

Government-certified

Electric Vehicle Course with Placement Guarantee

Get placed with ₹45,000 total stipend

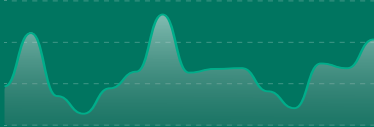


Introducing 2 Offline Workshops



Free Hardware Kit worth 8k

THROTTLE POSITION

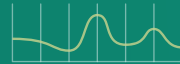


10%

20%

50%

SPEED



ENERGY



REAL TIME POWER



60%
ENGINE CHARGE
LEVEL
90 kW
ENGINE
OUTPUT

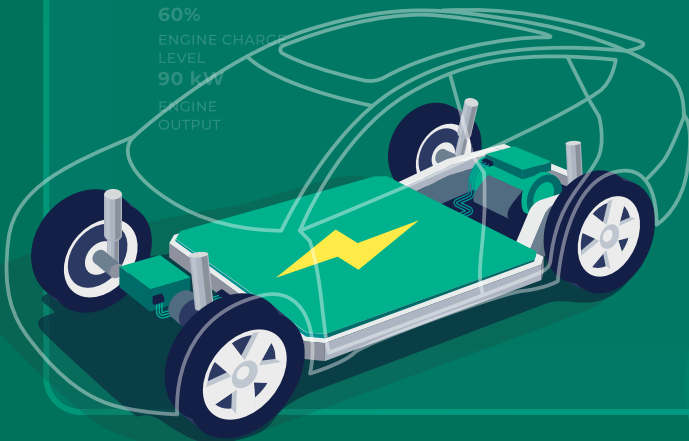


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Internshala in headlines

BW EDUCATION

Internshala Rolls Out Specialisations With Guaranteed Internships

FINANCIAL EXPRESS
Read to Lead

Internshala launches 'Specializations' programme with guaranteed internships

NEWS 18

Internshala Offers Online Courses With Guaranteed Internships, Stipend up to Rs 10,000

**EXPRESS
COMPUTER**

Internshala launches Internship with Dream Companies

YOURSTORY

Internshala: Powering 2.2 million+ students

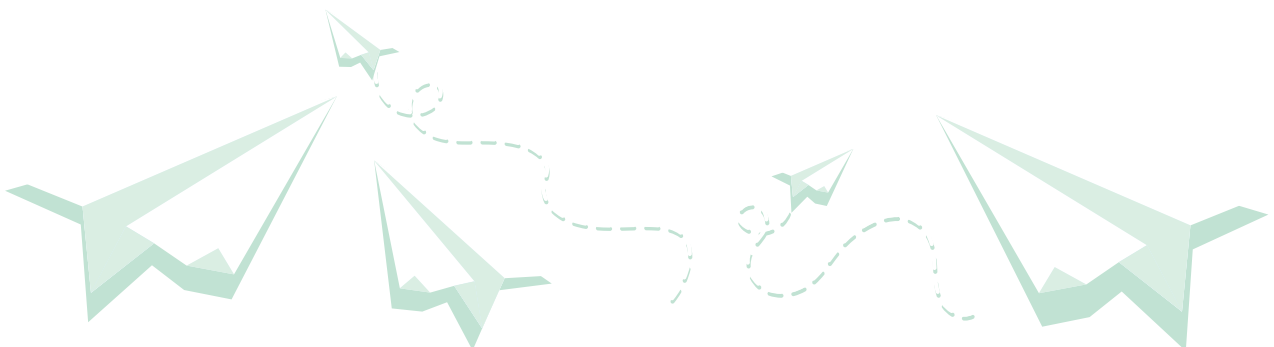
By Team YS

July 11, 2022, Updated on: 11:20 AM GMT +5:30



THE HANS INDIA

Well-Rounded, High-Quality Education Is A Need Of The Hour: Internshala

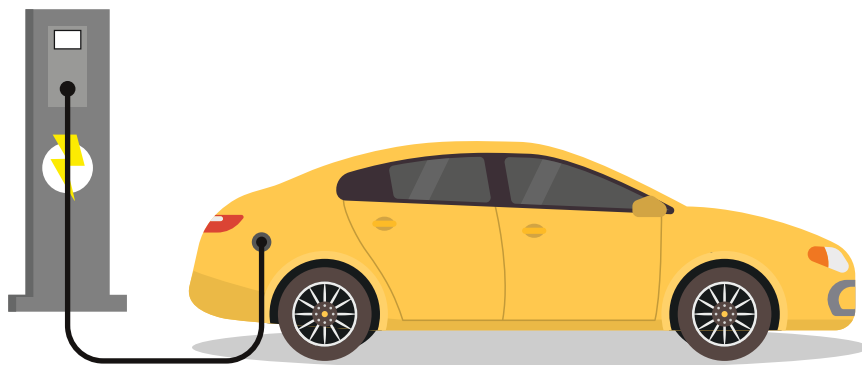


What is Electric Vehicle?

