

Sandip Institute of Technology and Research Centre At & Po – Mahirawani, Trimbak Road, Tal & Dist .– Nashik Phone: (02594) 222552,53,54, Fax: (02594) 222555 website : www.sandipfoundation.org, e-mail : principal@sitrc.org

Accredited with "A" grade by NAAC With CGPA Score of 3.11





Department of Mechanical Engineering

Date: 23/01/2024

<u>Notice</u>

All the students of Third Year are hereby informed that Value Added Program on "Electrical Vehicle Technology" arranged from 24st January 2024 onwards.

Venue: TE Class Room

Note : Attendance is compulsory

Prof. P.S Shirsath Event Co-ordinator

Dr. S.G. Ghalme Head, Mech. Engg.



CHIEFPATRON Hon. Dr. Sandip N.Jha (Chairman, Sandip Foundation, Nashik)

PATRON Hon. Prof. Pramod Karole (Academic Facilitator, Sandip Foundation,Nashik)

> PRINCIPAL Dr. M.M. Patil (Principal, SITRC, Nashik)

CONVENER

Dr. S.G.Ghalme

(HOD, Department of Mechanical Engineering, SITRC, Nashik)

CO-ORDINATOR

Prof. P.S. Shirsath Assistant Professor, Dept. of Mechanical Engineering



RESOURCEPERSON

Prof. Pankaj S. Shirsath

Assistant Professor, Mechanical Department SITRC, Nashik

Venue and Time

Venue: T.E Classroom, Mechanical Engineering Department

Time: 10:10 am To 12.10 pm

(25stJanuary 2024 –23rd February 2024)

Value Added Program

On

"Electric Vehicle Technology"

(25stJanuary 2024 – 23rd February 2024)

Organized By

Department of Mechanical Engineering, Sandip Institute of Technology and Research Centre, Nashik-422213.

ABOUT INSTITUTE

Sandip Institute of Technology and Research Center (SITRC), the top engineering colleges inNasik, Maharashtra is established in 2008 and is approved by AICTE, New Delhi and affiliated to Savitribai Phule Pune University, Pune. The Institute is accredited by NAAC with A Grade (CGPA3.11Score).

SITRC have an ambiance that stimulates intellectual thinking and academic proceedings.

The institute has following major credentials at its credit.

- $\sqrt{}$ Accredited with A Grade by NAAC
- $\sqrt{}$ Affiliated to SPPU Pune
- $\sqrt{}$ Green and Clean Campus

ABOUT DEPARTMENT

Department of Mechanical Engineering offers undergraduate program i.e. B. E. Mechanical Engineering course and practices OBE (outcome-based education) for which it is NBA Accredited from 2020-21 to 2022 - 23. This is the highest and prestigious accreditation of the nation acquired as on date by only a few programs in the jurisdiction of the University, North Maharashtra region as well as the nation.

DEPARTMENT VISION

To achieve excellence in the domain of Mechanical Engineering by inculcating a culture of learning and research.

DEPARTMENT MISSION

To achieve the vision, the department is committed to:

- To nurture the students of Mechanical Engineering to be competent, motivated and ethical professionals.
- To foster research, innovation and entrepreneurship skills leading to employable and self reliant technocrats.

• To groom the socio-techno potential for upliftment of society.

ABOUT VALUE ADDED PROGRAM

The aim of the Value added program is to offer a comprehensive in depth technical knowledge to the entire participant on the modeling and simulation of electric vehicle with specific emphasis on physics based modeling.

VALUE ADDED PROGRAM OBJECTIVES

1. To familiarize pupils with the principles of electric vehicles.

2. To create simulations and models for electric vehicles.

3. To achieve increased operational effectiveness.

COURSECONTENTS

The Value Added Program will cover a wide range of topics, including but not limited to:

1.Introduction of e-Vehicle Technology

- 2. Hybridization in e-vehicles
- 3. Lithium Ion Batteries
- 4. Prime Movers [Electric Motor]
- 5. Control Units
- 6. Electric Vehicle Configuration

7.Power train, Differential and Transmission System

8.Battery Compartment & Frame/Chassis Design

9. Energy Storage Systems [Battery/Cell Pack]10. Testing And Evaluation Standards For Electric vehicle

Battery Charging And Discharging
Standards for EV batteries and associated

testing procedures

13. Battery failures and its effects on battery components

14.Practical on EVT

Sandip Institute of Technology and Research Center, Nashik

Department of Mechanical Engineering

Course Content For Electric Vehicle

1.Introduction of e-Vehicle Technology

- 2.Hybridization in e-vehicles
- 3.Lithium Ion Batteries
- 4.Prime Movers [Electric Motor]
- 5.Control Units
- 6.Electric Vehicle Configuration
- 7. Power train, Differential and Transmission System
- 8.Battery Compartment & Frame/Chassis Design
- 9. Energy Storage Systems [Battery/Cell Pack]
- 10. Testing And Evaluation Standards For Electric vehicle
- 11. Battery Charging And Discharging
- 12.Standards for EV batteries and associated testing procedures
- 13. Battery failures and its effects on battery components

14.Practical on EVT

Prof. P.S Shirsath Event Co-ordinato

Dr. S.G. Ghalme Head, Mech. Engg.





