

Electric Vehicle

Controls and Systems



“An array of _____ **Expertise**

The course will provide the candidates with an astute understanding of the fundamentals of control systems and power electronics in an Electric Vehicle. Moreover, it examines the technology associated with each element of the control systems including battery management, motor management and thermal management.



Softwares

- Adams Studio
- Adams Controls
- Easy 5 Basic
- Easy 5 Advanced Analysis
- Easy 5 Fluid Power
- Easy 5 Electrical Systems

Duration
60 Hours

Modules

- › Introduction To Electric Vehicle
- › Battery Management System and Functions
- › Basics of Electric Vehicle Simulations
- › Introduction to Control system
- › Stability Analysis
- › Control Theory for Power Converters and Motors
- › Nonlinear Control System
- › Vehicle Dynamics Control
- › Energy and Electrochemistry
- › Battery Charging
- › Energy Storage Systems
- › Design and Chemistry of Batteries
- › Thermal Management
- › EV Motor Sizing and Motor Drive Analysis
- › Motor Torque Calculations for Electric Vehicle
- › Vehicle Networking Architecture



Customer Stories



Challenge

To find an optimized trim package solution to meet interior noise levels while respecting restrictive weight and new space constraints due to batteries.

Solution

MSC Nastran PEM topography optimisation of the structure considering trim component effects. Also, Material properties of trim components were optimized with **Actran**.



Challenge

H. V. Wooding manufactures needed an efficient solution to manage these high-precision customised parts from quotation to production.

Solution

RADAN software enables H. V. Wooding to nest a wide variety of shapes and sizes of the same thickness, ideal for producing the busbars. **Radbend**, is used to calculate bend angles, and the order of bends for forming the busbars into a variety of configurations.

Overview

ImageGrafix Academy, a training division of ImageGrafix Software Solutions, is the Only Authorized Training partner of **HATCH** (Hexagon Authorized Training Centre for Higher Education), a division of Hexagon Manufacturing Intelligence, offers training on instructor-led, state-of-the-art facilities and virtual training services to help people master themselves with adaptive new solutions.



- Withholds a succeeding legacy of 25 years in Engineering and Software solutions and more than a decade in the training industry,
- Our Infrastructure comprises of latest in-demand technologies, virtual software access for practical sessions, library references, Noteworthy course materials and Digital Learning Management System - LMS.
- Competency-based curriculum.

Our Forte

- Highly skilled & industry-experienced faculties to deliver world-class training.
- Global Certification benefit, with the authorized logo of software developer.
- Our job-oriented training help students meet the industry requirements and get the spotlight in the market.

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