# MAR BASELIOS CHRISTIAN COLLEGE OF ENGINEERING AND TECHNOLOGY, PEERMADE

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### REPORT ON

# WEBINAR

## EV CHARGER INSTALLATION
## ABOUT THE SESSION

Organized By: Electrical and Electronics

Department Date: 08-August-2024

Venue: Google Meet

Attendees: Students of Electrical and Electronics Engineering

# INTRODUCTION

The **Department of Electrical and Electronics Engineering** organized an insightful webinar on the topic **"EV CHARGER INSTALLATION"**, presented by **Er. SOORYA KIRAN**, a renowned expert in the field of EV diagnostics and data analysis to optimise battery performance. The webinar aimed to provide students with an in-depth understanding

of the importance EV Charger installation.

As the global shift toward sustainable transportation accelerates, the adoption of electric vehicles (EVs) is on the rise. This transition has created an urgent need for accessible, reliable, and efficient EV charging infrastructure. Installing EV chargers is no longer a niche concern—it is a critical component of urban planning, residential and commercial development, and energy strategy.

This report provides a comprehensive overview of EV charger installation, focusing on the technical, regulatory, and practical considerations involved. It outlines the different types of EV chargers, site selection criteria, electrical requirements, and safety standards. Additionally, the report explores cost factors, potential incentives, and the role of smart technology in managing energy usage..

## SYNOPSIS OF THE PROGRAM

The Department of Electrical and Electronics Engineering organized a webinar on the topic **"EV CHARGER INSTALLATION"**, conducted by **Er. Soorya Kiran**, an experienced professional in the field of EV. The webinar aimed to introduce students to the essential principles and practices involved in the EV charger installation processes used across electrical and electronics industries.

The EV Charger Installation Program is designed to equip participants with the essential knowledge and practical skills required to plan, install, and maintain electric vehicle charging stations. As the demand for EV infrastructure grows, this program addresses the technical, regulatory, and logistical aspects of charger deployment across residential, commercial, and public settings.Through a mix of presentations, real-world case studies, and Q&A sessions, participants will gain actionable insights into EV infrastructure planning. This program is ideal for electricians, contractors, facility managers, urban planners, and anyone involved in the transition to clean transportation solutions.

**PO JUSTIFICATIONS:**

**PO1 Engineering Knowledge**

Participants apply fundamental electrical and engineering concepts in understanding EV charger types, load calculations, and power requirements.

**PO2 – Problem Analysis**

Learners identify site-specific challenges (e.g., power limitations, space constraints) and develop suitable installation strategies.

**PO3 – Design/Development of Solutions**

The program enables participants to design effective EV charging setups considering safety, scalability, and user needs.

**PO4 – Conduct Investigations**

Participants are trained to systematically assess and investigate various site-specific factors that affect EV charger installation.

**PO5 – Modern Tool Usage**

Participants gain exposure to industry-standard tools and software for load analysis, installation planning, and monitoring.

**PO6 – The Engineer and Society**

As engineers involved in EV charger installation, participants will develop an acute awareness of how their work directly impacts society, particularly in the transition to sustainable, clean energy. The installation of EV chargers contributes to reducing carbon emissions, fostering green energy, and promoting a cleaner, more sustainable transportation system.

**PO8 – Ethics**

The program highlights the role of EVs and clean energy in reducing carbon emissions, promoting environmentally responsible choices.

**PO10 – Communication**

The program enhances the ability to clearly communicate technical plans, safety instructions, and cost justifications to clients or regulatory bodies.

**PO12 – Life-Long Learning**

As EV technology rapidly evolves, the program emphasizes the need for ongoing learning to stay updated with industry standards and innovations.

**PSO JUSTIFICATIONS:**

**PSO1 Design, Analyze, and Test Electrical Systems**

Graduates will develop the skills to design electrical systems for the installation of electric vehicle chargers. This includes calculating power requirements, designing circuits, and ensuring that the electrical infrastructure can support the charging load. They will also be proficient in analyzing the performance of these systems through simulations and real-world

testing to ensure optimal functionality and safety.

**PSO2 – Control, Analog, and Digital System Functions**

Graduates will develop the capability to design and integrate control systems, analog, and digital components necessary for the operation of electric vehicle chargers. This includes power control, monitoring, and communication between the charger and connected devices.

