

# HYBRID ELECTRIC VEHICLE



# Hybrid Electric Vehicles (HEV)

Step into the future of automotive technology with Tech Vedhu's Hybrid Electric Vehicle (HEV) program. HEVs represent a green revolution in the automotive industry, combining the benefits of electric and internal combustion engine technologies.

## What are Hybrid Electric Vehicles (HEVs)?

HEVs are vehicles that use a combination of an internal combustion engine (ICE) and one or more electric motors for propulsion. These vehicles offer increased fuel efficiency, reduced emissions, and a smoother driving experience.

## Why Choose HEVs?

- 1. Eco-Friendly Transportation:** Contribute to a cleaner environment by embracing eco-friendly transportation solutions.
- 2. Cutting-Edge Technology:** Dive into the latest advancements in automotive technology and sustainable mobility.
- 3. High Demand:** The demand for HEV specialists is on the rise as automotive companies prioritize sustainability

# Program Overview

01



Learn from basic to advance level in HEV

02



Gain knowledge

03



Claim training completion certificate

04



Work in 10+ real time projects

05



Gain experience

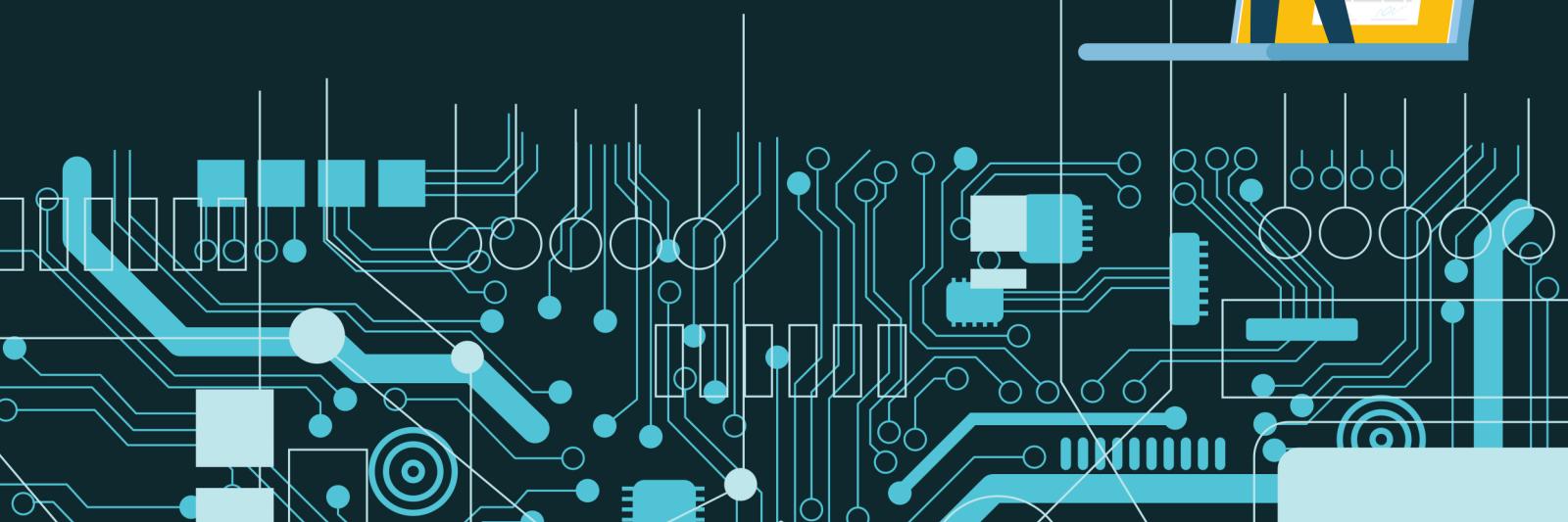
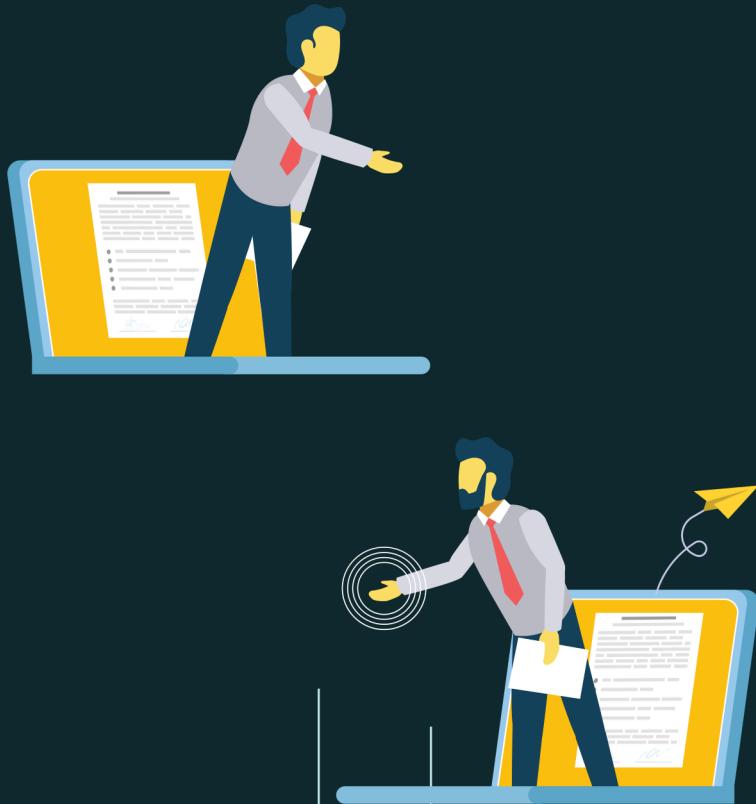
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Claim internship completion certificate

