

Report for AY 2023-24

Name of Club: EV CLUB

VISION

To explore the state-of-the-art technology behind Electric Vehicles and to create an environment conducive to research by encouraging and motivating students to enhance their engineering skills through project-based learning.

MISSION

To unite students in an educational environment and provide them with a platform where they can improve their technical skills with research-based projects based on EV.

| Name of faculty in-charges | | |
|--|---|--|
| 1 | Dr. P B Karandikar | |
| 2 | Dr. Preeti Warriar | |
| 3 | Prof Rajesh Godse | |
| 4. | Prof Sachin Tanwade | |
| Name of Student Secretaries | | |
| 1 | Krishna Mohan Tripathi | |
| 2 | Palak Singh | |
| Budget Allocated by Institute | Rs. 2.5 Lakhs | |
| Sponsorship received | - | |
| Name of activities/events conducted | | |
| Sr No. | Name of activity | Type (Inter college/ Intra college) |
| 1 | E Visualise | Intra |
| 2 | EV Solutions events (Set Of 4 Events Ethon, Drive Link, Circuitcraft, CurrentClash. | Inter |

Reports of all activities/events

Activity No 1

| Required Field | Information to be filled |
|---|---|
| Link for publicity on Social media (Facebook//twitter/Instagram) | https://www.instagram.com/p/C25TGS2IjH4/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== |
| Academic Year | 2023-24 |
| Name of coordinator | Krishna Mohan Tripathi |
| Program/Activity/Name | E Visualise |
| Select one of the Program Types (Workshop/FDP/Seminar/conference/intercollege event/intra-college event/ other) | Intra College event |
| Start Date | 3 rd Feb 2024 |
| End Date | 3 rd Feb 2024 |
| Mode of event (offline/online) | Offline |
| Number of Student Participants | 60 |
| Number of Faculty Participants | 2 |
| Number of External Participants, If any | 0 |
| Expenditure Amount, If any | INR 9000/- |
| Objectives of activity (min 2) | 1. Engage students with EV technology. 2. Test basic understanding of the EV domain among students. |
| Description of activity(50-150 words) | A pen-paper test comprising MCQs and descriptive questions to show your passion towards the EV domain |
| Faculty Name (Faculty involved in organizing the event) | Dr. P B Karandikar |
| Student Name (student involved in organizing the event) | 1. Abhishek Kumar 2. Ashish 3. Vipin 4. Lakhan 5. Karri Abhilash 6. Sushree Arpita 7. Srijan Juyal |
| Video URL (optional) | |

Geotagged Photograph1
(JPEG Format max size 2 Mb
which shows the strength of
audience /participants with
speaker)



Geotagged Photograph2
(JPEG Format max size 2 Mb
which shows the strength of
audience /participants with
speaker)



Session
plan/Brochure/Document/overall
report of the activity
(JPEG or PDF Format max size 2
Mb)

Thrilled to share the success of our recent event, E-Visualise, where we embarked on an immersive journey into the fascinating world of electric vehicles and electronics!



E-Visualise wasn't just a test; it was an engaging exploration that brought together students from diverse departments and academic years. Through a meticulously crafted test structure, participants dived into the intricacies of motor controllers, gearboxes, axles, batteries, fuel cells, wireless charging, accessories, braking systems, steering mechanisms, and more!

Beyond the test, E-Visualise fostered a vibrant environment of interdisciplinary learning and collaboration, where students from various backgrounds exchanged ideas, insights, and experiences. It was a platform not only to expand knowledge but also to ignite curiosity and inspire innovation.

A heartfelt thank you to all participants, faculty, and organizers for their enthusiasm and dedication in making E-Visualise a resounding success! Let's continue pushing the boundaries of technology and sustainability together! 🚀

Activity No. 2

| Required Field | Information to be filled |
|---|---|
| Link for publicity on Social media (Facebook//twitter/Instagram) | https://www.instagram.com/p/C447-00ulQ9/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== |
| Academic Year | 2023-24 |
| Name of coordinator | Krishna Mohan Tripathi |
| Program/Activity/Name | Solution Events <ol style="list-style-type: none"> 1. ETHON 2. DRIVELINK 3. CIRCUITCRAFT 4. CURRENTCLASH |
| Select one of the Program Type (Workshop/FDP/Seminar/conference/intercollege event/intra college event/ other) | Inter College event |
| Start Date | 5 th Apr 2024 |
| End Date | 8 th Apr 2024 |
| Mode of event (offline/online) | Offline |
| Number of Student Participants | 100 |
| Number of Faculty Participants | 4 |
| Number of External Participants, If any | 4 |
| Expenditure Amount, If any | INR 43,000/- |
| Objectives of activity (min 2) | <ol style="list-style-type: none"> 1.Engage students with EV technology. 2. Test basic understanding of EV domain among students. |
| Description of activity(50-150 words) | The EV Club at Solutions 2024 hosted a series of four events aimed at fostering knowledge exchange, hands-on learning, and lively discussions surrounding electric vehicles (EVs). These events attracted participation from both within the college, particularly AIT, and external enthusiasts, contributing to a vibrant atmosphere of innovation and collaboration. |
| Faculty Name (Faculty involved in organizing event) | Dr. Preeti Warriar , Prof Rajesh Godse |
| Student Name (student involved in organizing event) | <ol style="list-style-type: none"> 1. Abhishek Kumar 2. Ashish 3. Vipin 4. Lakhani 5. Karri Abhilash 6. Sushree Arpita 7. Srijan Juyal |
| Video URL (optional) | |

