HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Gowdavelly (Village), Medchal (Mandal), Ranga Reddy (Dist.) – 501401. TS. India.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

STUDENT SKILL DEVELOPMENT CENTER- EEE

Objective: To attain the gap between Industries and academics, students will be trained on core Emerging Technologies through SSDC.

List of Courses

Department : EEE

Reporting Head : Dr.O.P.Suresh

Center I/C : Mr. Salava V Satyanarayana

Faculty I/C : Ms. P.Madhavi

Date Of Establish : 22-1-2018

| S.NO | Course | Duration |
|------|--------------------------------------|----------|
| 1 | ARDUINO PROGRAMMING | 16 Weeks |
| 2 | INDUSTRIAL AUTOMATION WITH PLC | 16 Weeks |
| 3 | PYTHON PROGRAMMING | 12 Weeks |

Objectives:

- 1. Train students in core emerging technologies like Arduino programming and Python to close the industry skills gap.
- 2. Bridge the academic-industry divide by equipping students with practical skills for real-world engineering applications.
- 3. Foster critical thinking and problem-solving skills essential for tackling engineering challenges.
- 4. Cultivate a love for lifelong learning by focusing on enduringly relevant skills like programming languages.
- **5.** Develop a curriculum that directly addresses the specific skillset and technologies currently demanded by the electrical and electronics engineering industry.

Outcomes:

- 1. Bridging the theory-practice gap, the center equips students with hands-on skills for immediate industry impact.
- 2. Programming and automation courses foster critical problem-solving abilities, empowering students to tackle engineering challenges.
- 3. Mastering in-demand skills builds student confidence, allowing them to approach careers with a strong foundation.
- 4. The center ignites lifelong learning, as programming skills continuously adapt to the evolving engineering landscape.
- 5. Addressing the industry gap directly, the program ensures graduates possess the specific skills and technologies currently used by companies.

How is it benefiting the students?

The Skill Development Center benefits students by equipping them with in-demand skills like Arduino programming and Python, bridging the gap between theory and practical applications in the electrical and electronics engineering industry. This not only strengthens their resumes but also fosters critical thinking and problem-solving abilities, boosting their confidence and preparing them for lifelong learning in a rapidly evolving field.

SYLLABUS

ARDUINO PROGRAMMING

Module.1:

- ✓ Course syllabus & course duration
- ✓ Project & Hardware
- ✓ Software (Arduino IDE) & Coding basics
- ✓ Introduction to LED and BUZZER Pin Configuration
- ✓ Interfacing LED (turning ON and OFF and to perform a sequence of operation)
- ✓ Interfacing Buzzer turning ON and OFF

Module.2:

- ✓ Introduction to LDR sensor, pin Configuration
- ✓ Interfacing LDR Sensor & Counter with LDR sensor
- ✓ Introduction to Soil moisture sensor and Pin Configuration
- ✓ Interfacing Soil moisture sensor, setting Level of moisture value
- ✓ Soil moisture value turning ON and OFF of LED/BUZZER

Module.3:

- ✓ Introduction to Smoke Sensor and Pin Configuration
- ✓ Interfacing Smoke Sensor & Setting Level of smoke value (HIGH and LOW) turning ON and OFF of LED/BUZZER
- ✓ Introduction to Display pin configuration
- ✓ Interfacing 16x2 LCD display & Writing program for display text on LCD
- ✓ Introduction to Ultrasonic Sensor Configuration
- ✓ Interfacing ultrasonic sensor & Writing code for measuring specific distance

Module.4:

- ✓ Introduction to PIR sensor and Pin Configuration
- ✓ Interfacing PIR sensor & Writing code for object detection
- ✓ Introduction to relay, pin Configuration
- ✓ Interfacing Relay & Writing code to turn ON and OFF Relay
- ✓ Introduction to LM35, Pin Configuration
- ✓ Interfacing temperature sensor & Writing code to measure temperature

Module.5:

- ✓ Introduction to RFID Reader module and Tag, Pin Configuration
- ✓ Interfacing RFID & Writing code to read RFID data
- ✓ Introduction to L293D Motor Driver and Pin Configuration
- ✓ Interfacing L293D Motor Driver
- ✓ Writing code to drive motor in a forward and backward direction

INDUSTRIAL AUTOMATION WITH PLC

Module 1:

