



SJMVidyapeetha®

SJMINSTITUTEOFTECHNOLOGY

NH-4Bypass, P.B.No:73, CHITRADURGA-577502, Karnataka.

INSTITUTION'SINNOVATIONCOUNCIL(IIC)

Overall Report
of
Three Days Workshop

On

"An Overview of Electric Vehicles and Simulation using MATlab"



S.J.M Vidyapeetha®

S J M INSTITUTE OF TECHNOLOGY CHITRADURGA



Accredited by NAAC

Department of Electrical & Electronics Engineering

Organising

THREE DAYS WORKSHOP

ON

AN OVERVIEW OF ELECTRIC VEHICLES AND SIMULATION USING MATLAB

DATE: 15 to 17th OF JUNE 2023, VENUE: E & E SEMINAR HALL



Resource Person Mr.Shivaraj.V.S

Software Trainer Abeyantrix Soft LAB,DVG

Faculty Coordinator Prof. Sushmitha Deb Prof. Noor Fathima Dr. Kumaraswamy B.G HOD Dept of EEE Dr. P B Bharath Principal SJMIT





S.J.MVIDYAPEETHA®

S.J.M. INSTITUTEOFTECHNOLOGY

N.H.4Bypass, P.B No73, Chitradurga-577502

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

In Collaboration With





Organizing

Three Days Workshop

On

"An Overview of Electric Vehicles and Simulation using Mat lab"

<u>Date:</u> 15th – 17th June 2023 <u>Time:</u> 9:00amto 5:30pm

Venue: E&E Seminar Hall

Resource Person

Mr. Shivraj.V.S Software Trainer Abeyantrix Soft Lab, Dvg

IQAC
Dr. Jagannatha N
HOD, Dept., of ME

IIC
Dr. Krishna Reddy
Dept. of CSE

<u>H.O.D</u> Dr. Kumaraswamy B G Dept. Of EEE Principal
Dr. P B Bharath
SJMIT

Faculty Coordinators

Prof. Sushmita Deb Prof. Noor Fathima Topic:Three Days Workshop on "An Overview of Electrical Vehicle & Simulation using Matlab

Theme: Electric Vehicle Simulation using Matlab

Objectives of the Event:

1. Creating awareness about the use of Renewable Sources.

2. To learn basics of Electric vehicles.

3. To know the functions and different libraries of MATLAB.

4. To create simple MATLAB or Simulink models.

Speaker: Mr. Shivraj V S, Software Trainer, Abeyantrix Soft Lab, Dvg

SpeakerProfile:

Experience Summary:

WorkedasEmbeddedtrainer/RoboticEngineeratSpaceDevelopmentNexus, Delhi.

• Worked as Embedded trainer / Renewable Energy Engineer in Lucknow Innovation lab,

Lucknow.

Working as Product Application Manager at Abeyaantrix Softlab OPC Pvt Ltd, Davanagere

from August 2018 to till date.

• Training delivery to various Corporates as well as in-house training delivery to students on

various platforms such as Solar Photovoltaic, MATLAB/SIMULINK, Electrical circuit

Simulation, Robotics, PLC, VFD, HMI, Embedded system, Renewable energy Sources, Rain

Water harvesting etc.

• ConductedWorkshopsandSDP'satvariousIndian Engineering Colleges.

• A team player with good communication skills, Quick Learning ability, Adaptability to change,

hardworking and self-motivated.

Skill Summary:

- Delivered training and workshops to engineering colleges and Corporates in India which
 includes colleges like JIT Davanagere, UBDT, BIET Davanagere, STJIT Ranebennur,
 SJMIT Chitradurga, Govt Engineering college, SIT Tumkur, HMSIT Tumkur, HSIT
 Belagum and corporates like Sparx Crew Technologies U.P, TechEx Engineers Lucknow,
 SDNx Delhi.
- Algorithm and projects development based on MATLAB / SIMULINK
- Conducted Special training programs on Electrical Circuit Simulation using MATLAB/SIMULINK, Simscape electrical library and Sim Power Systems.
- Technical Notes preparation on Renewable Energy, MATLAB, PLC, Arduino.