# GOALS

**TECH VEDHU** offers a comprehensive **2-month** Industrial Training and Internship program designed to provide students and aspiring professionals with valuable **hands-on experience** in various industries.



**Duration:** The program spans a duration of **2 months**, providing participants with hands-on experience to gain industry-specific skills and insights.



## 1st Month - Industrial Training

**Industry Experts:** Participants will have the opportunity to learn from industry experts and professionals who will mentor and guide them throughout the Training and internship period. This mentorship can be invaluable for networking and gaining insights into the field.

## 2nd Month Industrial Internship.

**Projects :** Participants will be assigned with 2 Real-Time industry projects  
( 1st minor-Individual Project )  
( 2nd Major - Group Project )

relevant to their chosen industry. These projects may range from software development and engineering design to marketing campaigns and financial analysis.

**Hands-on Experience:** The program emphasizes practical learning through hands-on projects, real-world problem-solving, and exposure to industry-specific tools and technologies.

**Feedback and Evaluation:** Regular feedback sessions and evaluations are conducted to monitor Your progress and provide constructive feedback for improvement.

Overall, Tech Vedhu's 2-month Industrial Training and Internship program is designed to empower participants with practical skills and industry exposure, making them more competitive and ready for the job market in their chosen field.



# **FREE ADDITION IN 3RD MONTH**

{Placement Assistance & Streaking Challenge }

## **Placement Assistance by InternzLearn**

Tech Vedhu is a platform that offers placement assistance services to students and job seekers.

## **MOCK INTERVIEWS**

Polishing Your Interview Skills through Realistic Simulations.

## **PERSONALITY DEVELOPMENT SESSIONS**

Enhancing Your Personality for Personal and Professional Growth.

## **RESUME BUILDING SESSIONS**

Mastering the Art of Crafting a Winning Resume.

## **Job Application Strategy**

Strategizing Your Way to a Successful Job Application.

## **Networking Support**

Fostering Invaluable Connections for Professional Advancement.

**These 5 sessions will be conducted for a duration of 5-6 days and can be repetitive on basis of the mentor and students interaction.**

LEVEL UP

# STREAKING CHALLENGE GAMIFIED SESSION BY TECH VEDHU

The "Streaking Challenge Gamified Session" by Tech Vedhu is an engaging and interactive learning experience designed to motivate and encourage participants.

## Gamification Elements:

**Leaderboards:** Participants are ranked on leaderboards based on their performance.

**Badges and Rewards:** Achieving milestones or meeting specific goals can earn participants with streaks and then Goodies & rewards

**Progress Tracking:** Participants can monitor their progress in real-time, providing a visual representation of their Streak level.

**Community Engagement :** Participants are encouraged to connect with peers who share similar challenges. This creates a supportive community where individuals can motivate and hold each other accountable.