- ✓ Introduction to PLC hardware
- ✓ Architectural Evolution of PLC
- ✓ Role of PLC in Automation
- ✓ Introduction to the field devices attached to PLC
- ✓ AB PLC fundamental (Block Diagram of PLC)
- ✓ Detail information about PLC component Power supply ,CPU,I/O Modules
- ✓ Communication Cards
- ✓ Various range available in PLC
- ✓ Type of inputs & Outputs
- ✓ Source sink Concept in PLC
- ✓ Scan cycle execution

Module 2:

- ✓ Introduction of PLC software
- ✓ Addressing Concepts
- ✓ Programming instruction arithmetic & logical
- ✓ Leading edge / trailing edge instructions

Module 3:

- ✓ Timer Blocks programming
- ✓ Counter block programming
- ✓ Standard Procedure to be followed in wringing/writing ladder etc
- ✓ Hands on experience on writing programs
- ✓ Creating / Editing a ladder logic
- ✓ Documenting the project

Module 4:

✓ Projects on Industrial applications

PYTHON PROGRAMMING

Module.1:

- ✓ Python Fundamentals & Python Installation
- ✓ Python Operators
 - 1. Arithmetic Operators
 - 2. Relational Operators or Comparison Operators
 - 3. Logical operators
 - 4. Bitwise operators
 - 5. Assignment operators
 - 6. Special operators

Module.2:

✓ Flow Control

- 1. Conditional Statements
- 2. Transfer Statements
- 3. Iterative Statements

✓ Strings data Type

- 1. Mathematical Operators of the String
- 2. Comparison and Removing Spaces of String
- 3. Joining and Splitting of strings
- 4. Formatting

Module.3:

✓ List and Tuple data Structures

- 1. Data Structures
- Creation of list objects
- Accessing elements of list
- Manipulating Elements of list
- Ordering Elements of list
- 2. Tuple data Structures
- Len
- Count
- Index
- Sorted
- Cmp

✓ Set and Dictionary data Structure

- 1. Creation of Set objects
- 2. Important Functions of Set
- 3. Mathematical Operations on set
- 4. Functions of Dictionary

Module.4:

✓ Functions

- 1. Built-in Functions
- 2. User defined Functions

✓ File and Exception Handling

- 1. Types of Files
- 2. Types of Errors

✓ Pattern Programs

Types of Program Patterns.

Certifications

| S.No | Title of Certification | No.of Students |
|------|------------------------|----------------|
| 1 | MATLAB | 50 |
| 2 | PLC Programming | 302 |
| 3 | PYTHON | 42 |

Achievements:

- ✓ Three Indian Patents Published by students and faculty on Electric Vehicles
- ✓ 5 Students selected for an internship in IIIT Hyderabad as a part of college research affiliated Program in 2023
- ✓ Two Projects received Best Project awards in the project Expo held at Tamil Nadu in 2021
- ✓ Two Projects received Certificate of Merit in the Project Expo held at Tamil Nadu in 2021
- ✓ 302 students got certified in Industrial automation with PLC (Online/ offline)
- ✓ 50 students got certified in MATLAB Onramp from MathWorks
- ✓ One faculty completed PG Diploma in Automation and two Faculties got certified in PLC.
- ✓ 24 papers published by the students in SCOPUS/UGC and Peer-reviewed International journals along with faculty members.
- ✓ Two MoUs signed to work on Industrial automation-PLC

Participation in Technical Events & Achievements:

