

About the Course

The importance of electric vehicles (EV) in India has started gaining more attention in both industry and research perspective. The EV technology will have a key role in economy from perspective of job creations, reduction of oil dependency and ecology as it would contribute in reduction of pollution issues. This requires a platform to share, discuss and learn about the various aspects in advancements of EV. This Course is an attempt to provide a platform for such discussions by converging academicians, researchers and industry experts. In this course both basics and advancements of EV will be discussed. The course is primarily intended for the faculties, research scholars and practicing engineers interested in the area of Design, Modeling and Control of EV. The course covers topics of research such as Energy storage modeling, Motor Drive Technology, AI applications in EV and others, which are important for the sustainable electric transportation system. 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

The objective of this course is to fill the gap between the research and industry via theoretical sessions explaining the various aspects of advanced electric vehicle technology for developing the sustained transportation system. Along with that virtual laboratory sessions will also 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 a status of National Institute of Technology, in 2002. At present, there are six undergraduate courses, seventeen postgraduate 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 kms North of Mumbai and south of Ahmedabad (250 kms)/Vadodara (150 kms) by road. Surat is the industrial city with historical importance and is well known for Textile, Jari and Diamond industries. The leading industries like RIL, ONGC, Kribhco, L&T, ESSAR, NTPC, and GAIL are established in Surat Hazira area.

About the Department

The department is one of the pioneering departments of the Institute. Over the years, the department has progressed at a rapid pace with development in both the spheres of infrastructure facilities and academic programmes. The department has highly qualified faculty members engaged in teaching and research with the aim of achieving excellence in the field of Electrical Engineering.

The department offers Under Graduate course in Electrical Engineering and Post Graduate programmes in **Power Electronics & Electrical Drives, Power System and control & Instrumentation**. The department offers Ph.D. programme to promote basic research activities in the various areas of Electrical Engineering. The consultancy and testing services are also rendered by the department.

Sardar Vallabhbhai

National Institute of Technology, Surat,

Gujarat - 395007

TEQIP (III) sponsored

ONE WEEK SHORT TERM COURSE (Online)

ON

**Advancement in Electric vehicle Technology:
A step towards Development of sustainable
Transportation System**

18th February to 22^{ed} February 2021

Organizing Committee

Professor (Dr.) Varsha A. Shah,

Ms Chandani P. Gor,

Dr. Sabha Raj Arya,

Dr. K. V. Praveenkumar



Organized by

Department of Electrical Engineering.

S. V. National Institute of Technology,

Surat-395007, Gujarat, India.

Registration and General Information.

Applications for the participation in the 'course' should be send following link or send in following email id as well as scan copy application form in email

sabharaj94@gmail.com,
sra@eed.svnit.ac.in
kvpraveenkumar@eed.svnit.ac.in

Registration Link –

<https://forms.gle/TozqgEkKxowNvUsHA>

The last date of registration is **08th February, 2020**. The candidates would be informed of their selection through E-mail by **12^h Feb., 2020**.

Address for any Communications:

Professor (Dr.) Varsha A. Shah / Ms Chandani P. Gor

Organizing Committee

Advance Electric vehicle Technology towards Development of sustainable Transportation System

Department of Electrical Engineering

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

Tel : 0261- 2201562 (office, EED)

E-mail : vas@eed.svnit.ac.in, cpg@eed.svnit.ac.in,
and sabharaj94@gmail.com

Mo: 9426746336, 8511034177, 9160919516

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 Machine design for EV/HEV
- 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
- Modelling and Simulations – Virtual Lab Demonstration
- Feasibility analysis of EV in Indian Scenario
- Career Opportunities in EV

Who can apply:

Mostly Faculty members and industrial persons.
Research Scholars and Engineering students.

Speakers:

Faculty members from IITs/NITs/ Others.

Course fee

Students/ Research scholars	Rs. 400/-
Institute/ College Teachers	Rs. 700/-
Delegates from industries	Rs. 1000/-

The registration fee should be sent in the form of DD in favour of “**Director SVNIT TEQIP IRG**” payable at Surat **OR**

Online payment to “**Director SVNIT TEQIP IRG**” A/C No: **0277101028663** Canara Bank, Nanpura Branch Surat, IFSC: **CNRB0000277** along with the completely filled application/registration forms.

Application Form

TEQIP (III) SPONSORED ONE WEEK SHORT TERM COURSE (Online Mode) ON

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Name and Address of the applicant:

Gender: M/F____ DOB:_____ Age:_____

Qualification:_____

Experience:_____

Designation:_____

Mobile:_____

Email:_(1)_____

: (2)_____

Address of Sponsoring Authority:

PAYMENT DETAIL:

DD No./Online transfer _____

Date_____

Rs. _____ Bank Name:_____

Signature of the Applicant

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

Signature of Head of the Institution with Seal