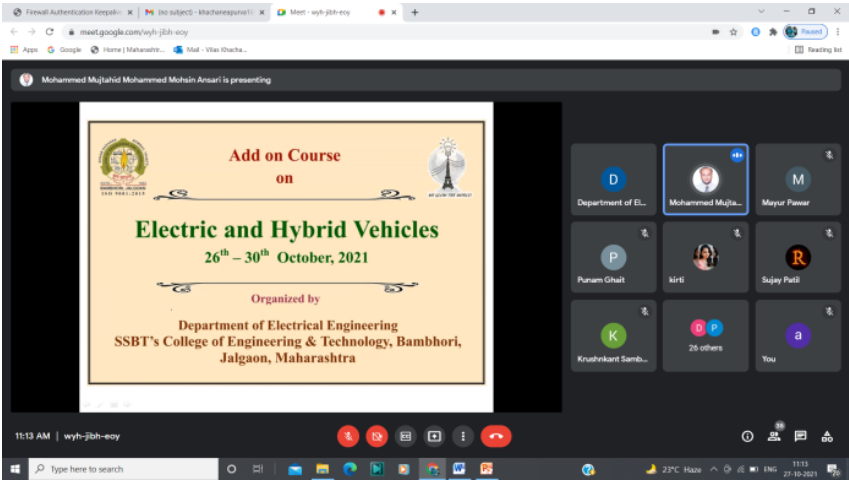
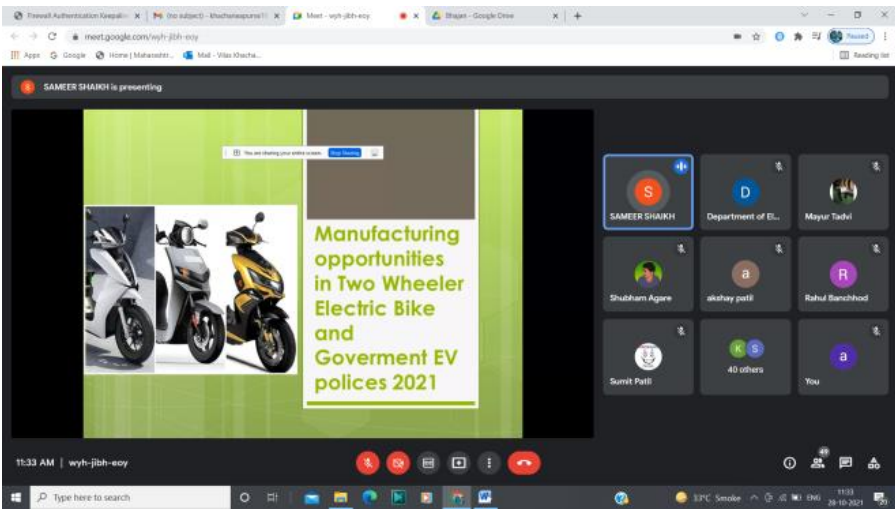
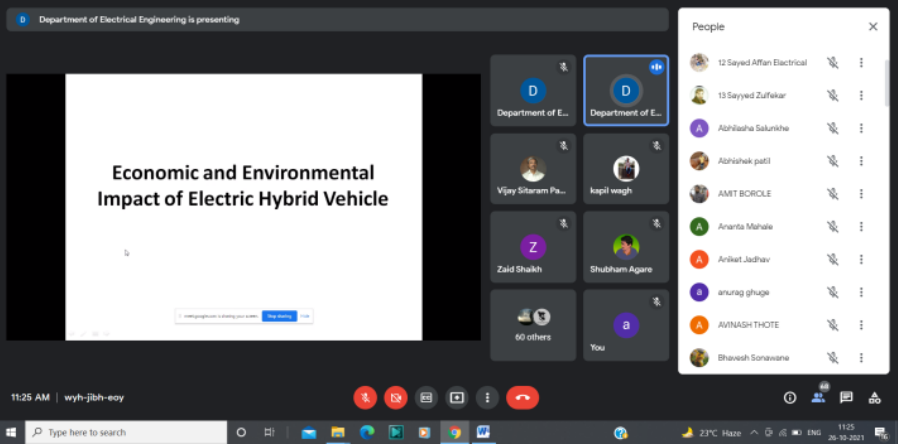
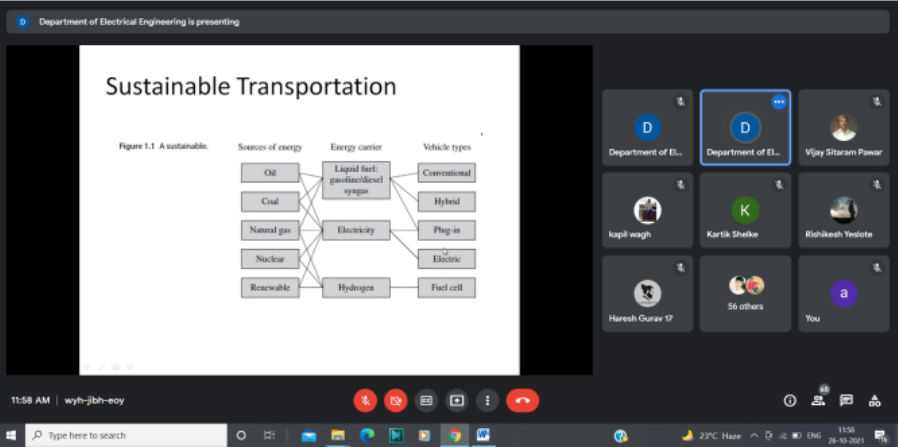


