राष्ट्रीय इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी संस्थान, चेन्नई
National Institute of Electronics & Information Technology, Chennai

Ministry of Electronics & Information Technology
Government of India

नेशनल इंस्टीट्यूट ऑफ इलेक्ट्रॉनिक्स एंड इंफॉर्मेशन टेक्नोलॉजी, चेन्नई

National Institute of Electronics and Information Technology, Chennai

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

ISTE Complex, 25, Gandhi Mandapam Road, Chennai - 600025

Course Prospectus

Online Certificate course on Electric Vehicle Technician

Mode: ONLINE (Blended)

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Course Prospectus

Name of the Group: Embedded System

Course Name: Online certificate course on Electric Vehicle Technician (Blended)

Course Code: AE100

Duration: 80 Hours, 2 Weeks

Last Date of Registration: 21-12-2021

Course Start Date: 27-12-2021

Fee Details:

   Registration Fee- Rs. 1,000/-

   Tuition Fee- Rs.3,630/-

Preamble:

Electric Vehicle is one of the best forms of green transport as it is pollution free. An electric vehicle operates on electricity unlike its counterpart, which runs on fuel. EV runs on an electric motor that requires constant supply of energy from batteries.

Factors such as increase in demand for fuel-efficient, high-performance, and low-emission vehicles as increase the growth of the electric vehicle market. Increasing the global Electric Vehicle market, the need of professional to effectively repair and maintain electric vehicles also increased. For this, they need to be educated on electrical safety, specialized components, high voltage systems, and more. So this course is focusing on the knowledge and skills need for the Electric vehicle technician.
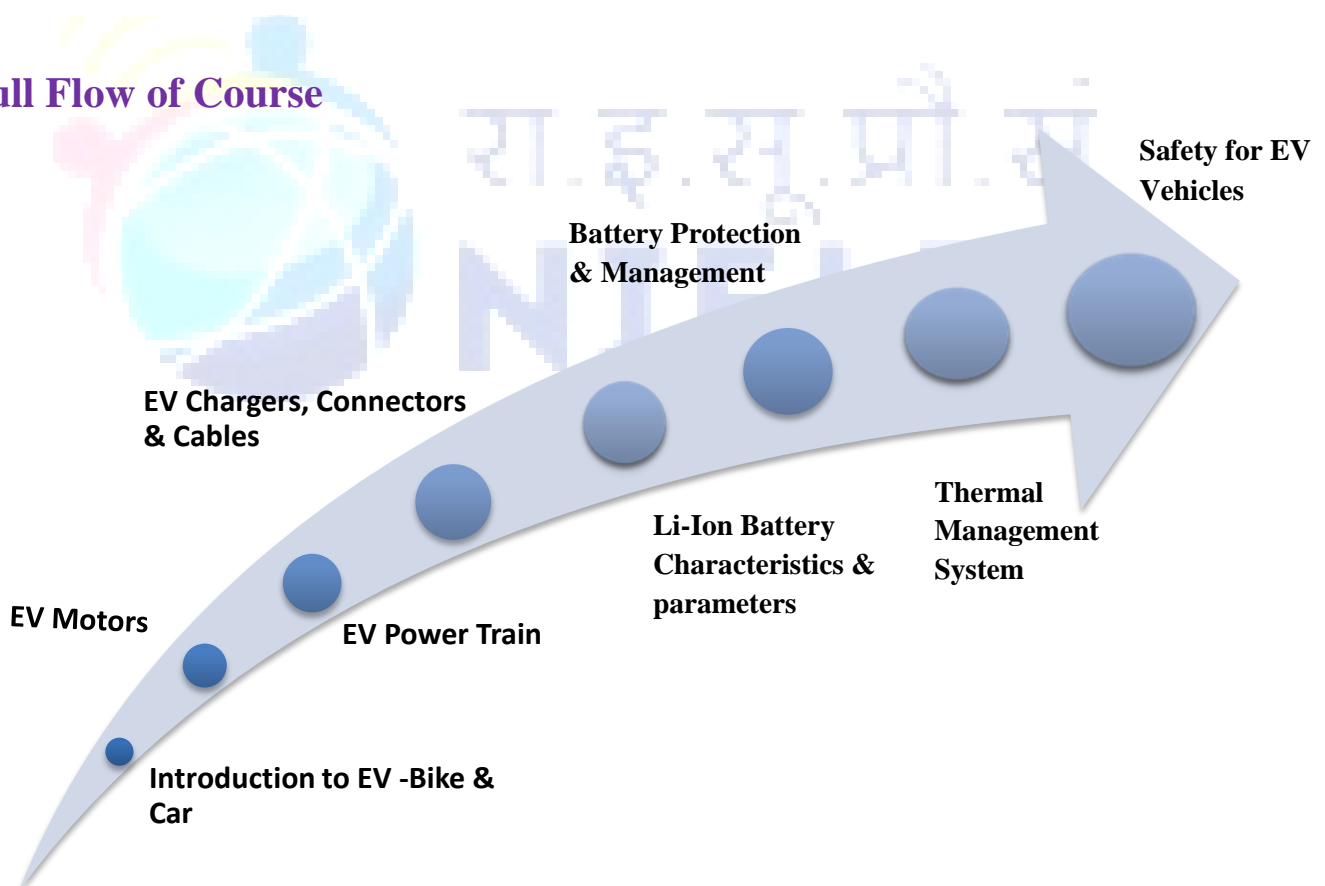
Objective of the Course:

The objective of the course will provide you with a firm foundation in Electric Vehicle (EV) Assembly, Testing and maintenance requirements as needed by the remainder of the specialization

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Outcome of the Course:

After successful completion of this Course, students will be able to:

- Understand how Electric Vehicle (EV) works.

- Demonstrate and Test the working of various motors used in EV

- Demonstrate and Test Various Circuits & Modules involved in the Power train.

- Demonstrate and Test the working of Various Chargers, connectors and cables used in EV.

- Demonstrate How BMS senses various Parameters of the Battery Pack and Test the measuring circuits working.

- Identify and Test electronic Circuit that can provide protection and specify a minimum set of protections needed

Full Flow of Course

Safety for EV Vehicles

Battery Protection & Management

EV Chargers, Connectors & Cables

Li-Ion Battery Characteristics & parameters

Thermal Management System

EV Motors

EV Power Train

Introduction to EV -Bike & Car

Course Structure

This course contains totally eight modules; you can find the detailed syllabus by viewing the following URL (EV Technician syllabus.pdf)

Module Code	Module Name	Duration(in Hours)
AE 101	**Introduction to EV -Bike & Car**	3
AE 102	**EV Motors**	10
AE 103	**EV Power Train**	12
AE 104	**EV Chargers, Connectors & Cables**	15
AE 105	**Li-Ion Battery Characteristics & parameters**	11
AE 106	**Battery Protection & Management System(BMS)**	12
AE 107	**Thermal Management System**	8
AE 108	**Safety for EV Vehicles**	9
Total Duration		**80**

Course Fees:

Registration Fee- Rs.1000/-

Tuition Fee- Rs.3,630/-

Course fee is Rs. 4,630/- Including GST.

Registration Fee	Rs. 1000/- for SC-ST (Adjustable with Total fee)	Rs. 1000/- for others (Adjustable with Total fee)	
Instalment No.	SC-ST Candidates (Fee including GST in Rs.)	General Candidates (Fee including GST in Rs.)	Last Date
1	3,630.00	3,630.00	24-12-21
Total	4,630.00	4,630.00	

GST is Applicable as per Govt. Norms GST (currently it is 18%).

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Registration Fee- Refund policy.