Sandip Institute of Technology and Research Centre

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Department of Mechanical Engineering

Report of Value Added Program on "Electric Vehicle Technology " (TE)

- 1. Event Title: Value Added Program on "Electric Vehicle Technology" (TE)
- 2. Event Date: 25th January to 23rd February 2024
- 3. Event Conduction Duration: 30 Hours
- 4. Event Venue: Seminar Hall, Mechanical Engineering Department, SITRC
- 5. Event Resource Person Details: Prof Pankaj S. Shirsath.
- 6. Name of Event Coordinator: Prof Pankaj S. Shirsath.
- 7. Event Objectives & Outcomes

Objectives of Activity:

- 1. To familiarize students with the principles of electric vehicles.
- 2. To create simulations and models for electric vehicles.
- 3. To achieve increased operational effectiveness.

Outcomes of Activity:

- 1. Students understood the basics of electrical and power electronics fundamentals
- 2. Students are aware of management system for Batteries.
- 3. Student learns about EV and Motor Components and calculations for electric vehicles.

8. Event Details & Photos

The Value-Added Program for TE Mechanical students was held from January 25th to February 23, 2024, with the theme being "Electric Vehicle Technology". In this electric vehicle event, 27 third-year students participated. The program was organized by SITRC Mechanical Engineering Department. The main objective of the program was to assist students in understanding the use and importance of electric vehicles in the engineering profession. This endeavor was overseen by Prof Pankaj S. Shirsath, Assistant Professor in the Mechanical Engineering Department, under the guidance of Professor (Dr.) S. G. Ghalme, Head of the Mechanical Department. For mechanical engineering students, the course "Electric Vehicle Technology" is essential. This course aids in the acquisition of fundamental knowledge in electrical and power electronics, as well as EV and motor components and calculations for the structural analysis of electric vehicles.



It improves their capacity for problem-solving and equips them to take on practical engineering issues, which increases their marketability. Moreover, electric vehicles prepare students for the needs of the mechanical engineering area by providing a link between theoretical knowledge and actual application.

Mechanical engineering students who master the use of electric vehicle software will have an advantage over their peers in both their academic and career endeavors as technology develops.

This particular Value added program was developed in response to the needs of the student's workplace and the most recent market trends. It is considered the most updated syllabus and course material for Electric Vehicles. The value added program also helps them reach their professional objectives and get work in multinational businesses.

This program, which lasted 30 hours, was conducted in the Classroom of the mechanical engineering department of SITRC.



Photo:-Students Photo during Value added program on "Electric Vehicle Technology"









Prof. P.S Shirsath Event Co-ordinator



Dr. S.G. Ghalme Head, Mech. Engg.



Dr. M. M . Patil Principal

SANDIP ISTITUTE OF TECHNOLOGY & RESEARCH CENTRE

VAP on " Electrical Vehicle Technology"

Department of Mechanical Engineering

Attendance Sheet (2 Hrs each)

