1.3.2 Number of courses that includes experiential learning through project wok/field work/ internship during the last year

DEPT: EEE **Academic Year: 2023-2024**

Sl.No	Description	Page No.
1.	Mapped Subject List	2-3
2.	Project Work Details	4-63
3.	Field Work Details	64-115

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1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during the last year

Sl. No	Name of the Course	Course Code	Program Code	Program Offering	Project Work	Field Work	Intern -ship	Pg.No
2023-2024								
1.	Communicative English	HS8151	105	B.E Electrical and Electronics Engineering	✓			4-115 (P)
2.	Engineering Mathematics – I	MA8151	105	B.E Electrical and Electronics Engineering	✓			27-30 (P)
3.	Engineering Chemistry	CY8151	105	B.E Electrical and Electronics Engineering	✓			4-115(P)
4.	Technical English	HS8251	105	B.E Electrical and Electronics Engineering	✓			4-115 (P)
5.	Engineering Mathematics – II	MA8251	105	B.E Electrical and Electronics Engineering	✓			8-12 (P)
6.	Circuit Theory	EE8251	105	B.E Electrical and Electronics Engineering	✓			28-31 (P)
7.	Electrical Machines - I	EE8301	105	B.E Electrical and Electronics Engineering	✓			28-31 (P), 105-115 (FW)
8.	Electronic Devices and Circuits	EC8353	105	B.E Electrical and Electronics Engineering	✓	✓		20-23 (P) 105-115 (FW)
9.	Power Plant Engineering	ME8792	105	B.E Electrical and Electronics Engineering	✓			20-24 (P)
10.	Electrical Machines - II	EE8401	105	B.E Electrical and Electronics Engineering	✓			40-44(P) 99-115 (FW)
11.	Transmission and Distribution	EE8402	105	B.E Electrical and Electronics Engineering	✓	✓		36-39 (P) 99-110 (FW)

Sl. No	Name of the Course	Course Code	Program Code	Program Offering	Project Work	Field Work	Intern -ship	Pg.No
12.	Control Systems	IC8451	105	B.E Electrical and Electronics Engineering	✓	✓		32-35 (P)
13.	Power System Analysis	EE8501	105	B.E Electrical and Electronics Engineering	✓			52-55(P) 99-115 (FW)
14.	Microprocessors and Microcontrollers	EE8551	105	B.E Electrical and Electronics Engineering	✓	✓		54-58 (P) 105-115 (FW)
15.	Power Electronics	EE8552	105	B.E Electrical and Electronics Engineering	✓	✓		24-27 (P)
16.	Solid State Drives	EE8601	105	B.E Electrical and Electronics Engineering	✓	✓		54-58 (P) 64-93 (FW)
17.	Embedded Systems	EE8691	105	B.E Electrical and Electronics Engineering	✓	✓		32-34 (P) 64-93 (FW)
18.	Protection and Switchgear	EE8602	105	B.E Electrical and Electronics Engineering	✓			58-61 (P)
19.	Power System Operation and Control	EE8702	105	B.E Electrical and Electronics Engineering	✓	✓		62-65 (P) 105-110 (FW)
20.	Renewable Energy Systems	EE8703	105	B.E Electrical and Electronics Engineering	✓	✓		62-65 (P) 105-110 (FW)
21.	Electric Energy Generation, Utilization and Conservation	EE8015	105	B.E Electrical and Electronics Engineering	✓	✓		62-65 (P) 105-110 (FW)

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AI ENABLED DRONE TO TRACK THE HUMAN MOVEMENTS DURING DISASTER

A PROJECT REPORT

Submitted by

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V.VARSHINI (812420105018)

G.YUVASHRI (812420105020)

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IN

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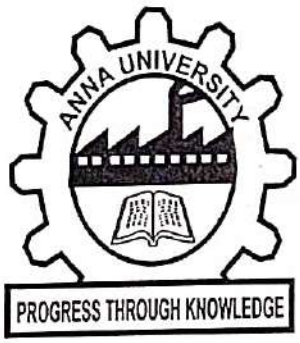

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MAY 2024

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S. Pandian 13/05/2024

INTERNAL EXAMINER

EXTERNAL EXAMINER

ABSTRACT

The main aim of this project is to design the AI enabled drones. In the face of natural disasters and humanitarian crises, swift and effective response is critical to saving lives and mitigating damage.

AI-enabled drones offer a promising solution for tracking human movements during such disasters, providing real-time surveillance, object detection, and mapping capabilities. This project presents a conceptual framework for the deployment of AI drones in disaster response scenarios. The drones are equipped with advanced AI algorithms for object detection and recognition, enabling them to identify and locate individuals amidst disaster debris.

Additionally, they create detailed maps of the affected area, aiding rescuers in navigation and resource allocation. The data collected by the drones are analyzed to gain insights into the extent of damage and the distribution of survivors, facilitating more efficient rescue operations.

Overall, AI-enabled drones have the potential to significantly enhance disaster response efforts by providing invaluable situational awareness and support to rescue teams on the ground.

CONCLUSION

The integration of AI-enabled drones for tracking human movements during disasters presents a transformative approach to disaster response and management. By leveraging advanced algorithms and sensor technologies, these drones offer real-time surveillance, object detection, and mapping capabilities that significantly enhance the effectiveness and efficiency of rescue operations.

Through the deployment of AI drones, responders gain invaluable situational awareness, allowing them to identify and locate survivors amidst challenging conditions quickly. The creation of detailed maps aids in navigation through hazardous terrain and facilitates the allocation of resources to the area's most in need. Furthermore, the analysis of data collected by drones provides insights into the extent of damage and the distribution of survivors, enabling responders to prioritize their efforts effectively.

The AI-enabled drones have the potential to revolutionize disaster response efforts, offering a powerful tool for saving lives, mitigating damage, and restoring communities in the aftermath of disasters. With continued research, development, and collaboration, the integration of AI drones into disaster response protocols can contribute to building more resilient and responsive systems for the future.

DESIGN AND DEVELOPMENT OF WRITING ROBOT USING SPEECH PROCESS

A PROJECT REPORT

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ABSTRACT

India is liable to give education to disabled people as they have been facing many issues in writing examinations with the help of scribe which increases the gap between education and disabled students. Nowadays education is mandatory for each human in the world, but physically challenged people have not been able to get into the common Education platform that others get.

The aim of our project is to create a writing robot utilizing speech processing technology to assist students with writing disabilities without any physical support. The robotic system integrates with a voice recognition system, enabling users to dictate text via a microphone while the robot autonomously performs writing tasks. Already available digital pens write recorded documents, but they are not capable of writing content lively. But this writing robot is a wholesome approach where the pen assures flawless and accurate writing according to the voice recognition and few extra features for blind and deaf peoples.

In this System, the input voice will be given to the System using Bluetooth module via the Bluetooth Voice Controller Mobile Application. The writing mechanism fully comprises servo motor and stepper motor for the Movement of pen. The mechanism is programmed with a speech recognition system and allows the user to write what she/he speaks. The robotic system is programmed to write down the words that the individual pronounces to the microphone. To perform the writing operations, the robotic system will be fitted with a pen. Finally, the output as pen writes according to the voice received by Bluetooth. Proposed prototype can be a good thing for the physically challenged people like deaf, blind and handless to write their exams.

CONCLUSION

The writing robot was developed which can greatly benefit to physically challenged person. This technology can provide a more accessible and convenient way for people with disabilities or those who prefer to use speech as their primary mode of communication to write and express themselves.

With advancements in speech recognition and natural language processing, writing robots can accurately transcribe speech into text and perform tasks such as proofreading and formatting. This technology has the potential to enhance the independence and productivity of individuals and can be applied in various fields such as education, healthcare, and business. This project helps handicapped people, medical doctors, and blind people.

Blind people and handicapped people to write the exams on their own. By following this process, we can avoid a lack of scribes due to heavy paperwork and also maintain their independence. And it also allows blind people to assist them during their exams without any third-party support. Thus, this project helps blind people write the exams on their own.

VORTEX TYPE BLADELESS WINDMILL

A PROJECT REPORT

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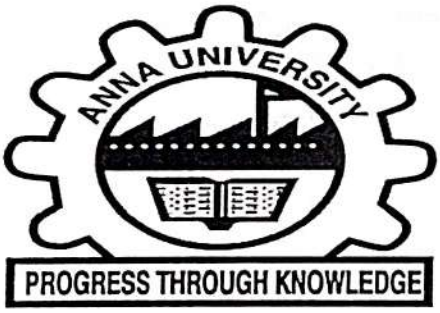

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INTERNAL EXAMINER

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ABSTRACT

Generation of power using Vortex bladeless wind turbine which gives high efficiency and minimal maintenance cost. The bladeless windmill works on the phenomenon of vortex shedding to capture the energy produced. Structures are designed to minimize mechanical failures and to convert vortex induced vibration into electricity. A wind turbine is a machine that converts the kinetic energy in wind into mechanical energy. If the mechanical energy is used directly by machinery, such as a pump or grinding stones, the machine is usually called a windmill. They can be made many different ways with buckets, paddles, sails, and oil drums. The Savonius rotor is designed by S-shaped rotor, which is to turn relatively slowly and provide high torque. They can be useful for grinding grain, pumping water, and many other tasks. Today India have fifth largest installed wind power capacity in the world and installation of conventional windmill is limited.

CONCLUSION

Our project is used to increase percentage of renewable energy for electrical power generation and provides electrically as well as economically efficient power to the consumers. Hence, we have to spread this concept because only renewable energy can survive the world in coming future and in that wind, energy is efficient option. The project carried out by us made an impressing task in the field of electricity department. It is used for to produce the current in windmill unit. The country like India which having more rural population and condition suitable for wind generation through bladeless wind turbine is the best solution.

HAND GESTURE CONTROL WHEELCHAIR WITH OBSTACLE AND FALL DETECTION

A PROJECT REPORT

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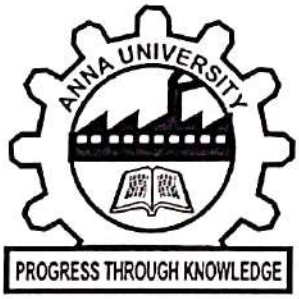

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ANNA UNIVERSITY::CHENNAI 600025

MAY 2024

ANNA UNIVERSITY: CHENNAI 600 025

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13/05/2024

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13/05/2024

EXTERNAL EXAMINER

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ABSTRACT

This project approaches to enhance the mobility and safety of individuals with limited mobility by introducing a hand gesture controlled wheelchair system integrated with obstacle detection and fall prevention mechanisms. The proposed system utilizes machine learning algorithms to interpret hand gestures, allowing users to navigate the wheelchair with intuitive gestures. Additionally, the wheelchair is equipped with sensors to detect obstacles in the path and autonomously navigate around them.

Moreover, a fall detection system is implemented using accelerometer and gyroscope sensors to detect sudden changes in orientation indicative of a fall, triggering immediate assistance or preventive actions. Experimental results demonstrate the effectiveness and reliability of the proposed system in providing enhanced mobility and safety for wheelchair users, offering a promising solution for improving their quality of life.

CHAPTER 9

CONCLUSION

The problem for a hand-gesture controlled wheelchair is to provide a more natural and intuitive way for people with disabilities to control their wheelchairs, Traditional wheelchairs are controlled by joysticks or other manual input devices, which can be difficult and tiring to use for people with limited mobility. Hand gesture control offers a more efficient and user-friendly alternative, allowing users to control their wheelchairs simply by moving their hands.

