



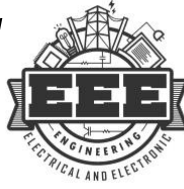
PRAGATI ENGINEERING COLLEGE

(AUTONOMOUS)

ADB Road, Surampalem, 533 437

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ELECTRICAL AND ELECTRONICS ENGINEERING DEPARTMENT



Academic year: 2024-25

Date: 10.07.2024

CIRCULAR

We are happy to inform you that the Awareness on “ **ELECTRIC SHOCKS** ” is scheduled to be conducted by Electric Vehicles Club. The Lecture will be delivered by Club Members of EVC

Every students should participate in the event as per the Schedule time below at Mechanical block MS-13.

Date & Time of Event : 11.07.2024 @ 2:00 - 4:00 PM

Venue : Mechanical Block -MS-13

HOD-EEE



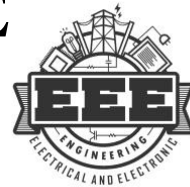
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ELECTRICAL VEHICLES CLUB REPORT

AWARENESS ON ELECTRIC SHOCKS

Introduction

The Pragati Engineering College EV Club is dedicated to promoting safe and sustainable practices in the field of electrical engineering, particularly with a focus on electric vehicles (EVs). As electricity is the core technology driving EVs, ensuring awareness of electrical hazards is paramount. This report aims to educate the college community about electric shock, its potential dangers, and essential safety precautions to prevent such incidents.

Understanding Electric Shock

Electric shock occurs when an unintended current passes through the human body. This current can disrupt vital bodily functions like muscle control, heart rhythm, and breathing. The severity of the shock depends on several factors, including:

- * **Current Strength:** Higher current flow through the body results in more severe shock.
- * **Path of Current:** The path the current takes through the body determines the affected organs and the severity of the impact.
- * **Duration of Contact:** The longer the contact with the electrical source, the greater the potential for harm.

Common Causes of Electric Shock in Engineering Environments

- * **Faulty Equipment:** Damaged electrical tools, appliances, or wiring can create leakage currents that can cause shock.
- * **Improper Grounding:** Inadequate grounding of equipment can lead to stray voltage on metal casings, posing a shock hazard.



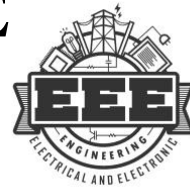
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* **Improper Use of Extension Cords:** Overloaded or damaged extension cords increase the risk of overheating and electrical shock.

* **Working with Live Circuits:** Performing maintenance or repairs on live electrical systems is extremely dangerous and can result in severe shock.

* **Exposure to High Voltage:** Accidental contact with high voltage lines or equipment can cause immediate and potentially fatal shock.

Effects of Electric Shock

The effects of electric shock can range from mild to life-threatening, depending on the factors mentioned above. Here are some potential consequences:

* **Muscle Contractions:** Electric current can cause involuntary muscle contractions, leading to difficulty breathing, falls, and loss of control.

* **Burns:** Skin contact with electrical current can cause thermal burns at the entry and exit points.

* **Cardiac Arrest:** In severe cases, electric shock can disrupt the heart rhythm, potentially causing cardiac arrest.

* **Electrocution:** In the worst-case scenario, electric shock can lead to electrocution, which is the cessation of all vital functions and death.

Electrical Safety Precautions

By adopting safe practices, we can significantly reduce the risk of electric shock. Here are some essential precautions to follow:

* **Always Use Properly Grounded Equipment:** Ensure all tools and appliances have proper grounding to prevent the buildup of stray voltage.



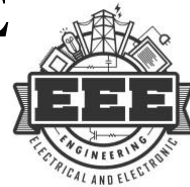
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- * **Inspect Equipment Regularly:** Regularly inspect electrical cords, tools, and appliances for damage or wear and tear. Replace any faulty equipment immediately.
- * **Use GFCI Outlets:** Ground Fault Circuit Interrupter (GFCI) outlets provide additional protection by automatically cutting off power in case of a ground fault, preventing shock.
- * **Turn Off Power Before Maintenance:** Always turn off the power at the source before performing any electrical work or maintenance.
- * **Use Proper Personal Protective Equipment (PPE):** Wear appropriate gloves, safety glasses, and insulated tools when working with electricity.
- * **Never Work Alone:** When working on live electrical systems, always have a qualified partner present to assist in case of an emergency.
- * **Know Your Limits:** If you are unsure about a particular electrical task, seek help from a qualified electrician.

