Problem Based Learning(PBL)

Course Name and Code : Machine Design(ME3023)

Class and Div. : T. Y. B.Tech Div. B

Department : Mechanical Engineering

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Purpose and Motivation

- New Topic added in the syllabus: Transmission Systems in Hybrid Electric Vehicle.
- Students are not much conversant with Hybrid Electrical Vehicles.
- Very much curious to know about advances in the transmission systems in hybrid electrical vehicles- Driving potential for PBL activity.
- Address and achieve the CO-5 : Elaborate various modes of operation, degree of hybridization and allied terms associated with hybrid electric vehicles.

Suitability of Technique to course

- The syllabus content especially unit no. 6 of the course Machine Design is some what open ended.
- There is substantial technological development in the HEV, students should know the basics of general configuration of HEV as well as recent technological development.
- Sufficient information on recent development is available in the literature, videos and on the web sites of HEV manufacturing company.

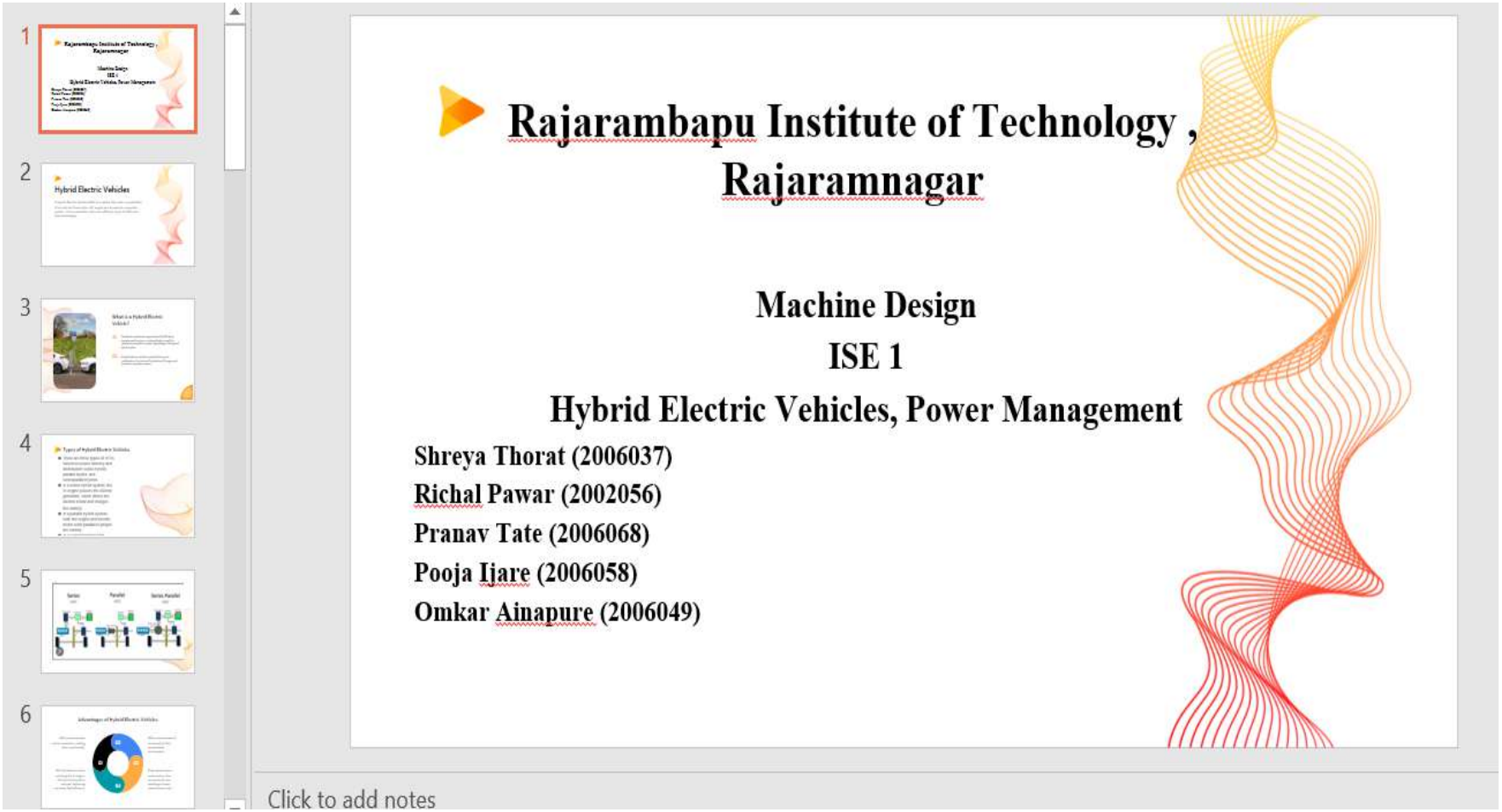
Procedure of Technique

- A group of 4-5 students is formed.
- Students are asked to search information on recent development in HEV.
- 6-8 weeks are given for information collection.
- Students are asked to prepare presentation on information collected and present in front of whole class.
- Students from class are encouraged to ask questions on presentation.
- Evaluation is carried out through Q-A and discussion.

