

Introduction of the Sector

Power is the most critical requirement towards the development and social parity of any country. With the increasing focus on Sustainable Development and resulting Sustainable Development Goal it is pertinent to harness the Renewable Sources of the Energy to its fullest. The existing source of power generation are also gradually being converted into more sustainable alternatives viz. Solar, Wind, Biomass etc.

India has a vast supply of renewable energy resources, and it has one of the largest programmes in the world for deploying renewable energy products and systems. Newer renewable electricity sources are targeted to grow massively by year 2022.

The Government of India's estimates, a \$100 billion investment, and a strong policy framework to stimulate the immense growth of solar and wind energy markets.

Renewable Energy is generated through various natural resources such as biomass, sun, wind, tides waves and water (hydroelectric power). India has a vast supply of renewable energy resources and it has one of the largest programmes in the world for deploying renewable energy products and systems. Newer renewable electricity sources are targeted to grow massively by year 2022.

The awareness for clean energy in domestic and industrial setups with government incentives points to a bright future for trained professionals.

Post Graduate Diploma in E-Vehicle Technology

India today is witnessing major paradigm shift from fuel powered vehicle to electric mobility. The demand for qualified and skilled engineers would be huge who can drive this shift towards E-vehicle. The program aims at providing add-on to existing conventional engineering program so that an up-skilling to existing engineers could be provided. Thereby helping them to remain relevant, command higher remuneration for their work and bridge the gap between conventional engineering knowledge and Industry demand in E-mobility.

Different aspects such as storage of power, standardization of charging stations and specification for seamless driving skill are incorporated in the program and thus may provide avenues of independent livelihood in the above technologies domain as well.

This is a certification training program for the undergraduate, innovators, Automation & Electric vehicle aspirants who are bound to learn and upgrade their skills to make more lucrative understanding of design and development of e-vehicle, working principals focusing to design by their own hands.

It has positive impact on the economy and is expected to continue having this effect for the foreseeable future.

Eligibility for Admission

Engineering Graduate in relevant trade

B. Voc. from relevant trade

Any degree recognized by GATE/UPSC/Govt of India/State Government for purpose of employment, with 1 year of Experience in relevant trade.

NSQF level 7 Certified in relevant job role.

Employability/Skill Enhancement

In 2010, when India launched the National Solar Mission with a target of 20,000 megawatts (MW) of solar power by 2022, it had less than 20 MW installed. Today, India's Solar Installation Capacity is more than 21000MW (31ST MARCH 2018) and thereby Government has dramatically increased the solar target to 100,000 MW by 2022.

India is also leading International Solar Alliance of more than 120 solar rich countries to facilitate widespread deployment of solar power and development of the supporting ecosystem including knowledge exchange on manufacturing and skills.

India would need nearly 210,800 skilled plant design and site engineers and approximately 624,600 semi-and low- skilled technicians for construction, most of whom would be needed to achieve the targeted 40 GW rooftop solar capacity addition.

The Skill Knowledge Providers would act as enablers in earn while learn system of the said programs.

Career Prospects

PG certification in E-Vehicle design and analysis will let the students be placed in the following positions like Automobile Designers, Vehicle Designers, Aircraft Machinist, Automotive Engineers, Maintenance Engineers, Industrial and Production Engineer, Electrical Engineer and Mechanical Engineer

Semester Wise Distribution of Course Credit and Hours

SEMESTER I

Course Code	Course Title	Credit Detail	Hours
EVT 1.01	Introduction to Energy Storage	2	30
EVT 1.02	Automotive Systems	2	30
EVT 1.03	Electric and Hybrid Vehicle Technology	3	45
EVT 1.04	Electric Vehicle Data Acquisition, Sensors and Control Systems	2	30
EVT 1.05	Introduction to E-Vehicles Chargers and its infrastructure	3	45
PEVT 1	E-Vehicle Technology Basic – Practical	9	270
PVET2	Minor Project Submission- Design and Analysis of Single Component of E Vehicle	9	270
	TOTAL	30	720
EVT 2.01	Fundamentals of Engine and its Performance	2	30
EVT 2.02	Basic Electronic Technology	2	30
EVT 2.03	Introduction to Electric Vehicle Propulsion Systems	4	120
EVT 2.04	Motors and Controls for Electric Vehicles and	4	120

	Industrial Applications		
PEVT 3	E-Vehicle Technology Advance - Practical	5	150
PEVT 4	Lab VIEW Basics 1	5	150
PVET5	Major Project- Design and Analysis of Complete E-Vehicle	8	240
		30	840

Programme fees: Rs. 60,000/-per annum

Examination fees: Rs.2,500/- per semester and Rs. 5000 per annum

Caution Deposit (Refundable): Rs.5000