The world has been battling the environmental issues brought on by carbon-fueled automobiles for decades. Globally, the trend is moving toward electric vehicles as a result of quick technology breakthroughs and substantial research into more environmentally friendly, sustainable automobiles. Electric vehicles are the way of the future for the automotive industry, and they require highly qualified engineers to develop them effectively.

The electric vehicle industry refers to the manufacturing and sale of vehicles that are powered by electricity. This includes electric cars, buses, motorcycles, and trucks. Electric vehicles have been around for a long time, but they've only started to become popular in the last few years.

There are two main types of electric vehicles: all-electric and plug-in hybrid. All-electric vehicles are powered exclusively by electricity, while plug-in hybrids can run on gasoline and electricity.



Why EV is 'The Ultimate' career path?

90% year-on-year growth in the sale of EVs in India during FY 21-22.

-Source: E Vehicle Info

- According to the Ministry of Skill Development and Entrepreneurship, the EV industry is expected to create about 5 crore direct and indirect job opportunities.
 - The Indian EV industry is expected to grow by 10x to reach USD 15 billion by 2027, creating over 1 lakh new jobs on the way.
 - 1L+ New Jobs are expected to be generated if EV penetration reaches 30% by 2030. (Source: CEEW Report India)
 - 10X growth predicted in the Indian EV industry by 2027. [Source: E Mobility Plus]
 - According to an independent study by CEEW Centre for Energy Finance (CEEW-CEF), the EV market in India will be a US\$ 206 billion opportunity by 2030 if India maintains steady progress to meet its ambitious 2030 target.
- 
- A graphic of a winding road with white dashed lines, curving from the bottom left towards the top right. Five yellow location pins are placed along the road, each corresponding to a bullet point in the list.

What industries could you choose to work for after the EV course?



1. Research & Development:

In order to improve battery charging, recharging technology, fuel or material sources, the electric vehicle industry needs a research and development team to recognise the most recent technology and concepts that are emerging globally.



2. Design and Development:

Everyone who contributes to the final development process from the basic vehicle modelling phase is a part of the design and development industry. Typically, this industry employs engineers, software developers, industrial designers, technicians, and drafters. They discover cost-effective, solution-focused ways to lower car expenditures.



3. Electric Vehicles Manufacturing:

Manufacturing involves complicated processes and a sizable labour force. Workers for manufacturing would come from the traditional vehicle model businesses. The manufacturing team concentrates on designing production processes and machines. Machinists, industrial managers, machine tool operators, and equipment assemblers are the specialised workers needed in the EV manufacturing industry.



4. Maintenance Department:

These are basic maintenance and repair tasks for vehicles. Electrical repair professionals are needed to maintain the electrical systems. The maintenance staff install and replace the electric vehicle's batteries. These specialist EV jobs necessitate an understanding of electrical and battery systems.



5. Infrastructure Development:

The need for charging stations grows as the number of electric vehicles on the road rises. Specialized charging infrastructure that includes battery charging and changing technologies is required for electric vehicles. The infrastructure development team focuses on installing charge stations and modernising the battery charging infrastructure in different cities. To implement charging infrastructure, powerline installers and repairers, together with a few electricians, are most needed.

What your career in the EV industry may look like?



EV Systems Engineering Intern:

Supports the design, development, and testing of core EV systems.



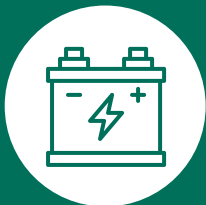
Battery Technology Intern:

Assists in optimizing battery performance and energy management for EVs.



Power Electronics Intern:

Contributes to the development of power distribution and conversion systems in EVs.



BMS (Battery Management Systems)

Aids in monitoring and enhancing battery health and safety through advanced systems.



