



EduBEST
ONLINE LEARNING



BEST
Bharatya Engineering, Science & Technology
Innovation University
EMPOWERED BY INNOVATION

In Collaboration with



Become an Electric Vehicle Designer in 7 Months!

With Zero upfront tuition fees, investing in yourself is risk-free!

No prior experience is required! Pay only after you get placed as a Electric Vehicle Designer.



10 Million
Learners



1:1 Personalized
Mentorship



55% Average
Salary Hike

Pay After Placement in Electric Vehicle design course!

Our 'Pay After Placement' course in electric vehicle design offers the requisite skills for becoming a successful electric vehicle designer. The course has been specifically designed by industry experts to help graduates and undergraduate students of any degree land their dream job! You will receive certification from Intellipaat once the course is finished.

Hottest Job of 21st Century



1 Million Job Postings

There is a global estimate of 1 million job postings for electric vehicle designer roles by 2023



Skill Development

Electric vehicle designer professionals are equipped with various relevant skills fetching lucrative job offers



Growing Software Engineering Industry

41.5% CAGR in the global electric vehicle industry



Future oriented Career

Electric Vehicle designer is a budding field; a head start will prove to be beneficial



Popular Degree

41% of electric vehicle designer professionals have a master's degree



High Demand

By 2023, India and US will face a demand-supply gap of 360,000 electric vehicle designer professionals

Our Credentials

10 Million+

Aspiring Active Students

1,000+

Industry-expert Instructors

400+

Hiring Partners

500+

Corporates Upskilled

55%

Average Salary Hike

155+

Countries' Learners

About Program

This 'Pay After Placement' electric vehicle design course will make you go through intensive training from industry experts for 7 months. Participants will gain a comprehensive understanding of the industry and the skills necessary to successfully transition their careers to become electric vehicle specialists after completing the advanced course. The Intellipaat team has worked hard to incorporate all the cutting-edge skills you will require. After learning the fundamentals, by the end of the course, you will have mastered advanced techniques.



Learning Format

Online Bootcamp



7 Months

Duration



Pay Only After You

Get a Job

Key Highlights

- Pay Tuition Fees only once you get a job as an electric vehicle designer or specialist
- 7 Months of Live Classes From Top Industry Experts
- Career Services Session after every module
- Multiple Specializations
- Project-based Live Learning
- Dedicated Learning Management Team
- 50+ Industry Projects & Case Studies
- Internship Opportunities
- Industry Experts from Top Product Companies & Startups
- Extra Hand-on Sessions over Weekdays
- 24/7 Support
- Soft Skills Training
- Receive IBM and Microsoft Verified Certification

Program Pedagogy

Instructor led Training

Get trained by industry experts from Top Product Companies & Startups

Hackathons

Get a sense of how real projects are built

Dedicated Learning Management Team

To help you with your learning needs

Peer Networking and Group Learning

Improve your professional network and learn from peers

Self-paced Videos

Learn at your own pace with world-class content

Gamified Learning

Get involved in group activities to solve real-world problems

Projects and Exercises

Get real-world experience through projects

1:1 Personalized Learning

Hands-on exercises, project work, quizzes, and capstone projects

Who Can Apply for the Course?

- Any undergraduate student looking to move to electric vehicle design
- Recent Graduates who want to pursue a career in electric vehicle design

Application Process

The application process consists of three simple steps. An offer of admission will be made to selected candidates based on feedback from the admission team. The selected candidates will be notified over email and phone, and they can block their seats by just paying the registration fee. The registration fees will be refunded back to the candidate upon moving to the placement pool after clearing the Placement Readiness Test (PRT).

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- 1** Submit Application
 - 2** Application Review and Admission
 - 3** Pay Refundable Registration Fees and Get Started
 - 4** Placement Pool & Get Refund of your Registration Fees
 - 5** Land into your Dream Job!

Tell us a bit about yourself and why you want to join

Shortlisted candidates will be issued an admission letter for the course.

Get started with online live classes with the help of top industry mentors upon payment of the refundable registration fees. Also, sign the income share agreement.

Upon moving into the placement pool after clearing the PRT (Placement Readiness Test), get a refund of your registration fees.

First, land a job in the electric vehicle sector and receive the first month's salary. Start paying after you receive your first salary.

