

ELECTRIFY-2

FROM JANUARY 2022-JULY 2022

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EDITORIAL BOARD

CHIEF EDITOR :- DR.D.SUDHA RANI, HOD., EEE DEPT.,

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2.19A81A0229-M.BHVYA SRI TANMAYEE

3. 19A81A0227-M .JAYA VENKATA RAO





SRI VASAVI ENGINEERING COLLEGE

PEDATADEPALLI, TADEPALLIGUDEM 534 101 WEST GODAVARI Dist , AP



Department of Electrical & Electronics Engineering

➤ VISION

To evolve as a centre of excellence in Electrical and Electronics Engineering that produces graduates of high quality with ethical values.

➤ MISSION

To impart technical knowledge through learner-centric education supplemented with practical exposure.

To provide opportunities that promote personality development through co-curricular and extra-curricular activities.

To inculcate human values & team spirit that enables the Electrical and Electronics Engineers to face the future challenges.

B. Tech in Electrical and Electronics Engineering

Programme Educational Objectives (PEOs)

PEO1: Be the practicing engineers in chosen technical fields such as designing, manufacturing and testing of various electrical systems.

PEO2: Fulfil the needs of society by solving technical problems in an ethical, responsible and an optimal way.

PEO3: Demonstrate professionalism through life-long learning

• Programme Outcomes (POs)

PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and concepts of electrical engineering to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and electrical.

PO3:Design/development of solutions: Design solutions for complex Electrical Engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4:Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern Electrical Engineering and IT tools including prediction and modelling to complex electrical engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the electrical engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex Electrical Engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the Electrical Engineering and management principles and apply these to ones own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes (PSOs)

- To contribute for the Development of green energy technologies to meet future energy demands.
- To identify, formulate, design, investigate and operate various electrical systems.

ELEVATE 2K22(Technical fest):

Engineering is not merely knowing and being knowledgeable; engineering is not merely analysis; engineering is not merely the possession of the capacity to get elegant solutions to non-existent engineering problems; engineering is practicing the art of the organized forcing of technological change. On the occasion of Elevate 2k22 technical fest various activities like Electrical tambola, Brain sparks, Innovate it, Thrill of hunt, Hack the circuit, Arcade zone, presentio, rangoli these are the exciting events that are carried so elegantly and fantabulous by our Lee association of EEE department.



Active involvement of students from second, third and final year students had taken place. Support of the staff in our department is cherished. Organization of these events was done by the final year students which was so effortful. Participation of students with active and innovative thoughts in various events was tremendous.



EVENTS:

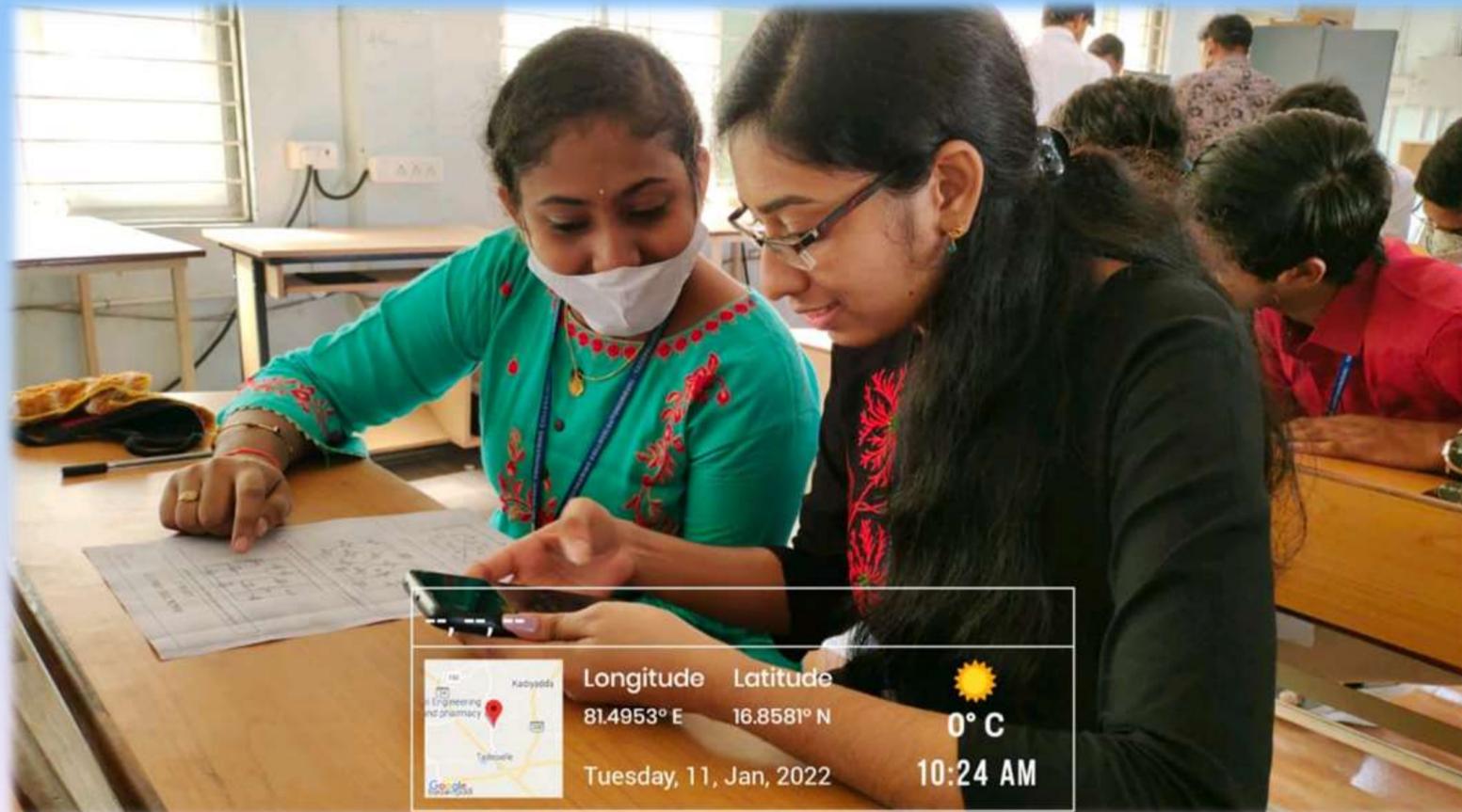


Dr . GUDURU VSNR RATNAKARA RAO
SIR participating in the ARCADE ZONE.

Student explaining about his
presentation of SOLAR TRACKER in
PRESENTIO.