There are several challenges that need to be addressed in order to develop a successful hand- gesture controlled wheelchair. One challenge is to develop a sensor system that can accurately and reliably detect hand gestures.

Another challenge is to develop a control algorithm that can translate hand gestures into wheelchair movements. Finally, the wheelchair must be designed in a way that is safe and easy to use for people with disabilities. Despite these challenges, hand-gesture controlled wheelchairs have the potential to revolutionize the way that people with disabilities move around.

By providing a more natural and intuitive way to control their wheelchairs, hand gesture control can help people with disabilities to live more independent and active lives.

POWER GENERATION USING SPEED BREAKER AND CHARGING THE EV's THROUGH NON TOUCH MODE

A PROJECT REPORT

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MAY 2024

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INTERNAL EXAMINER

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EXTERNAL EXAMINER

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ABSTRACT

The combined project aims to revolutionize transportation infrastructure by integrating two innovative technologies namely Wireless Power Transmission for Electric Vehicles (WPT-EV) and Electrical Power Generation from Speed Breakers.

With the rising global concern for environmental sustainability and the transition towards greener energy solutions, this project proposes a holistic approach to address key challenges in the transportation sector.

By leveraging wireless power transmission, the project seeks to enhance the accessibility and efficiency of electric vehicle charging, while also harnessing renewable energy from speed breakers to contribute to the power grid.

This integrated system not only promotes sustainable transportation practices but also offers a practical solution to reduce carbon emissions and foster energy conservation.

Through this project, we aim to demonstrate the potential of innovative technologies to transform transportation infrastructure and pave the way towards a cleaner and more sustainable future

CONCLUSION

This project is made with pre planning, that it provides flexibility in operation. This project "ELECTRICAL POWER GENERATION FROM SPEED BREAKER AND WIRELESS TRANSMISSION OF POWER" is designed with the hope that it is very much economical and help full to many industries and workshops.

This project helped us to know the periodic steps in completing a project work.

This project has also reduced the cost involved in the concern. Project has been designed to perform the entire requirement task which has also been provided. Thus we have completed the project successfully.

DIGITAL TWIN BASED REAL TIME VISION SYSTEM FOR TRANSFORMER MONITORING AND RECTIFICATION

A PROJECT REPORT

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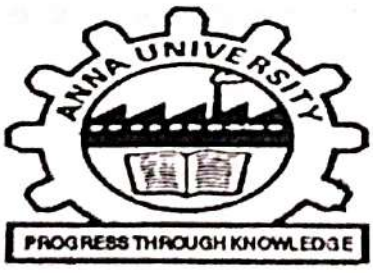

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ABSTRACT

A Digital Twin (DT) is a virtual representation of a physical object which plays an important role in the digital transformation of industry, where an important requirement for intelligent manufacturing is cyber-physical integration. One of the objectives is to improve the performance of the real system using the information generated in the virtual part. This project shows the development of a low-cost DT (Digital Twin) used for monitoring the state of the process and the product development. The increasing digitalization and advancement in information communication technologies has greatly changed how humans interact with digital information The Project proposes real-time thermal power plant transformer data monitoring, and Digital Twin Tool Monitoring used as screening tool to help identify Fault present in the thermal power plant transformer. In this project, Remote monitoring system is proposed to help operators with low knowledge and experience level comprehend digital twin data of a device and interact with the device.

CHAPTER- 7

CONCLUSION

The proposed technique with results has shown that the protection scheme works properly with accuracy, sensitivity of this scheme very high for the abnormal and faulty conditions. Transformer Health Monitoring will help to identify or recognize unexpected situations before any serious failure which leads to greater reliability and significant cost savings. If transformer is in abnormal condition we can know from anywhere. No human power need to monitor the transformer. Details about the transformer are automatically updated in webpage when the transformer is in abnormal condition.

AN ENHANCED MODEL FOR DETECTING OVERHEAD TRANSMISSION LINE FAULTS

A PROJECT REPORT

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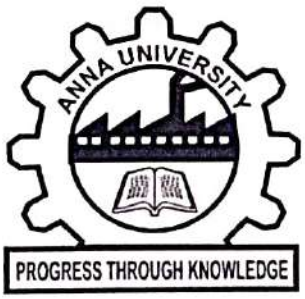

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ABSTRACT

Transmission lines are vital lifelines of modern society, delivering electricity to homes, businesses, and essential infrastructure. However, failures in these lines can lead to power outages, equipment damage, and even safety hazards. Timely detection and response to transmission line faults are crucial to minimize their impact. Yet, traditional methods often relay on manual inspections or reactive measures, leading to delays and potential consequences.

This project presents a cost-effective and reliable system for detecting and notifying personnel of faults in transmission lines. The system employs intelligent monitoring to identify four critical events: line shorts, line disconnection, line-to-ground faults, and fire hazards. Upon detecting any of these events, the system promptly sends an SMS notification to predetermined recipients, alerting them to the issue and its location.

By continuously monitoring key electrical, the system accurately detects line shorts and disconnections. Additionally, it utilizes ground fault detection techniques to identify line-to-ground faults, which can be particularly damaging. Furthermore, the system incorporates fire sensors to proactively detect fire hazards near the transmission line, preventing potential equipment damage and safety risks. The SMS notification feature utilizes GSM technology to ensure timely and reliable communication, regardless of geographical limitations.

By integrating intelligent monitoring, fire detection, and SMS notification, the system promotes improved reliability, safety, and efficiency in power transmission operations.

CONCLUSION

From this Project, A GSM-based Transmission Line Monitoring And Indication System That Transmits Information To the control room via SMS. It aids with the early detection of a defect and thereby prevents the improper usage of electricity. The project includes a continuous monitoring system that combines GSM communication and microcontroller technologies. The system is effective in the sense that a complete online monitoring of the distribution transformer is achieved through this system. The use of GSM modem helps in effective message signaling to the receiver. It also depicts the software flow and the hardware architecture. As a result of this Project it will save a significant amount of electricity and making electricity available to a larger number of users in a densely populated country.

FUZZY LOGIC CONTROLLED BOOST INVERTER WITH STATCOM TO IMPROVE POWER QUALITY IN GRID

A PROJECT REPORT

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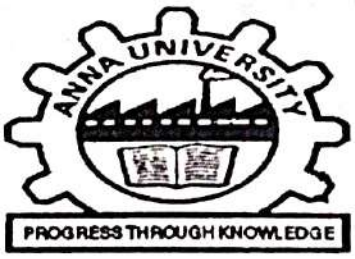

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ABSTRACT

The increasing integration of renewable energy sources and the evolving grid infrastructure have led to a growing need for advanced control strategies to enhance the performance and stability of power electronic converters. This project proposes a novel approach by combining a Boost Inverter (BI) with a Static Synchronous Compensator (STATCOM) employing Fuzzy Logic Control (FLC) for applications in unbalanced grid scenarios.

The Boost Inverter is known for its ability to efficiently generate single-phase AC output from a DC source, making it suitable for renewable energy systems. The presence of grid voltage imbalances, the performance of such inverters can be compromised. To address this issue, a STATCOM is integrated into the system to mitigate voltage sags, swells, and unbalance in the grid.

Simulations and experimental results demonstrate the effectiveness of the proposed Fuzzy Logic Controlled Boost Inverter with STATCOM in maintaining a stable and balanced output voltage, even in the presence of grid asymmetry. The system exhibits improved performance in terms of power quality and enhanced grid integration for renewable energy sources.

CHAPTER 9
CONCLUSION

The integration of a Fuzzy Logic Controlled Boost Inverter with STATCOM presents a promising approach to enhance power quality in electrical grids. The Boost Inverter, controlled by the FLC, offers efficient power conversion and voltage boosting capabilities. Additionally, the STATCOM provides fast and precise reactive power compensation, further enhancing voltage stability in the grid.

By combining these technologies, the system can effectively address power quality issues such as voltage fluctuations and reactive power imbalance. This leads to improved reliability, reduced downtime, and enhanced performance of electrical grids, ultimately benefiting consumers, utilities, and the environment.

TRANSMISSION OF VIDEO OVER VISIBLE LIGHT USING LI-FI

A PROJECT REPORT

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ABSTRACT

Light Fidelity (Li-Fi) is a wireless technology that utilizes the light to transmit the data, unlike Wired or Wi-Fi. Li-Fi works by modulating the intensity of light emitted by LED bulbs to transmit data.

The main aim of this project is to transmit the video over visible light using Li-Fi technology. It uses light instead of radio frequencies, which has higher data rates and reduced electromagnetic interference. It utilizes the visible light portion in the electromagnetic spectrum (range of 380 nm to 780 nm).

It overcome the issues of Wire and Wi-Fi technology, such as to transmit the data for high speed and secure , the transmission of video using Li-Fi is done.

CHAPTER 9

CONCLUSION

Li-Fi is developing technology, it overcome all the demerits of Wi-Fi. Li-Fi is free from radiation which can be used in the wide range of applications like Hospitals, Industries, Aeroplanes, Radiation restricted area, etc.

In our project We transmitted the video in the range of 110 KB and the duration is 50 seconds - 60 seconds in the distance of 1metre. Time taken to receive the video at the receiver side is 1minute and 30seconds.

Li-Fi uses light waves. So it does not penetrate through walls like Wi-Fi, which can enhance security by confining the signal to specific areas.

Li-Fi networks can implement encryption techniques and advanced security features to protect video data from interception and unauthorized access

DISTRIBUTION SYSTEM RECONFIGURATION USING PSO BASED SIMULATION ON PYTHON

A PROJECT REPORT ON

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ABSTRACT

The power loss in a distribution system is substantially larger than in a high voltage transmission system because to lower voltage, higher reactive current, and radial construction. One of the most common solutions to reduce power loss in the distribution system and improve the voltage profile is grid reconfiguration. The main purpose of this project is to develop a methodology for efficient network reconfiguration in radial distribution systems in order to reduce real power losses and increase bus bar voltages.

In a distribution system, network reconfiguration is a common approach to reduce power loss and improve the voltage profile. Reconfiguration of radial distribution system is a significant way of altering the power flow through the lines. This project presents a novel method to interpret the network reconfiguration problem with an objective of minimizing real power loss and simultaneously, improving the voltage profile in radial distribution. A Particle swarm optimization (PSO) is used to reconfigure and recognize the optimal tie switches for reduction of real power loss in a radial distribution system. Different scenarios of reconfiguration of distributed network are precise to study the performance of the proposed technique. The constraints of voltage and branch current carrying capacity are incorporated in the assessment of the objective function. The proposed method has been tested on IEEE 69-bus systems at different load patterns to demonstrate the performance and effectiveness of the predictable method. The outcomes attained, illustrates that improvement in voltages and a reduction in the real power loss.

CHAPTER 10

CONCLUSION

IEEE 69 bus Power distribution networks play a vital role in ensuring the seamless delivery of electricity from generation sources to end-users. However, these networks often encounter challenges related to power loss, which not only affect operational efficiency but also contribute to increased costs and environmental concerns. In light of these challenges, the present study delves into the efficacy of reconfiguration techniques, specifically leveraging Particle Swarm Optimization (PSO), to mitigate power loss and enhance the performance of power distribution networks.

1. **Pre-Reconfiguration Analysis**: Prior to reconfiguration, the distribution network exhibits significant power loss, adversely impacting operational efficiency and cost-effectiveness. The average voltage profile reflects suboptimal network performance, with deviations observed across various nodes.