| S.No | Roll No | Name of the Student | Event Participated | Title of Project | Month/Year |
|------|------------|-------------------------|---|--------------------------|------------|
| 1 | 20E55A0202 | AMAN KUMAR CHOUDHARY | AVISHKARANA-2K22- National level Technical Fest | Smart Dustbin | May-22 |
| 2 | 19E51A0218 | N.PRANAY | 1 400 | | |
| 3 | 20E55A0212 | D.ANIL SAI | | | |
| 4 | 20E55A0217 | M.SOUMITH | | | |
| 5 | 20E55A0216 | V.VAMSI KRISHNA | National level Technical Symposium, Promethean | Mini E-Scooter | Oct-22 |
| 6 | 21E55A0232 | SHAIK ABDUL ADIL | 2k22 | | |
| 7 | 20E55A0207 | B.VISHWANTH | | IoT based | |
| 8 | 19E51A0214 | M.MANASA | Duning France Co. 4 | college Bus | N 22 |
| 9 | 20E55A0230 | V.SAI AKANAKSHA | Project Expo-Consortium | Tracking and Monitoring | Nov-22 |
| 10 | 20E55A0212 | D.ANIL SAI | | System | |
| 11 | 19E51A0212 | SAI PREETHAM | | | |
| 12 | 20E55A0213 | J.HARSHITH | National level Technical | C D: | 0-4-22 |
| 13 | 19E51A0211 | MAYUK | Symposium,Promethean 2k22 | Soap Dispenser | Oct-22 |
| 14 | 20E55A0203 | KARTHIK | ZK22 | | |
| 15 | 20E55A0212 | D.ANIL SAI | | | |
| 16 | 20E55A0217 | M.SOUMITH | National level Technical | | |
| 17 | 20E55A0216 | V.VAMSI KRISHNA | Symposium, Promethean | Mini E-Scooter | Oct-22 |
| 18 | 21E55A0232 | SHAIK ABDUL ADIL | 2k22 | | |
| 19 | 19E51A0222 | P.AKASH | | | |
| 20 | 20E55A0218 | ESHWAR VALMIKI | National level Technical | Speed Control of | |
| 21 | 19E51A0209 | KRISHNAKANTH | Symposium, Promethean | DC Motor Using | Oct-22 |
| 22 | 20E55A0210 | CH.VAMSI KRISHNA | 2k22 | Arduino | |
| 23 | 20E55A0207 | B.VISHWANTH | | Generation of | |
| 24 | 19E51A0214 | M.MANASA | National level Technical Symposium, Promethean | Electricity using | Oct-22 |
| 25 | 20E55A0230 | V.SAI AKANAKSHA | 2k22 | Pedalling Technology | 301 22 |
| 26 | 20E55A0201 | SANDEEP KUMAR | | | |
| 27 | 20E55A0207 | B.VISHWANTH | | IoT based | |
| 28 | 19E51A0214 | M.MANASA | Project Expo-Consortium | college Bus Tracking and | Nov-22 |
| 29 | 20E55A0230 | V.SAI AKANAKSHA | J = | Monitoring | |
| 30 | 20E55A0212 | D.ANIL SAI | | System | |
| 31 | 20E55A0202 | AMAN KUMAR CHOUDHARY | Duning France Commentions | C of Dec-4h in | N 22 |
| 32 | 19E51A0218 | N.PRANAY | Project Expo-Consortium | Smart Dustbin | Nov-22 |
| 33 | 20E55A0205 | B.PRAVEEN | | | |
| 34 | 21E55A0209 | G.ARTHI | National level Technical | Andrein - D | |
| 35 | 21E55A0212 | G.SHIVA SAI | Symposium, Promethean | Arduino Based Home | Oct-22 |
| 36 | 21E55A0213 | G.MAHESH | 2k22 | | |