**Students participating actively
in HACK THE CIRCUIT.**



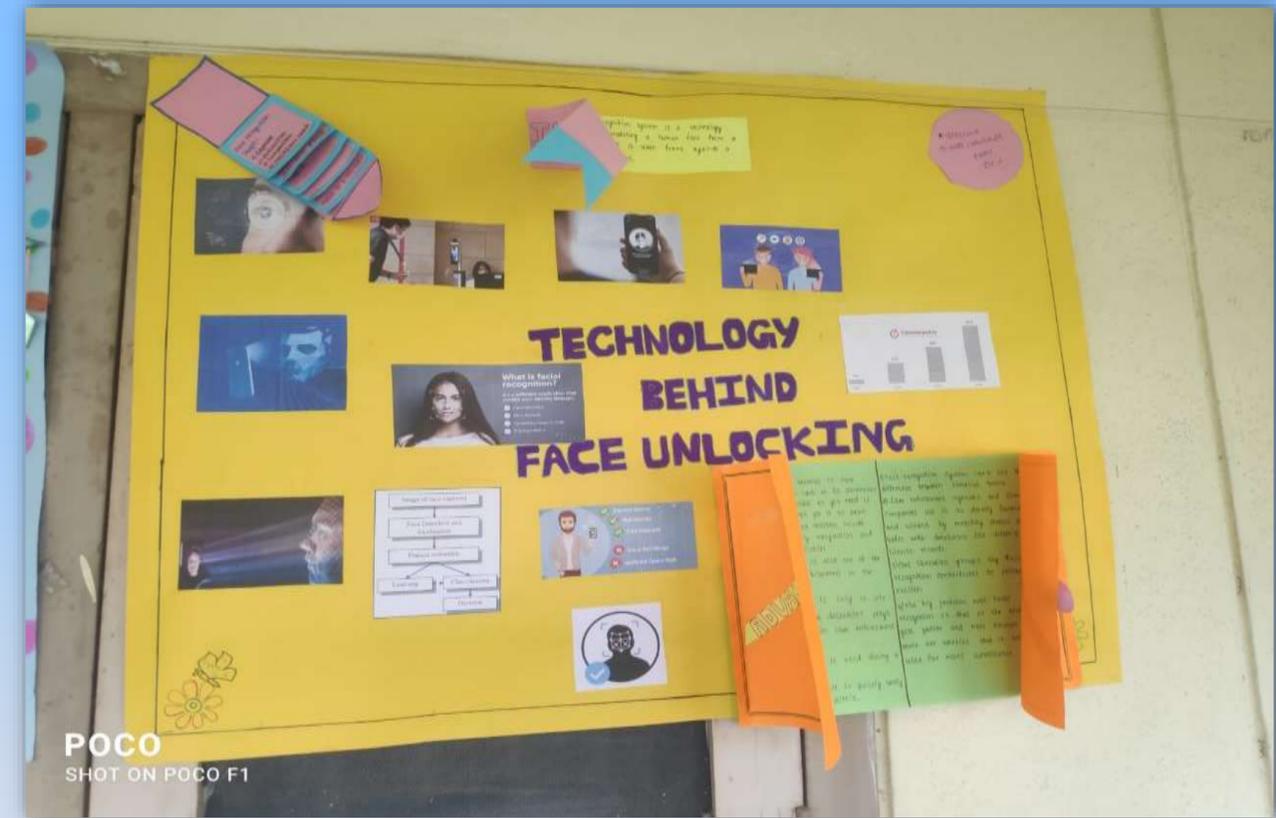
**Students actively
participating in
ELECTRICAL
THAMBOLA.**



Students explaining the presentation on BLUE BRAINS in INNOVATE IT.



Students participated in PRESENTIO and the presentations of SOLID TRACKER and TECHNOLOGY BEHIND FACE UNLOCKING.



PRIZE DISTRIBUTION:



ELEVATE2K22-2.0

A NATIONAL LEVEL
PROJECT EXPO



SRI VASAVI ENGINEERING COLLEGE



(Autonomous)

Pedatadepalli, Tadepalligudem-534101

Approved by AICTE, Permanently Affiliated to JNTUK, Kakinada



ELECTRICAL & ELECTRONICS ENGINEERING

ELEVATE 2K 22-2.0

A NATIONAL LEVEL PROJECT EXPO



Faculty Co-ordinators

- 1. Dr. Anilkumar Chappa - 8309105918
- 2. Mr. V. Ramanarayana - 9491703467

REGISTER @



Student Co-ordinators

- 1. D.V.V. Prasad - 9133933822
- 2. M.J. Venkata Rao - 9492206382

100/- PER PARTICIPANT

WIN EXCITING PRIZES

CHIEF PATRONS

- Sri. G. Satyanarayana - President
- Sri. Ch. V. V. Subba Rao - Secretary & Correspondent
- Sri. Ch. Apparao - Technical Director

PATRONS

- Dr. G. V. N. S. R. Ratnakara Rao - Principal
- Dr. Ch. Rambabu - Dean (SA)

CONVENOR

- Dr. D. Sudha Rani - HOD

As we know that engineering is practicing the art of the organized forcing of technological change. Our LEE ASSOCIATION members arranged the national level project expo. In this project expo students from vizag, Hyderabad and from other places participated. Total 56 projects has been registered and also for the best picked projects they arranged exciting prizes. Total three projects are selected for the prizes.