2. **Post-Reconfiguration Analysis**: Following the implementation of PSO-based reconfiguration, a notable reduction in total power loss is observed, indicative of the efficacy of the optimization process. The average voltage profile post-reconfiguration demonstrates improved stability and efficiency, with fewer deviations and enhanced uniformity across the network.

In conclusion, the study highlights the significant potential of reconfiguration techniques, particularly those leveraging optimization algorithms such as PSO, in addressing power loss and enhancing the performance of power distribution networks. The findings underscore the importance of proactive measures aimed at optimizing network efficiency and reliability to meet the evolving demands of modern energy system.

AN AUTOMATIED SOLAR TRACKING FOR IRRIGATION SYSTEM

A PROJECT REPORT

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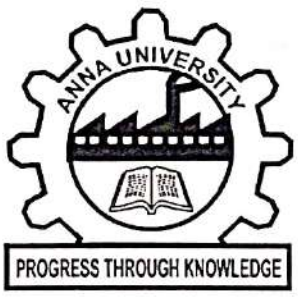

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ABSTRACT

An automated solar tracking for irrigation system, coupled with a solar photovoltaic (PV) system featuring Maximum Power Point Tracking (MPPT), represents a significant advancement in renewable energy utilization for home grid applications. This innovative system dynamically adjusts the orientation of solar panels to maximize exposure to light intensity, ensuring optimal solar energy harnessing throughout the day. By tracking the sun's position, the system can continuously adapt the panels' angle to capture the maximum amount of sunlight, even as the sun moves across the sky. This capability enhances energy generation and promotes greater efficiency in powering the irrigation system. Integration of MPPT technology further enhances the system's efficiency by continually optimizing the electrical operating point of the solar panels. MPPT ensures that the panels operate at their peak power output, regardless of variations in sunlight intensity or temperature. This results in increased energy production from the solar panels, maximizing the system's overall performance.

CONCLUSION

In conclusion, the automated solar tracking for irrigation system, equipped with Maximum Power Point Tracking (MPPT) technology, stands as a significant breakthrough in renewable energy utilization for home grid applications. By dynamically optimizing both solar panel orientation and electrical operating points, the system ensures maximum energy efficiency. This innovative integration not only enhances energy generation but also seamlessly integrates irrigation control, offering a comprehensive solution for sustainable energy and water management in residential settings. The real-time monitoring features of the system play a crucial role in enhancing user engagement and promoting sustainable energy practices. With access to instant feedback on system performance, users can make informed decisions to optimize energy usage and irrigation practices. This user-friendly approach fosters greater awareness and participation in sustainable energy practices, contributing to a more environmentally conscious lifestyle. This integrated approach holds promise for enhancing energy sustainability in residential settings. By leveraging advanced technologies like MPPT and automated irrigation control, the system paves the way for further advancements in renewable energy technologies. It not only reduces dependency on conventional energy sources but also demonstrates the potential for renewable energy to power essential functions like irrigation, offering a glimpse into a more sustainable future for homeowners.

DESIGN OF RAILWAY PLATFORM FOR ACCIDENT PREVENTION

A PROJECT REPORT ON

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ABSTRACT

Railway platforms serve as critical interfaces between trains and passengers, facilitating safe embarkation and disembarkation. However, ensuring platform safety goes beyond mere structural integrity; it involves a holistic approach encompassing design, technology, and operational protocols.

This project presents a conceptual framework for designing railway platforms with a primary focus on accident prevention. Clear visibility and Signage Adequate lighting and prominent signage are essential for guiding passengers and staff, reducing the risk of accidents due to confusion or miscommunication.

In this project implemented the physical barriers or edge protection systems helps prevent accidental falls on platform coming trains. Designing platforms to accommodate passengers with disabilities ensures equitable access and reduces the accidents during boarding and alighting.

CONCLUSION

In conclusion, the design of railway platforms with a primary focus on accident prevention is fundamental for ensuring the safety of passengers, staff, and visitors. Throughout this exploration, we've underscored the significance of incorporating proactive safety measures into every aspect of platform design.

By integrating features such as clear signage, proper lighting, non-slip surfaces, and accessible infrastructure, railway platforms can significantly reduce the risk of accidents such as slips, trips, and falls. Moreover, the implementation of advanced technologies like sensors, automation systems, and real-time monitoring adds another layer of safety by enabling swift responses to potential hazards.

Additionally, the deployment of safety mechanisms such as platform barriers, escalator and lift controls, and emergency stop systems acts as crucial safeguards against accidents related to passenger movement and platform equipment.

DESIGN OF SOLAR CAR WITH BATTERY AND REAL TIME ACCESS

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ABSTRACT

Due to the scarcity of fossil fuels in the future and their negative impact on the environment, an alternative energy source must be discovered. Wind power is a clean and sustainable natural resource that has yet to be fully utilized in the automotive industry. Also, the sun is probably the most important renewable source of energy available today. The electric model system is a renewable energy system, which helps conserve energy by reducing the use of fuel in vehicles. The need for electric vehicles is increasing day by day with the increasing problems of pollution. There are many hybrid vehicles that still require fuel for their primary running functions. So, this system is about to complete electricity of the vehicle using conventional energy such as solar and regenerating energy with a negligible use of fuel. The energy obtained from the solar panel isstored in the lead-acid (primary) battery, which is used for ignition and running purposes. Regenerate energy collected from moving the vehicle wheels is stored for the secondary battery, and when the primary battery energy is low, thesecondary battery energy will be on, and the temperature sensor can be used to monitor the battery's temperature level. If the temperature value is abnormal, thebuzzer will be on, and the battery's energy level and temperature level will be displayed through the LCD display and DC motors used on the vehicle wheels.

CONCLUSION

In conclusion, the hybridization system presented in this project represents a pioneering solution to the impending scarcity of fossil fuels and their detrimental environmental impact. By focusing on achieving complete electric operation while minimizing reliance on traditional fuels, the system offers a sustainable transportation option that aligns with the escalating concerns surrounding pollution and the increasing demand for electric vehicles. Through technological innovation and a commitment to environmental conservation, this eco-friendly solution not only mitigates pollution issues but also contributes to the global effort towards sustainability. Continues addressing of transportation challenges in an era of dwindling fossil fuel reserves and climate change, the implementation of such innovative hybridization systems will play a crucial role in shaping a cleaner, greener, and more sustainable future for generations to come.

DETACHABLE CONVERSION KIT FOR MANUAL WHEELCHAIR TO ELECTRICAL TRIKE

A PROJECT REPORT ON

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ABSTRACT

Mobility of the physically challenged people is a great concern of the society. In most cases, the movement of wheelchairs is controlled with the help of a joystick or by a companion. In most of the developing country, most of the physically disabled people of middle class and lower middle-class families can't afford to buy electric wheel chair as the cost is pretty high.

This Project focuses on designing a detachable kit that convert manual wheelchair into an electrical trike for the physically challenged people to travel from one place to another. In our project we present the implementation of a wheelchair attachment based on a power wheelchair controlled by Hub Motor.

Our project also focuses on the minimization of cost for the conversion of an electric wheelchair with well-structured design. Our project has been designed for the all-possible direction of movements like left, right, straight and back. Moreover, the hub motors are used for the movement of the wheels for the purpose of lower speed movement of chair which will be convenient for the physically challenged.

This project utilizes the power from the lead acid batteries which are rechargeable, harmless, and weightless compared to others available. This work also concentrates on detachable design for use of wheelchair conveniently and efficiently.

CONCLUSION

The detachable conversion kit for manual wheelchairs offers a transformative solution, enhancing mobility and independence for users. Its adaptability and ease of attachment make it a practical choice for those seeking to convert their manual wheelchair into an electrical one without need for purchasing an entirely new chair. By providing motorized assistance, the kit addresses the challenges faced by individuals with limited strength or mobility, allowing them to navigate various terrains with greater ease and comfort.

Its detachable design ensures flexibility, enabling users to switch between manual and electric modes based on their needs and preferences. The detachable design not only enhances the trike's functionality but also promotes sustainability by encouraging multimodal transportation and reducing reliance on single-use vehicles.

Additionally, the integration of electric propulsion contributes to eco-friendly mobility solutions, minimizing carbon emissions and promoting cleaner air in urban environments.

SMART CITY ENERGY MANAGEMENT SYSTEM

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GUNDUR, TIRUCHIRAPALLI - 620 007

ABSTRACT

In the smart city, advanced monitoring systems are implemented to optimize various aspects of urban life. These systems include sensors that detect sunlight levels to adjust street lighting accordingly, ensuring efficient energy usage and safety. Parking alert systems utilize real-time data to guide drivers to available parking spaces, reducing congestion and emissions. Vehicle monitoring technology linked to signal lights, traffic flow and enhancing safety Information updates are displayed on LCD screen across the city, providing residents with timely updates on traffic conditions and other relevant news. The city leverages solar energy sources to power these systems, demonstrating a commitment to sustainability and environmental.

CONCLUSION

In our project, the street light and smart parking can be controlled automatically using Arduino and a timer delay is set to control the glow of alternate loads. The installation cost, operational cost are very less and the output efficiency are high. When compared to other topologies, Arduino plays a vital role in automatic control. Continous working and accurate output efficiency Further we have attached a solar supply with battery to overcome power interruption and energy management. the smart parking can be controlled automatically using Arduino and LCD display is used to the determine the output The installation cost, operational cost are very less When compared to other topologies, Arduino plays a vital role in automatic control. A solar panel with battery used as a source of power supply vital role energy management.

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Recognized by UGC under section 2(f) & 12(B) of UGC Act, 1956
Trichy - Pudukkottai Road, Tiruchirappalli - 620 007. Phone: 0431-2660 301
Website: www.miet.edu E-mail: principalengg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering

30.11.2023

Note: Submitted to the Chairman,

Through Principal,

Respected Sir,

Sub: Requesting Permission to go for Industrial visit to our Second year EEE students –Reg.

It is planned to go for Industrial visit to **Kodaikanal** on 08.12.2023 for our Second year EEE students. The schedule is given below

Industrial visit date	Company name /place
08.12.2023	Kodaikanal Solar Observatory, Indian Institute of Astrophysics, Kodaikanal- 624 103

No. of Boy students	16
No. of Girl students	04
No. of Male Staff accompanying	01
No. of Female Staff accompanying	02

Kindly grant us permission to go for industrial visit.

Thanking you

Industrial Visit Coordinator
Dr. V. Sivakami
AP/EEE

HoD/EEE

Principal

Chairman

PRINCIPAL
M.I.E.T. ENGINEERING COLLEGE
GUNDUR, TIRUCHIRAPALLI - 620 007

KSO/346/OR/23/ Dec 8 (22+2) M.I.E.T. Engineering College, Trichy

Exter

kso.outreach
to me, Chrisphin, M.RAJALINGAM, E.EBENEZER

Dear Sir/Madam,

Greetings to you from Kodaikanal Solar Observatory (KSO).

On behalf of the public outreach and Museum team of KSO, I am writing this mail. We received your mail, we are glad to inform you that your visit to KSO is approved for December 8, 2023, of 22 students and 2 escorting staffs. Usage of Cameras & Cellphones inside the visitor center is not allowed. However, staff members and students can take group pictures on campus and outside the museum for reporting purposes.

For one Department, one Educational Visit Certificate will be issued.