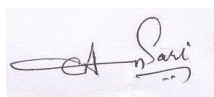
ShramSadhana Bombay Trust's
COLLEGE OF ENGINEERING AND TECHNOLOGY
Bambhori, Post Box No. 94, Jalgaon-425001 (M.S.)

Brief Report on
Add-On Course on “Electric and Hybrid Vehicles”

Date and Venue/ Location	26 th to 30 th Oct 2021 (30 Hours Duration) Department of Electrical Engineering (Online Mode)
Aim/Purpose	The purpose of Add-On Course to provide career oriented course and bridge the gap curriculum. The aim of the program is to disseminate knowledge about Electric Vehicles and its future scope. Economical and Environment impact of Electric and Hybrid Vehicles.
Objectives	Able to understand the basics of electric and hybrid electric vehicles, their architecture, technologies and fundamentals. The course overviews the hybrid electric vehicle architecture, design and component sizing and the power electronics devices used in hybrid electric vehicles. Explore the knowledge of energy storage technologies used for hybrid electric vehicles and their control.
Participants	72
Participants Profile	The program is designed to helps students to gain confidence and enhance their knowledge new field of electric and hybrid vehicles. The course explores of present scenario of energy and environment in view of electric vehicles application for sustainable development.
Description about the program	This course introduces the fundamental concepts, principles, analysis and design of hybrid and electric vehicles. The material for this course will be prepared in such a manner that it will be useful for post-graduate students, teachers, practitioners and final year undergraduate students. This course goes deeper into the various aspects of hybrid and electric drive train such as their configuration, types of electric machines that can be used, energy storage devices, etc. Each topic will be developed in logical progression with up-to-date information.
Outcome	After successful completion of this course the student will be able to: 1. Explain the basics of electric and hybrid electric vehicles, their architecture, technologies and fundamentals. 2. Analyze the use of different power electronics devices and

	<p>electrical machines in hybrid Electric vehicles.</p> <p>3. Explain the use of different energy storage devices used for hybrid electric vehicles, their technologies and control and select appropriate technology</p> <p>4. Interpret working of different configurations of electric vehicles and its components, hybrid vehicle configuration, performance analysis and Energy Management strategies in HEVs.</p> <p>5. Analyze the use of different energy management strategies used in hybrid and electric vehicles</p>
Recommendations	Such program should be arranged every year
Photos	 

	 
Permission	Annexure A (Academic Calendar)
Notice	Annexure B (Brochure and Course Schedule)
Attendance Sheet	Annexure C
Certificate	Annexure D
Feedback	Annexure E
Other	Annexure F (Appreciation letter to speaker)



M. Mujtahid Ansari

Coordinator

ShramaSadhana Bombay Trust's
COLLEGE OF ENGINEERING & TECHNOLOGY, BAMBHORI, JALGAON
TENTATIVE ACADEMIC CALENDAR (TERM-I) 2021-22
S.E. (Regular), T.E. & B.E