Program Schedule

SJM Vidyapeetha ® S.J.M. INSTITUTE OF TECHNOLOGY, CHITRADURGA Acreediated by NAAC

Department of Electrical & Electronics Engineering

Organizing

Three Days Workshop On "AN OVERVIEW OF ELECTRIC VEHICLES AND SIMULATION USING MATLAB

Date: 15th -17th June 2023 **Venue:** E&E Seminar Hall

Time: 9:00 am to 5:30pm

| Sl. | Program List | Names | |
|-------------|------------------------------------|--|--|
| No 1 | Invocation Song | Vinithashree, Nirmitha 4 th sem student | |
| 2 | Welcome Speech | Sinchana T, 6 th sem student | |
| 3 | Inauguration by watering the plant | | |
| 4 | Speech by HOD | Dr. Kumaraswamy B G | |
| 5 | Speech by Principal | Dr. P B Bharath | |
| 6 | Speech by IQAC Co-ordinator | Dr. Jagannath N | |
| 7 | Bio Data of the Resource Person | Gaganadeepa M C | |
| 8 | Speech by Resource Person | Mr. Shivraj V S | |
| 9 | Vote of Thanks | Kruthika S, 4 th sem student | |

MOC:SaniyaTabassum R, 6thsem E&E Dept.,

Brief report of the event:

The Department of Electrical & Electronics Engineering, SJM Institute of Technology has organized 3 days workshop on "An overview of Electric Vehicles using MATLAB" in association with Institution's innovation council (IIC) & IQAC. From 15th – 17th June 2023. The workshop aimed to provide participants with an overview of electric vehicles (EVs) and how MATLAB can be utilized to model, simulate, and analyze various aspects of EVs.

Day 1: Introduction to Electric Vehicles:

The first day began with an introduction to electric vehicles, covering their significance in the context of sustainable transportation. The topics covered the following; Basics, Advantages & challenges, architectures and Battery technologies of Electric Vehicles.

Day 2: MATLAB Fundamentals for Electric Vehicles and Modeling and Simulation using MATLAB:

The second day focused on introducing participants to MATLAB and its applications in the context of electric vehicles. The session also included;

- ➤ MATLAB basics: Syntax, variables, data types, and functions
- > Simulink introduction: Building block diagrams for system modeling
- > Hands-on session: Creating a simple electric vehicle model using Simulink
- ➤ Introduction to specialized MATLAB toolboxes for EV modeling and simulation
- Performance analysis and optimization of electric vehicles using MATLAB simulations

The interactive nature of these sessions enhanced participants' understanding of the concepts discussed.

Day 3: Field visit:

On the third day, both the faculty members and students from the department visited an Electric Vehicle shop in Chitradurga with the aim of acquiring a comprehensive understanding of electric vehicles and their applications.

Conclusion:

Three days workshop has been completed successfully by Electrical & Electronics Engg.

Department under the guidance of Principal Dr. P B Bharath, Head of the Department Dr. B G

Kumarswamy in collaboration with IQAC and IIC, SJMIT. The faculty coordinators for this event are Prof. Sushmita Deb and Prof. Noor Fathima of E&E Dept.

The workshop provided a comprehensive learning experience for electrical engineering students. Participants gained a solid understanding of electric vehicle technology, MATLAB fundamentals, and their integration for modeling and simulating electric vehicle systems. The hands-on approach enriched the learning process, making the workshop a successful endeavor in bridging theoretical knowledge with practical applications in the area of electric vehicles

The event has attracted a great response from the students. About 64 students along with staff members attended the event. Certificates have been issued to all the students followed by a grand working lunch on the second day.

.

ATTENDANCE DETAILS

S.J.M.I.T CHITRADURGA DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGG Sem: 4th 2022-23