**The Streaking Challenge Gamified Session by TECH VEDHU offers a fun and effective way to foster positive habits**

# GAMER



GAME TOURNAMENT



## Program Highlights:

- 30+ Hours of Immersive Learning.
- 2 Real-time Projects for Practical Exposure.
- Student-Friendly Timings to Suit Your Schedule.
- Access to Both Live and Recorded Sessions for Flexibility.
- Globally Accepted Certifications to Elevate Your Credentials.
- Mentor Guidance to Navigate Complex Concepts.
- Internship Opportunities for Real Industry Experience.
- 1:1 Doubt Resolution for Comprehensive Understanding.

# Upskilling Process

- Gain Comprehensive Knowledge:

Acquire in-depth knowledge in HEV principles and applications.

A

- From Basics to Advanced:

Journey from HEV fundamentals to advanced concepts.

B

- Claim Training Completion Certificate:

Receive a training completion certificate as a testament to your expertise.

C

D - Hands-on Projects:

Work on 10+ real-time projects, gaining practical experience.

E - Professional Experience:

Elevate your skills and gain valuable industry experience.

F - Claim Internship Completion Certificate:

Cap off your journey with an internship completion certificate, marking your readiness for the industry.

# CURRICULUM

## 2. Introduction / Fundamentals

- Gain a foundational understanding of automotive fundamentals, including vehicle architecture, components, and systems.

## 2. Introduction to Electric and Hybrid Vehicles

- Explore the principles and types of electric and hybrid vehicles, understanding their role in sustainable transportation.

## 3. Introduction to Electric Machines

- Dive into the world of electric machines, including motors and generators, and their application in HEVs.

## 4. Electric Vehicle Modeling

- Learn the modeling techniques used in electric vehicles, enabling you to simulate and optimize their performance.

## 5. Introduction to Electric Vehicle Batteries

- Understand the critical role of batteries in electric and hybrid vehicles, covering various battery chemistries and technologies.

## 6. HEV (Hybrid Electric Vehicles)

- Explore the HEV concept, design, and operation, including the synergy between internal combustion engines and electric propulsion.

## 7. Battery Management Systems

- Delve into battery management systems (BMS), crucial for monitoring and maintaining the health of electric vehicle batteries

## 8. Hybrid Electric Vehicles

- Focus on HEV technology, including parallel and series hybrids, regenerative braking, and powertrain configurations.

## 9. EV Chargers

- Explore the different types of electric vehicle chargers, charging standards, and infrastructure development.

This curriculum provides comprehensive knowledge, from vehicle fundamentals and electric machines to battery management and charging infrastructure. It prepares you to become a skilled professional in the field of hybrid electric vehicles, contributing to sustainable transportation solutions.

"For a more comprehensive curriculum overview, please visit our website at [www.techvedhu.com](http://www.techvedhu.com)."

# Our Projects:

Regenerative  
Braking System

01

Driving cycle  
development for  
electric vehicle  
simulation

02

Closed-loop Electric  
Vehicle modeling in  
MATLAB

03

Energy analysis of  
EVs on different  
driving cycles

04

Efficiency map  
development for  
induction motor

05

# Tools used



MATLAB®



Metasploit



# Testimonials

"I'm immensely grateful for the knowledge and skills I gained at InternzLearn. The hands-on projects were invaluable, and the mentorship was exceptional. This experience transformed me into a confident and competent developer!"



"I was blown away by the quality of instruction at InternzLearn. The Data Science program was well-structured, and I loved the practical approach. I secured a Data Analyst role before completing the course!"



"InternzLearn is the best thing that happened to my career. The VLSI program was top-notch, and the internship opportunity was a game-changer. I'm now working as an ASIC Design Engineer, all thanks to this platform."



"I joined InternzLearn's Digital Marketing program to enhance my skills. The mentorship was fantastic, and the real-world projects gave me hands-on experience. Now, I confidently lead marketing campaigns."



"InternzLearn not only taught me CAD and CAE but also the art of innovation. The industry insights I gained during my internship made me job-ready. I'm proud to be an alumnus of this platform."



"InternzLearn exceeded my expectations. The Finance program taught me practical financial modeling, and I landed a finance analyst job within weeks of completion. It's a game-changer for anyone pursuing finance."





## Contact us:



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