Learning Path

Live Courses

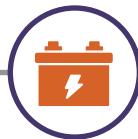
Vehicle Fundamentals



Start of the Course



EV Motors and speed control methods



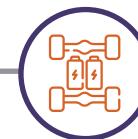
Battery Fundamentals & BMS



Charging Infrastructure



Mechanical sub-system of an EV



Autonomous Planning and Control of EVs



Charging Stations and Scripting



Low voltage system for EVs



Testing for Electric Vehicles



Job Readiness & Job Search Strategy



Become an Electric Vehicle Designer in 7 Months!

Program Curriculum

Module1 - Vehicle Fundamentals

- Basics of Electromobility [Pure EV, Hybrid, Plug-In Hybrid]
- EV and IC engine- pros and cons
- EV powertrain architecture
- Vehicle Performance

Module 2 - EV Motors and speed control methods

- Motor ratings
- EV/HEV motor requirement
- Types of Motors: IM, PMSM, SyRM, PMLDC, SRM
- Torque and speed control: IM, PMSM, SyRM
- Torque and speed control: SRM, PMLDC
- Motor drives and converters used in EVs

Lab exercises (2 hrs)

- Linear controller design for electric machine system using MATLAB Simulink
- Space vector modeling of induction machine and vector control using MATLAB Simulink

Module 3 - Battery Fundamentals & BMS

- Battery modeling advantages and Disadvantages
- Characteristics of a battery cell
- Battery sizing
- Introduction and Objective of BMS
- Charging and discharging control
- Understanding of SOC, Cell balancing
- BMS topologies
- SoC estimation
- Protection and battery management system logic Development

Module 4 - Charging Infrastructure

Battery Charging methods

- EV supply equipment (EVSE), EV battery chargers components
- Charging infrastructure challenges
- Classification based on charging levels (region-wise), modes, plug types
- Standards related to connectors, communication protocols, supply equipment
- Converters used in EV chargers
- Communication protocol/procedures for BHARAT DC001
- Communication protocol/procedures for CCS2 charger

Lab exercises (3 hrs)

- Single-phase AC-DC converter simulation for 3.3kW On-board charger using MATLAB Simulink
- Isolated DC-DC converter simulation for 3.3kW On-board charger using MATLAB Simulink

Module 5 - Charging Stations and Scripting

- Charging station components
- Topologies and strategies used in fast chargers
- Renewable integration
- Solid state transformer
- DC/DC Converter Modelling and Simulation
- AC/DC Converter Modelling and Simulation
- Design and simulation of AC and DC charge controller

Lab exercises (3 hrs)

- Three-phase AC-DC converter simulation using MATLAB Simulink
- DC-DC DAB converter simulation using MATLAB Simulink

Module 6 - Autonomous Planning and Control of EVs

- Autonomous Vehicle Kinematics and Constraints
- Control the reference position and pose.
- Control of autonomous vehicles using kinematics
- Lateral Vehicle Dynamics
- Steering Control for Automated Lane Keeping
- Cruise Control in autonomous vehicles
- Perception of autonomous vehicles
- Layers of motion planning for autonomous vehicles
- Motion planning primitives and planning scenarios
- Path planning methods
- Collision avoidance
- Co-operative control-based planning

Lab exercises (2 hrs)

- Longitudinal and lateral control of autonomous vehicles using MATLAB Simulink
- Optimal trajectory generation for urban driving

Program Curriculum

Module 7 - Mechanical sub-system of an EV

- Steering system and dynamics
- Suspension system and dynamics
- Thermal management
- Gear and transmission systems
- Braking systems
- Chassis design
- Turbulence
- Design against vibration
- Wheel and tyre dynamics

Module 8 - Low voltage system for EVs

- Sensor interfaces and electronics for EV testing
- Infotainment system
- Vehicle-to-vehicle communication system
- Electronic Control Unit
- Publishing odometry data from sensors, Odometry modelling
- Role of odometry in path planning of autonomous vehicles

Module 8 - Low voltage system for EVs

- Testing – Penetration Testing, Thermal Testing, Non-Destructive Testing.

Upon the completion of the program, candidates will undergo Job Readiness and Job Search Strategy modules, which are provided below

Module: Job Readiness and Job Search Strategy

- Job Search Strategy Sessions
- Career-Oriented Sessions
- Resume Building
- LinkedIn Profile Creation
- Mock interview preparation
- 1 on 1 Career Mentoring

Tools to Master



SIMULINK®

Contact Us



10 Million Learners & 500+ corporates across
155+ countries upskilling on Intellipaat platform

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