Geo tagged Photograph1

(JPEG Format max size 2 Mb which shows strength of audience /participants with speaker)



Geo tagged Photograph2

(JPEG Format max size 2 Mb which shows strength of audience /participants with speaker)



Session plan/Brochure/Document/overall report of the activity

(JPEG or PDF Format max size 2 Mb)

https://drive.google.com/file/d/11_P_jEYfGUWNpCm5MTmLLzONOt-x0AOM/view?usp=sharing

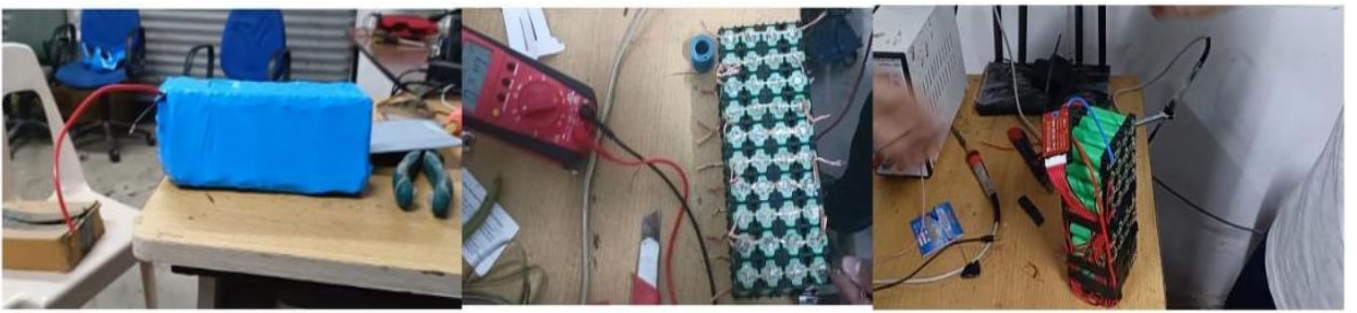
1. Our Projects:

1. Conversion Of IC engine Car to Electric Car



We successfully transformed a Daewoo Matiz Scrap car into an electric vehicle, leveraging its front-wheel-drive system by placing the electric motor and differential to the rear. Powered by a series of twelve 72V lead-acid batteries, our innovative conversion delivers a substantial 50km range. This project not only breathes new life into a retired vehicle but also showcases our commitment to sustainable and eco-friendly transportation solutions.

2. Li-ion Battery Pack



Our recent accomplishment involves the meticulous assembly of a Li-ion battery pack utilizing high-quality 18650 cells, each rated at 3.7V. Through careful design of dimensions and connections, we've successfully crafted a powerhouse that outputs 36V with a substantial 10Ah capacity. What sets our creation apart is the inclusion of a sophisticated Battery Management System (BMS), ensuring not only optimal performance but also precise charge balancing for enhanced longevity and reliability.

3. Electric Cycle



Introducing our innovative project – the Electric Conversion Cycle, where we've seamlessly transformed

a conventional bicycle into an eco-friendly marvel. The heart of this transformation lies in the integration of a powerful 350W hub motor discreetly embedded in the wheel, coupled with a **self-made 36V 10Ah battery (Above-mentioned)** system. This dynamic duo not only propels the cycle effortlessly but also ensures an impressive range of over 50 kilometres on a single charge.

4. Electric Scooter



Embark on a transformative journey with our cutting-edge project – the Conversion of an IC Engine Scooter to an Electric Scooter. We've redefined urban commuting by seamlessly transitioning from traditional internal combustion to a cleaner, more sustainable electric model. Powered by a robust 48V 20Ah battery and an efficient electric hub motor, this eco-friendly scooter not only provides a powerful performance but also ensures a remarkable range of 50 kilometres on a single charge.

Impactful Collaborations:

The collaboration between the EV Club and Vayve Mobility significantly bolstered the club's mission to bridge the gap between academia and industry. Through this partnership, **six** students were offered internships, providing them with hands-on experience and exposure to the latest advancements in the electric vehicle industry. These internships allowed students to apply theoretical knowledge in real-world scenarios, enhancing their practical skills and industry understanding. Moreover, this collaboration highlighted the EV Club's proactive approach to creating opportunities that prepare its members for successful careers, strengthening the connection between academic learning and the dynamic demands of the electric vehicle sector.

