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# **Automotive Electronics and Electric Vehicle Design (AE-EVD)**

**30 Days 160\* hours Intensive Certified Internship**

**India's First ever course work based Internship on Engine Electronics, Vehicle Electronics, Hybrids and Electric Vehicle Design**

## **Highlights of the Internship**

- **Dedicated Industry Expert to clarify doubts and give reviews on your work.**
- **High Quality Study Materials.**
- **Case Study based approach for better problem solving.**
- **Various High quality Technical Assignments.**
- **Weekly Tests Series for Performance measurement.**
- **One Major Industry Expert Guided Project**
- **ISO 9001: 2015 by UKAS UK, EIAC, DUBAI LMS a Globally Valid one month internship certification to boost your career prospects.**
- **Higher Education and Career Guidance Counselling Sessions by Experts.**
- **Top Performers will be selected and given opportunity to work on projects with companies.**

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## Technologies you learn

- AUTOSAR
- CAN Protocols
- Electric Motor Design
- Electric Batteries
- Engine and Vehicle Electronics
- Hybrid vehicles.

# Internship Structure

**No of Days:** 8 (Offline) + 3 Weeks (Online)

**No of Hours:** Total 160Hrs (70 Hands-On Training & Hands-On Projects) + (90 Hours of Online learning + Major Project)

**No of Assignments:** 9

## Week 2: AUTOSAR & Intelligent Vehicle Systems

1. Vehicle Telematics and AutoSar
  - i. CAR telematics
  - ii. Driver Assistance systems
  - iii. Sensors supports in Telematics
  - iv. Autosar Layers
  - v. How Autosar is going to help Automotive
  - vi. Autosar BSW ( Base Software)

## Week 3: HEV and EV Vehicle Dynamics

1. Hybrid Vehicle Design
  - i. Vehicle Dynamics Calculations for Hybrids and Full EV.
  - ii. Powertrain
  - iii. Sizing of the Electric Machine ,Battery and Combustion Engine
  - iv. Hybrid Vehicle Power Train Configurations
  - v. Series Hybrid
  - vi. Parallel Hybrid

## Week 4: EV Chassis and Sub Systems.

1. Chassis and Steering
  - i. Steering
  - ii. Electric Vehicle Design
  - iii. Tesla EV Design
  - iv. Batteries for Electric Vehicle
  - v. Regenerative Braking system

**Note:** Expertshub has all rights to change the structure of the program based upon expert's availability, material's availability & Internet availability without prior notification to anybody.

\*no of hours mentioned are calculated by both class room training & the time student spend by interns to complete tasks given in the online platform and time taken for doing project work

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