| 37 | 21E55A0216 | K.SATHWIKA | | Automation Using Bluetooth | |
|----|------------|-------------------------|-------------------------|----------------------------|--------|
| 38 | 21E55A0222 | M.UDAY KIRAN | | Smart | |
| 39 | 21E55A0230 | P.MAHESH BABU | Project Expo-Consortium | Attendance | Nov-22 |
| 40 | 21E55A0231 | S.YASHWANTH | | System | |
| 41 | 19E51A0203 | B.Roshini | | | |
| 42 | 19E51A0222 | P.Akash | | | |
| 43 | 20E55A0219 | M.Bharath | Technopilla,MIT | Smart bag for | |
| 44 | 20E55A0220 | M.Sai Nikhil | Academy,Pune | Womens Safety | Mar-23 |
| 45 | 19E51A0204 | E.Chakra Harish | | | |
| 46 | 19E51A0213 | L. Sindhu Sri | | | |
| 47 | 19E51A0221 | P.Sai kiran Reddy | Technopilla,MIT | | |
| 48 | 20E55A0206 | B.Sangamesh | Academy,Pune | Electric Bicycle | Mar-23 |
| 49 | 19E51A0203 | B.Roshini | | | |
| 50 | 19E51A0222 | P.Akash | | | |
| 51 | 20E55A0219 | M.Bharath | | Smart bag for | |
| 52 | 20E55A0220 | M.Sai Nikhil | VALORUS 2023, MLRIT | Womens Safety | Mar-23 |
| 53 | 19E51A0204 | E.Chakra Harish | | | |
| 54 | 19E51A0213 | L. Sindhu Sri | | | |
| 55 | 19E51A0221 | P.Sai kiran Reddy | | | |
| 56 | 20E55A0206 | B.Sangamesh | VALORUS 2023, MLRIT | Electric Bicycle | Mar-23 |
| 57 | 19E51A0214 | M.Manasa | | | |
| 58 | 20E55A0230 | akanksha | | Iot based college | |
| 59 | 20E55A0207 | B.vishwanth | | bus tracking | |
| 60 | 20E55A0212 | Anil | VALORUS 2023, MLRIT | System | Mar-23 |
| 61 | 19E51A0214 | M.Manasa | | | |
| 62 | 20E55A0230 | akanksha | VIDYUT- | Iot based college | |
| 63 | 20E55A0207 | B.vishwanth | 2023, Vardhaman College | bus tracking | |
| 64 | 20E55A0212 | Anil | of Engineering | System | Mar-23 |
| 65 | 19E51A0212 | SAI PREETHAM | | IoT bases | |
| 66 | 18E51A0212 | Divya Sri | VALORUS 2023, MLRIT | Automatic Sanitiser | Mar-23 |
| 67 | 20E55A0202 | AMAN KUMAR CHOUDHARY | | | |
| 68 | 19E51A0218 | N.PRANAY | | | |
| 69 | 20E55A0205 | B.PRAVEEN | VALORUS 2023, MLRIT | Smart Dustbin | Mar-23 |

| S.No | Name of the Student | Event Participated | Achievement | Month/Year |
|------|---------------------|------------------------------------|-----------------|------------|
| 1 | R.Sandeep | Innofiesta,HITAM | Won Third Prize | Nov-24 |
| 2 | S.Sai Krishna | | | |
| 3 | B.Lakshmi Prasanna | | | |
| 4 | S.Umesh Chandra | | | |
| 5 | A.Sindhuja | Paper Presentation in ADVAYA-2k24, | | |
| 6 | K.Anusha | A National Level Management Fest | Participation | Dec-24 |
| 7 | K.Swathi | Organised by the Department of | 1 articipation | Dec-24 |
| 8 | K.Pranay | Management Studies | | |
| 9 | P.Venkata Sai Kumar | | | |
| 10 | K.Malliswari | | | |
| 11 | R.Mahemsh Chandra | | | |
| 12 | Mali Kailash | | | |
| 13 | Akhil Sai Vodnala | Synergia-2025, Hyderabad | Won First Prize | Apr-25 |
| 14 | L.Akanksha | | | |
| 15 | Akhil Sai Vodnala | | | |
| 16 | Wasim | | | |
| 17 | S.Sandeep Reddy | | | |
| 18 | S.Venkat Sai | IEEE E-Jigyasa Project Expo,NIT | Participation | Apr-25 |
| 19 | V.Madhu Vardhan | Warangal | | Apr-23 |
| 20 | A.Siddu | | | |
| 21 | A.Devender Sagar | | | |
| 22 | T.Akshay | | | |

Technical Talks/Workshops Under SSDC EEE:

| | ** | | Date of the |
|------|-----------|---|-------------------|
| S.No | Year | Title of the program | program |
| | | | 31-08-2018 to |
| 1 | 2018-2019 | Industrial Automation with PLC and SCADA | 01-09-2018 |
| | | | 13-02-2020 to |
| 2 | 2019-2020 | Industrial Automation with PLC | 15-02-2020 |
| 3 | 2020-2021 | Industrial Automation with various controllers | 03-04-2021 |
| 4 | 2020-2021 | Electrical Vehicles-Your Opportunity to grow | 16-06-2021 |
| 5 | 2021-2022 | Industrial Automation with PLC & SCADA | 30-11-2021 |
| 6 | 2021-2022 | Hands-on Session on PLC Programming & SCADA | 28-12-2021 |
| 7 | 2022-2023 | Real Time Applications of Sensors with IOT | 31-03-2023 to 01- |
| | | | 04-2023 |
| 8 | 2022-2023 | Design Thinking | 02-01-2023 |
| 9 | 2022-2023 | Remote labs Under IEEE | 24-04-2023 |
| 10 | 2022-2023 | National Energy Conservation Day | 14-12-2022 |
| 11 | 2023-2024 | Awareness Session on how to prevent pollution | 02/12/2023 |
| 12 | 2023-2024 | Awareness Session on Energy Conservation Day | 14/12/2023 |
| 13 | 2023-2024 | Guest Lecture on Industrial Automation and Career Opportunities | 03/01/2024 |