Simulation and Modeling Intern

Conducts performance simulations using tools like MATLAB to improve EV designs.



EV Design Intern

Assists in designing and developing EV components and systems to enhance performance.

How would your **salary trends** look as an **EV Engineer**?



Salary trends in EV Engineering

Source: Glassdoor*

Top Companies Hiring in EV Industry



Why choose Internshala Placement Guarantee Course?



Practical Learning Approach

Each Placement Guarantee Course comprises quizzes, assignments, and practical learning modules that call for hands-on learning.



Industry-Recognized Certification

Students get industry-recognized certificates on completion. More than 100,000 companies use Internshala for hiring every year. Therefore, Internshala Trainings certificates are widely recognised and valued.



100% Internship Guaranteed

All our placement guarantee courses come with a 100% internship Guarantee that helps students to build their dream careers.



Live Classes

For a better understanding of the subjects, all the trainings have live sessions weekly.



Portfolio-Worthy Projects

Our practical-based learning model allows students to learn from industry-level projects.



1:1 Doubt Solving

Doubts are solved by experts through the Q&A forum within 24 hours to ensure a thorough understanding of concepts.

How does EV course work?



1. Learn

Top-rated corporate faculty & practical first curriculum



2. Evaluate

Specially curated quizzes and tests after each module



3. Build

Industry-based projects for hands-on experience



4. Excel

Pass the final test to rate your overall knowledge



5. Prepare

Get interview ready with mock interviews and resume building



7. Intern

Gain real-world experience through a guaranteed internship with a confirmed ₹45,000 total stipend



8. Get a Job

Convert the internship into a full-time job or land another job based on that experience - the choice is yours!

How **Placement-Assistance** can help you land an internship



A dedicated placement cell to continuously guide you towards your dream career



1:1 Career planning sessions with faculty with rich industry experience



Get highlighted in your applications on Internshala



Expert assistance on resume & cover letter writing



LinkedIn profile building

Industry-Oriented Curriculum



200+ Hours of Learning



7 months



8 Courses



1 Assignment

Course 1: Electric Vehicle Engineering



Foundations and Transition to Electric Vehicles

- Foundations of Electric Vehicle (EV) Technology
- Transition Strategies: From Traditional to EV Technologies
- Market Analysis and Design Insights for EV Motors



Core EV Components and Technologies

- Advanced Battery Systems for Electric Vehicles
- Electric Motor Technologies for EV Applications
- Power Electronics Applications in EVs
- Integrated Vehicle Electrification Techniques



EV Infrastructure and Retrofitting

- EV Charging Infrastructure Planning and Development
- EV Retrofitting: Technical and Business Perspectives



Business and Market Insights

- Business Management in the EV Industry
- Global EV Battery Market Analysis and Trends



Testing, Homologation, and Extended Learning

- Extended Learning in EV Testing and Homologation

Course 2: EV Advanced: Battery, Motor, Charging & Dynamics



Foundations and Advanced Concepts in EV Technologies

- Numerical Analysis and Calculations for Electric Vehicles
- Hybrid Vehicle Technologies and Applications
- Core Systems of Heavy Vehicles: A Focus on EVs



Safety, Standards, and Regulatory Compliance

- Safety Standards and Regulatory Compliance in the EV Industry
- Supply Chain Management and Logistics for EV Development

Manufacturing and Assembly of EVs

- Manufacturing and Assembly Processes in EV Production
- Supply Chain Management and Logistics for EV Development (cross-referenced for relevance)

Advanced Learning and Professional Specialization

- Advanced Specialized Modules for EV Industry Professionals

Course 3: MATLAB-SIMULINK: Design & Control Systems

MATLAB Fundamentals and Intermediate Skills

- MATLAB Basics: Essential Skills for Beginners
- Intermediate MATLAB: Advanced Functionalities and Techniques

Data Design, Development, and Visualization

- Designing, Developing, and Visualizing Data in MATLAB

Modeling and Simulation with MATLAB

- MATLAB Simulink: Modeling and Simulation for Engineers
- Modeling with QSS Toolbox in MATLAB

Advanced Tools and Analysis

- Advisor Toolbox: Advanced Modeling and Analysis in MATLAB

Course 4: Power Electronics & Circuit Design using Proteus & Altium

Fundamentals of Power Electronics

- Foundations of Power Electronics
- Key Parameters and Performance Metrics in Power Electronics

