Vidya Jyothi Institute of Technology

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Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Electrical &Electronics Engineering

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Think Pair Share

Prepared by:

B.Rajesh

Assistant Professor

Subject: Electric Vehicles and Hybrid Vehicles

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Title of Innovative method/activity: Think – Pair - Share

Think-Pair-Share is a collaborative learning approach in which students work together to solve a problem or answer a question about an assigned topic.

Aim of the method:

To engage students to think individually about a topic, then in group to answer a question or solve a problem and share ideas with classmates.

Implementation/Portrayal of method:

This method is implemented after developing a set of questions for a topic based on the previous class discussion in the classroom in order to prompt target key content concepts. The following process is done in the class

- Describe the purpose of the strategy and provide guidelines for discussions.
- Model the procedure to ensure that students understand how to use the strategy.
- Monitor and support students as they work through the following:

  T: (Think) Students are asked a specific question about the text. Students "think" about what they know or have learned about the topic.

  P: (Pair) Students are paired into six groups with ten students in each group.

  S: (Share) Students share their thinking with their partners. The discussion is expanded "share" into a whole-class discussion.

Benefits of method: This activity helps the students by triggering interest in the students. This method improves the level of thinking as the students discuss the topic among themselves before they present it.

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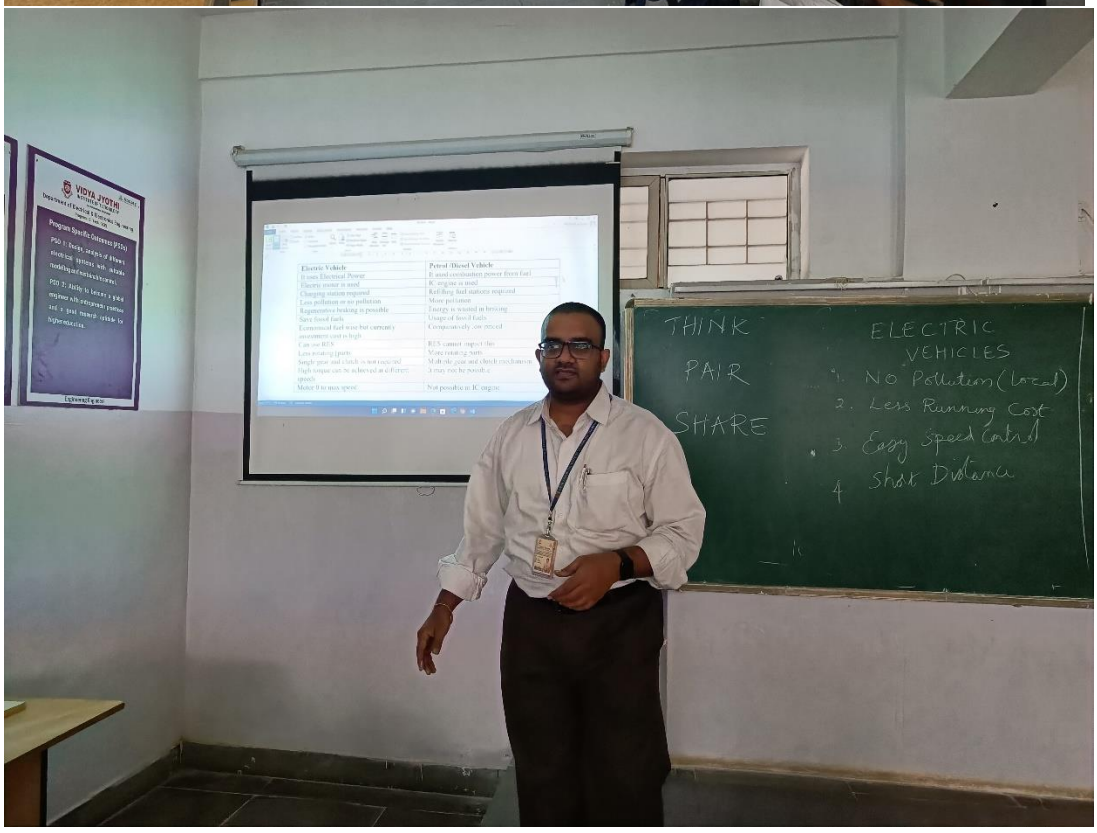
Topic: Comparison of EVs, IC Engine Vehicles and Fuel Cell vehicles.



