VESIT Renaissance Cell (In association with Department of EXTC Engineering, Instrumentation Engineering, VESIT-IIC and IQAC) of VESIT, Mumbai, Maharashtra is organizing,

AICTE Training And Learning Academy (ATAL) Sponsored One Week Faculty Development Program (online) on

"Electric Vehicles"

(5th July to 9th July 2021)

Registration Link: ***https://www.aicte-india.org/atal***

ABOUT FDP

The electric vehicle industry is a growing industry in India. The central and state governments have launched schemes and incentives to promote electric mobility in the country and some regulations and standards are also in place. Electric vehicles are the future of transportation. Electric mobility has become an essential part of the energy transition and will imply significant changes for vehicle manufacturers, governments, companies, and individuals. There are challenges like lack of charging infrastructure, high initial cost, and lack of electricity produced from renewable energy. Still, e-commerce companies, car manufacturers, app-based transportation network companies, and mobility solution providers have entered the sector and are slowly building up electric car capacity and visibility. Also, Electric Vehicles (EV) are one of the growing popular options for people who are conscious about environmental pollution, global warming, and health issues. The global share of Electric vehicles will increase from 2% in 2020 to 22% in 2030.

The ability to deliver the technical information of this major area to the right audience at the right time is a valuable skill. This Faculty Development Program (FDP) is designed to enrich and augment the knowledge of the participants and provide a basic platform to carry out research in these fields which will further bolster the development of the country.

Objective:

Electric Vehicles have completely different systems & architecture compared to the petrol or diesel vehicles. EV is a very complicated system than ICVs.The key objective of this faculty development program is the dissemination of the technical skills and knowledge in the concerned field among academicians and researchers and thereby reforming our nation to adapt itself to the new era of vehicular transportation by its own developed skills. This training program intends to impart a broad theoretical, practical, and design background in the area of Electrical Vehicles. It investigates the vivid opportunities available in EV sector, that one needs to have a deeper understanding of the system- its opportunities, challenges and benefits, industrial perspectives, issues and trends in EV Protection schemes, Electric Vehicle Charging infrastructures and Magnetics Design etc.

About VES Society

Vivekanand Education Society was founded in 1959 by Shri. Hashu Advani, along with ten other members, who shared the dream of providing qualitative education to the youth of our country. In the beginning, Vivekanand Education Society had a very modest launch, with just 256 students and six classrooms, in the humble barracks of Chembur Camp. But today, it proudly boasts of having 3, 75, 000 sq.ft. land, housing 12 buildings and 28 Institutions, ranging from the crèche to Ph.D. Centres. It has over 2000 teaching and non-teaching staff, and more than 18,000 students who pass through its hallowed portals each year.

About VES Institute of Technology

Vivekanand Education Society's Institute of Technology (VESIT) established in 1984, is one of the premier engineering colleges affiliated to the University of Mumbai. VESIT offers UG programs in engineering for Electronics, Electronics & Telecommunication, Information Technology, Computer and Instrumentation and PG programs in Instrumentation and Control, Information Technology and Electronics& Telecommunication streams and Master of Computer Application. VESIT has introduced a new program of Artificial Intelligence and Data Science from the academic year 2020-21.

VESIT is a recognized Ph.D. centre for Engineering and Technology of University of Mumbai, and also a Lifelong Learning centre. VESIT has been ranked PLATINUM Institute under AICTE-CIISURVEY 2020. VESIT is Ranked 1 in the State of Maharashtra by Education World: India Private Engineering Institutes Rankings 2019-20 Survey. One of India's 10 Best Institutes for Higher Education 2019, listed by the EXCELLIGENT. One of "The 10 Best Private Institutes in India, 2018" by the Knowledge Review Magazine team, published in India Edition Nov'18.

About VESIT RENAISSANCE CELL

VESIT RENAISSANCE CELL also known as VRC was established in the year 2015-16. VRC is the brainchild of our Principal Dr. J.M. Nair. She came up with the idea of having "young leaders" as an intermediate layer of workforce. She picked up few members from all departments. We are a team of eleven members. To fulfill objectives of VRC different activities were started. Project-based learning and skill development activities give real growth to our goals.

FDP Duration:

🗓 **5 July - 9 July 2021**

Target Audience:

Faculty from AICTE recognized Engineering Institutions, Polytechnics, and Delegates deputed from Industries.

👉Registration & Participation is *Free of Cost*

👉Last date of Registration: 25th June 2021

👉Confirmation of Registration: Within 2 days of registration.

👉Mode of conduction: ➿Online (Cisco Webex)