The EV Club's Role in Promoting Electric Shock Awareness

The Pragati Engineering College EV Club can play a crucial role in promoting electric shock awareness within the college community. Here are some potential initiatives:

- * **Organize workshops and seminars:** Conduct workshops on electrical safety practices specifically focused on working with EVs.
- * **Develop educational materials:** Create posters, infographics, and online resources that educate students and staff about electric shock risks and prevention.
- * **Partner with safety personnel:** Collaborate with the college safety department to organize joint training sessions for students and staff.



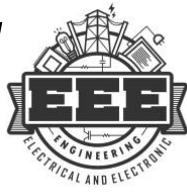
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- * Organize mock drills: Conduct mock drills simulating electric shock incidents to help students understand emergency procedures.
- * Promote a culture of safety: Encourage open communication and reporting of any electrical hazards observed in college workshops or laboratories.

Conclusion

Electricity is a powerful tool that can revolutionize transportation through electric vehicles. However, ensuring safety is paramount. By raising awareness about electric shock and promoting safe practices, the Pragati Engineering College EV Club can contribute to a safer environment for everyone working with and interacting with electrical systems. Remember, a healthy respect for electricity is essential for a positive and productive experience in the field of engineering, especially with the growing importance of electric vehicles.

Total - 40 students participated in this Event



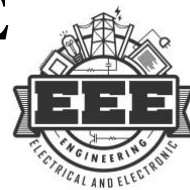
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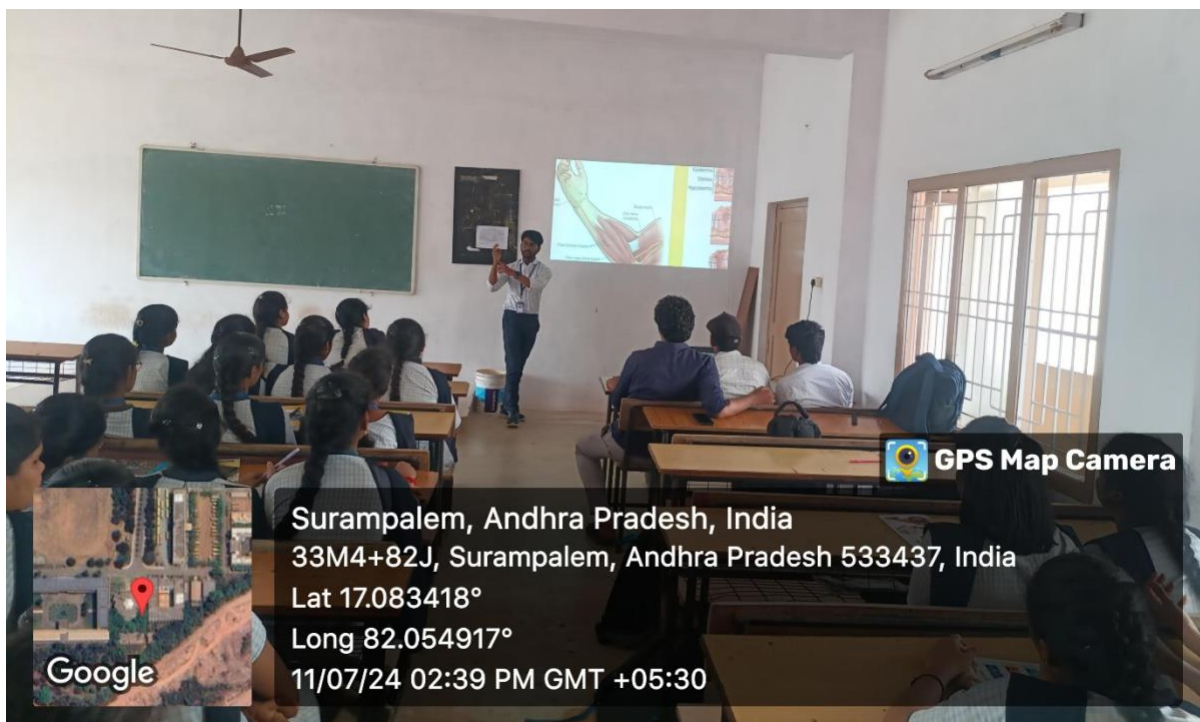
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Photos:





