the topic without writing anything.

Total Strength: 61

Photographer: one student - Mr. V. Praveenkumar

At the end of the class

- ✓ I asked the students to think about constructional features and different types of Insulators for 2 minutes.
- ✓ Then I told them to Pair with their neighbours and discuss about the different types of Insulators for another 2 minutes.
- ✓ Then, I shown the demo Insulators for each student and explained. (8 minutes)
- ✓ Finally I asked each student to tell about the application area. (3 Minutes)

- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO4	PO7	PO8	PO9	PO10	PO12	PSO1
CO3	3	3	3	1	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 were interested involving in the activity 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 could be able to recollect the points about the types of insulators and their application area.
- ***Challenges faced in implementation:***
  - ✓ Time is not enough for this activity, so 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
- https://blog.teachmint.com/demonstration-method-an introduction/#:~:text=In%20the%20demonstration%20method%20of,knowledge%2C%20thereby%20further%20enhancing%20it.

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Department of Electrical and Electronics Engineering
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Course Code & Title: EE3401 Transmission and Distribution

Name of the Faculty member: Mr.D.Karthik Prabhu

Innovative Practice Description

- **Unit / Topic:** Unit IV / Construction of single core and three core cables
- **Course Outcome:** CO4
- **Topic Learning Outcome:** TLO11
- **Activity Chosen:** Demonstration
- **Justification:**

After teaching the concept, I thought of conducting this activity for making the students to give exposure about the constructional features and different insulating materials used in UG cables which enhance the learning level and as a teacher I can judge the understanding level of the students.

Time Allotted for the Activity: 20 Minutes

- **Details of the Implementation:**

After completing the topic, three minutes is given to the students to think about the topic without writing anything.

Total Strength: 63

Photographer: one student - Mr.V. Praveenkumar

At the end of the class

- ✓ I asked the students to think about constructional features and different types of Cables for 3 minutes.
- ✓ Then I told them to Pair with their neighbour and discuss about the different types of Cables and constructional features for another 3 minutes.
- ✓ Then, I shown the demo Cables for each student and explained. (10 minutes)
- ✓ Finally I asked some students to explain about the types and constructional features. (4 minutes)

- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO8	PO9	PO10	PO12	PSO1
CO1	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 involving in the activity 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 could be able to recollect the points about construction of cables and able to differentiate single core and three core cables.
- ***Challenges faced in implementation:***
  - ✓ Time is not enough for this activity, so 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
- https://blog.teachmint.com/demonstration-method-an introduction/#:~:text=In%20the%20demonstration%20method%20of,knowledge%2C%20thereby%20further%20enhancing%20it.

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Course Code & Title: EE3401 Transmission and Distribution

Name of the Faculty member: Mr.D.Karthik Prabhu

Innovative Practice Description

- **Unit / Topic:** Unit V / Substation Layout and 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 RIT – Power House and shown them how the grounding is done and explained about the input power and power distribution inside the college.

Total Strength: 63

Photographer: one student - Mr. V. Praveenkumar

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)

- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO6	PO8	PO9	PO10	PO12	PSO1
CO1	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 could be able to recollect the points about substation and grounding methods.

- ***Challenges faced in implementation:***
  - ✓ Time is not enough for this activity, so 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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