(**Non-Refundable if candidate is selected for admission but did not join and if a candidate has applied but not eligible.)**

However, the above registration fee shall be refunded on few special cases as given below

- ✓ Candidates are eligible but not selected for admission.
- ✓ Course postponed and new date is not convenient for the student.
- ✓ Course cancelled.

Eligibility
- ✓ 10 +2, ITI,Diploma/Any Graduates, Minimum age -18 years

Number of Seats: 30 – Total

Category	No. of Seats
SC (15%)	4
ST (7.5%)	2
GENERAL	24
Total	**30**

Note: Seats are allocated based on the merit of the Qualification.

How to Apply?

Candidates can apply online in our website http://reg.nielitchennai.edu.in. Payment towards non-refundable registration fee can be paid through any of the following modes:

- ✓ Online transaction: Account Name: NIELIT CHENNAI, Account No: 31185720641, Bank name: State Bank of India (SBI), Branch: Kottur (Chennai), IFSC Code: SBIN0001669.
- ✓ Pay through UPI Mobile Apps

Note: *The Institute will not be responsible for any mistakes done by either the bank concerned or by the depositor while remitting the amount into our account*

Last date of Registration: 21st December, 2021

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Registration Procedure

All interested candidates are required to fill the Registration form online with registration fees before **21st December, 2021** with all the necessary information.

Selection Criteria of candidates

Selection is based on the first come basis (subject to fulfilling the eligibility criteria).

- ✓ The first list of Provisionally Selected Candidates will be published on NIELIT Chennai website (www.nielit.gov.in/chennai) on **22-12-2021** by **5:00 PM**. In case of vacancy, an additional selection list will be prepared and the selection will be intimated by email only.
- ✓ Provisionally selected candidate has to upload their document on registration portal for online verification.

- ✓ **Required Documents:**
  - Copies of Proof of Age, Qualifying Degree (Consolidated Mark sheet & Degree Certificate/Course Completion Certificate), 10th and 12th mark sheet.
  - One passport size photograph.
  - Self-attested copy of Govt. issued photo ID card

- ✓ After document verification, selected candidates have to pay **Rs.** *3,630/-* or as applicable on or before **24-12-2021** by payment mode mentioned above. Selected candidates are requested to upload the proof of remittance of fee on registration portal and also send the proof of remittance of fee as email to prabu@nielitchennai.edu.in.

Admission: All provisionally selected candidates whose documents are verified and paid the fees (full or first instalment) and verified by accounts section of NIELIT Chennai will get a welcome message in his/her login ID provided during registration. The Credential and URL for online portal will be shared through WhatsApp or email.

Discontinuing the course

No fees under any circumstances shall be refunded in case of a student discontinuing the course. No certificate shall be issued if discontinued.

Course Timings:

This program is a practical oriented one and hence there shall be more lab than theory classes. The cloud based online theory classes will be on forenoon and lab session will be conducted on afternoon time.

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Address:

National of Electronics and Information Technology

ISTE Complex, No. 25, Gandhi Mandapam Road, Chennai – 600025

E-mail: trng.chennai@nielit.gov.in/Phone: 044-24421445

Contact Person: Mr. K.Prabu,   Mobile: 9717611621 (Call @ 9 AM to 6 PM)

Course enquiries

Students can enquire about the various courses either on telephone or by personal contact between 9.15 A.M. to 5.15 P.M. (Lunch time 1.00 pm to 1.30 pm) Monday to Friday.

Important Dates

Last Date of Registration: 21-12-2021

Display of Provisional Selection List: 22-12-2021

Last Date to pay fee: 24-12-2021

Course Start Date: 27-12-2021

Certification

✓ Certificate will be issued to the participants based on the marks scored in the examination conducted after the completion of training. The grading pattern will be as below:

Grade	S	A	B	C	D	E	Fail
Marks Range (in %)	>90%	80%-89%	70%-79%	60%-69%	50%-59%	40-49%	<40%