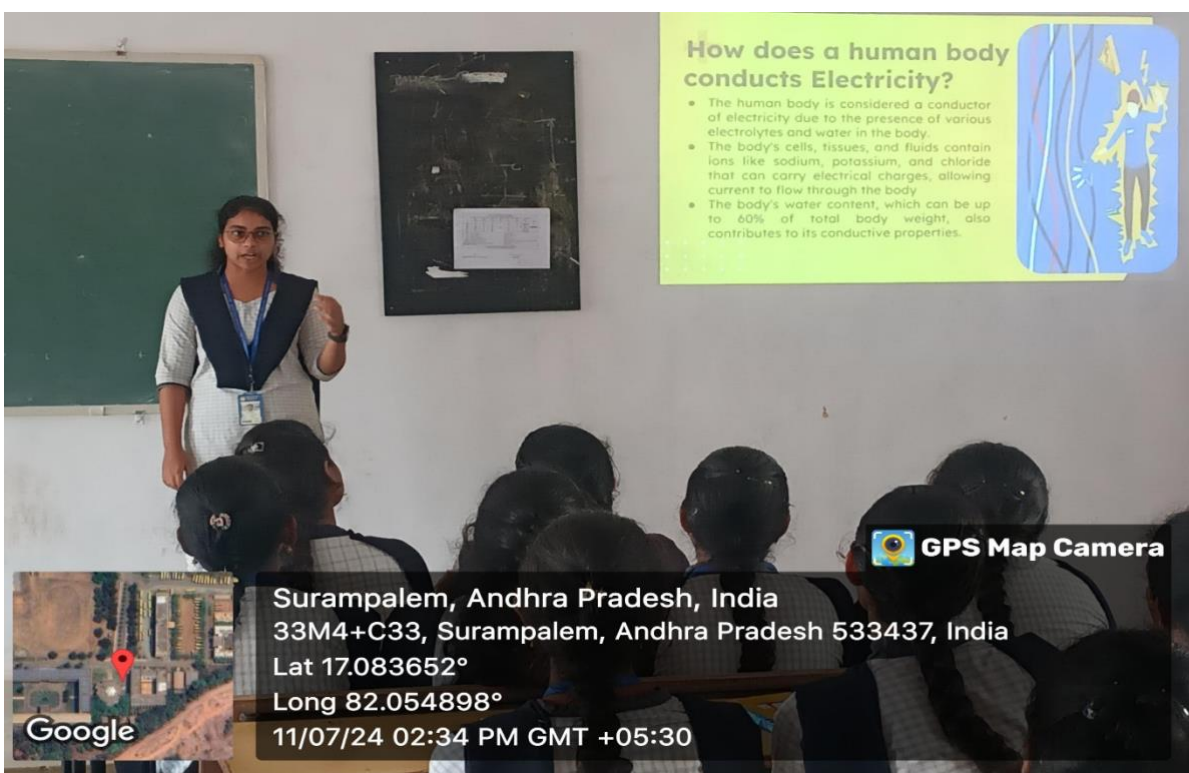
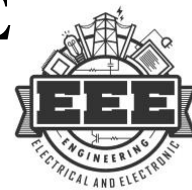
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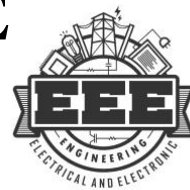
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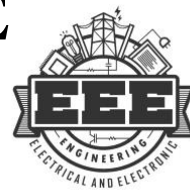
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EV CLUB COORDINATOR

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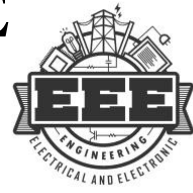
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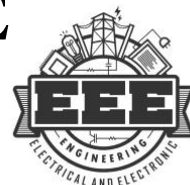
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AWARENESS ON ELECTRIC SHOCKS

Protecting Yourself from Shocks and
Hazards

11 JULY, 2024
AT MS - 12

BY
ELECTRIC VEHICLES CLUB