Sr. No.	Activity	Day	Date / From - To
1.	Opening of College for Students & their registration (S.E. to B.E. & M.E. - II)	Monday	13 Sep. 2021
2.	Commencement of Classes (S.E. to B.E.) ^{1st}	Monday	13 Sep. 2021
3.	Engineer's Day celebration	Wednesday	15 Sep. 2021
4.	Meeting of IQAC	Saturday	25 Sep. 2021
5.	S.E. (Regular), T.E. & B.E. : ISE-I	Friday	22 Oct. 2021
		Saturday	23 Oct. 2021
		Monday	25 Oct. 2021
6.	One Week Add on Course	Tuesday - Saturday	26-30 Oct. 2021
7.	Display of ISE - I (S.E. to B.E.) Results	Wednesday	27 Oct. 2021
8.	Alumni Meet	Sunday	14. Nov. 2021
9.	S.E. (Regular), T.E. & B.E. : ISE-II	Friday	03 Dec. 2021
		Saturday	04 Dec. 2021
		Monday	06 Dec. 2021
10.	Display of ISE - II (S.E. to B.E.) Results	Wednesday	08 Dec. 2021
11.	Project Presentation (T.E. & B.E.) (Date of Completion)	Thursday	09 Dec. 2021
12.	S.E., T.E. & B.E. : ISE - III	Friday	10 Dec. 2021
		Saturday	11 Dec. 2021
		Monday	13 Dec. 2021
13.	Display of ISE - III (S.E. to B.E.) Results	Wednesday	15 Dec. 2021
14.	S.E. To B.E. : IQAC	Wednesday- Friday	15- 17 Dec. 2021
15.	ISE Backlog	Wednesday- Friday	15- 17 Dec. 2021
16.	Display of ISE Backlog Results	Saturday	18 Dec. 2021
17.	End of Term (SE to BE)	Saturday	18 Dec. 2021
18.	PR OR Exam. (S.E. to B.E.) (Tentatively)	Monday-Thursday	20 Dec. 2021 to 30 Dec. 2021
19.	International Conference on Global Trends in Science, Technology, Humanities, Commerce & Management	Saturday to Monday	01-03 Jan. 2022
20.	University Theory Examination (F.E. to B.E.) (Tentatively)	Wednesday	05 Jan. 2022
21.	Commencement of classes Term-II 2021-22	Monday	07 Feb. 2022

(Dr. K. S. Wani)

Principal
PRINCIPAL

SSBT's College of Engineering & Technology
Bambhori, Jalgaon-425001 (M.S.)

Copy to:
1) Chairman, G.B. & C.D.C. 2) All H.O.Ds. 3) Vice Principal 4) DOA, 5) Director, R&D, 6) Director, Technical Development, 7) Director, Administration 8) TPO, 9) Registrar 10) A.R. 11) O.S., 12) Exam. Office, 13) Chairman, Alumni Meet, 14) Store, 15) Library, 16) Chairman, Cultural Activities 17) Physical Director 18) Admission Office, 19) PRO & Coordinator- Parents Meet, 20) Student Welfare Officer, 21) Rector (Boys Hostel), 22) Rector (Girls Hostel), 23) Coordinator, ISTE & IE (I), 24) Vehicle In-charge, 25) Principal office



Shram Sadhana Bombay Trust's
COLLEGE OF ENGINEERING AND TECHNOLOGY-
BAMBHORI, POST BOX NO. 94, JALGAON – 425001 (M.S.)

Included under section 2 (f) & 12 (B) of the UGC Act, 1956
Grade B++ (2.91) NAAC Accredited

Add On Course
On

Electric and Hybrid Vehicles

26th Oct. to 30th Oct. 2021

ABOUT INSTITUTE

Shram Sadhana Bombay Trust runs the COLLEGE of ENGINEERING & TECHNOLOGY at Bambhori, Jalgaon, which is the one of the important industrial town & district headquarters of Maharashtra State. SSBT COET campus is lush green spread over 25 acres area and located on the bank of River Girna. The campus is well equipped with important amenities such as classrooms, drawing halls, laboratories, seminar halls, library, computer center, workshop, hostels, canteens, faculty quarters and indoor as well as outdoor sports facilities etc. The College was accredited by National Board of Accreditation, New Delhi for three times and presently NAAC accredited with B++ grade.