THREE DAYS WORKSHOP AN OVERVIEW OF ELECTRIC VECHILES AND SIMULATION USING MATLAB

Date:15-06-23 USN SI Name Morning Afternoon no ABHISHEK PRAKASH 1 4SM21EE001 KITTAD Abholole Pi-Abborric PL 4SM21EE002 2 AFREEN BANU I Y 100 3 4SM21EE003 AISHWARYA G S dishwarya es. 3 hussaga es & 4 4SM21EE004 AMULYA R T Amulyar P 5 4SM21EE005 ANIL B 6 4SM21EE007 HARSHITHA M K Hasyahithamethanahitham.K 7 4SM21EE008 IRFAN H Littoyn. H KRUTHIKA S 8 4SM21EE009 Karil 4SM21EE010 MANIKANTA N Manskoto N Meghana. s.v. Mandleon 10 4SM21EE011 MEGHANA P V Meghana. P.1 11 4SM21EE012 MOHAMMED SAMIULLA Md. Samb 12 4SM21EE013 MOHITH RO PANDU S 13 | 4SM21EE014 surelee - 3 14 4SM21EE015 PRAJWAL V evagenal.V 15 | 4SM21EE016 PRIYANKA S N 16 4SM21EE017 RACHANA M 17 4SM21EE018 SANGEETHA D J Sangella D. J. 18 4SM2TEE020 SANJAY P.V 19 4SM21EE021 SHUBHASHREE G 20 | 4SM21EE022 SUMA KT Suma KIT 21 4SM21EE024 VINITHASHREE B with hashre 22 4SM21EE025 VINODA B O Vinoda . 3.0 Houslah. 7 23 | 4SM22EE400 **ABHILASH T** Abuiler . T CHAITRA V chaithera.V 24 | 4SM22EE401 chaithab. V 25 | 4SM22EE402 CHANNESH K M neugh Jam 26 4SM22EE403 DHANANJAYA H Dhananjaga su 27 4SM22EE404 HASNAIN TAJ M 4SM22EE405 MEGHANA CT 28 Megnang o. T 29 | 4SM22EE406 NINGARAJ K Nonkay & 30 4SM22EE407 irmitha. HN Normit NIRMITHA HN Neverthas S Neverethors 31 4SM22EE408 **NIVEDITHAS** Poola: P 32 4SM22EE409 POOJA P Pooja. merattice ain Quiattuladu **QURRATH ULLAIN** 33 4SM22EE410 D. Camp P. Puis 34 4SM22EE411 R RAJU 35 4SM22EE412 RAJESH E

Head of the Dept

Saunish.4

Southish-M

(Dr.Kumaraswamy.B.G)

15 6 23

36 4SM22EE413

SATHISH M

S.J.M.I.T CHITRADURGA DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGG Sem: 6TH 2022-23 THREE DAYS WORKSHOP AN OVERVIEW OF ELECTRIC VECHILES AND SIMULATION USING MATLAB Date:15-06-23

| efference sea | | | Date.19-00 | 611 |
|---------------|-------------|-------------------------|-----------------|----------------------|
| Sl.no | USN | Name of the Student | Signature | Signature |
| 01 | 4SM18EE002 | AKASH M | phase. | Appleet |
| 02 | 4SM20EE001 | ABHISHEK H T | ABWYLLL | Abhlace |
| 03 | 4SM20EE002 | AJAY R | AB | IN OUR |
| 04 | 4SM20EE003 | AKSHAY V | Akenay ! | Amnay: V |
| 05 | 4SM20EE005 | BI BI HAJIRA KHANUM | Hossie | chandana.A |
| 06 | 4SM20EE006 | CHANDANA A | chandana. A | |
| 07 | 4SM20EE007 | ELUKOTI P | ELUKOTI.P | ELUKOTI.P |
| 08 | 4SM20EE008 | GAGANADEEPA M C | gaganadeepe | |
| 09 | 4SM20EE009 | GOWTHAM S | Goudham Splais | E Diowthon Salaile |
| 10 | 4SM20EE010 | KEERTHI T D | Keesith? T.D. | Keesethi. IV |
| 11 | 4SM20EE011 | MANJUNATHA YADAV J | 1 | mangala |
| 12 | 4SM20EE012 | NOOR TAJ | NOODE TOO | Noor tay |
| 13 | 4SM20EE013 | PRASAD J | Colased. | |
| 14 | 4SM20EE015 | SANIYA TABASSUM R | Baniya Tabautum | 2 Saniya Tabauum. B |
| 15 | 4SM20EE016 | SINCHANA T | Sincharail | sinchana. I |
| 16 | 4SM20EE017 | SONIYA M O | soniya. Mo | Sonlya Mo |
| 17 | 4SM20EE021 | VIKASGN | Jehasen | (0) |
| 18 | 4SM20EE022 | SUPRITH E | (Signith .) | E. Bypaitm. E. |
| 19 | 4SM20EE023 | GURU S L | Glary S | 10 10 0 |
| 20 | 4SM21EE400 | ANANTH KUMAR G | Austo. | 2 - 2 - 1 . / 1 |
| 21 | 4SM21EE401 | BUDDANAGARI ASHOK KUMAR | 13. Ashokumic | B. B. A Shekkund |
| 22 | 4SM21EE402 | DILIP P | -A3- | -AU |
| 23 | 4SM21EE403 | GOUTHAM Y | Goutham. Y. | Gouthan. y. |
| 24 | 4SM21EE404 | KAVYASHREE K O | - AB- | - AB |
| 25 | 4SM21EE405 | PRAJWAL C | prajual. | |
| 26 | 4SM21EE406 | SADIYA AFREEN | | reer Saeliya Africen |
| 27 | 4SM21EE407 | T A BHARATH | T, A. Bha | |
| 28 | 4SM21EE408 | VIVEK P | P- Willek | 7. Willek |
| 20 | 45WIZTEL400 | 1.4.1.444 | | |

