



## Organizing Committee

Department of Electrical Engineering,  
Sardar Vallabhbhai  
National Institute of Technology  
Surat, Gujarat - 395007

## One Week Finishing School (Offline)

On

## Electric Vehicle Technology: Towards Sustainable Transportation (EVT-2024)

13<sup>th</sup> July - 17<sup>rd</sup> July 2024

### Course Coordinators

Dr. Chandani P. Gor,  
Dr. Suresh Lakhimsetty,  
Dr. K. V. Praveenkumar,  
Prof. (Dr.) Varsha A. Shah



### About the Course

The importance of electric vehicles (EVs) in India has started gaining more attention from both industry and research perspectives. The EV technology will have a key role in the economy from the perspective of job creation, reduction of oil dependency, and ecology, as it will contribute to reducing pollution issues. This requires a platform to share, discuss, and learn about the various aspects of advancements in EVs. This Course attempts to provide a platform for such discussions by converging academicians, researchers, and industry experts. In this course, both the basics and advancements of EVs will be discussed. The course is primarily intended for Electrical and Electronics undergraduate students interested in the Design, Modeling, and Control of EVs. The course covers the fundamentals of advanced topics on energy storage modelling, motor drive technology, AI applications in EVs, and others, which are important for sustainable electric transportation systems. These are in practice today but are missing in the graduate curriculums. This course, unlike others, also provides a brief discussion about the approach of various governments around the world towards sustainable transportation.

### Course Objective

This course aims to train and develop skilled undergraduate students to take up the challenges of the electric vehicle industries via theoretical sessions explaining the various aspects of electric vehicle technology for developing the sustained transportation system. Additionally, laboratory sessions will be conducted to validate the performance benefits of the advanced motor and converter control algorithms learned during the theoretical sessions.

### About the Institute

The institute, one of the pioneering engineering institutions of the country, was established in 1961 as Sardar Vallabhbhai Regional College of Engineering & Technology and was given the status of National Institute of Technology in 2002. At present, there are six undergraduate courses, seventeen post graduate courses, and Ph.D. programmes in all disciplines of engineering and applied sciences. It has an excellent placement record, with a number of top-ranking companies visiting the campus. The institute is located at Surat, about 260 km North of Mumbai and south of Ahmedabad (250 km)/Vadodara (150 km) by road. Surat is an industrial city of historical importance and is well known for its textile, jari, and diamond industries. The leading industries like RIL, ONGC, KRIBHCO, L&T, ESSAR, NTPC, and GAIL are established in the Surat Hazira area.

### About the Department

The department is one of the pioneering departments of the Institute. Over the years, the department has progressed rapidly with development in both the spheres of infrastructure facilities and academic programs. The department has highly qualified faculty members engaged in teaching and research to achieve excellence in Electrical Engineering. The department offers Undergraduate courses in Electrical Engineering and Post Graduate programs in Power Electronics & Electrical Drives, Power Systems, and Control & Automation. The department offers the Ph.D. program to promote basic research activities in the various areas of Electrical Engineering. The department also renders consultancy and testing services.

## Who can apply:

- PG/UG/Diploma students
- Recently Passed-out B. Tech Students and Pre-final year students are also allowed.
- Research Scholars

## Speakers:

- Faculty members from IITs/NITs
- Experts from Industries/Others.

## Course Content

- Basics of Electric Vehicle (EV/HEV)
- Design and Modelling of EV/HEV
- Conversion of ICE vehicles to HEV
- Energy Storage System for EV/HEV
- Modelling, Simulation, and Design of Energy Storage Systems
- Electric Drives for EV Applications
- Power Electronics- Design, Modelling, and Control for EV/HEV
- Artificial Intelligence in EV/HEV
- Energy Management System for EV/HEV
- Safety, Testing, and Standards in EV/HEV
- Feasibility analysis of EV in the Indian Scenario
- Guidelines for Start-ups and Career Opportunities in EV

## Patron:

Prof. Anupam Shukla, Director, SVNIT, Surat.

## Organizing Committee:

Department of Electrical Engineering

S. V. National Institute of Technology, Ichchhanath, SURAT, Gujarat - 395 007.

Tel: 0261- 2201562(office, EED)

## Address for Communications, if any:

**Dr. Chandani P. Gor (cpg@eed.svnit.ac.in)**

**Dr. Suresh Lakhimsetty (suresh@eed.svnit.ac.in)**

**Dr. Praveen Kumar (kvpraveenkumar@eed.svnit.ac.in)**

**Dr. Varsha A Shah (vas@eed.svnit.ac.in )**

**Mobile: 9974005107, 7702759430, 9160919516, 9426746336**

## Registration and General Information.

Applications for participation in the 'course' should be sent to the following email ID as well as a scanned copy of the application form in the email

[evt\\_2024@svnit.ac.in](mailto:evt_2024@svnit.ac.in)

**The last date for application submission is 2<sup>nd</sup> July 2024.** The candidates will be informed of their selection through E-mail by **4<sup>th</sup> July 2024.**

## Course fee:

**Students/ Research scholars: Rs.200/- + 18% GST**

**\*\*Accommodation will be provided on a payment basis as per institute norms for outside candidates (if available).**

The non-refundable registration fee should be sent through net banking/Online Payment.

**Bank Account Name: Director, SVNIT-CCE**

**SBI Account No.: 37030749143**

**Bank Name: State Bank of India**

**IFSC Code: SBIN0003320**

**Branch: SVRCET Branch,**

**Ichchhanath, Surat,**

**Gujarat, 395007.**

While paying through net banking, in remarks, the purpose is to be written as "EVT SVNIT."

(Kindly save the receipt or take a screenshot of the payment)

Registration Form  
ONE WEEK Finishing School (OFFLINE MODE)

ON

**Electric Vehicle Technology: Towards Sustainable  
Transportation (EVT-2024)**

**13<sup>th</sup> - 17<sup>th</sup> July 2024**

1) Name and Address of the applicant:

\_\_\_\_\_

2) Gender: M/F \_\_\_\_\_

3) DOB: \_\_\_\_\_ Age: \_\_\_\_\_

4) Qualification: \_\_\_\_\_

5) Institute Address: \_\_\_\_\_

6) Mobile: \_\_\_\_\_

7) Email (For Notification of Acceptance):

\_\_\_\_\_

**PAYMENT DETAIL:**

8) Details of Fee Amount: Transaction ID and date: \_\_\_\_\_

Rs. \_\_\_\_\_ Bank Name: \_\_\_\_\_

9) Accommodation Required: YES/NO

I declare that the details furnished above are correct to the best of my knowledge and belief. I also undertake to abide by the rules and other conditions prescribed by S. V. National Institute of Technology, Surat.

Place:

Date:

\_\_\_\_\_

Signature of the Applicant

The applicant will be permitted to participate in the above program if selected.