Under Graduate (UG) courses:

Civil Engineering
 Chemical Engineering
 Computer Engineering
 Electrical Engineering
 Electronics & Tele. Engineering
 Mechanical Engineering

Ph.D. Programmes:

Bio-Technology
 Civil Engineering
 Chemical Engineering
 Computer Engineering
 Electrical Engineering
 Electronics & Tele. Engineering
 Mechanical Engineering

ABOUT ELECTRICAL DEPARTMENT

Department of Electrical Engineering is established in year 1999 with an intake of 60. The department was accredited for 5 years from 2008 to 2013 by N.B.A., New Delhi. The department has maintained the track of excellent results by securing 1st Rank and Gold Medal at university level examination. The department has ten well equipped laboratories for UG and two labs for PG.

The department has signed MoU with National Infotech, Suart and kWatt Solution Pvt.. Ltd. IIT Bombay to enhance the quality based educational experience for students, researchers as well as faculties. Hands-on-training programs are organized regularly. Department have recognized research laboratory under Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon, Maharashtra. Research scholars are working in the field of power quality, power electronics and renewable energy.

PRINCIPAL

Dr. G. K. Patnaik

CONVENERS

Mr. Vijay S. Pawar
 Head, Electrical Engineering Department

ORGANISING COMMITTEE

Mr. M. M. Ansari (Coordinator)
 Mr. S. M. Shembekar
 Mr. Dhanesh Patil
 Mr. Nilesh Mahajan
 Mr. A. S. Borole

COURSE DESCRIPTION

This course introduces the fundamental concepts, principles, analysis and design of hybrid and electric vehicles. The material for this course will be prepared in such a manner that it will be useful for post-graduate students, teachers, practitioners and final year undergraduate students. This course goes deeper into the various aspects of hybrid and electric drive train such as their configuration, types of electric machines that can be used, energy storage devices, etc. Each topic will be developed in logical progression with up-to-date information.

COURSE OBJECTIVES

1. Basics of electric and hybrid electric vehicles, their architecture, technologies and fundamentals.
2. Plug – in hybrid electric vehicle architecture, design and component sizing and the power electronics devices used in hybrid electric vehicles.
3. Analyze various electric drives suitable for hybrid electric vehicles
4. Discuss different energy storage technologies used for hybrid electric vehicles and their control.
5. Demonstrate different configurations of electric vehicles and its components, hybrid vehicle configuration by different techniques, sizing of components and design optimization and energy management

COURSE OUTCOME

1. Explain the basics of electric and hybrid electric vehicles, their architecture, technologies and fundamentals.
2. Analyze the use of different power electronics devices and electrical machines in hybrid Electric vehicles.
3. Explain the use of different energy storage devices used for hybrid electric vehicles, their technologies and control and select appropriate technology
4. Interpret working of different configurations of electric vehicles and its components, hybrid vehicle configuration, performance analysis and Energy Management strategies in HEVs.
5. Analyze the use of different energy management strategies used in hybrid and electric vehicles

Add On Course
On

“Electric and Hybrid Vehicles”

26th Oct. to 30th Oct. 2021



Organized By

Department of Electrical Engineering



Shram Sadhana Bombay Trust's
COLLEGE OF ENGINEERING AND TECHNOLOGY
BAMBHORI, POST BOX NO. 94, JALGAON – 425001 (M.S.)

Office: 0257-2258391/93

Fax: 0257-2258392

Website: - www.ssoetjalgaon.ac.in

SSBT's College of Engineering and Technology, Jalgaon, Maharashtra
Department of Electrical Engineering
Add on Course on “Electric and Hybrid Vehicles” from 26th to 30th October 2021.
Program Schedule