Sri. Ch. Apparao - Technical Director

Sri. Ch. V. V. Subba Rao - Secretary & Correspondent

Sri. G. Satyanarayana - President

Dr. Ch. Rambabu - Dean (SA)

Dr. G. V. N. S. R. Ratnakara Rao - Principal

Dr. D. Sudha Rani - HOD

CHIEF PATRONS

PATRONS

CONVENOR

WIN EXCITING PRIZES

100/- PER PARTICIPANT



TOP PROJECTS:-

SELF CHARGING OF HYBRID E-BICYCLE:-

BY:- 18A81A0205-B.PAVAN KUMAR

18A81A0223-K.SAI SUDHA

19A85A0227-K.NAVEEN

19A85A234-L.H.SOMASEKHAR



REDUCED SWITCH MULTILEVEL INVERTER TOPOLOGY:-

BY:-19A85A0259-S.GOWTHAMI

19A85A0240-M.JOHN SELVARAJ

18A81A0236-P.VAMSI KRISHNA

19A85A0264-T.VAMSI



RFID BASED CIRCUIT BREAKER USING RASPBERRY PI :-

BY:-19A85A0225-K.KISHORE

19A85A0237-M.SAI RAMA RAJU

19A85A0231-K.TEJA

19A85A0223-J.SIVA NARAYANA



STUDENT COORDINATORS WORKING ON ELEVATE



FACULTY INSPECTING THE PROJECTS

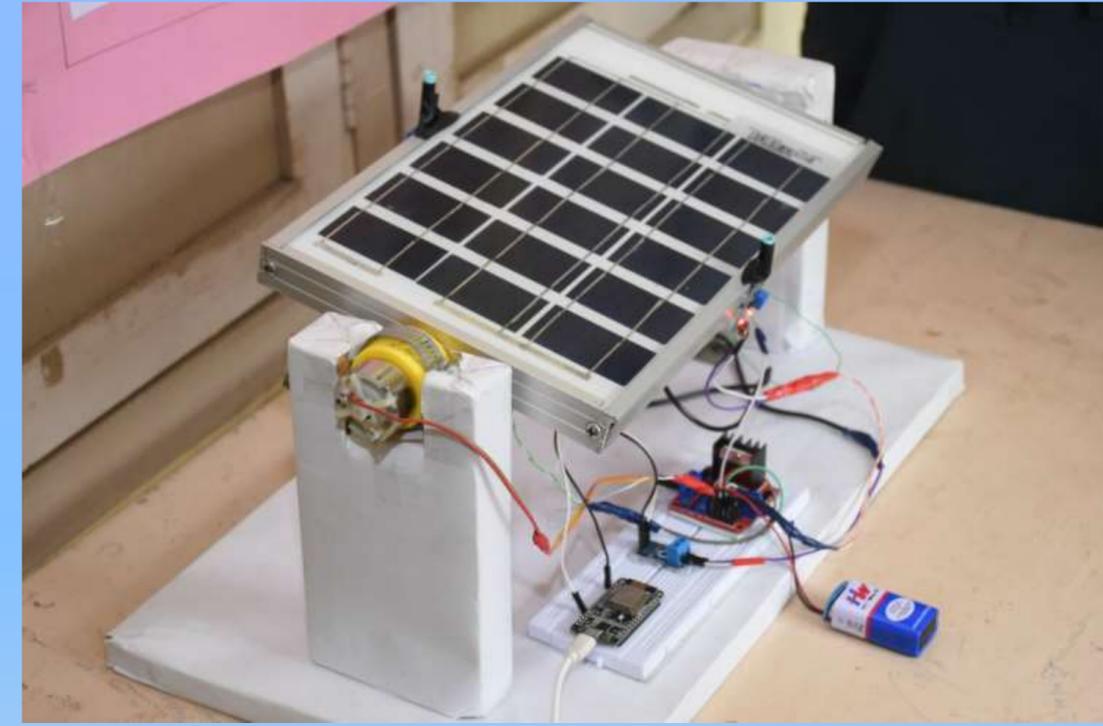


STUDENTS EXPLANING ABOUT THERE PROJECTS



GLIMSE OF PROJECT EXPO





PRIZE DISTRIBUTION



TOP PROJECT S FINILIZED BY :- 1. **MR.K.N.H. SRINIVAS** M.TECH.,(PHD) ECE DEPARTMENT

2. **DR.T.D.N.S.S.SARVESHWARA RAO** BE.,MTECH.,(PHD) ECE DEPARTMENT

PRIZES PRESENYED BY :- CH DIVYA (MANAGEMENT MEMBER)



**PROJECTS SUBMITTED BY
2018-2022 BATCH STUDENTS**

SELF CHARGING HYBRID E-BICYCLE:-

Electric vehicle are bringing new revolution in automobile industries and are much better in comparison of fuel vehicle present on the roads due to its low maintenance and eco-friendly properties. The proposed work deals with the fabrication and testing of an e-bicycle with self-charging concept for two persons. The motor uses electrical energy from battery and another battery installed receives energy from two alternators attached with rotating wheel and gets charged at the same time. Bicycles have always been a popular mode of transportation due to their low cost, ease of use, health benefits and mobility.

PRESENTED BY:-

18A81A0205-B PAVAN KUMAR

18A81A0223-K .SAI SUDHA

19A85A0227-K.NAVEEN

19A85A0234-L SOMA SEKHAR



SOLAR POWERED TRICYCLE:-



The main aim of this project is to overcome the problem of charging loss from electrical vehicles. We can use this tricycle in both ways by manual charging and by solar charging method. Solar energy is renewable so the battery charges continuously in the presence of the sun.