Sr.No	Student Name	25/01/24	27/01/24	27/01/24	01/02/24	02/02/24	02/02/24
1	AHER KUNAL SHIVAJI	KELLAS	1000	trape	KAMPY.	KANOR	KALP
2	BHARAMBE SAURABH VISHNU	SUBPRIME	Sillhouse	Subherry	SABHAM	SUBLOW	SUBLand
3	CHAUHAN ANKIT OMPRAKASH	mot	Anitet	Amitet	Anitet	Anitet	Anitel
4	GHEL GANESH RATAN	Gebeek-	Geberg-	Cogue	Greaty	Chet	Cehrel
5	JAWALE KHILESH PRADIP	JEP	JKP	JEP	JAP	JKP	SKE
6	KARAD RUSHIKESH SHRIRANG	Rusit	Rught	RUSIX	Pult	Pugit	PUBIK
7	KHACHANE TILAK MILIND	T.M. Khashe	T.M. Khan	T.M. Khab	T. M. Krey	T.M. Kup	T.M. Frees
8	KHAN AFZAL AFGAN	Khow A.	Hhom A-	Khanith	KhomA	HALam A	Bhan A
9	MAGAR ANIKET VITTHAL	MAU	KAY	HAY	KAN	the	KAW
10	MANJULE OM SIKANDAR	ongi	OSTE	onsy	omisi	omsi	OMS
11	MESTRY VEDANT PRAKASH	VAnisty	VPmilty	V Prives	NPMilbry	v pmbry	vimmy.
12	MISHRA SAHIL SHYAMNARAYAN	Smithe	Smith		South		Sail
13	NARWADE ADITYA SANJAY	A.SNAW	A'S NAW	ASNAAN		ASpruck	A.S. Nuele
14	OM SUNIL KHULE	0.5 Kmle	O'S.KWR			O'S. Au	O'S.Fale
15	PATHRE PRATHAM SUNIL	PSPW	BReture			P.S.Pth	P.J. Puse
16	PATIL ADITYA ANAND	BAA	RA.	Red		Rep	RaA
17	PATIL PRASAD KRISHNAKANT	P.K.Boto	p. K. Patil	Piktuto	P.K. Petto	P.K.fl	P.K. Pato
18	PATIL VISHAL MADHUKAR	N.M. Patil	V.M.Rut		V. M. Patil	V	v.m.Patil
19	PRAJAPATI SUSHIL DINESH			Schajdt	Solaiab	Schrajal	Rafal
20	RANE MOHIT VASUDEV	M. V. Ropp					M.V. Rune
21	SANAP SHUBHAM VILAS	Svitus	Julius		Sulw	Sula	Cuitas
22	SARODE KAUSHIK ANANTA	SKA	SFA	SKA-			
23	SAVANT VISHAL RAMESH	La		2	S	In	h
24	SHINDE YASH SANTOSH	Ysshink	yeshind	e		15.	

25	SUSHMA RENJA GAVIT	lum	low	Suit	Suit	Son	lon
26	THORAT PRITI ARUN	Man	Weben		con		MAN
27	FALKE MAYUR ASHOK	mAtaky	m.A.felt	e		m.A.Pol	MA.FA.
28	DHODI JAYDEEP JAGDISH	din		dia	dr-		&r-
29	DANDEKAR RUNIT RAYMAN	DRAwit		5	ON No2	DRANZ	ARint
30	BARI PAVAN BHAGWAN	elami	BhBhri	Bhehri	Bhom		

k Co-ordinator



Head of Department

SANDIP ISTITUTE OF TECHNOLOGY & RESEARCH CENTRE

VAP on "Electrical Vehicle Technology"

Department of Mechanical Engineering

Attendance Sheet

Sr.No	Student Name	08/02/24	09/02/24	09/02/24	15/02/24	16/02/24	16/02/24
1	AHER KUNAL SHIVAJI	KALPO			KAher	-	SAAR
2	BHARAMBE SAURABH VISHNU	SUBNONA	SUBTUAR				
3	CHAUHAN ANKIT OMPRAKASH	Aniket	Anited			Aritet	
4	GHEL GANESH RATAN	Greating_	Capatory		Ukabigung	200.	49910104
5	JAWALE KHILESH PRADIP	JAP	JPP	JEP			- 0
6	KARAD RUSHIKESH SHRIRANG	fugnik	Popik		Puthik		Rognik
7	KHACHANE TILAK MILIND	T. MKage	-	TMKayre			
8	KHAN AFZAL AFGAN	KhamA	KhanA		KhanA		KhanA
9	MAGAR ANIKET VITTHAL	ATKAT	MM		Am		Am
10	MANJULE OM SIKANDAR		omsi	omsi	onti		ompi
11	MESTRY VEDANT PRAKASH	Vinilar		VPhilas	MANIEN	VPMipm	vpnicz
12	MISHRA SAHIL SHYAMNARAYAN	Janii	Shrii ha	Stoil	South		Smin
13	NARWADE ADITYA SANJAY	A's parasele	Agnonuto		AsNandy		Aspond
14	OM SUNIL KHULE	O's. kule	O'S'Fork		O 'S Kute		0'sikule
15	PATHRE PRATHAM SUNIL	RA	Reif		Paf		RA
16	PATIL ADITYA ANAND	RARdi	P. APatt1		P. A. Pala		P.A. Detil
17	PATIL PRASAD KRISHNAKANT	P.K.Butt.	P.K.R.Hi.				PKRof",
18	PATIL VISHAL MADHUKAR	V-mBoli	V.M. Pall	V: M-Pat		V.M. Put	
19	PRAJAPATI SUSHIL DINESH	Sociati	Solverti'		Azajati		SdPan
20	RANE MOHIT VASUDEV	mulanc	M. VPure	1/50	M. V. Pur	m.v.s	M.V. Rue
21	SANAP SHUBHAM VILAS	Sulas		Nilos		Suntas	Srilm.
22	SARODE KAUSHIK ANANTA	SKA	SKA	SYA	SKA	SILA	8th
23	SAVANT VISHAL RAMESH	Si	St		In	A	li
24	SHINDE YASH SANTOSH	Ysshind	P	Yssinde	Y spirs	Yshinde	

