INDUSTRY ORIENTED ONE CREDIT COURSE

Event No	ME048
Organizing Department	Mechanical Engineering
Associate Dept. | NSC	Mechanical Engineering
Date	07/03/2023 to 08/03/2023 (2 Days)
Time	08:45 AM to 04:15 PM
Event Type	VAC / Training Program
Event Level	Inter-College
Venue	II Mech A
Total Participants	50
Students - Internal	50

Related SDG

Resource Persons

Sl	Type	Name	Designation	Company	Email	Phone
1	Resource Person	Mr Prasanthkumar Palani	Chief Technical Consultant	Haritha Techlogix	admin@harithatechlogix.com	xxxxxxxxxx

Involved Staffs

Sl	Name	Role
1	Makeshkumar M	Coordinator

Outcome

Students are able to understand the concept of Electric vehicles (Advanced Automotive Systems)

Event Summary

Industry oriented one credit course on Advanced Automotive System (Electric Vehicle) with hands on training conducted on 07.03.2023 & 08.03.2023 for second year students (2021-2025 Batch Mech). The students will be able to
Understand complete Overview of all High Voltage components involved in an electric or hybrid Vehicle.
Cradle-to-grave of an automotive OEM to understand the effect of electric vehicle on the carbon footprint.
Describe the main hybrid and electric vehicle development considerations and performance requirements for various vehicle system
Apply the operation of brushless dc and induction motors to HEV and EV vehicles
Define the torque speed curves for motors and the application to electric and hybrid electric vehicles
Define and analyze battery operation and performance requirements for HEV, PHEV, EREV and full electric vehicle applications
Estimate the size of a cell to meet a specific requirement
Describe the functions performed by a Battery Management System (BMS)
Understand different thermal management methodologies applied for the battery pack systems and their challenges
Explain different approaches to estimating state of charge, state of health, power and energy
Compare and contrast the various industry and regulatory standards for hybrid vehicle components, batteries, and charging systems
Identify how to define key vehicle system requirements and select and size system components that best meet those requirements
Understand various testing and regulatory requirements for electric vehicle and components at both system and subsystem level.
Understand the challenges in meeting the safety regulations at international level.
Understand the drawbacks of current testing procedures applied by the international testing agencies for electric and hybrid vehicles.

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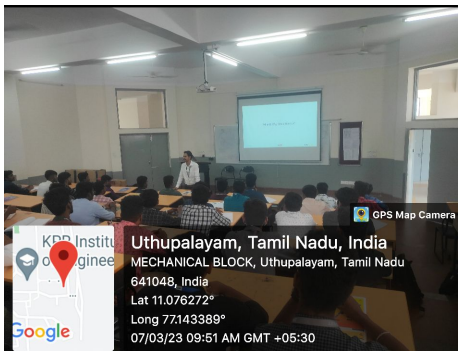

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