





EV Sector Focused

# **Leveraging Ansys Solutions for Electric Vehicle Development**



21 - 22 March 2024

(L) 10:00 AM to 05:00 PM



Mahindra University Campus

The Workshop on Leveraging Ansys Solutions for Electric Vehicle Development offers a comprehensive exploration of Ansys tools and methodologies crucial for designing and optimizing electric vehicles. Participants will gain practical insights into electromagnetic solvers, power electronic modeling, drive circuit implementation, battery and thermal modeling, safety-critical system analysis, ISO26262 compliance, and model-based embedded software development using Ansys SCADE. Through hands-on sessions and demonstrations, attendees will acquire essential skills and knowledge to accelerate electric vehicle development while ensuring safety, reliability, and performance compliance with industry standards.



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## **Highlights**

- Gain insight into Ansys' powerful electromagnetic solvers and their applications in electric vehicle development.
- Delve into battery modeling techniques and thermal modeling of battery packs, essential for understanding and optimizing electric vehicle battery systems.
- Understand the model-based approach for embedded software development using Ansys SCADE

### Who Should Attend

- Students
- Professors
- Researcher Scholars

AGENDA	. ZI March 2024		TIMING
<ul> <li>Introduction to Ansys Electromagnetic</li> <li>Demonstration of PExprt for modeling electronic transformers and Inductors</li> <li>Vidyabharati Ippili, Application Engineer, CADFEM Inductors</li> </ul>	g power - Hands-on	10:00 AM - 12:00 PM	
BREAK		12:00 PM - 01:00 PM	
<ul> <li>Implementing drive circuit topologies circuit editor - Hands-on</li> <li>Extraction of ROM from Maxwell</li> <li>Co-simulation of ROM with simplorer Vidyabharati Ippili, Application Engineer, CADFEM Inc.</li> </ul>		01:00 F	PM - 03:45 PM
BREAK		03:45 AM - 04:00 PM	
Introduction to Battery Modelling, and Thermal Modelling of Battery Pack     Sharjad A J, Application Engineer, CADFEM India		04:00 AM - 05:00 PM	

Day 1: 21 March 2024

٠	What is safety	critical	system
_	what is ISO262	62	

- what is ISO26262
- Workflow of ISO26262
- Hands on Ansys medini analyze on Braking control systems
- How to perform multiple safety analysis in compliance with ISO26262

Harsh Kumar Singh, Application Engineer, CADFEM India

10:00 AM - 12:00 PM

**BREAK** 12:00 PM - 01:00 PM

 What is a model based approach for embedded software development

- What is Ansys SCADE
- Learning different operators in Ansys SCADE
- Hands on experence in creating and generating code for Mannual Car transmission in Ansys SCADE

Harsh Kumar Singh, Application Engineer, CADFEM India

01:00 PM - 03:45 PM



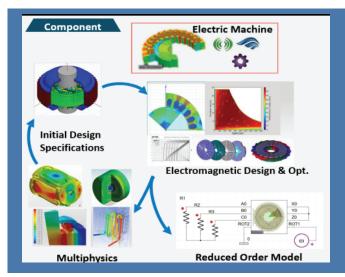
Vidyabharati Ippili **Application Engineer CADFEM India** 



Sharjad A J **Application Engineer CADFEM India** 

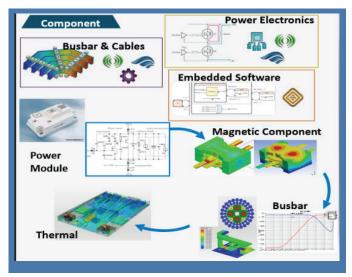


Harsh Kumar Singh **Application Engineer CADFEM India** 



### Co-Ordinators:

IET-MU Chairman: C Deepyash Varma IET-MU Vice-Chairman Prachi Kansal Registration: Free for IET Members, Others INR. 100 Email: deepyash20ueee006@mahindrauniversity.edu.in +91 96768 71043; +91 87007 19810



### **Faculty Mentor:**

Dr. Sreedhar Madichetty,

 $Electrical\ and\ Computer\ Engineering\ Department,\ Mahindra\ University\ ,\ Hyderabad$ Last Date to Apply: 20th March 2024

**FOR ENQUIRES** 