Time schedule

Session No.	Time 9.00 a.m. to 4.00 p.m	Activity/ Session by
Day 1, Monday (05/7/2021)		
1	9.00 am to 11.00 am	Inauguration, Welcome Address Topic: Introduction to electric vehicle. Speaker: Mr. Rakesh Tyagi Customer Service Manager, AVL India Private Limited
	11.00 am to 11.15 am	Small break
2	11.15 am to 1.15.pm	Topic: Trends & Opportunities for EV's in emerging markets, especially last mile transportation. Speaker: Mr. Christie Fernandez, Founder: Sooorya EV Pte.Ltd.,
	1.15 pm to 2.00 pm	Lunch Break
3	2.00 pm to 4.00 pm	Topic: Development of charging protocols, different types of chargers available and types of EV supported by different chargers. Speaker: Ms. Bhavana Shrivastva, Head- Client Services, Magenta Power and Mr. Prasad Gangurde, Head – Technical Sales Magenta Power
Day 2, Tuesday (06/7/2021)		
1	9.00 am to 11.00 am	Topic: Motor Concept Design using JMAG FEA Tool. Speaker: Mr. Sadeep Sasidharan, Sr. Application Engineer for JMAG Team in PWSIM Engineering Solutions Pvt. Ltd, Bangalore.
	11.00 am to 11.15 am	Small break
2	11.15 am to 1.15.pm	Topic: Testing of battery, E-motor and inverters, Speaker: Mr. Rakesh Tyagi Customer Service Manager, AVL India Private Limited
	1.15 pm to 2.00 pm	Lunch Break
3	2.00 pm to 4.00 pm	Topic: Modelling and simulation of Electric vehicles using Matlab/ Simulink. Speaker: Dr. M. Siva Kumar. Engineer at SCSVMV university
Day 3, Wednesday (07/7/2021)		
1	9.00 am to 11.00 am	Topic: Electric Vehicle Topology and Vehicle Modelling. Speaker: Mr. Prasanth Pathiyil, CoE Electrification | Bosch |Mahindra
	11.00 am to 11.15 am	Small break
2	11.15 am to 1.15.pm	Topic: DC Fast Charging Strategies for Electrified Transportation and Autonomous E-mobility. Speaker: Dr. Sheldon Williamson,

		Professor with the Smart Transportation Electrification and Energy Research Group, Department of Electrical, Computer, and Software Engineering, University of Ontario Institute of Technology Oshawa, ON, Canada.
	1.15 pm to 2.00 pm	Lunch Break
3	2.00 pm to 4.00 pm	Topic: Smart Health-Conscious Battery Management Systems for Transportation Electrification and Autonomous E-mobility. Speaker: Dr. Sheldon Williamson, Professor with the Smart Transportation Electrification and Energy Research Group, Department of Electrical, Computer, and Software Engineering, University of Ontario Institute of Technology Oshawa, ON, Canada.
Day 4, Thursday (08/7/2021)		
1	9.00 am to 11.00 am	Topic: Energy management and measurement aspects of EV. Speaker: Mr. Vipinkumar Pawar, Phd Scholar, University of Mumbai Co-Ordinator, ISRO-IIRS Outreach Program, ISRO, Dehradun, India Reviewer, Giscience & Remote Sensing, Taylor & Francis Reviewer, IEEE, Geoscience and Remote Sensing Reviewer, Elsevier Remote Sensing Research Associate, Institute of Investigation in Remote Sensing & GIS, Netherland
	11.00 am to 11.15 am	Small break
2	11.15 am to 1.15.pm	Topic: Qualitative Analysis of batteries for EV applications. Speaker: Mr. Gajanan Kulkarni, KPIT technologies LTD, SME Electrical Systems
	1.15 pm to 2.00 pm	Lunch Break
3	2.00 pm to 4.00 pm	Topic: EMI / EMC aspects related to Electrical Vehicles. Speaker: Dr. Shreenivas Jog Professor (E&TC) at Dr. D. Y. Patil Institute of Tech. Pimpri, Pune, Senior Member IEEE and past Chairman IETE Pune, Member-Society of EMC Engineers India.
Day 5, Friday (09/7/2021)		
1	9.00 am to 11.00 am	Stress Management/ Yoga / Meditation. Speaker: Mrs. Pallavi Pawar, Yoga Trainer
	11.00 am to 11.15 am	Small break
2	11.15 am to 1.15.pm	Topic: Converting an ICE vehicle to an EV- A manufacturer's perspective- A case study Speaker: Mr. Yogesh Soman, Program Management Professional, Mahindra & Mahindra.
	1.15 pm to 2.00 pm	Lunch Break
3	2.00 pm to 4.00 pm	ASSESSMENT AND VALIDECTORY FUNCTION

Instructions

To join this program the following basic requirements are essential:

1. Laptop/Desktop with good internet connection and Gmail account.
2. All participants are requested to join the Telegram channel after filling registration form.
3. Confirmation of registration will be communicated to the registered email ID.
4. It is mandatory to attend sessions (at least 90%), fill up the feedback form and test in order to get certificates.
5. E-certificates will be provided to all attendees fulfilling the attendance and test criterion.

✨ FDP Coordinator:

◆ **Dr. (Mrs.) J. M. Nair, Principal, VESIT.**

✨ FDP Co-Coordinator:

◆**Mrs. Monali Chaudhari (monali.chaudhary@ves.ac.in)**

✨ Organizing Committee:

◆**Mrs. Amudha Senthilkumar**
◆**Dr. Keya Doshi**
◆**Mr. Mrugendra Vasmatkar**
◆**Ms. Sukanya Roychowdhury**

✨Chief Patrons:

◆**Shri. B. L. Boolani, President, VES**
◆**Shri Amar Asrani, Secretary, VES**
◆**Shri. Suresh Malkani, Treasurer, VESIT**
◆ **Dr. Prakash Lulla, Trustee, VES**
◆**Shri Vijay Talreja, Co- Founder, Adapty**
◆**Dr. (Mrs.) J. M. Nair, Principal, VESIT**
◆**Dr. (Mrs.) M. Vijayalakshmi, Vice Principal, VESIT**