Head of the Dept

Dr.Kumaraswamy.B.G

S.J.M.I.T CHITRADURGA DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGG Sem: 4th 2022-23 THREE DAYS WORKSHOP AN OVERVIEW OF ELECTRIC VECHILES AND SIMULATION USING MATLAB

| | | Date:16-06-23 | | | |
|----|------------|----------------------------|--------------------|------------------|--|
| SI | | Name | Morning | Afternoon | |
| 1 | 4SM21EE001 | ABHISHEK PRAKASH KITTAD | ALLOISICPU. | Hidwal | |
| 2 | 4SM21EE002 | AFREEN BANU I Y | Aco | Aio | |
| 3 | 4SM21EE003 | AISHWARYA G S | Aishungua en 8 | dishussus co. 3 | |
| 4 | 4SM21EE004 | AMULYA R T | Anulga.RT. | Amulya 27 | |
| 5 | 4SM21EE005 | ANIL B | anil B | Anil B | |
| 6 | 4SM21EE007 | HARSHITHA M K | Hoxabetham | HOJE HOTE HON | |
| 7 | 4SM21EE008 | IRFAN H | Zartaso H | 716 | |
| 8 | 4SM21EE009 | KRUTHIKA S | Knight | tadilla | |
| 9 | 4SM21EE010 | MANIKANTA N | Manikanta.N | Monikavita . N | |
| 10 | 4SM21EE011 | MEGHANA P V | Meghana, P.V. | Meghana P.V. | |
| 11 | 4SM21EE012 | MOHAMMED SAMIULLA | Md. Sasus | Md. Sand | |
| 12 | 4SM21EE013 | MOHITH R O | Malas Ro | MolahRo | |
| 13 | 4SM21EE014 | PANDU S \ | andee. | Dourdes | |
| 14 | 4SM21EE015 | PRAJWAL V | Persuesto | Prajual.v | |
| 15 | 4SM21EE016 | PRIYANKA S N | Prijanka-SN | PHINONKE SN. | |
| 16 | 4SM21EE017 | RACHANA M | Bachana.M | Fachany | |
| 17 | 4SM21EE018 | SANGEETHA D J | Sangeetla D.I | Sangeother D. J. | |
| 18 | 4SM21EE020 | SANJAY P V | Leureng. P. V | Sanjay. P.V | |
| 19 | 4SM21EE021 | SHUBHASHREE G | Shubhashoee & | Shubharboree. 6 | |
| 20 | 4SM21EE022 | SUMA K T | Suma Kit | Sumo K,T | |
| 21 | 4SM21EE024 | VINITHASHREE B | Lienaktorker | Vitales | |
| 22 | 4SM21EE025 | VINODA B O | Vineda . 3.0 | Vanoda 3 n | |
| 23 | 4SM22EE400 | ABHILASH T | Almibau. T | Ah. slory | |
| 24 | 4SM22EE401 | CHAITRA V | Chaithera V | chaita v | |
| 25 | 4SM22EE402 | CHANNESH K M | chaeugh there | down HAR | |
| 26 | 4SM22EE403 | DHANANJAYA H | Dhananjaya HT | DAGNASTINA H | |
| 27 | 4SM22EE404 | HASNAIN TAJ M | Hasmingar M | Haenain Tay . N | |
| 28 | 4SM22EE405 | MEGHANA C T | Meghana 6. T | Meatara C.T | |
| 29 | 4SM22EE406 | NINGARAJ K | romandal. K | Asing late & | |
| 30 | 4SM22EE407 | NIRMITHA H N | A ligasistal . H.A | Nirmitto H.N | |
| 31 | 4SM22EE408 | NIVEDITHA S | Novedetha.S | niversither. | |
| 32 | 4SM22EE409 | POOJA P | Poo. ia. ? | Poofa. P | |
| 33 | 4SM22EE410 | QURRATH ULLAIN | Queattrilala | QUERATH | |
| 34 | 4SM22EE411 | R RAJU | 2. Scorpe | Q Rouse | |
| 35 | 4SM22EE412 | RAJESH E | Roul | (B) | |
| 16 | 4SM22EE413 | SATHISH M | Sathish.M | Sathishom | |

