

राष्ट्रीयइलेक्ट्रॉनिकीएवंसूचनाप्रौद्योगिकीसंस्थान,कालीकट National Institute of Electronics & Information Technology, Calicut



Ministry of Electronics and Information Technology
Government of India

# On-line Courses Prospectus

ISO 9001-2015 Certified

# Certificate Course in "Electric Vehicle Technology"

Date: 26<sup>th</sup> May 2025 – 20<sup>th</sup> June 2025 Time: 4.00PM to 5.30PM theory + Practical

### **Course Description**

This course initiates candidates into the emerging area of Electric Vehicles and helps learn the Basics of Battery driven Electric Vehicle and its Dynamics, Motors, Power Electronics, Batteries, Charging etc. The program consists of instructor led live lecture sessions, demonstrations & hands on sessions based on Matlab.

National Institute of Electronics and Information Technology, Calicut

#### Who can attend?

Any under graduate/ diploma student/ working professional/ industry people with basic knowledge of Electronics.

- Students pursuing Engineering,
- Professionals working on Electronic /Electric Industry.
- Research students
- Teaching professionals& faculties

#### **Course Content**

| Session Topic                                      |
|--|
| Electric Vehicle Fundamentals                      |
| Power, Energy, Torque & Mileage Calculation        |
| Matlab Fundamentals                                |
| Matlab Simulink basics                             |
| Types of EV configurations & their Characteristics |
| Batteries Used in EV                               |
| Different types of battery chemistries             |
| Battery management system                          |
| Types Motors used in EV                            |
| Regenerative Breaking on Electric Vehicles         |
| Powertrain & DC-DC convertors in EV                |
| Solar System Fundamentals                          |
| Solar Charging System for EV                       |
| Charging infrastructure in EV                      |
| Thermal Management system in EV                    |
| Latest Tends and changes in EV Market.             |
| Setting up Public Charging Station                 |

#### **Prerequisite**

• Knowledge of Basic electronics and Electric Machines

#### Fee and important dates

| Fee   | Rs. 6000/- (Including GST) |
|---|----------------------------|
| Last date for registration & payment        | 25 <sup>th</sup> May 2025  |
| Sharing of Link / passwords & other details | 26 <sup>th</sup> May 2025  |

#### Certificate

Participation certificate will be issued to the candidates only those who have attended at least 60% session, Exit test & submitted the feedback.

#### **Minimum Requirements**

- Attendees must have a computer system with a good internet connection.
- PC with Matlab 2019 version installed.
- Link to attend the course will be shared in the registered email on 26-05-2025,11.00am

#### **Faculty Profile**

Qualification and experience of the faculty handling the sessions

- 1. Manoj Kumar MK Principal Technical Officer, 30 Years' Experience
- 2. Kushagra Singh Senior Technical Assistant, 2 Years' Experience

#### **Course Coordinator**

#### Manoj Kumar M K

Principal Technical Officer 9447433175(M), 0495 2287266- Exn-225(O)

Email: manojkumar@nielit.gov.in

#### **Terms and Conditions**

- 1. In case any registered candidate could not attend the online session due to technical issue at their side there will not be any refund of the course fee and the sessions will not be repeated.
- 2. In case the online course is cancelled /postponed due to some technical issue at NIELIT side and new date is not convenient to the candidate, our liability is limited to the refund of the course fee and NIELIT shall not be responsible for any consequential damages.
- 3. 60% attendance/Exit test and feedback submission are mandatory for awarding the certificate.

For more details about our institution and facilities visit us

Website: <a href="http://nielit.gov.in/calicut">http://nielit.gov.in/calicut</a>
Twitter: <a href="https://twitter.com/CAL\_NIELIT">https://twitter.com/CAL\_NIELIT</a>
Facebook: <a href="https://www.facebook.com/CAL.NIELIT">https://www.facebook.com/CAL.NIELIT</a>

## **Click Here to Register**

Autonomous Scientific Society of Ministry of Electronics & Information Technology, Govt. of India

#### **NIELIT Calicut**

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