NARAYANA ENGINEERING COLLEGE::NELLORE

AUTONOMOUS

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

REPORT ON VALUE ADDED COURSE

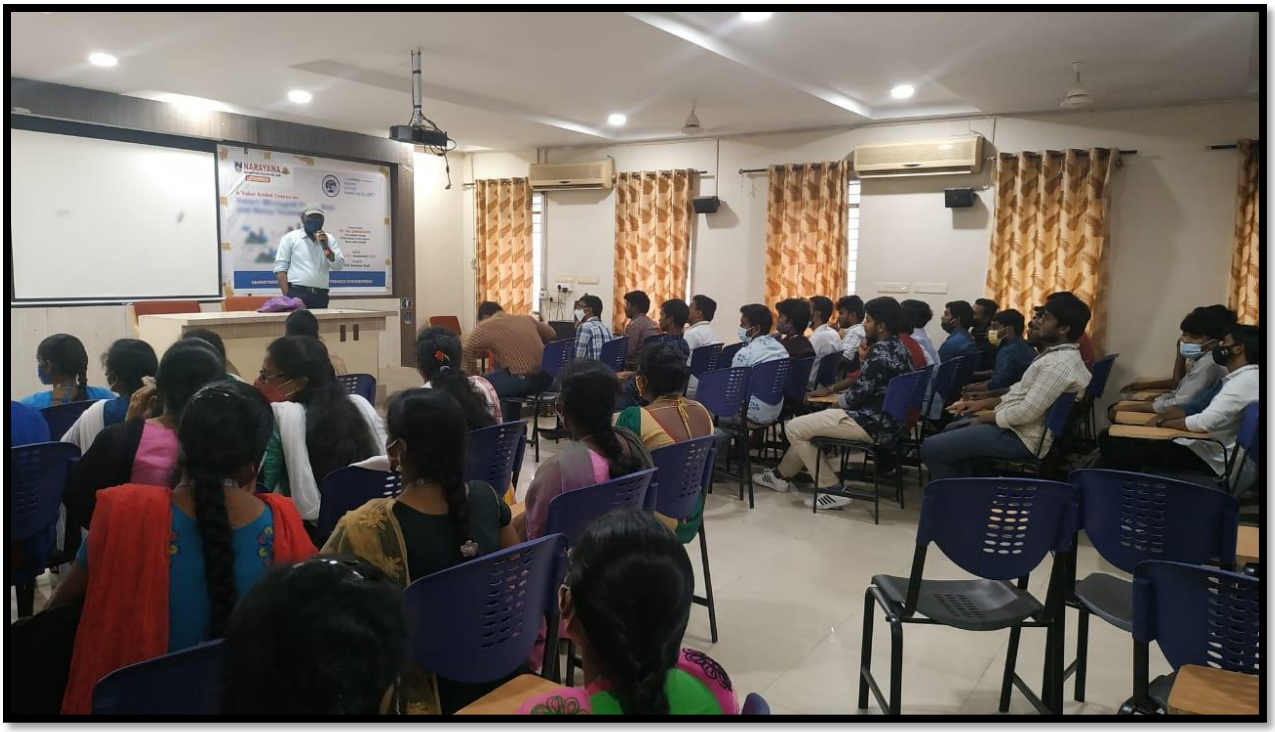
Department of EEE has conducted a value added program on "**INTRODUCTION TO HYBRID ELECTRIC VEHICLES USING SIMULATION"** in association with TVS Training and Service Ltd, Ambatttur Industrial Estate, Chennai, Tamil Nadu during 19.01.2021 to 23.01.2021 at Edison Auditorium, Faraday's Block, Narayana Engineering College Nellore.

No. of students participated: 43

Course Description:

- This course has presented an overview of the modeling and simulation of HEV, with specific emphasis on physics based modeling.
- Methods for the mitigation of numerical oscillations in dynamic digital simulations are briefly discussed. Additional simulation techniques, such as Bond Graph modeling, provide added flexibility in HEV modeling and simulation.
- With the advent of powerful computing, development of computational methods, and advances in software-inthe-loop (SIL) and hardware-in-the-loop (HIL) modeling and simulations, it is now possible to study numerous iterations of different designs with the combinations of different components and different topology configurations.
- HIL is becoming increasingly important for rapid prototyping and development of control system for new vehicles such as X-by-Wire.
- With the ever more stringent constraints on energy resources and environmental concerns, HEV will attract more interest from the automotive industry and the consumer.
- Although the market share is still insignificant today, it can be predicted that HEV will gradually gain popularity in the market due to the superior fuel economy and vehicle performance. Modeling and simulation will play important roles in the success of HEV design and development.

The students are much satisfied with the course and asked for more to conduct on various latest technologies. The course session is ended with valedictory function.



The resource person speech on Hybrid vehicles

Resource person clarifying the doubts asked by students

HOD-EEE