Date	26/10/2021	27/10/2021	28/10/2021	29/10/2021	30/10/2021
Session 1 11:00-12:00	Inauguration (10:30-11:00)	Impact of electric vehicles and renewable energy systems on cost and emission of electricity (Dr. P. V. Thakre) Professor, EED, Tulsiramji Gaikwad- Patil College of Engineering & Technology, Nagpur	Power Electronics Converter and It's Control for Electric Vehicles (Mr. N. S. Mahajan)	Size of Electric Vehicle Market in India. (Mr. V. S. Pawar)	Manufacturing Opportunities in Two Wheeler Electric Bike and Government EV policies 2021. (Mr. Sameer Shaikh) Asst Prof . Anjuman-I-Islam's Kalsekar Technical Campus, Panvel
	Introduction to Hybrid Electric Vehicles (Mr. N. S. Mahajan)				
Session 2 12:00- 13:00	Introduction to various electrical machines used in EHV (Mr. M. M. Ansari)	Role of Electric Vehicle in Smart Grid (Mr. S. M Shembekar)	Power Electronics Converter and It's Control for Electric Vehicles (Mr. N. S. Mahajan)	Size of Electric Vehicle Market in India. (Mr. V. S. Pawar)	Field Oriented Control of Permanent Magnet Synchronous Motor (PMSM) (Mr. M. M. Ansari)
13:00-13:45	Break	Break	Break	Break	Break
Session 3 13:45-14:45	Social and environmental importance of hybrid and electric vehicles (Mr. N. S. Mahajan)	Role of Electric Vehicle in Smart Grid (Mr. S. M Shembekar)	Energy Management Strategies for EV and HEV Applications. (Mr. A. S. Borole)	Power Quality Issues Due to Electric Vehicle Charger (Mr. S. M Shembekar)	Lab 5 Control of Permanent Magnet Synchronous Motor (PMSM) (National Infotech, Surat)
Session 4 14:45-15:45	Fundamentals of AC/DC drives (Mr. D. S. Patil)	Introduction to various energy storage devices used in EV Applications. (Mr. D. S. Patil)	Energy Management Strategies for EV and HEV Applications. (Mr. A. S. Borole)	Introduction to Energy Storage Requirements in Hybrid and Electric Vehicles (Mr. D. S. Patil)	Virtual Visit to Electric Vehicle Manufacturing Industry (Mass Tech Controls Pvt Ltd Jalgaon)
Session 5 15:45-17:45	Lab 1 Open loop Scalar Control of Induction Motor with SPWM and SVM (National Infotech, Surat)	Lab 2 Closed loop Control of Induction Motor (National Infotech, Surat)	Lab 3 Vector and Direct Torque Control of Induction Motor (National Infotech, Surat)	Lab 4 Control of Electronically Commuted DC (BLDC) Motor (National Infotech, Surat)	Quiz and Valedictory Function

SSBT's College of Engineering and Technology, Bambhori, Jalgaon
Department of Electrical Engineering

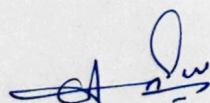
Add-On Course on "Electric and Hybrid Vehicle" from 26/10/2021 to 30/10/2021

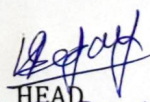
Attendance

Sr. No.	Roll No	Class	Name of Students
1.	70	BE	Gaurav Sanjay Wani
2.	38	BE	Pardhi Vijay Chamaklal
3.	17	BE	Punam Dinkar Ghait
4.	11	BE	Rani Chavhan
5.	24	BE	Khandare Nandkishor Ramdas
6.	04	SE	Soham Narendra Jawale
7.	05	SE	Kunal Lakhichand Jiri
8.	36	BE	Kanchan Balu More
9.	22	BE	Sandip Parshuram Jadhav
10.	59	BE	Shankopal Mukesh Sudhakar
11.	37	BE	Jitesh Shivdas Mote
12.	39	BE	Sajid Najir Patel
13.	14	SE	Vivek Rupsing Sisode
14.	33	TE	Patil Bhushan Sandip
15.	27	BE	Kiran Khodape
16.	13	SE	Sayyed Zulfeqar Ahmad Meyar Ahmad
17.	10	SE	Rane Siddhesh Hitendra
18.	08	TE	Bhushan Chhotu Bhoi
19.	03	BE	Avhad Dipali Ashok
20.	66	BE	Avinash Pandharinath Thote
21.	09	SE	Sujay Patil
22.	01	SE	Bari Jayesh Baban
23.	40	TE	Nishikant Sanjay Patil
24.	06	TE	Pratik Kiran Barge
25.	44	BE	Kiran Shantaram Patil
26.	21	BE	Bhushan Kiran Jadhav
27.	04	BE	Rahul Banchhod
28.	49	BE	Patil Vaibhav Ukhardu
29.	06	SE	Magare Durgesh Vinod
30.	48	BE	Rohit Ankush Patil
31.	15	SE	Sufiyan Ahemad Shaikh Nisar
32.	19	TE	Jadhav Aniket Dagadu
33.	17	BE	Shaikh Mohammad Zaid Afzaluddin
34.	35	TE	Dhirajsing Dinkar Patil
35.	58	BE	Sawakare Dipak Ramesh
36.	37	TE	Isha Pravin Patil
37.	26	BE	Swapnil Sanjay Kharate
38.	12	SE	Sayed Affan
39.	43	BE	Patil Durgesh Dilip

