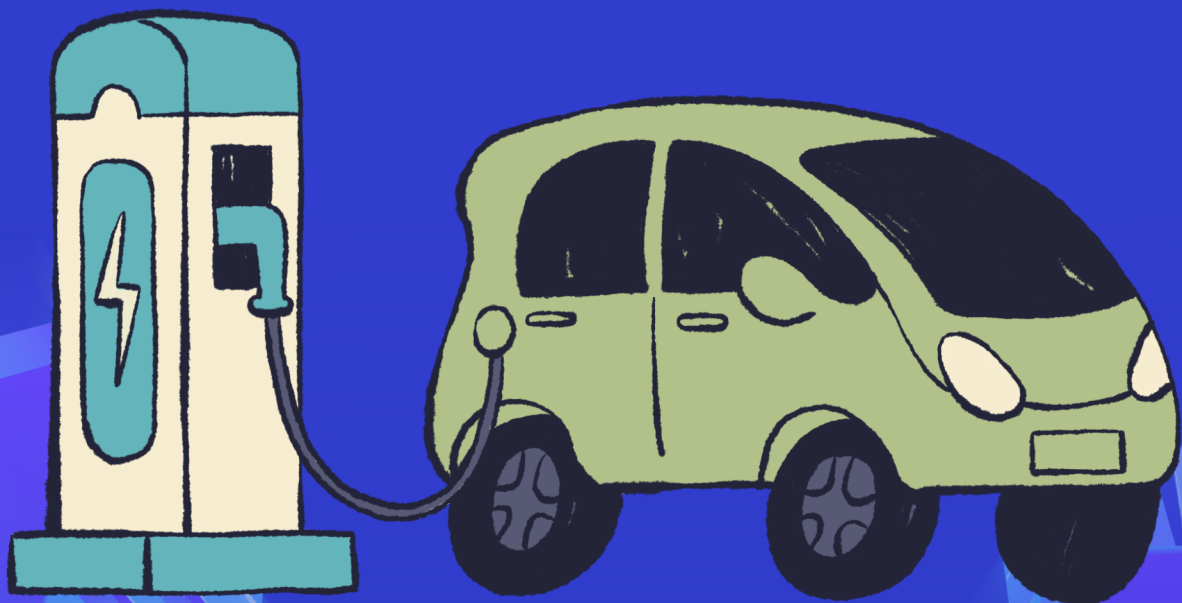


ELECTRIC VEHICLE ENGINEERING PROFESSIONAL PROGRAM

Master electric vehicle design, battery systems, power electronics, motor control, embedded systems, and EV simulation using MATLAB, Simulink, STM32, CAN communication



**EV DESIGN, BATTERIES, POWER ELECTRONICS, MOTOR
CONTROL, EMBEDDED SYSTEMS, MATLAB/SIMULINK,
STM32 & CAN.**

PROFESSIONAL PROGRAM · 6 MONTHS

ELECTRIC VEHICLE ENGINEERING PROFESSIONAL PROGRAM

EV systems mastery with MATLAB & STM32

DURATION:
6 MONTHS · 10+ LAB HOURS

FORMAT & MODE
HYBRID LMS + LIVE

SKILL LEVEL
GRADUATE / PROFESSIONAL

ROBOTICS SPECIALIZATION TRACKS

Deep dive into four career paths aligned with demanding robotics engineering profiles.

Track 01 Electric Vehicle Systems Engineering

Understand EV architecture, vehicle dynamics, traction systems, powertrain design, and energy management

- EV Architecture
- Vehicle Dynamics
- Energy Management

Track 02 Battery Management System Engineering

Design lithium-ion battery packs, SOC estimation, thermal management, balancing, and battery safety systems.

- Battery Pack Design
- SOC & SOH Estimation
- Battery Protection

Track 03 Motor Drives & Power Electronics

Design inverters, converters, gate drivers, BLDC/PMSM motor control, and efficient power conversion systems..

- Inverter Design
- BLDC & PMSM Control
- DC-DC Converters

Track 04 Embedded Systems & EV Control

Develop real-time embedded controllers using STM32, Arduino, PWM, ADC, CAN Bus, and automotive communication protocols.

- STM32 Programming
- CAN Communication
- Real-Time Motor Control

INDUSTRY-GRADE TOOLCHAIN YOU'LL MASTER

**'MATLAB', 'SIMULINK', 'SIMSCAPE', 'STATEFLOW', 'SIMULINK CONTROL DESIGN',
'SIMULINK REAL-TIME', 'CONTROL SYSTEM TOOLBOX', 'SIGNAL PROCESSING
TOOLBOX', 'OPTIMIZATION TOOLBOX', 'STM32', 'ARM CORTEX-M', 'ARDUINO', 'CAN
BUS', 'BATTERY MANAGEMENT SYSTEM', 'BLDC MOTOR CONTROL', 'PMSM', 'POWER
ELECTRONICS', 'MOTOR DRIVES', 'GATE DRIVERS', 'SPICE', 'KICAD'**

TRACK 01 ELECTRIC VEHICLE SYSTEMS ENGINEERING

EV Fundamentals

- checkIntroduction to EV
- checkVehicle Architecture
- checkVehicle Dynamics

EV Systems

- checkEV Components
- checkPowertrain
- checkEnergy Flow

Charging & Braking

- checkCharging Standards
- checkRegenerative Braking

Simulation Tools

- checkMATLAB Basics
- checkSimulink Basics



Capstone Milestone 1: Vehicle Force & Power Calculator

Build a tool that calculates tractive force, power, and energy requirements for an electric vehicle using vehicle dynamics equations.