PRESENTED BY:-

18A81A0220-K .PRASANNA LAKSHMI

18A81A0204-B.RAMYA SRI

19A85A0229-K.LAKSHMI NARAYANA

19A85A0233-K.SAI KRISHNA PRASAD

IOT BASED SMART ENERGY METER USING RASPBERRY PI:-

Energy analization by the consumer becomes much easier and controllable. This system also helps in detecting power theft. Thus, this smart meter helps in home automation using IOT and enabling wireless communication which is a great step towards Digital India

PRESENTED BY:- 19A85A0224 – K.NAVYA LAKSHMI
19A85A0230 – K.JASWANTH KRISHNA
19A85A0214 – E. BHARGAVA RAJA
19A85A0207 – CH. SANDEEP



Password Operated Switch:-

The main use of that IOT project is “To provide a Secure Operation with respect to load “. In that Project or Experiment, we can provide a Password or Key to short the Switch by using AI chat Bot. The main use of that IOT project, we can operate that switching operation independent of distance.

PRESENTED BY:- 20A85A0235 – SIDDIQ
20A85A0231 – MAHESH
20A85A0222 – BALAJI
20A85A0251 – KRISHNA



A High Gain DC-DC Full-Bridge Converter With Integrated Passive Snubber Network:-

. A new high gain DC-DC converter with high gain, galvanic isolation and an integrated passive snubber network is proposed. The general operation of the converter is discussed, its modes of operation are explained and its features are reviewed. The design of the converter is discussed and a set of general guidelines that can be used in the design are presented. The feasibility of the converter is confirmed with experimental results obtained from a prototype converter

PRESENTED BY:- 18A81A0232-P.MUKESH
18A81A0228-M.PRIYANKA
19A85A0246-CHANDRA SAI PADAM
19A85A0247-P.DEVINADH



IOT BASED BATTERY STATUS MONITORING SYSTEM:-



The Battery status monitoring system using ESP8266 and IOT Cloud monitors the battery voltage, charging and discharging percentages. In this project, we have used the Node MCU ESP8266 board which sends the data related to battery status to the IOT cloud. Hence this IOT cloud dashboard directly notifies the user remotely.