The entrance ticket is Rs.50 per head.

Kindly report at the main security gate at 9:00 am.

For details contact (24x7) (+91) 4542 240588.

This is the confirmation email. Please bring the printout of this approval for Security Clearance at the main gate and acknowledge the receipt.

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Website : www.miet.edu, Email : principalengg@miet.edu, contact@miet.edu

Dr. A. Naveen Sait M.E., Ph.D.
Principal

Date :

07.12.2023

TO WHOMSOEVER IT MAY CONCERN

This is to inform that the enclosed list of names is the bonafide student of this institution studying in Second Year Electrical and Electronics Engineering. All the 20 students along with 2 staff members will visit your organization.

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

7/12/23

PRINCIPAL

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M.I.E.T. ENGINEERING COLLEGE
GUNDUR, TIRUCHIRAPALLI - 620 007

Encl: Student Name List

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Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering
II Year

Sl.No	Roll Number	Student Name
1.	E1223001	ALPARVESHIBRAHIM
2.	E1223003	BASKAR N
3.	E1223004	DHANUSH B
4.	E1223005	HARISHKUMAR M
5.	E1223006	KAILASHKUMAR V
6.	E1223007	KALATHARASAN V
7.	E1223009	MANIKANDAN R
8.	E1223013	NAVIN P
9.	E1223015	PRADEESH R
10.	E1223016	PRAGATHISWARAN P
11.	E1223017	SANTHIYA R
12.	E1223018	SATHIK MANZOOR S
13.	E1223019	SHEIK ABDULLAH S
14.	E1223020	SIVA V
15.	E1223021	SUBHASHREE A
16.	E1223022	SURENDRAN B
17.	E1223023	SYED EMADHU DEEN M
18.	E1223025	USHALINI R
19.	E2233028	MONICA A
20.	E2233029	ROGAN PRASATHM Y

Accompanying Staff Members

Sl.No	Employee Number	Staff Name	Designation
1.	E122301	Dr. V. Sivakami	Associate Professor
2.	E3072	D. Tamilselvan	Assistant Professor

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

Principal

PRINCIPAL
M.I.E.T. ENGINEERING COLLEGE
GUNDUR, TIRUCHIRAPALLI - 620 007

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Website : www.miet.edu, Email : principaleng@miet.edu, contact@miet.edu

Dr. A. Naveen Sait M.E., Ph.D.
Principal

Date :

07.12.2023

TO WHOMSOEVER IT MAY CONCERN

This is to inform that the enclosed list of names is the bonafide student of this institution studying in Second Year Electrical and Electronics Engineering. All the 20 students along with 2 staff members will visit your organization.

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

7/12/23
PRINCIPAL
PRINCIPAL
M.I.E.T. ENGINEERING COLLEGE
GUNDUR, TIRUCHIRAPALLI - 620 007

Encl: Student Name List

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M.I.E.T. ENGINEERING COLLEGE
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Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering
II Year

Sl.No	Roll Number	Student Name
1.	E1223001	ALPARVESHIBRAHIM
2.	E1223003	BASKAR N
3.	E1223004	DHANUSH B
4.	E1223005	HARISHKUMAR M
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6.	E1223007	KALATHARASAN V
7.	E1223009	MANIKANDAN R
8.	E1223013	NAVIN P
9.	E1223015	PRADEESH R
10.	E1223016	PRAGATHISWARAN P
11.	E1223017	SANTHIYA R
12.	E1223018	SATHIK MANZOOR S
13.	E1223019	SHEIK ABDULLAH S
14.	E1223020	SIVA V
15.	E1223021	SUBHASHREE A
16.	E1223022	SURENDRAN B
17.	E1223023	SYED EMADHU DEEN M
18.	E1223025	USHALINI R
19.	E2233028	MONICA A
20.	E2233029	ROGAN PRASATHM Y

Accompanying Staff Members

Sl.No	Employee Number	Staff Name	Designation
1.	E122301	Dr. V. Sivakami	Associate Professor
2.	E3072	D. Tamilselvan	Assistant Professor

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

Principal

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GUNDUR, TIRUCHIRAPALLI - 620 007

M.I.E.T. ENGINEERING COLLEGE

Department of Electrical and Electronics Engineering

INDUSTRIAL VISIT SCHEDULE

II YEAR

Date of Visit: 08.12.2023

Travels Name: Trichy Tour Planner
Bus Name: Parvathy
Driver Mobile No& Name: 8012675521 & Kishore

Sl.No	Schedule	
1.	Departure from M.I.E.T.	12.00 a.m.
2.	Refreshment	6.00 am to 08.00 am
3.	Break Fast	08.00 am to 09.00 am
4.	Industrial Visit	09.00 am to 11.00am **Kodaikonal Solar Observatory, Indian Institute of Astrophysics, Kodaikonal.**
5.	Places to visit	Fine Forest 11.30 am to 12.30 pm.
6.	Lunch	12.30 pm to 02.00 pm
7.	Places to visit	Kodaikonal Lake From 02.30 pm to 04.30 pm.
8.	Departure from Kodaikonal	05.00pm
9.	Dinner	07.30 to 08.30pm @ Batlagundu
10.	Return to M.I.E.T.	11.00 pm

Industrial Visit Co-coordinator(s)

HoD/EEE

5/12/23.

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GUNDUR, TIRUCHIRAPALLI - 620 007

MIET INSTITUTIONS

SIVAKAMI V <sivakami.v@miet.edu>

KSO/346/OR/23/ Dec 8 (22+2) M.I.E.T. Engineering College, Trichy

2 messages

kso.outreach <kso.outreach@iiap.res.in> Wed, Nov 29, 2023 at 3:50 PM
To: SIVAKAMI V <sivakami.v@miet.edu>
Cc: Chrisphin Karthick <chrisphin.karthick@iiap.res.in>, "Mr. M.RAJALINGAM" <rajalingam@iiap.res.in>, "Dr. E.EBENEZER CHELLASAMY" <eben@iiap.res.in>

Dear Sir/Madam,

Greetings to you from Kodaikanal Solar Observatory (KSO).

On behalf of the public outreach and Museum team of KSO, I am writing this mail. We received your mail, we are glad to inform you that your visit to KSO is approved for December 8, 2023, of 22 students and 2 escorting staffs. Usage of Cameras & Cellphones inside the visitor center is not allowed. However, staff members and students can take group pictures on campus and outside the museum for reporting purposes.

For one Department, one Educational Visit Certificate will be issued.

The entrance ticket is Rs.50 per head.

Kindly report at the main security gate at 9:00 am.

For details contact (24x7) (+91) 4542 240588.

This is the confirmation email. Please bring the printout of this approval for Security Clearance at the main gate and acknowledge the receipt.

--

Thanking you,

with warm regards,

पिंटू महापात्र
Pintu Mohapatra

सार्वजनिक आउटरीच और संग्रहालय टीम
Public Outreach and Museum team
कोडाइकनाल सौर वेधशाला
Kodaikanal Solar Observatory
भारतीय ताराभौतिकी संस्थान
Indian Institute of Astrophysics

On 2023-11-28 17:54, SIVAKAMI V wrote:
Caution: This email originated outside IIA.

Dear Sir,
Thank you so much for approving our request.
I will further proceed sir.

On Wed, Nov 29, 2023 at 10:20 AM Kodaikanal Solar Observatory IIA <kso.outreach@iiap.res.in> wrote:

To,

DR.V.SIVAKAMI,
ASP/EEE
M.I.E.T.Engineering College,
Trichy.

Dear Dr.V.Sivakami,

Greetings & welcome to Kodaikanal Solar Observatory.

I received your email, and the request is approved to visit KSO. The entry fee is Rs.50 per head. You can spend a minimum 90 minutes at our KSO campus. Please plan accordingly. Henceforth, Please apply to KSO OUTREACH <kso.outreach@iiap.res.in>,

You will further receive more information from Mr.Pintu Mohapatra email:<pintu.mohapatra@iiap.res.in>

With regards,
Prof.Ebenezer
Former Head,KSO

On 2023-11-28 16:43, SIVAKAMI V wrote:

> Caution: This email originated outside IIA.
>
> Dear Sir,
>
> Warm Greetings.
>
> I am Dr.V.Sivakami, Associate Professsor/EEE from M.I.E.T. Engineering College, Trichy.
>
> It is planned to visit your Kodaikanal Solar Observatory, Indian Institute of Astrophysics, Kodaikanal- 624 103 for Industrial visit to our Second year EEE students (22 Students) on 08.11.2023 (Fridy).
>
> In this regard, I request you to kindly send us your concurrence and confirmation for the same at the earliest.
>
> Thanking you.
>
> With Regards,
>
> Dr.V.Sivakami,
>
> ASP/EEE
>
> M.I.E.T.Engineering College,
>
> Trichy.

SIVAKAMI V <sivakami.v@miet.edu> Sun, Dec 3, 2023 at 6:11 AM
To: "kso.outreach" <kso.outreach@iiap.res.in>

Dear Sir/Madam,
Warm Greetings.

Thank you for approving our visit to KSO.
We will be there on 08.12.23 by 9.00 a.m.
kindly inform me if you need any further details or documents from our end.
[Quoted text hidden]

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Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering

Report on Industrial Visit

S.No.	Particulars	Description
1	Year/Semester	II / III
2	Place of visit	Kodaikanal
3	Total No. of Days	01
4	Date(s) of visit	08.12.2023
5	Total no of students	20 (16 Boys & 4 Girls)
6	No. of Staffs accompanied	2 (1 Gent & 1 Lady)
7	Name of the Industry with address	Kodaikanal Solar Observatory, Indian Institute of Astrophysics, Kodaikanal- 624 103
8	Objective of the Industrial visit	The objective of an industrial visit is to provide the students an insight regarding the Kodaikanal Solar Observatory owned and operated by Indian Institute of Astrophysics. To go beyond academics, industrial visit provides student, a practical perspective on observations and morphological changes of solar flares.
9	About the Industry	Kodaikanal Solar Observatory (KSO) is established in 1899 as solar physics observatory. The H-alpha telescope is installed at KSO. The telescope makes full disc image of the sun. The telescope is also capable of making the magnified view of the partial image of the sun.
10	Brief about the Students Observation	Students came to know about the continuous observations of the sun by the KSO. Also they observed, how the continuous recording of the radio noise flux is carried out using a 100MHz inferometer with antennas.
11	Outcome of the industrial visit	(i) Students got awareness about how the KSO is observing the sun on a daily basis. (ii) The students visited the astronomy museum, where the displays are mainly pictorial and supported by telescope models. (iii) A live solar image and the Fraunhofer spectrum is also presented in the museum.
12	Feedback about the companies visited	Faculties of KSO explained very well about the work carried out in their stations. Students get motivated to work as well to do research in such environment.