SSBT's College of Engineering and Technology, Bambhori, Jalgaon
Department of Electrical Engineering

40.	12	TE	Hemangi Mukesh Charhate
41.	22	TE	Koli Rahul Ravindra
42.	67	BE	Nishant Dilip Upadhye
43.	03	SE	Girase Akshay Kalyansing
44.	01	BE	Agare Shubham Bhikanrao
45.	44	TE	Sumit Sandip Patil
46.	45	TE	Swapnil Rajendra Patil
47.	60	BE	Kartik Sunilrao Shelke
48.	32	TE	Padvi Pradip Sharad
49.	02	BE	Ahire Shital Dhakalu
50.	28	BE	Paresh Sudhakar Kolhe
51.	57	BE	Parag Manoj Saraf
52.	19	BE	Haresh Shamuvel Gurav
53.	23	TE	Mayur Dattatray Mahajan
54.	73	BE	Yeslote Rishikesh Ramrao
55.	18	BE	Shashank Girhepunje
56.	21	TE	Jadhav Sneha Jitendra
57.	16	SE	Bhavsar Hemant Vijay
58.	13	TE	Chaudhari Bhavesh Subhash
59.	11	SE	Karushnakant Gulabaro Sambare
60.	42	BE	Patil Dnyaneshwar Sahebrao
61.	31	BE	Kirti Janardan Koli
62.	56	BE	Jayshree Subhash Sapkale
63.	25	TE	Tejas Nivrutti Mahajan
64.	33	BE	Aniket Mahajan
65.	40	BE	Akshay Bhimsing Patil
66.	32	BE	Sushant Pankaj Kulkarni
67.	72	BE	Nayan Wankhade
68.	01	TE	Badgujar Chetana Shekhar
69.	30	BE	Akash Anil Koli
70.	24	TE	Mahajan Shubham Lakhichand
71.	15	TE	Prajwal Deshpande
72.	51	BE	Pawar Mayur Pravin
73.	25	BE	Mayur Harlal Khangar
74.	18	TE	Vishal Sitaram Gaikwad
75.	06	BE	Dattatray Anil Birari


Coordinator


HEAD
Head of The Department
Electrical Engg.
SSBT'S College of Engg. & Tech.
Bambhori, Jalgaon



SSBT's College of Engineering & Technology, Bambhori, Jalgaon - 425001

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Add-On Course on “Electric and Hybrid Vehicles”

Certificate of Participation

*This is to certify that Mr. / Ms. _____ of _____
has successfully attended Five Days (30 hours) Add-On Course on “**Electric and Hybrid Vehicles**” held during
26th to 30th October, 2021 organized by Department of Electrical Engineering, SSBT's College of Engineering &
Technology, Bambhori, Jalgaon (MS), India.*

Mr. M. M. Ansari

Coordinator

Electrical Deptt., SSBT's COET, Jalgaon

Mr. V. S. Pawar

Convener

Electrical Deptt., SSBT's COET,

Prof. (Dr.) G. K. Patnaik

Principal, SSBT's COET, Jalgaon



Department of Electrical Engineering

SSBT's, College of Engineering & Technology, Bambhori, Post Box No. 94,
Jalgaon - 425001 (MS)

Year of Establishment: 1999
Email: deptdelect@gmail.com
Web: <http://www.sscoetjalgaon.ac.in>

Ph. No. : (0257) 2258391/93/94/95, Ext. No. : 331
Fax No.: (0257) 2258392

Ref: No.: COET/Electrical/2021-22

Date: 28/10/2021

To,

Mr. Sameer Shaikh,

Assistant Professor,

Anjuman-I-Islam's Kalsekar Technical Campus,

Panvel, Mumbai (MS)

Dear Sir,

We would like to take this opportunity to thank you delivering session on the topic **"Manufacturing Opportunities in Two Wheeler Electric Bike and Government EV policies 2021"** on 28th Oct 2021 in Add-On Course organized by our department.

We appreciate your knowledge and the vigor with which you have guided and encourage the participants of this Add-On Course.

Thanking you,

Yours faithfully,

Mr. V. S. Pawar

Head
Electrical Engineering Department
SSBT's College of Engg. & Tech., Jalgaon

Mission

To provide student-centered conducive environment for preparing knowledgeable, competent and value added electrical engineers.

Vision

To emerge as the leading Electrical Engineering department for inclusive development of students.