25	SUSHMA RENJA GAVIT		Sw	Sur	Jind	Sen	A
26	THORAT PRITI ARUN	Mp		e propri		Nm	mp
27	FALKE MAYUR ASHOK	MARIAN	•	MAIL		MAGL	MAGL
28	DHODI JAYDEEP JAGDISH	ding		dim		dju	Lging.
29	DANDEKAR RUNIT RAYMAN	Detting		DERVINI		DRNL	DERNZ
30	BARI PAVAN BHAGWAN	PLPM	ABL~		PK-B-		PRBL-

Co-ordinator



Head of Department

SANDIP ISTITUTE OF TECHNOLOGY & RESEARCH CENTRE

VAP on " Electrical Vehicle Technology"

Department of Mechanical Engineering

Attendance Sheet

Sr.No	Student Name	22/02/24	23/02/24	23/02/24
1	AHER KUNAL SHIVAJI	KANDE		MAPOY
2	BHARAMBE SAURABH VISHNU	SABhome.	SUBhime	Subhamac
3	CHAUHAN ANKIT OMPRAKASH	Aneket	Anitet	
4	GHEL GANESH RATAN	Gegnert		GRAN
5	JAWALE KHILESH PRADIP	JHP 3	JAP	JH
6	KARAD RUSHIKESH SHRIRANG	Rughet	Ruput	
7	KHACHANE TILAK MILIND		T.M. Khy	TMELLE
8	KHAN AFZAL AFGAN	Rhand.	Khow A	Khow A
9	MAGAR ANIKET VITTHAL	KAY	HAN WAY	¥Aya
10	MANJULE OM SIKANDAR	OWER	OWER	omete
11	MESTRY VEDANT PRAKASH	Missory	v.Prilby	Manilety
12	MISHRA SAHIL SHYAMNARAYAN	from	Swish	Smish
13	NARWADE ADITYA SANJAY	Asnovale	ASNONE	
14	OM SUNIL KHULE	O'strue	Oghane	
15	PATHRE PRATHAM SUNIL	PS BAME	PSPhare	
16	PATIL ADITYA ANAND	RA	FaA	Payle
17	PATIL PRASAD KRISHNAKANT	P.K. Peti	P.K.Pato	P.K&A
18	PATIL VISHAL MADHUKAR	V.M. Patil		V.M. Rotij
19	PRAJAPATI SUSHIL DINESH	Sobrefai .		Stajaki
20	RANE MOHIT VASUDEV	myken		mapare
21	SANAP SHUBHAM VILAS	STRANP	SVSP	SUSAP
22	SARODE KAUSHIK ANANTA	SKA	814	SKA
23	SAVANT VISHAL RAMESH	Si	Sw	
24	SHINDE YASH SANTOSH	Assimo	Yppinte	yshide

25	SUSHMA RENJA GAVIT	line	Jun		Je a		N
26	THORAT PRITI ARUN	hebre	10	m			1.20
27	FALKE MAYUR ASHOK	M.A.Fele	M.A.Falk	e MAFelke			
28	DHODI JAYDEEP JAGDISH	dia			33.	. St	3 -
29	DANDEKAR RUNIT RAYMAN	Planit	Deputit	PRNIT			
30	BARI PAVAN BHAGWAN	APBhance		ARAMe			

Co-ordinator

Head of Department





SANDIP INSTITUTE OF TECHNOLOGY RESEARCH CENTRE, NASHIK

DEPARTMENT OF MECHANICAL ENGINEERING

(1)

THIS IS TO CERTIFY THAT

AHER KUNAL SHIVAJI

OF TE (Mechanical) has participated and successfully completed Value Added Program on **"Electric Vehicle Technology**" organized by Mechanical Engineering Department, SITRC, Nashik. The duration of program was from 25th Jan. 2024 to 23nd Feb. 2024.







SANDIP INSTITUTE OF TECHNOLOGY & RESEARCH CENTRE, NASHIK

An Autonomous Institute

DEPARTMENT OF MECHANCIAL ENGINEERING

Feedback form for value added program

Name of Department	Department of Mechanical Engineering
Name of Value Added Program	Electrical Vchicle Technology
Date and Duration	25 th Jan – 23 nd Feb. 2024, 30 hrs

C		Rating (please tick at your choices)						
Sr. No.	Parameter	1 (worst)	2	3	4	5 (Best)		
1	Punctuality					V		
2	Expertise					V		
3	Clarity of communication					V		
4	Problem solving ability					V		
5	Coordination					V		
6	Understanding by the students					V		
7	Quality of content				(6)	V		
8	Value addition from course				•	V		

Aher Kung Shiraji

KAnuar Name and Signature