13 **CO, PO and PSO MAPPING**

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO12	PSO 1	PSO 2
H	-	-	-	L	H	L	H	H	-	L	-	H	L

Geo-tagged Photos

Industrial Visit Coordinator HoD/EEE Principal

Educational Visit Certificate

This certificate is awarded to Prof/Dr/Mr/Mrs The HOD, Department of Electrical & Electronics Engineering

of M.I.E.T Engineering College, Trichy *for visiting*

the Kodaikanal Solar Observatory, Indian Institute of Astrophysics with 20 *students and*

02 *faculty members.*

8/12/2023
Date

KODAIKANAL SOLAR OBSERVATORY (IIA) MUSEUM

M. Rajalingam

Resident Scientist

(M. RAJALINGAM)
Engineer-In-Charge
Indian Institute of Astrophysics
Kodaikanal - 624 103

M.I.E.T. ENGINEERING COLLEGE

Department of Electrical and Electronics Engineering
II Year INDUSTRIAL VISIT

08.12.23

Sl.No	Roll Number	Student Name	SIGNATURE
1.	E1223001	ALPARVESHIBRAHIM	
2.	E1223003	BASKAR N	
3.	E1223004	DHANUSH B	B.Dhanush
4.	E1223005	HARISHKUMAR M	Harish kumar.M
5.	E1223006	KAILASHKUMAR V	V.Kailash
6.	E1223007	KALATHARASAN V	
7.	E1223009	MANIKANDAN R	Manikandan.R
8.	E1223013	NAVIN P	P.Navin
9.	E1223015	PRADEESH R	
10.	E1223016	PRAGATHISWARAN P	P.Pragathiswaran
11.	E1223017	SANTHIYA R	
12.	E1223018	SATHIK MANZOOR S	S.Sathik.
13.	E1223019	SHEIK ABDULLAH S	S.Sheik Abdullah
14.	E1223020	SIVA V	V.Siva
15.	E1223021	SUBHASHREE A	A.Subhashree
16.	E1223022	SURENDRAN B	
17.	E1223023	SYED EMADHU DEEN M	
18.	E1223025	USHALINI R	R.Ushalini
19.	E2233028	MONICA A	A.Monica
20.	E2233029	ROGAN PRASATHM Y	M.V Rogan Prasath

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Trichy – Pudukkottai Road, Tiruchirappalli – 620 007. Phone:0431-2660 303
Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Industrial Visit Feedback form from Industry

Course & Department	BE in EEE.
Sem / Year	3rd sem / 2nd yr.
Date(s) of Visit and Time	08/12/23 9:30 AM
No. of Students visited	20 Students & 2 Staffs
Accompanying Staff Members	2 staffs
Name & Address of the Company	IIA Kodaikanal. (Dept. of Science & Technology)
Feedback about the students	Very good behaviour & supporting staffs.
Technical details about the Company	Research institute about Astronomy.
Authorized Signatory with Name / Designation and Seal	Pinku mahapatra (KSO Museum, KKL)
Any other comments	8/12/23

KODAIKANAL SOLAR OBSERVATORY (IIA)

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GUNDUR, TIRUCHIRAPALLI - 620 007.

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Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering

18.10.2023

Note: Submitted to the Chairman,

Through Principal,

Respected Sir,

Sub: Requesting Permission to go for Industrial visit to our Third year EEE students –Reg.

It is planned to go for Industrial visit to **Ooty** for 2 days (26.10.2023 to 27.10.2023) for our Third year EEE students. The schedule is given below.

Industrial visit date	Company name /place
26.10.23	Radio Astronomy Centre, Ooty
27.10.23	Black Thunder, Mettupalayam

No. of Boy students	25
No. of Girl students	03
No. of Male Staff accompanying	01
No. of Female Staff accompanying	01

Kindly grant us permission to go for industrial visit.

Thanking you

Industrial Visit Coordinator
T. Jayanthi
AP/EEE

HoD/EEE 18/10/23

Principal 18/10/23

Chairman

18/10

PRINCIPAL
M.I.E.T. ENGINEERING COLLEGE
GUNDUR, TIRUCHIRAPALLI - 620 007

MIET INSTITUTIONS

HOD EEE <eee.hod@miet.edu>

Requisition for Industrial visit

HOD EEE <eee.hod@miet.edu>
To: racvisit@ncra.tifr.res.in

Tue, Oct 17, 2023 at 3:10 PM

Sir/Madam,

We have preferred to arrange an Industrial Visit/Internship to enrich practical exposure which will help our students to fill the theoretical gaps and thus foster a methodical spirit and scientific sense of enquiry among them. We shall be immensely obliged if you kindly accept to offer an Industrial Visit at your , **Radio Astronomy Centre, Ooty** for our Third year **Electrical and Electronics Engineering students (30 Numbers)** accompanied by **02 faculty members** on our convenient date during **26.10.2023 at 11.00 a.m** We request you to kindly send us your concurrence and confirmation for the same at the earliest.

Thanking you

Any Clarifications Contact:Dr.E.Muthukumaran,HoD/EEE

Phone number:**9944166801**

IV letter.pdf
314K

PRINCIPAL
M.I.E.T. ENGINEERING COLLEGE
GUNDUR, TIRUCHIRAPALLI - 620 007

Radio Astronomy Centre

TATA INSTITUTE OF FUNDAMENTAL RESEARCH
Post Box 8, Udhagamandalam (Ooty) - 643 001, TAMIL NADU, INDIA
Telephone: 0423 - 2244880/888 Fax : 0423 - 2244900
Web: www.rac.ncra.tifr.res.in Email: racvisit@ncra.tifr.res.in

NCRA • TIFR

Ref No :RAC_IV_2k23_10_19 **Dated: 18-10-2023**

To

The Principal,
M.I.E.T. Engineering College ,
Thiruchirapalli – 620 007

Sub : Free Visit to Radio Astronomy Centre – Permission granted
Ref : Request received on 16/10/2023 by email/post.

Dear Sir / Madam,

With reference to your visit request, we are pleased to accord our permission for visiting this Centre, as detailed below.

No. of Persons Visiting : 30 Students + 02 Staff Members.
Date & Time of Visit : **26/10/2023 (Thursday at 11:00 hrs.)**

****

About the institution*:

The Radio Astronomy Centre (RAC) is purely a research organization engaged in research & training Ph.D students in the field of Radio Astrophysics. The Ooty Radio Telescope (ORT) is located in Muthorai near Ooty, in southern India. It is part of the National Centre for Radio Astrophysics (NCRA) of the Tata Institute of Fundamental Research (TIFR), which is funded by the Government of India through the Department of Atomic Energy.

The Ooty Radio Telescope which is an equatorial mounted cylindrical parabolic antenna of size 530-metre (1,740 ft) long and 30-metre (98 ft) wide. It operates at a frequency of 326.5 MHz with a maximum bandwidth of 15 MHz at the front end. The Ooty Radio telescope has been designed and fabricated with domestic Indian technological resources. The ORT was completed in 1970 and continues to be one of the most sensitive radio telescopes in the world.

Note for the visitors:

The visiting students will be shown a video show on the Ooty Radio Telescope and basics of radio astronomy. They can also visit the telescope site and watch the rotation of the telescope (if possible). ***Saturdays and Sundays are holidays*** for the centre & hence if you plan to visit this centre on Saturdays, Sundays and Govt. holidays, you will be able to watch only the video show.

Staff members are requested to confirm the following, ***bring a letter of permission to enter the campus***, all students wear valid Identity card issued by the College/Organization authorities and ***maintaining the discipline in the campus***.

If you are bringing students for any industrial visit, you may please note that RAC is not a factory. No transport or accommodation will be provided by this centre for the above visit. This visit is offered absolutely **FREE** of Cost.

How to reach?

You can reach our centre from Ooty Bus Stand through Ooty Boat House – J.S.S. Public School – Theetukkal – Melcowhatty village route. Bring your vehicle up to our premises in order to avoid ~1 km walk.

With regards,

P. Praveen SA (C)

**For more details visit our website.*

PRINCIPAL
M.I.E.T. ENGINEERING COLLEGE
GUNDUR, TIRUCHIRAPALLI - 620 007

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Website : www.miet.edu, Email : principalengg@miet.edu, contact@miet.edu

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Dr. A. Naveen Sait M.E., Ph.D.
Principal

Date : 16.10.2023

To

National Centre for Radio Astrophysics,
Tata Institute of Fundamental Research,
Post Box 8, Udhagamandalam (Ooty) - 643001.

Sir/Madam,

We have preferred to arrange an Industrial Visit to enrich practical exposure which will help our students to fill the theoretical gaps and thus foster a methodical spirit and scientific sense of enquiry among them. We shall be immensely obliged if you kindly accept to offer an Industrial Visit at **Radio Astronomy Center, Ooty** for our Third year **Electrical and Electronics Engineering students (30 Numbers)** accompanied by **02 faculty members** on **26.10.2023 (Thursday) at 11.00 a.m**. We request you to kindly send us your concurrence and confirmation for the same at the earliest.

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

16/10/23
Principal
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Principal

Date :
25.10.2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the enclosed list of name is the bonafide student of this institution studying in third year Electrical and Electronics Engineering of our college. All the 30 students along with 2 staff members will visit your organization

Encl: Students Name List

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

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M.I.E.T. ENGINEERING COLLEGE

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

INDUSTRIAL VISIT

Year/Semester: III/V **Academic Year: 2023-2024 (Odd Sem)**

No. of Students: 36

S.NO	ROLL NUMBER	REGISTER NO.	NAME OF THE STUDENT
1.	E1213001	812421105001	ALLWIN ALBERT J
2.	E1213002	812421105002	ANBUSELVAN S
3.	E1213003	812421105003	HANAS SHEIK ABDULLAH Q
4.	E1213004	812421105004	JAGADEESWARAN M
5.	E1213006	812421105006	KARTHIKEYAN S
6.	E1213007	812421105007	MOHAMED AQIL R
7.	E1213008	812421105008	MOHAMED HASAN J
8.	E1213009	812421105009	MOHAMED JAMEEL M
9.	E1213010	812421105010	MOHAMED NOWSATH ALI A
10.	E1213011	812421105011	MOHAMED RIZVAN M
11.	E1213012	812421105012	NELSON E
12.	E1213014	812421105014	PONVASANTHU S
13.	E1213015	812421105015	RAMYADHARSHINI N
14.	E1213016	812421105016	RANJANI R
15.	E1213017	812421105017	REVATHI S
16.	E1213018	812421105018	SENTHAMILSELVAN S
17.	E1213020	812421105020	SRIDHAR M
18.	E1213021	812421105021	VASITH RAHUMAN M
19.	E2223023	812421105301	ABDUL JABBAR A
20.	E2223024	812421105302	ABDULSIDDIQ S
21.	E2223025	812421105303	ABUSHIEK
22.	E2223026	812421105304	ASIFMOHAMED R
23.	E2223027	812421105305	GOWTHAM M
24.	E2223028	812421105306	JANARTHANAN G
25.	E2223029	812421105307	KALINGESWARI P

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S.NO	ROLL NUMBER	REGISTER NO.	NAME OF THE STUDENT
26.	E2223030	812421105308	KARTHIKEYAN M.S
27.	E2223031	812421105309	LAWRENCE G
28.	E2223034	812421105312	MOHAMED SAMEER S
29.	E2223036	812421105314	MUTHAMILAN T
30.	E2223037	812421105315	PRAVEEN T

S.NO	EMP. NUMBER	STAFF NAME	DESIGNATION
1.	E115306	Mr.D.JAYARAJ	ASSISTANT PROFESSOR
2.	E122302	Mrs.T.JAYANTHI	ASSISTANT PROFESSOR

HoD/EEE

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

25/10/23

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GUNDUR, TIRUCHIRAPALLI - 620 007

Radio Astronomy Centre

TATA INSTITUTE OF FUNDAMENTAL RESEARCH
Post Box 8, Udhagamandalam (Ooty) - 643 001, TAMIL NADU, INDIA
Telephone: 0423 - 2244880/888 Fax : 0423 - 2244900
Web: www.rac.ncra.tifr.res.in Email: racvisit@ncra.tifr.res.in

NCRA • TIFR

Ref No :RAC_IV_2k23_10_19 **Dated: 18-10-2023**

To

The Principal,
M.I.E.T. Engineering College ,
Thiruchirapalli – 620 007

Sub : Free Visit to Radio Astronomy Centre – Permission granted
Ref : Request received on 16/10/2023 by email/post.