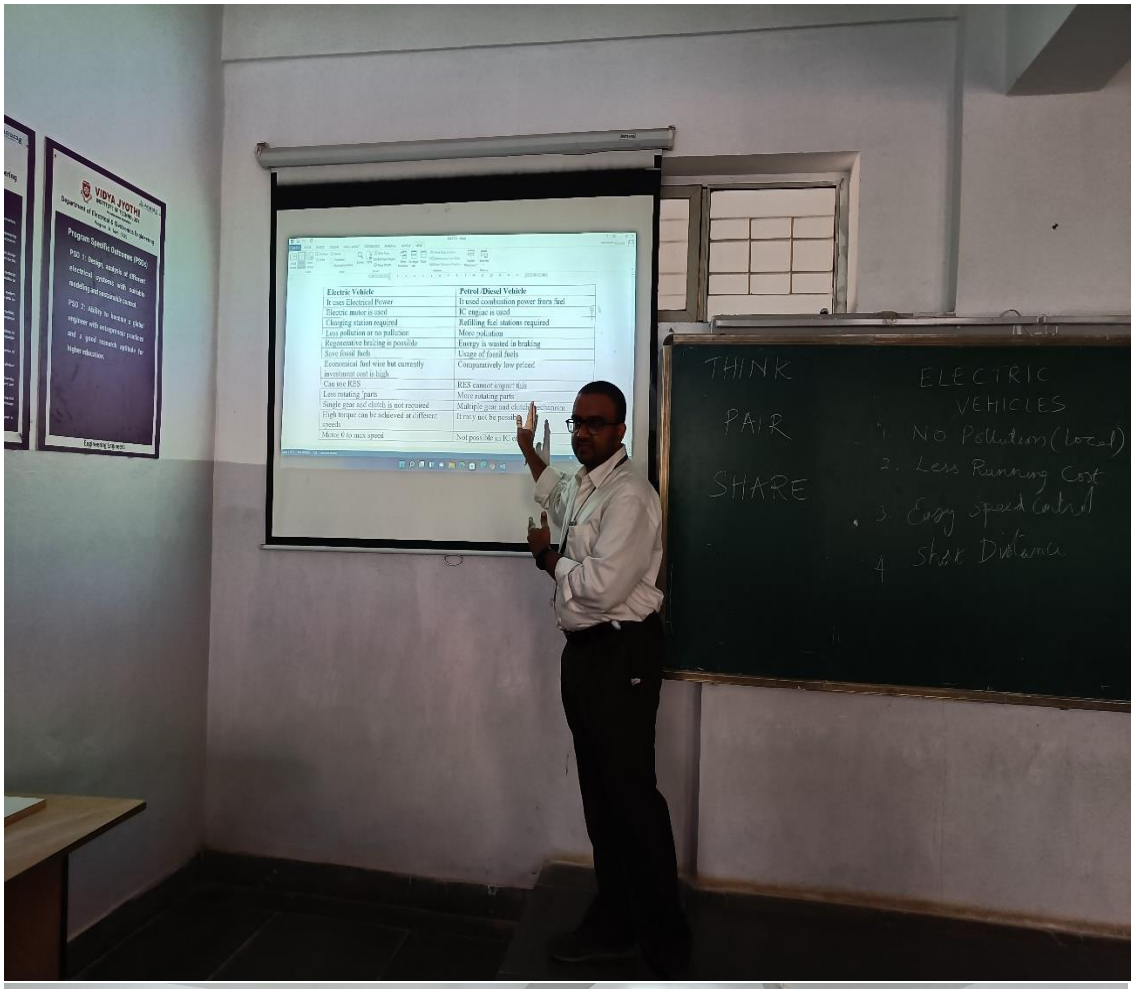


Fig: Think pare share

Conclusion drawn by students groups is as follows

Electric Vehicle	**Petrol /Diesel Vehicle**
It uses Electrical Power	It used combustion power from fuel
Electric motor is used	IC engine is used
Charging station required	Refilling fuel stations required
Less pollution or no pollution	More pollution
Regenerative braking is possible	Energy is wasted in braking
Save fossil fuels	Usage of fossil fuels
Economical fuel wise but currently investment cost is high	Comparatively low priced
Can use RES	RES cannot impact this
Less rotating [parts	More rotating parts
Single gear and clutch is not required	Multiple gear and clutch mechanism
High torque can be achieved at different speeds	It may not be possible
Motor 0 to max speed	Not possible in IC engine

Outcome: The students could understand the topic clearly and their doubts were cleared by sharing and discussion by the end of the class.

For review contact: rajesheee@vjit.ac.in