Systems and Control in Power Electronics

- Converter and Inverter Systems in Power Electronics
- Control Systems for Power Electronics Applications

Design and Simulation Techniques

- Proteus-Based Design and Simulation of Power Electronic Circuits
- MATLAB-SIMULINK Modeling and Simulation for Power Electronics

Circuit Design and Prototyping

- Circuit Design and Prototyping using ALTIUM Design

Course 5: Embedded Systems: Embedded C, Microcontroller, Arduino & Simulations

Foundations of Embedded Systems and Microcontrollers

- Introduction to Embedded Systems
- Foundational Concepts of the 8051 Microcontroller
- 8051 Microcontroller Operations: Core Functionalities
- 8051 Microcontroller Instruction Set and Programming

Programming and Communication in Embedded Systems

- Embedded C Programming and Application Development
- Communication Protocols in Embedded Systems

Arduino for Embedded Systems Development

- Getting Started with Arduino for Embedded Systems
- Arduino-Based Embedded Systems Development
- Advanced Arduino Development Techniques for Embedded Applications

IoT and Advanced Applications

- IoT Application Design and Development with Arduino-Based Systems

Course 6: Advanced Embedded Systems using ARM Cortex

Interfacing and Input Systems with ARM

- LED and LCD Interfacing Techniques
- User Input and Seven-Segment Display Interfacing

ADC and Timer Systems in STM32

- ADC Programming and Hardware Applications
- Advanced ADC Implementation and Optimization
- Timer Systems Implementation in STM32 Systems

Communication and Control Systems with STM32

- Communication Protocols with STM32: UART, I2C, and SPI Implementation
- Motor Control Signal Development Using STM32 Controllers

Advanced Systems Development with ARM Cortex

- RTOS Implementation for STM32-Based Systems
- Development of Charging Control Systems with ARM Cortex
- Smart Battery Management System (BMS) Development with ARM Cortex

Course 7: Advanced EV Design & Simulations with MATLAB & Simscape

Road Load and Vehicle Performance Analysis

- Road Analysis for EV Systems with Comprehensive Load Calculations
- Aerodynamic and Air Drag Considerations for Efficient Vehicle Design and Analysis
- Vehicle Road Load Analysis for Performance Optimization
- Vehicle Performance Analysis and Optimization

Motor and Control Strategies

- Motor Design and Control Strategies
- PWM Control Systems for Motor Applications

Energy Storage and Fault Analysis

- Ultracapacitor Modeling and Simulation Techniques
- Battery Pack Fault Detection and Analysis

Hybrid and ICE Vehicle Simulation

- ICE Vehicle Modeling and Simulation Techniques
- Hybrid Vehicle Analysis and Simulation for Efficiency Improvement

Course 8: Advanced Powertrain & Motor Control with MATLAB & ANSYS

EV Powertrain Systems

- Introduction to EV Powertrain Systems
- Detailed Study of Powertrain Hardware and Management
- Powertrain Standards and Industry Best Practices

Modeling, Simulation of Motor, Charging and Powertrain Systems

- Charging System Modeling and Simulation for Powertrain
- Motor Modeling and Simulation for Powertrain Systems
- Comprehensive Powertrain Modeling and Simulations

Structural and Modal Analysis with ANSYS

- Static Structural Analysis Using ANSYS
- Modal Analysis for Vibration Studies in ANSYS

Thermal and Fluid Dynamics Analysis

- Heat Transfer Analysis with ANSYS
- Fluid Dynamics Analysis (CFD) Using ANSYS

Advanced ANSYS Techniques

- Nonlinear Analysis for Complex Systems in ANSYS
- Optimization and Parametric Studies Using ANSYS

Practical Workshops: Embedded Development for EV Applications

How will the workshops help you?

- Choose your preferred workshop mode - offline or virtual
- Hands-on projects for practical EV skills
- Training led by seasoned EV professionals
- Master EV concepts with detailed modules

Projects you will work on

- Development of a Smart Battery Management System (BMS) Using STM32 Controllers
- Design and Implementation of an Embedded Charging Controller System for Electric Vehicles
- Real-Time CAN Communication Protocol Development for Multi-Controller EV Systems Using Embedded Systems

Industry-recognized & Government approved Certifications

Internshala Trainings certificate

Upon successful completion of the program, you will receive an Electric Vehicle certificate from Internshala



NSDC & Skill India certificate

Also, receive a certificate from NSDC (National Skill Development Corporation) and Skill India.