PRESENTED BY :- 19A85A0275 -T.SAI SNEHA
18A81A0237 -P.ANUSHA
19A85A0241 -M.RAMA KRISHNA
19A85A0274 -K.SASI KUMAR

WIRELESS Notice Board By Using Raspberry Pi:-

- The main objective of the system is to develop a wireless notice board that displays notices in the form of text.
- Message displayed should be updated every time
- Only authenticated people should update the data.

PRESENTED BY :-

K. LAKSHMI VINEETHA(18A81A0224)

N. DURGA SAI PRASAD(19A85A0243)

P. PAVAN KUMAR(19A85A0251)

R. VAMSI KRISHNA(18A81A0238)



IOT CONTROLLED WATER SUPPLY MANAGEMENT:-

As the scientific revolutions are helping improve our day to day life. The system shown here is IOT (Internet Of Things) based solenoid operated valve system which can effectively control the water supply. The controller is programmed which communicate with IOT protocol and connect with Ethernet or WIFI shield to operate the solenoids at particular time interval in different areas, the control room person has to operate the overall operation using android application from an android mobile



PRESENTED BY:-

19A85A0221-J.MAHESH SRINU

19A85A0215-E.MANO HAR JOSHI

18A81A0210-CH. SEKHAR

18A81A0213-G.NAGA SAI

SMART TROLLEY :-

The proposed method is to have the customer directly process products and bill them in the trolley instead of waiting in a queue for long periods of time. The customers have to add the products after a short scan in the trolley and when they're done, the amount will be displayed in the trolley.

the customer can pay digitally through the app; thus, cutting down on the time that would be otherwise spent in long queues and relieve them from the tediousness of scanning barcodes.

PRESENTED BY:- 19A85A0211- D. DEVIKA

19A85A0222- J.S.V GUPTA

19A85A0226- K. SAMPATH KUMAR

18A81A0219- K. G. V. HARSHA VARDHAN

POWER MONITORING SYSTEM USING IOT:-

This project discuss the process of the data extraction and data analysis from Drop box. The Effective and efficient functionality of the electrical network can be achieved through continuous monitoring and control of electrical parameters like voltage, current, active power, energy..etc that are measured. The measured data is fed to Drop box and then it is send to MYSQL database. This data is shown in html page. If incase any faults are occur like overloads, decrement in Power factor..etc then the system should give alerts to the consumer through email.

PRESENTED BY:-

18A81A0233-P.PURNA TULASI

18A81A0247-V.SAI SRINIVAS

19A85A0250-P.NAGARAJU



DROWINESS DETECTION :-

This project is aimed towards developing a prototype of drowsiness detection system. This system is a real time system which captures image continuously and measures the state of the eye according to the specified algorithm and gives warning if required. If in case the driver doesn't response then a message is send to the family member through GSM module.

PRESENTED BY:- 19A85A0239-M.GIGEESHIYA
19A85A0273-Y. TEJAHANUMAN
19A85A0265-T.DILIP KUMAR
18A81 A0241-T. SATHISH

SMART AGRICULTURE :-

Automation in agriculture systems helps farmers to improve crop yield and increase production from their fields while reducing water and electricity consumption

In this project, we design smart irrigation system with the object of controlling the water consumption in agriculture field which is based on IOT.

PRESENTED BY:- 18A81A0226 - M. BABY SRI
19A85A0258 -R. PRAVEEN
19A85A0244- N. KOTI RAJESH
19A85A0254- P. TANUJA



MINIMIZATION OF POWER LOSSES IN RADIAL DISTRIBUTION SYSTEM:-

The Project aims to minimize the power losses in the distribution system. Forward backward sweep algorithm real and reactive power losses are calculated. IEEE 14 bus system is considered as test system. Voltage dependent load modeling is considered to reduce the losses without adding any DG system to the distribution system. In the distribution system, the bus's voltage profile and power losses are calculated