TRACK 02 BATTERY MANAGEMENT SYSTEM ENGINEERING

Cell Fundamentals

- checkLithium-ion Cells
- checkBattery Pack Design

State Estimation

- checkSOC
- checkSOH

Battery Safety

- checkCell Balancing
 - checkThermal Management
- ### Protection & Testing
- checkBattery Protection
 - checkBattery Testing



Capstone Milestone: Battery SOC Estimator

Design and simulate a state-of-charge estimation model for a lithium-ion battery pack using MATLAB and Simscape.

TRACK 03 MOTOR DRIVES & POWER ELECTRONICS

Power Conversion

- checkPower Electronics
- checkDC-DC Converter

Inverter & Modulation

- checkInverter
- checkPWM

Motor Types

- checkBLDC
- checkPMSM

Advanced Control

- checkFOC
- checkGate Drivers



Capstone Milestone: BLDC Speed Controller

Design, simulate, and build a closed-loop speed controller for a BLDC motor using PWM and gate driver circuits.

TRACK 04 EMBEDDED SYSTEMS & EV CONTROL

Microcontrollers

- checkSTM32
- checkARM Cortex

Firmware

- checkEmbedded C
- checkCAN

Interfacing

- checkSensors
- checkMotor Controller

System Integration

- checkReal-Time Control
- checkVehicle Integration



Capstone Milestone: EV Model Vehicle Fabrication

Integrate STM32-based control, CAN communication, sensors, and motor drives to fabricate a working EV model vehicle.

BRIDGE THE GAP FROM LEARNING EV CONCEPTS TO INDUSTRY- READY ELECTRIC VEHICLE ENGINEER

Transform from understanding EV fundamentals to designing, simulating, controlling, and building real Electric Vehicle systems with industry-standard tools and hardware.



WHERE YOU START

01 | Limited EV Practical Knowledge

Mostly theoretical understanding with minimal exposure to real EV systems.

02 | No Battery & Motor Control Experience

Limited understanding of battery management systems, motor drives, and power electronics.

03 | Limited Embedded Hardware Skills

No experience working with STM32, CAN communication



WHERE YOU'LL BE

✓ Electric Vehicle Engineer

Design complete EV systems including powertrain, battery, and control systems.

✓ Battery & Power Electronics Specialist

Develop battery management systems, motor controllers, inverters, and charging systems.

✓ Industry-Ready EV Portfolio

Showcase MATLAB, Simulink, STM32, CAN Bus, BLDC motor control, battery simulation, and complete EV model vehicle projects.

READY TO MAKE THIS TRANSFORMATION ?
JOIN 2,400+ ENGINEERS WHO ALREADY MADE THE LEAP.

INSIGHTS FROM OUR INTERNS

TRUSTED BY 8,880+ ON GOOGLE

From Beginner to
EV Engineer



"The practical EV system design sessions helped me confidently work on real Electric Vehicle projects."

RAHUL

Battery Management
Specialist



The Battery Management System projects gave me hands-on experience.

PRIYA

Embedded EV
Developer



I Learning STM32, CAN Bus, and BLDC motor control .

KARTHIK

Mechanical Engineer
to EV Engineer



This course helped me transition from mechanical engineering into the Electric Vehicle industry"

VIGNESH

Powertrain Simulation
Engineer



"The MATLAB and Simulink projects gave me the confidence to work on EV powertrain simulation."

SNEHA A.

Started My EV Career



"The complete EV model vehicle project made my resume stand out during interviews."

NIKHIL M.

HYBRID TRAINING EXPERIENCE

Seamlessly blend online theoretical depth with offline real-world practicals. Build and test electric vehicle systems with hands-on exposure to battery management, motor control, live powertrain projects, and internship opportunities.



ONLINE + OFFLINE LABS
LIVE SESSIONS PAIRED WITH IN-
LAB CODING PRACTICALS.
TERMINAL



WORK WITH BATTERY PACKS,
MOTOR CONTROLLERS, AND LIVE
POWERTRAIN PROJECTS.



INTERNSHIP OPPORTUNITIES
APPLY YOUR SKILLS WITH AI
ENGINEERING TEAMS.

EARN PRESTIGIOUS VERIFIABLE CREDENTIALS

Your certification formally validates your skill set in recruiter searches.



VERIFIABLE CREDENTIALS TOKEN

Unique cryptographic hashes
registered on global validation boards.



PREMIUM LINKEDIN INTEGRATIONS

Add directly to your credentials
panel with pre-filled ID tracking.

PROGRAM INVESTMENT

Live Masterclasses & Q&A
Industry Expert Instructors
Practical Case Studies

- 6 MONTHS
- 240+ LAB HOURS
- Flexible 0% EMI Options

Transform your skills into **industry-ready Electric Vehicle Engineering expertise**. Learn Battery Management Systems (BMS), MATLAB, Simulink, Power Electronics, Embedded Systems, STM32, CAN Bus, and EV Powertrain Design through hands-on industry projects.

**WANT TO
BECOME AN
ELECTRIC
VEHICLE
ENGINEER?**

INR 8474^{+GST}

TOTAL INR 59,999*
(INCLUSIVE OF TAXES)



CONTACT US

SRINIVASAN N 98409 74407

KUMARASAMY R 95661 33338