Outcomes of Technique

- Students active involvement has increased.
- Enough scope was given to each student to participate actively.
- Difficult syllabus content could be covered effectively through PBL with proper planning.
- Slow learners can participate actively while working in small groups.

Photographs and Student Response



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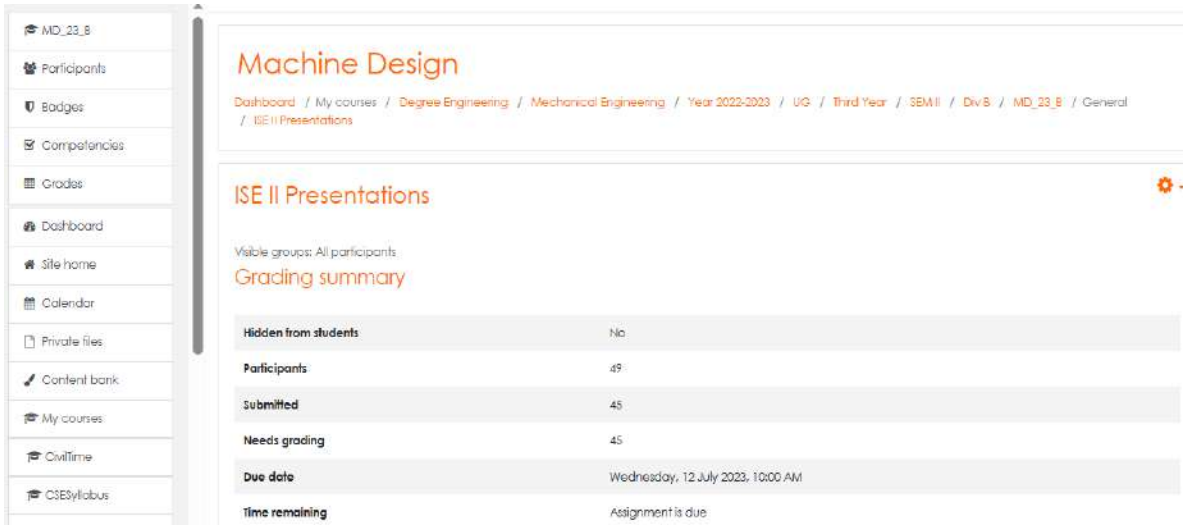

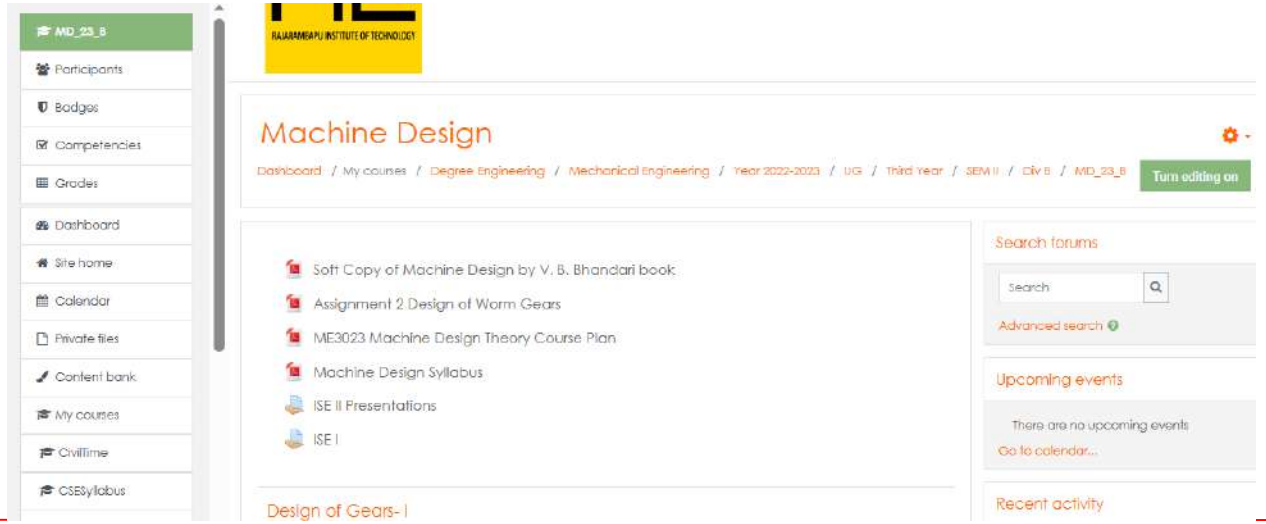

THANK YOU!!!!