Industry Certifications

Upon completing the workshops, you will receive a prestigious certificate from DIYGURU.ORG and Internshala Trainings.



New Add-On

How will the **workshops** help you?

Choose your mode

Choose your preferred workshop mode - offline or virtual - for a flexible and personalized learning experience.

Learn by doing

In these workshops, you'll work on real projects, developing industry EV applications with software integration & Targeting battery controllers, bus charging controllers, smart data acquisition, and motor control systems with IoT integration.

Industry expertise

Learn directly from seasoned EV professionals who will share their real-world knowledge and practical tips with you.

In-depth learning

Design a Smart Battery Management System (BMS) using STM32 controllers to monitor battery health and manage charging, develop an embedded charging controller for optimizing EV power delivery, and create a real-time CAN communication protocol for multi-controller EV systems, ensuring efficient communication and data integrity.



Note: For the Offline Workshops, travel, stay & food costs will not be covered by Internshala.

Limited Time Offer

Get exclusive EV Hardware Kit worth ₹8,000 for Free!

Increase your employability by 2x with our EV hardware kit, offering hands-on practical knowledge!

Industry-Standard Tools

Master trending real-world applications using a custom-designed STM32 ARM Cortex system.

Project-Based Learning

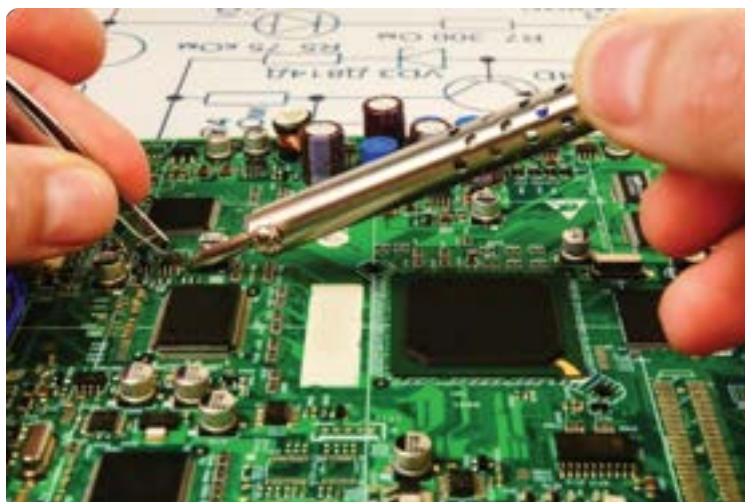
Engage in 15+ experiments and 5 EV-focused projects, aligned with the latest industry trends, to build functional systems from scratch.

Interactive Learning

Embrace a comprehensive training program – start with simulations and seamlessly transition to physical hardware implementation

Career-Ready Skills

Our EV Hardware Kit equips you with the hands-on expertise that top employers in the EV industry are actively seeking.



Skills you will learn



MATLAB



SIMULINK



BMS modelling
& simulation



SOLIDWORKS



Embedded
Systems



IOT



Arduino



AUTOSAR



Hardware Lab
Experimentation



Embedded C
Programming



STM32CubeIDE and
ARM Cortex Systems



Ansys



Proteus Based
Circuit Simulation

Learn from Industry Expert



Avinash Singh

CEO, DIYguru, Co-Founder, ev.care



Ayush Sharma

Program Director, Co-founder & CTO, DIYguru,
Scientific Researcher, Nanotechnology



Prasad J. Kadam

Senior Technical Head, Center of
Excellence, DIYguru



Metla Divya Vani

Associate-Tech R&D, EV trainer
at DIYguru

Learn from Industry Expert



Ashutosh Dehury

Embedded Developer at DIYguru,
DANA GRAZIANO, SOFCO.



Rahul Kumar

E-mobility mechanical engineering and
trainer at DIYguru



Gourab Majumder

Application Engineer at Convergent
Technologies

Companies: Convergent Technologies

Course Fee

₹45,000/-~~₹53,000~~

Valid for limited period

**No-cost EMI options available starting
at just ₹3,750/- per month**



Connect with Admissions Team

Admissions Counselling Team, Internshala



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