Dear Sir / Madam,

With reference to your visit request, we are pleased to accord our permission for visiting this Centre, as detailed below.

No. of Persons Visiting : 30 Students + 02 Staff Members.
Date & Time of Visit : **26/10/2023 (Thursday at 11:00 hrs.)**

****

About the institution*:

The Radio Astronomy Centre (RAC) is purely a research organization engaged in research & training Ph.D students in the field of Radio Astrophysics. The Ooty Radio Telescope (ORT) is located in Muthorai near Ooty, in southern India. It is part of the National Centre for Radio Astrophysics (NCRA) of the Tata Institute of Fundamental Research (TIFR), which is funded by the Government of India through the Department of Atomic Energy.

The Ooty Radio Telescope which is an equatorial mounted cylindrical parabolic antenna of size 530-metre (1,740 ft) long and 30-metre (98 ft) wide. It operates at a frequency of 326.5 MHz with a maximum bandwidth of 15 MHz at the front end. The Ooty Radio telescope has been designed and fabricated with domestic Indian technological resources. The ORT was completed in 1970 and continues to be one of the most sensitive radio telescopes in the world.

Note for the visitors:

The visiting students will be shown a video show on the Ooty Radio Telescope and basics of radio astronomy. They can also visit the telescope site and watch the rotation of the telescope (if possible). ***Saturdays and Sundays are holidays*** for the centre & hence if you plan to visit this centre on Saturdays, Sundays and Govt. holidays, you will be able to watch only the video show.

Staff members are requested to confirm the following, ***bring a letter of permission to enter the campus,*** all students wear valid Identity card issued by the College/Organization authorities and ***maintaining the discipline in the campus.***

If you are bringing students for any industrial visit, you may please note that RAC is not a factory. No transport or accommodation will be provided by this centre for the above visit. This visit is offered absolutely **FREE** of Cost.

How to reach?

You can reach our centre from Ooty Bus Stand through Ooty Boat House – J.S.S. Public School – Theetukkal – Melcowhatty village route. Bring your vehicle up to our premises in order to avoid ~1 km walk.

Visited on 26/10/2023 at 12. W RM

RADIO ASTRONOMY CENTER
Tata Institute of Fundamental Research

With regards,

P. Praveen SA (C)

**For more details visit our website.*

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HOD EEE <eee.hod@miet.edu>

Requisition for Industrial visit

HOD EEE <eee.hod@miet.edu>
To: racvisit@ncra.tifr.res.in

Tue, Oct 17, 2023 at 3:10 PM

Sir/Madam,

We have preferred to arrange an Industrial Visit/Internship to enrich practical exposure which will help our students to fill the theoretical gaps and thus foster a methodical spirit and scientific sense of enquiry among them. We shall be immensely obliged if you kindly accept to offer an Industrial Visit at your , **Radio Astronomy Centre, Ooty** for our Third year **Electrical and Electronics Engineering students (30 Numbers)** accompanied by **02 faculty members** on our convenient date during **26.10.2023 at 11.00 a.m** We request you to kindly send us your concurrence and confirmation for the same at the earliest.

Thanking you

Any Clarifications Contact:Dr.E.Muthukumaran,HoD/EEE

Phone number:**9944166801**

IV letter.pdf
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Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Industrial Visit Feedback form from Industry

Course & Department	B.E., (EEE)
Sem / Year	V / III YEAR
Date(s) of Visit and Time	26.10.2023, 11.00 AM
No. of Students visited	30
Accompanying Staff Members	2.
Name & Address of the Company	NATIONAL CENTRE FOR RADIO ASTROPHYSICS, OOTY-643001
Feedback about the students	Students are very much interested to learn about Astronomy
Technical details about the Company	The function of Astronomy centre is about radio telescope working, analyze solar & wind storm.
Authorized Signatory with Name / Designation and Seal	
Any other comments	–

K. [signature]

RADIO ASTRONOMY CENTER
Tata Institute of Fundamental Research

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Department of Electrical and Electronics Engineering

Report on Industrial Visit

S.No.	Particulars	Description
1	Year/Semester	III/V
2	Place of visit	Ooty
3	Total No. of Days	2
4	Date(s) of visit	26.10.23,27.10.23
5	Total no of students	30 (26 & 04 Girls)
6	No. of Staffs accompanied	2 (1 Gents & 1 Lady)
5	Name of the Industry1 with address	National Centre for Radio Astrophysics, Tata Institute of Fundamental Reasearch, Post Box 8,Udhagamandalam (ooty)-643001
	Name of the Industry 2 with address	Black Thunder Theme Park Pvt Ltd
6	Objective of the Industrial visit	An industrial visit's objective is to provide students an understanding of how companies operate effectively. Beyond the curriculum, an industrial visit offers students a realistic view of the professional world
7	About the Industry1 with address	The Ooty Radio Telescope (ORT) is located in Muthorai near Ooty, in southern India. It is part of the National Centre for Radio Astrophysics (NCRA) of the Tata Institute of Fundamental Research (TIFR), which is funded by the Government of India through the Department of Atomic Energy. The radio telescope is a 530-metre (1,740 ft) long and 30-metre (98 ft) tall cylindrical parabolic antenna. It operates at a frequency of 326.5 MHz with a maximum bandwidth of 15 MHz at the front end.
	About the Industry 2 with address	Black Thunder Theme Park (P) Ltd is a theme park in Tamil Nadu, India. It is located on the National Highway (Mettupalayam-Ooty) on the foothills of Nilgiris. It is situated in Coimbatore city, 40 km north of the city and occupies an area of about 60 acres. The nearest airport is in Coimbatore and the nearest railway station is at Mettupalayam. Black Thunder theme park is the Largest Water Park in India that offers more than 70 rides & attractions out of which 35 numbers are water rides. Black Thunder theme park is the only park in India with maximum safety for water

		slides as they are installed with 'Foam Paddings' on its sliding surface
8	Brief about the Students Observation	Student understand the nature and evolution of the universe and its constituents, using extreme objects as laboratories for examining the behavior of matter and fields beyond domains easily accessible to terrestrial laboratories Faculty in astrophysics studies the universe across many electromagnetic wavebands and using gravitational waves Ongoing work focuses on cosmology, including studies of structure formation and the epoch of reionization, extragalactic and galactic astrophysics, the first stars, neutron stars and black holes.
9	Outcome of the industrial visit	1. Students understood the key elemental constituents of stars and complete galaxies. 2. It gives an idea about how the universe came to be, how it has evolved over the millennia, and where we are headed. 3. Tells us more about the black holes present at the centers of galaxies.
10	Feedback about the companies visited	Excellent explanations of the activities carried out at each station are provided by all industry faculties. Students are inspired to work in such an environment.
11	CO, PO and PSO MAPPING	

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO12	PSO 1	PSO 2
H	-	-	-	L	H	L	H	H	-	L	-	H	L

Geo-tagged Photos

Industrial Visit Coordinator

HoD/EEE

Principal

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M.I.E.T. ENGINEERING COLLEGE

Department of Electrical and Electronics Engineering

Report on Industrial Visit

Company Name : National Centre for Radio Astrophysics Tata Institute of Fundamental Research,Udhagamandalam, Ooty,Tamil Nadu - 643001, India,

Date of visit : 26.10.2023 (Thursday)

No. of Students : 30

Year/Semester : III/V

Objective of visit: During the industrial visit the students are able

- To understand the workings of a radio telescope, learn about radio astronomy techniques.
- To study about galaxies, both within our Milky Way and beyondMilky Way.
- To understand the celestial objects starting from planets to stars , stars to galaxies and the whole Universe.

About the company:

The Ooty Radio Telescope (ORT) is located in Muthorai near Ooty, in southern India. It is part of the National Centre for Radio Astrophysics (NCRA) of the Tata Institute of Fundamental Research (TIFR), which is funded by the Government of India through the Department of Atomic Energy. The radio telescope is a 530-metre (1,740 ft) long and 30-metre (98 ft) wide cylindrical parabolic antenna. It operates at a frequency of 326.5 MHz with a maximum bandwidth of 15 MHz at the front end.

Outcome of visit: After the completion of industrial visit, the student able

- To understand about the radio galaxies,quasars,supernovae and pulsars.
- To understand the angular structure of radio galaxies and quasars.
- To observe the interplanetary scintillation of solar,wind and magnetic storms.
- To predict the space weather changes
- To analyse solar,wind& magnetic storms

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CO AND PO, PSO MAPPING

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PSO1	PSO2
H	-	-	-	L	H	L	H	H	-	L	-	H	L

Geo-tagged Photos

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Industrial Visit Coordinator

HoD/EEE

Principal

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Website: www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering

21.09.2023

Note: Submitted to the Chairman,

Through Principal,

Respected Sir,

Sub: Requesting Permission to go for Industrial visit for our final year EEE students –Reg.

It is planned to go for Industrial visit to **Kerala** for 3 days (04.10.2023 to 06.10.2023) for our final year EEE students. The schedule is given below.

Industrial visit date	Company name /place
04.10.23	Uhilee - United Electrical Industries Ltd., Kollam, Kerala.
05.10.23	Wonderla Kochi, Kerala.
06.10.23	Kerala Electrical & Allied Engineering, Mamala, Kerala.

No. of Boy students	46
No. of Girl students	09
No. of Male Staff accompanying	02
No. of Female Staff accompanying	01

Kindly grant us permission to go for industrial visit.

Thanking you

Industrial Visit Coordinator

S. Pandiyarajan, AP/EEE

B. Mukherjee, AP/EEE

HoD/EEE

Principal

Chairman

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Date: 20.09.2023

Dr. A. Naveen Sait M.E., Ph.D.
Principal

To

The Managing Director,
Unilec - United Electrical Industries Ltd.
Kollam,
Pallimukku, Kollam - 691 010,
Kerala,
India

Sir/Madam,

We have preferred to arrange an Industrial Visit/Internship to enrich practical exposurewhich will help our students to fill the theoretical gaps and thus foster a methodical spirit and scientific sense of enquiry among them. We shall be immensely obliged if you kindly accept to offer an Industrial Visit at **Unilec - United Electrical Industries Ltd., Pallimukku, Kollam, Kerala** for our Final year **Electrical and Electronics Engineering students (55 Numbers)** accompanied by **03 faculty members** on **04.10.2023 (Wednesday) at 10.00 a.m.** We request you to kindly send us your concurrence and confirmation for the same at the earliest.

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

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For any Clarification contact: Dr.E.Muthukumaran,HoD/EEE,Ph.No.:9944166801
Mr.S.Pandiarajan,AP/EEE,Ph.No:9894894107

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Dr. A. Naveen Sait M.E., Ph.D.
Principal

Date 20.09.2023

To

Head of the Engineer,
Kerala Electrical & Allied Engineering,
Mamala, Kerala.