Head of the Dept

(Dr.Kumaraswamy.B.G)

CERTIFICATES



Certificate Of Participation

This is certified that

Ms./Mr. MANJUNATHA: YADAN J.

of XI. Semester, Department of Electrical & Electronics Engineering

SJM Institute of Technology, Chitradurga.

has actively participated in 3 days workshop on

"An overview of Electric Vehicles & Simulation using MATLAB"

organized by Department of E & EE, SJM Institute of Technology, Chitradurga.

in collaboration with

Abeyaantrix Softlab OPC Pvt. Ltd., Davanagere

from 15th June to 17th June 2023.

Mr. Shivaraj V.S.
Product Application Manager
Abeyaantrix Softlab OPC Pvt Ltd.

Dr. Kumaraswamy B G HOD, Department of E&EE SJMIT, Chitradurga Dr. Bharath P B
Principal
SJMIT, Chitradurga

Abeyaantrix Softlab, #1659/5, 2nd floor, NN Complex, Beside Coffee Day, Vidyanagar 1st Stop, Davangere-05 Contact: 9972140390, Email: reachus@asoftlab.com, visit: www.asoftlab.com

Abeyaantrix Softlab

(opc) Pvt Ltd.











Certificate Of Participation

This is certified that

Ms./Mr. ABHILASH:T

of X. Semester, Department of Electrical & Electronics Engineering

SJM Institute of Technology, Chitradurga.

has actively participated in 3 days workshop on

"An overview of Electric Vehicles & Simulation using MATLAB"

organized by Department of E & EE, SJM Institute of Technology, Chitradurga.

in collaboration with

Abeyaantrix Softlab OPC Pvt. Ltd., Davanagere

from 15th June to 17th June 2023.

Mr. Shivaraj V.S.

Product Application Manager Abeyaantrix Softlab OPC Pvt Ltd. Dr. Kumaraswamy B G

HOD, Department of E&EE SJMIT, Chitradurga Dr. Bharath P B

Principal SJMIT, Chitradurga

Abeyaantrix Softlab, #1659/5, 2nd floor, NN Complex, Beside Coffee Day, Vidyanagar 1st Stop, Davangere-05 Contact: 9972140390, Email: <u>reachus@asoftlab.com</u>, visit: <u>www.asoftlab.com</u>

Photo Gallery

Inaugural Function of the Workshop









Workshop Sessions







Working Lunch





Feedback Session along with Valedictory function and certificate issuing











- According to Vinithashree B, the session was very beneficial and she learned the basics of Matlab and to use different functions of Matlab. She also included that the trainer was very knowledgeable and encouraging all the students throughout the sessions a lot.
- ➤ According to Prajwal V, the session was very helpful and interesting as they have learnt this software tool for the first time which was very effective.

Visit to Hero Electric Show Room, Chitradurga







Key outcomes of the Workshop:

- 1. Overview of electric vehicles
- 2. MATLAB proficiency
- 3. Hands-on experience
- 4. Real world insights
- 5. Collaborative learning
- 6. Awareness of EV Industry

MEDIA COVERAGE



Article in Prajavani Paper



ಚಿತ್ರದುರ್ಗದ ಎಸ್ಜೆಎಂಐಟಿಯಲ್ಲಿ ಆಯೋಜಿಸಲಾದ ಎಲೆಕ್ಟ್ರಿಕ್ ವಾಹನಗಳ ಕುರಿತ 3 ದಿನದ ಕಾರ್ಯಾಗಾರವನ್ನು ಮೆಕ್ಯಾನಿಕಲ್ ವಿಭಾಗದ ಮುಖ್ಯ ಸ್ಥ ಡಾ.ಜಗನ್ನಾಥ್ ಉದ್ಘಾಟಿ ಸಿದರು. ಎಲೆಕ್ಟಿಕಲ್ಎಲೆಕ್ಟ್ರಾನಿಕ್ಸ್ ವಿಭಾಗದ ಮುಖ್ಯ ಸ್ಥ ಡಾ.ಕುಮಾರಸ್ವಾಮಿ ಇದ್ದಾರೆ.