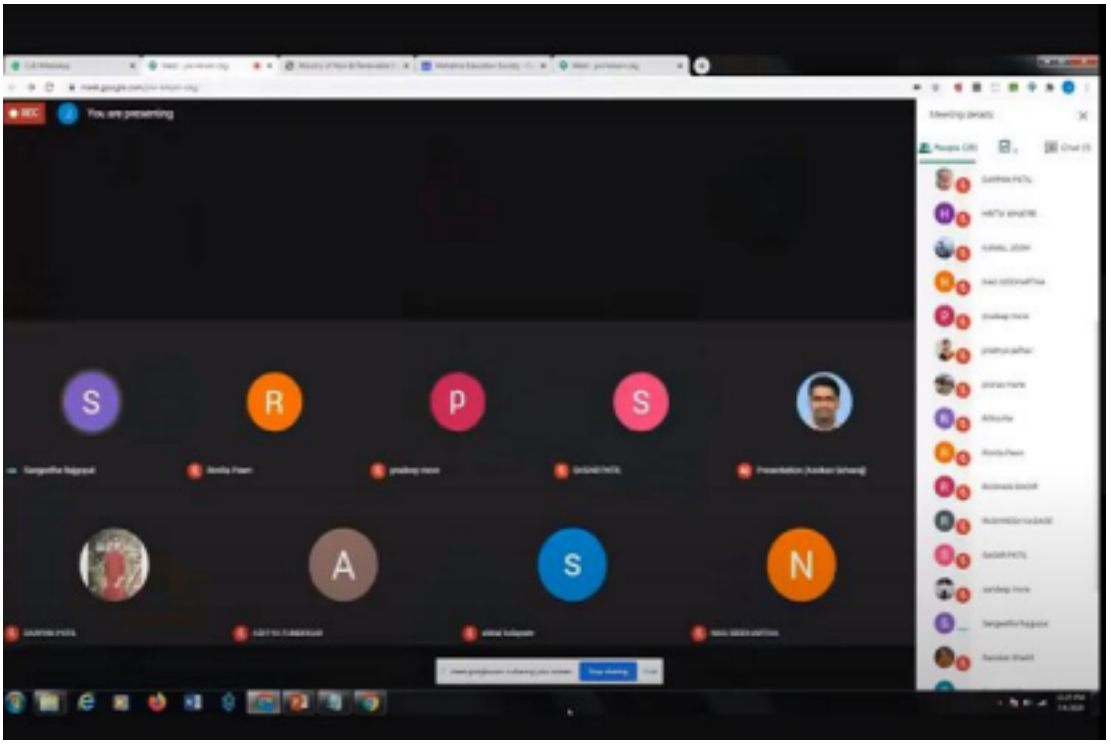
**OUTCOME:**

After attending the webinar on **"EV CHARGER INSTALLATION"**, the participants were able to:

- Gained a clear understanding of the different types of EV chargers (Level 1, Level 2, DC fast chargers) and their appropriate applications.
- Learned how to assess a site for charger installation, including electrical load requirements, space considerations, and user accessibility.
- Understood the installation process, from planning and permitting to wiring and final testing.

Become familiar with local regulations, safety codes, and standards that govern EV charger installations.

**PHOTOS:**




# POSTER:


MAR BASELIOS CHRISTIAN
COLLEGE OF ENGINEERING & TECHNOLOGY
KUTTIKKANAM, PEERMADE
WEBINAR;
EV charger installation
Join us for a session on setting up Electric vechicle charging station - covering installation ,safety and standards ,Whether you are a begineer or proffesional ,this webinar will be energize your knowledge
SPEAKER;
SOORYA KIRAN
(Electrical engineer)
8 AUG 2024 (6:30 - 9:00 pm)
online secssion
NBA
NAAC

## CONCLUSION:

The webinar on **“EV Battery Installation”** delivered by **Er. Soorya Kiran** was highly informative and relevant to the academic and professional development of electrical engineering students. The session provided valuable insights into the Importance of proper EV Charger Installation,As electric vehicles become more mainstream, the need for accessible and efficient charging solutions will only continue to grow. Whether you're a contractor, developer, property manager, or simply someone interested in sustainable technology, your role in this transition is vital.

Remember, proper planning, compliance with safety standards, and staying informed about the latest technologies and incentives are key to successful EV charger deployment.

Overall, the session enriched the participants’ knowledge and encouraged them to adopt a mindset of precision, responsibility, and continuous improvement—core attributes of a successful professional in the field of electrical and electronics engineering.