Sir/Madam,

We have preferred to arrange an Industrial Visit/Internship to enrich practical exposure which will help our students to fill the theoretical gaps and thus foster a methodical spirit and scientific sense of enquiry among them. We shall be immensely obliged if you kindly accept to offer an Industrial Visit at **Kerala Electrical & Allied Engineering. Co. Ltd, (A government of Kerala undertaking), Mamala, Kerala** for final year **Electrical and Electronics Engineering students (55 Numbers)** accompanied by **03 faculty members** on **06.10.2023 (Friday) at 10.00 a.m**. We request you to kindly send us your concurrence and confirmation for the same at the earliest.

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

20/9/23.
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For any Clarification contact: Dr.E.Muthukumaran, HoD/EEE, Ph.No.:9944166801
Mr.S.Pandiarajan,AP/EEE,Ph.No:9894894107

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(A GOVERNMENT OF KERALA UNDERTAKING)
MAMALA P.O., KOCHI - 682 305
An ISO 9001-2015 Certified Company

Phone : 0484-2787707, 2787981, 2946120
E-mail : mamala@kel.co.in
CIN : U31200KL 1964 SGC002062
Website : www.kel.co.in

MPA/61/ 3612 /23 **20.09.2023**

The HOD
M.I.E.T. Engineering College,
Gundur,
Tiruchirapalli.

Respected Sir,

Sub: **Permission for Industrial Visit – Reg.**

Ref: Your Letter Dated 20.09.2023.

With reference to the above permission is granted for 55 Nos. Electrical & Electronics Engineering Students & 3 faculty members of your college to visit our Factory at Mamala, Kochi on 06.10.2023 from 9.30 am to 12 am.

You are requested to remit Rs.4,000/- towards visiting fee and GST @ 18% extra (Rs.720/-).

The students may be directed to observe the rules of the Company regarding safety and conduct inside the factory premises.

Photography / Videography is strictly prohibited in company premises.

Thanking you,

Yours faithfully,
For KERALA ELECTRICAL & ALLIED ENGG.CO.LTD,

PERSONNEL OFFICER

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Department of Electrical and Electronics Engineering

Travels Name: Awesome Travels **Bus Name: L.R.S.** **Driver Mobile No. 7200006434 (Ramesh), 8072337071 (Ram)**

PARTICULARS	DAY 1	DAY 2	DAY 3
Date	04.10.23	05.10.23	06.10.23
Boarding Place & Break Fast	Refreshment @Kollam with break fast	Check out and Travel from Kollam to Kochi. Break Fast @Kochi.	Check Out and Travel From Ernakulam To Areekal Water Falls. Break Fast @Kochi
Industrial Visit	United Electrical Industries Limited (UEIL), Kollam	Wonderla,Kochi@10:00A.M	Kerala Electrical & Allied Engineering (KEL), Kochi.
Lunch	@ Kollam	@ Wonderla	@Near Kochi (Lunch & Prayer)
Places to visit	Samburanikodi, Kollam beach	Lulu Mall	Marine Drive With Boating
Dinner	@Kollam	@Lulu Mall	@Vypin beach
Place of Accommodation	Check in Mohan Residency @Kollam	Check in Senat Hotel, Malabar Plaza @Ernakulam	Travel to Trichy

Starting @09.00p.m. on 03.10.2023 in M.I.E.T. Campus

Will be reached @06.00p.m. on 07.10.2023 in M.I.E.T. Campus

Industrial Visit Co-coordinator(s)

HoD/EEE

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Dr. A. Naveen Sait M.E., Ph.D.
Principal

Date 20.09.2023

To

Head of the Engineer,
Kerala Electrical & Allied Engineering,
Mamala, Kerala.

Sir/Madam,

We have preferred to arrange an Industrial Visit/Internship to enrich practical exposure which will help our students to fill the theoretical gaps and thus foster a methodical spirit and scientific sense of enquiry among them. We shall be immensely obliged if you kindly accept to offer an Industrial Visit at **Kerala Electrical & Allied Engineering. Co. Ltd, (A government of Kerala undertaking), Mamala, Kerala** for final year **Electrical and Electronics Engineering students (55 Numbers)** accompanied by **03 faculty members** on **06.10.2023 (Friday) at 10.00 a.m**. We request you to kindly send us your concurrence and confirmation for the same at the earliest.

M.I.E.T. ENGINEERING COLLEGE TRICHY-7

20/9/23.
PRINCIPAL

PRINCIPAL
M.I.E.T. ENGINEERING COLLEGE
GUNDUR, TIRUCHIRAPALLI - 620 007.

For any Clarification contact: Dr.E.Muthukumaran, HoD/EEE, Ph.No.:9944166801
Mr.S.Pandiarajan,AP/EEE,Ph.No:9894894107

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GUNDUR, TIRUCHIRAPALLI - 620 007.

KERALA ELECTRICAL & ALLIED ENGINEERING CO. LTD.
(A GOVERNMENT OF KERALA UNDERTAKING)
MAMALA P.O., KOCHI - 682 305
An ISO 9001-2015 Certified Company

Phone : 0484-2787707, 2787981, 2946120
E-mail : mamala@kel.co.in
CIN : U31200KL 1964 SGC002062
Website : www.kel.co.in

MPA/61/ 3612 /23

20.09.2023

The HOD
M.I.E.T. Engineering College,
Gundur,
Tiruchirapalli.

Respected Sir,

Sub: **Permission for Industrial Visit – Reg.**

Ref: Your Letter Dated 20.09.2023.

With reference to the above permission is granted for 55 Nos. Electrical & Electronics Engineering Students & 3 faculty members of your college to visit our Factory at Mamala, Kochi on 06.10.2023 from 9.30 am to 12 am.

You are requested to remit Rs.4,000/- towards visiting fee and GST @ 18% extra (Rs.720/-).

The students may be directed to observe the rules of the Company regarding safety and conduct inside the factory premises.

Photography / Videography is strictly prohibited in company premises.

Thanking you,

Yours faithfully,
For KERALA ELECTRICAL & ALLIED ENGG.CO.LTD,

PERSONNEL OFFICER

Registered & Corporate Office
Mamala P.O., Thiruvankulam, Tripunithura, Kochi - 682 305, In
EPABX : 0484-2310012 / 13 / 14
E-mail : info@kel.co.in Website : www.kel.co.in

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GUNDUR, TIRUCHIRAPALLI - 620 007

[SPECIAL PERMIT]

TRANSPORT DEPARTMENT,TAMIL NADU

TIRUCHI RTO

SPECIAL PERMIT

1. Permit Number	TN2023-SPL-4316L
2. Name of The Permit Holder	PAPPA P
3. Father's/Husband's Name (In Individual Case)	PALANI GOUNDER
4. Address	NO 87/10C VATHUKKARA STREET WORAIYUR , Tamil Nadu Tiruchirappalli- 620003
5.	
a). Type of Vehicle	Bus
b). Registration Mark	TN31BE6795
c). Chassis Number	MB1PBEFD2HEEX6339
d). UnLaden Weight	10880
e). Seating Capacity	56
f). Sleeper Capacity	0
g). Laden Weight	16200
h). Make Model	ASHOK LEYLAND LTD/ALPSV 4/168 BSIII
i). Engine Number	HEEZ408299
j). Tax Valid Upto	31-DEC-2023
k). Insurance Valid Upto	05-12-2023
l). Fitness Valid Upto	18-DEC-2024
6. Purpose of Journey(s)	TOUR
7.	
a). Route or Area for which Temporary permit is valid	From: TRICHY, MADURAI, TENKASI, KUTTRALAM, PUNALUR, KOTTAKARA, KOLLAM, To: COCHIN, WONDERLA, THIRUSUR, POLLACHI, DINDUGUL, BACK TO TRICHY
b). -Via	
8. Date of expiry	From: 04-Oct-2023, To: 06-Oct-2023
9. Nature of goods if to be carried	PANSGSGSGER
10. Number and Description of Permit already held	
a). Permit No.	012/TRY/2014
b). Type of Permit	STAGE CARRIAGE PERMIT((STAGE CARRIAGE PERMIT(SPARE)))
c). Validity of Permit	From: 11-Nov-2019 To: 10-Nov-2024

This Vehicle submit permit fee + Diff. Special Tax Rs 2755 with Receipt No. TN45D23090002035 On 27-Sep-2023 From 04-Oct-2023 To 06-Oct-2023.

Passenger List Enclosed

Secretary/Asstt. Secretary
State/Regional Transport Authority
TIRUCHI RTO, Tamil Nadu

Date: 27-Sep-2023

Tax Invoice

UNITED ELECTRICAL INDUSTRIES LTD.
Pallimukku
Kollam
GSTIN/UIN: 32AAACU2833N1ZB
State Name : Kerala, Code : 32
E-Mail : ueikollam@gmail.com

Consignee (Ship to)
S.Pandiarajan
MIET Engg.College
State Name : Kerala, Code : 32

Buyer (Bill to)
S.Pandiarajan
MIET Engg.College
State Name : Kerala, Code : 32

Invoice No.	Dated
UEI/320	**4-Oct-23**
Delivery Note	Mode/Terms of Payment
Reference No. & Date.	Other References
Pr/136 dt. 4-Oct-23	
Buyer's Order No.	Dated
Dispatch Doc No.	Delivery Note Date
320	
Dispatched through	Destination
Hand	**Tvm**
Bill of Lading/LR-RR No.	Motor Vehicle No.
dt. 4-Oct-23	
Terms of Delivery	

Sl No.	Particulars	HSN/SAC	Quantity	Rate	per	Amount
1	**Project Fee**	998339				**2,000.00**
	Output Cgst					**180.00**
	Output Sgst					**180.00**

Total **₹ 2,360.00**
E. & O.E

Amount Chargeable (in words)
INR Two Thousand Three Hundred Sixty Only

HSN/SAC	Taxable Value	Central Tax Rate	Central Tax Amount	State Tax Rate	State Tax Amount	Total Tax Amount
998339	2,000.00	9%	180.00	9%	180.00	360.00
Total	**2,000.00**		**180.00**		**180.00**	**360.00**

Tax Amount (in words) : **INR Three Hundred Sixty Only**

RECEIVED PAYMENT
For UNITED ELECTRICAL INDUSTRIES LTD.
Cashier

for UNITED ELECTRICAL INDUSTRIES LTD.

Authorised Signatory

This is a Computer Generated Invoice

M.I.E.T. ENGINEERING COLLEGE

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai)
UG - CSE, EEE & MECH Programs Accredited by NBA, New Delhi
Accredited with 'A+' grade by NAAC
An ISO 9001:2015 Certified Institution
Recognized by UGC under section 2(f) & 12(B) of UGC Act, 1956
Trichy – Pudukkottai Road, Tiruchirappalli – 620 007, Phone:0431-2660 303
Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Industrial Visit Feedback form from Industry

Course & Department	Electrical and Electronics Engineering
Sem / Year	Final year
Date(s) of Visit and Time	04.10.2023. 10.A.M
No. of Students visited	55 Students
Accompanying Staff Members	3 faculty members
Name & Address of the Company	United Electrical Industries Limited. Pallimukkom. Kollam. 691010
Feedback about the students	Enthusiastic, Curious And good Discipline
Technical details about the Company	Manufactur of AB Switch, Motor starter, LED Street light, Water Meter, VLTDS, Polymer Insulators etc
Authorized Signatory with Name / Designation and Seal	PRIYA SUSAN JACOB. Personnel officer
Any other comments	

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Website: www.miet.edu, E-mail: principalengg@miet.edu, contact@miet.edu

Industrial Visit Feedback form from Industry

Course & Department	B.E (EEE)
Sem / Year	7th Sem
Date(s) of Visit and Time	06.10.23
No. of Students visited	53
Accompanying Staff Members	03
Name & Address of the Company	Kerala Electrical & Allied Engg. Mamala P.O, Kochi. Kerala.
Feedback about the students	Excellent, Good & Interactive students
Technical details about the Company	Transformer Core, bushings, tank etc.,
Authorized Signatory with Name / Designation and Seal	
Any other comments	–

Smitha

SMITHA THOMAS
PERSONNEL OFFICER
KERALA ELECTRICAL & ALLIED ENGG. CO LTD
(A GOVT. OF KERALA UNDERTAKING)
MAMALA P.O., KOCHI - 682 305, KERALA

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CIN : U31200KL 1964 SGC002062
Website : www.kel.co.in

MPA/61/ 3880 /23

06.10. 2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that a batch of 52 Nos. final year Electrical & Electronics Engineering Students & 3 Faculty Members of M.I.E.T Engineering College, Tiruchirapalli, Tamil Nadu have visited Mamala Unit of our Company on 06.10.2023.