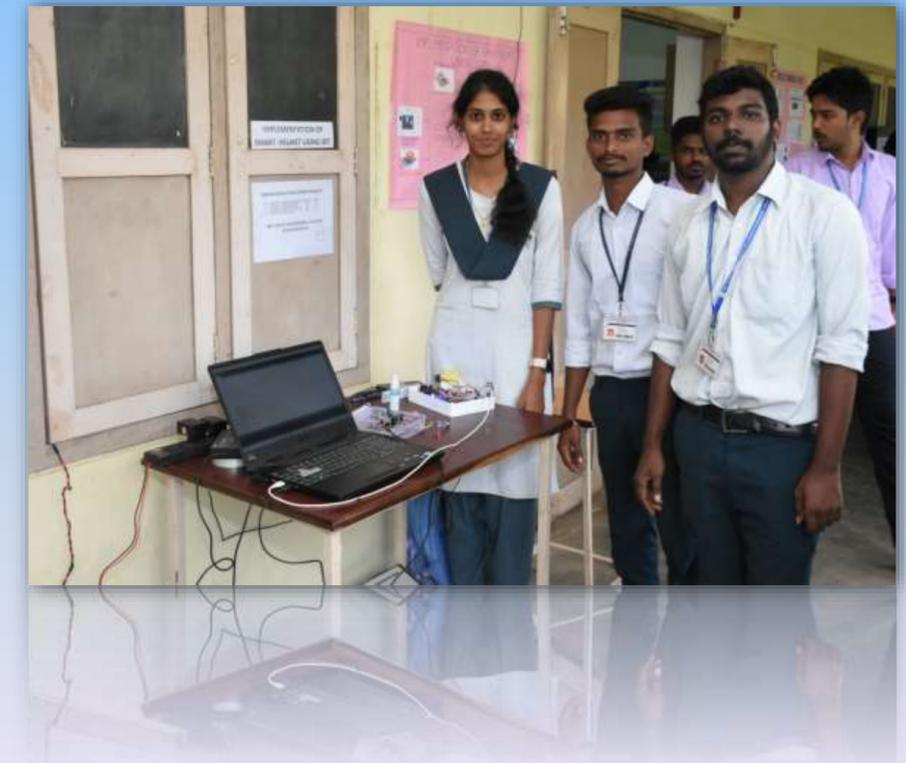
PRESENTED BY:- 18A81A0246-V B N SWATHIKA DEVI
18A81A0248-Y NAVYA
19A85A025 -R JITHENDRA KUMAR
19A85A0248-P SUBBA RAJU



IMPLEMENTATION OF SMART HELMET USING IOT :-

Now a days, Accidents are increasing rapidly. Most of the accidents are the bike accidents which causes death. Major deaths are due to head injuries which can be prevented by wearing a helmet. This incidents made us to develop a smart helmet. It is type of protective device which provides safety for the rider. This can be implemented by using IOT technology. Smart helmet focusing on the three major applications. At first and most one is the ignition of the bike will not happen if we are not wearing the helmet. Secondly alcoholic driving is not possible by using smart helmet. Third application is accident detection.

PRESENTED BY:- 19A85A0270-V. HARI KIRAN
18A81A0249-Y.DEVI TANUJA
19A85A0252-P YASWANTH KUMAR
19A85A0255-P ELISHA





**CONDUCTED A INDUSTRIAL TRANING ON DESIGNING OF SOLAR PV TECHNOLOGIES
UNDER THE SUPERVISION AVEON TECHNOVATION HYD**



FACULTY EXPLAINING THE CONCEPTS PRACTICALLY



STUDENTS INTERACTING WITH AVEON TEAM MEMBERS

STUDENTS OBSERVING THE WORKING OF SOLAR PV MODULES



Faculty explaining the working of the systems





**TRAINERS CREATING AWARENESS ABOUT SAFETY MEASURES
AMONG STUDENTS**



Successfully completed industrial training program on p.v cells and module designs under the guidance of **SVES** faculty and **AVEON TEAM**



**SCIENCE IS ABOUT
KNOWING,
ENGINEERING
IS ABOUT DOING.**