PERSONNEL OFFICER

SMITHA THOMAS
PERSONNEL OFFICER
KERALA ELECTRICAL & ALLIED ENGG. CO LTD.
(A GOVT. OF KERALA UNDERTAKING)
MAMALA P.O., KOCHI - 682 305, KERALA

WONDERLA
PARKS AND RESORTS

FUN FILLED LEARNING
INDUSTRIAL VISIT

Certificate

This is to certify that the 2022-2024 EEE batch (54 students and 3 staffs) from M.I.E.T. Engineering college, Trichy has undertaken industrial visit in Power Plant on 05-10-2023 ....at Wonderla Holidays Limited.

Authorised Signatory
Wonderla Holidays Limited

ISO 14001 2015
ISO 45001 2018

Wonderla Bengaluru (Reg.office): 28th KM, Mysore Road, Bengaluru: 562 109 | Ph: 080 37230300| 99455 577
Wonderla Kochi: Pallikkara, Kumarapuram P.O., Kochi: 683 565 I Ph: 0484 2684009 | 75938 53107|
Wonderla Hyderabad: ORR, Exit No. 13, Ravirala Post, Hyderabad: 501 510 | Ph: 841 4676300 | 91000 63636

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M.I.E.T. ENGINEERING COLLEGE

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Trichy - Pudukkottai Road, Tiruchirappalli - 620 007. Phone:0431-2660303
Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering

Report on Industrial Visit

Company Name : Powerplant in Wonderla Kochi, Kerala.

Date of visit:05.10.2023 (Wednesday)

No. of Students: 52

Year/Semester:IV/VIII

Objective of the visit: During the industrial visit

- To provide visitors with an educational opportunity to learn about the power generation process, renewable energy sources, and the technologies used in the power plant.
- To raise awareness about sustainable and eco-friendly energy generation and promote the importance of clean energy sources.
- To provide information about the power generation industry, its role in energy production, and the challenges and innovations in the field

About the Visit (Student's observation):

- It can serve as a practical and engaging environment for students to observe and learn about various technical aspects related to amusement park operations and engineering.
- Wonderla features a variety of rides that involve complex engineering principles.

Outcome of the visit: After the completion of the industrial visit, the student able

- To demonstrate the efficient functioning of the park can provide valuable insights into the management of a complex organization.
- To gain a deeper understanding of power generation, renewable energy sources, and sustainable practices.
- To gain insights into the design, operation, and maintenance of these systems, including hydraulics, pneumatics, and control mechanisms.
- To learn about the electrical infrastructure, power distribution, and safety measures implemented at Wonderla.
- To study the park's safety protocols, emergency response systems, and risk management strategies to understand how engineering principles are applied to ensure visitor safety.
- To explore these initiatives and learn about sustainable engineering practices in the context of a large-scale amusement park.

CO AND PO, PSO MAPPING

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PSO1	PSO2
H	-	-	-	L	H	L	H	H	-	L	-	H	L

Geo-tagged Photos

Industrial Visit Coordinator **HoD/EEE** **Principal**

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Website: www.miet.edu, E-mail: principal.engg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering

Report on Industrial Visit

Company Name : Kerala Electrical & Allied EngineeringCo.Ltd,
Mamala, Kochi, Kerala- 682305

Date of visit:06.10.2023 (Friday)

No. of Students: 52

Year/Semester: IV/VIII

Objective of the visit: During the industrial visit the studentswere able

- To realize the construction of a transformer rated at 11KV/220V.
- To acquire the knowledge of primary and secondary winding processes of transformer.
- To know the lamination process in the transformerfor minimizing the losses
- To impart the knowledge of insulating oil in a transformer.

About the Visit (Student's observation):

- Students learned about Distribution Transformers, Corrugation Transformers, Solar Transformers, Amorphous Transformers, Medium Power Transformers, and Special Application Transformers such as EMU and LOCO Transformers for railway applications. Furnace Transformers and Dynamic Reactive Power Compensation.
- It aids students in acquiring knowledge of working-level experiments.
- They also discussed transformer winding and insulation characteristics of transformer oil.

Outcome of the visit: After the completion of anindustrial visit, the students able

- To construct the transformer rated at 11KV/220V.
- To design the bushings in the transformer.
- To explain the primary and secondary winding process of a transformer.
- To design the lamination process for minimizing losses in the transformer.
- To explain the role of insulating oil in a transformer.

Industrial Visit Coordinator

HoD/EEE

Principal

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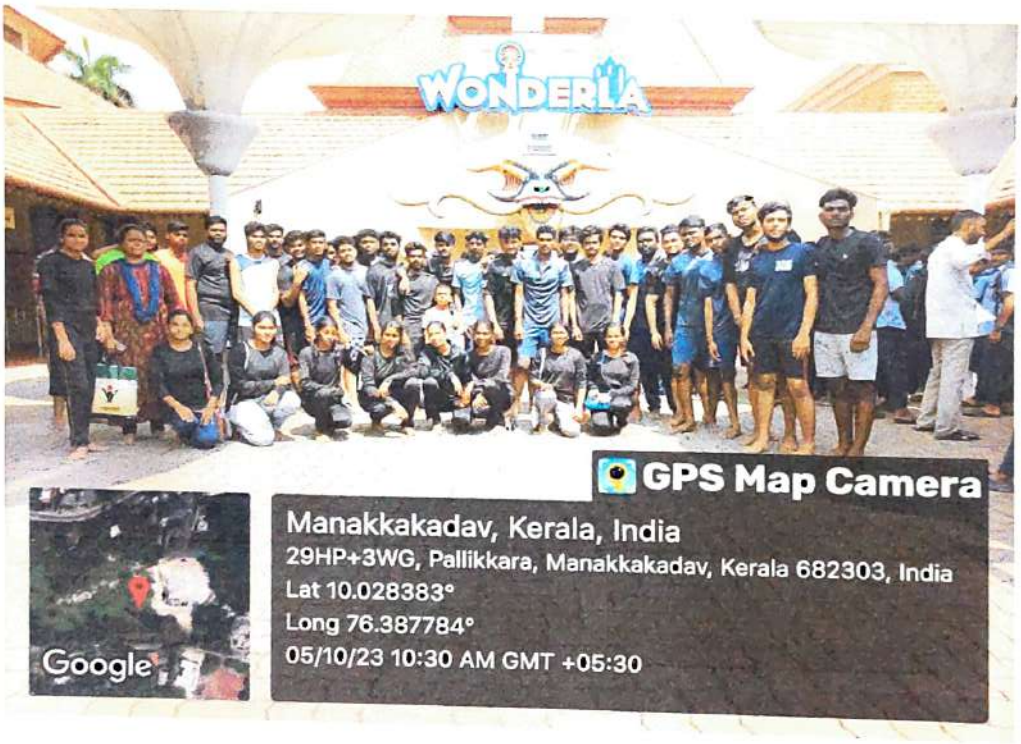
Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering

Report on Industrial Visit

S.No.	Particulars	Description
1	Year/Semester	IV/VIII
2	Place of visit	Kerala
3	Total No. of Days	3
4	Date(s) of visit	04.10.2023,05.10.2023&06.10.2023
5	Total no of students	52 (Boys & 10 Girls)
6	No. of Staffs accompanied	3(2 Gents & 1 Lady)
5	Name of the Industry1 with address	Kerala Electrical & Allied Engineering. Co. Ltd, (A government of Kerala undertaking) Mamala,Kochi
	Name of the Industry 2 with address	Power Plant Wonderla Kochi, Kerala.
	Name of the Industry 3 with address	United Electrical Industries Limited, Kollam, Kerala.
6	Objective of the Industrial visit	An industrial visit's objective is to provide students an understanding of how companies operate effectively. Beyond the curriculum, an industrial visit offers students a realistic view of the professional world
7	About the Industry1 with address	A Multi-Product Engineering Company with 50 plus years of experience and expertise in the Engineering Industry, and now proudly serving an envious client base including Defence, Irrigation, and Power Projects, Space Research Organizations, State Electricity Boards, Indian Railways, and the General Public both in India and abroad.
	Aboutthe Industry 2 with address	Wonderla Amusement Park in Kochi, previously known as Veega Land, is located 15 km from Kochi city and is home to 50+ amusement rides. Kochi is the first park in India to get an ISO14001 certificate for eco-friendliness and OHSAS 18001 certificate for safety.Amusement parks rely heavily on electrical systems for ride operation, lighting, and other functions. Students can learn about the electrical infrastructure, power distribution, and safety measures implemented at Wonderla
	Aboutthe Industry 3 with address	United Electrical Industries Ltd. locally known as Meter Company is located 5 KM from Kollam city towards Trivandrum. United Electrical Industries is the first factory in India to manufacture Electricity House Service Energy Meters. Major shares of the company were taken over by the Kerala Government in 1957 and reconstituted as a Public



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Industrial Visit Coordinator

HoD/EEE

Principal

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Website:www.miet.edu, E-mail:principalengg@miet.edu, contact@miet.edu

Department of Electrical and Electronics Engineering

Report on Industrial Visit

Company Name **:United Electrical Industries Limited,Kollam, Kerala.**

Date of visit:04.10.2023 (Wednesday)

No. of Students: 52

Year/Semester:IV/VIII

Objective of the visit: During the industrial visit the student will able to

- Acquire the manufacturing details of the House Service Energy meter
- Demonstrate the function of Multifunction Static meters.
- Understand the working and importance of Single jet water and Mulitjet water meters.
- Understand the Vehicle location tracking device.

About the Visit (Student's observation):

- Students learned about the various LSGD'S of Kerala Government as well as Solar Power Plant.
- They also learned all types of machinery and infrastructure required for the calibration and testing of LED lights.
- They also discussed their project with the GPS system and Indian Regional Navigation Satellite System (IRNSS).

Outcome of the visit: After the completion of the industrial visit, the student able

- To explain the function of the Water meter.
- Todemonstrate the procedure for calibration LED lights.
- To explain the importanceof vehicle tracking devices.
- To demonstrate the features of static meters like display of Maximum demand of energy consumption, instantaneous voltage and current etc.,

CO AND PO, PSO MAPPING

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PSO1	PSO2
H	-	-	-	L	H	L	H	H	-	L	-	H	L

Geo-tagged Photos

Industrial Visit Coordinator

HoD/EEE

Principal

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