| 14 | 2023-2024 | Workshop on Internet of Things: Build your own smart world with | 10/01/2024 |
|----|-----------|---|-------------|
| | | Arduino | |
| 15 | 2023-2024 | Two day Workshop on Optimizing Industrial Process: A Hands-on | 31/05/2024- |
| | | SCADA Workshop | 01/06/2024 |
| 16 | 2024-2025 | Industry Visit to Olectra Greentech Ltd's, Electric manufacturing | 02/08/2024 |
| | | Unit | |
| 17 | 2024-2025 | FDP on Sustainable Futures: A Faculty Development Program on | 03/10/2024- |
| | | Green Building and Energy Management | 05/10/2024 |
| 18 | 2024-2025 | Awareness on Energy Conservation | 14/12/2024 |
| 19 | 2024-2025 | Lecture on Problem-Solution Fit∏ Market Fit | 30/12/2024 |

Prototypes Developed@SSDC EEE Center

| S.No | Name of Working Model |
|------|--|
| 1 | Electric Tri Cycle |
| 2 | Realtime monitoring of loads automation |
| 3 | Solar Vaccum cleaner and floor cleaner Robot |
| 4 | Smart Bin |
| 5 | Air Quality Monitoring System |
| 6 | Smart mobility wheel chair |
| 7 | Defogger Helmet |
| 8 | Health Monitoring system |
| 9 | Smart Attendance system |
| 10 | Electric Bi Cycle |

Working Models related to SDG:

> SMART MOBILITY WHEELCHAIR: AI-DRIVEN PERFORMANCE OPTIMIZATION, ADAPTIVE CONTROLS, AND ENHANCED SAFETY WITH OBSTACLE DETECTION



The Smart Mobility Wheelchair project focuses on developing an AI driven electric wheelchair with multimode control and enhanced safety features for users with mobility impairments. Built around the ESP32 microcontroller, it supports joystick, gesture, touch, and smartphone control via the RemoteXY platform. The wheelchair uses dynamic braking and ultrasonic obstacle detection to ensure safe navigation. It incorporates 24V, 250W PMDC motors powered by a 22.2V, 20Ah lithium-ion battery managed through a Battery Management System. AI algorithms analyse data like speed, battery cycles, and distance to optimize performance and predict maintenance needs. The software uses PWM for smooth motor control and braking via relay logic. Real-time monitoring through serial output helps in debugging and tuning. With a top speed of approximately 7.2 km/h and torque output of 49.6 NM, it balances performance and safety. The frame supports up to 100 kg and offers good stability on various terrains. Testing confirmed responsive, wireless control and smooth acceleration. Overall, the system enhances mobility, independence, and user experience through smart technologies.

> MULTIFUNCTIONAL ELECTRIC BICYCLE



A multifunctional electric bicycle is a modern, eco-friendly vehicle that combines traditional pedaling with electric motor assistance to make riding easier and more efficient. Designed for versatility, it typically includes features such as pedal-assist and throttle modes, allowing riders to travel longer distances or tackle hills with less effort. These bikes are often equipped with practical additions like cargo racks, foldable frames for easy storage, smart displays showing speed and battery life, built-in lighting systems, and even GPS tracking and mobile app connectivity. Whether used for commuting, recreation, delivery, or off-road adventures, multifunctional e-bikes offer a convenient, sustainable, and cost-effective alternative to cars for short and medium-distance travel.

> CRUISING WITH CONFIDENCE:ELCTRIC TRICYCLE FOR EMPOWERED HANDICAPPED TRAVEL



This project mainly helps to improve the ease of travelling for handicapped people integrating with new technology of electric tricycles. A normal tricycle requires a lot of human effort to move from one place to another place. This is solved by our electric tricycle which requires no effort from the person to travel.

SMART HELMET



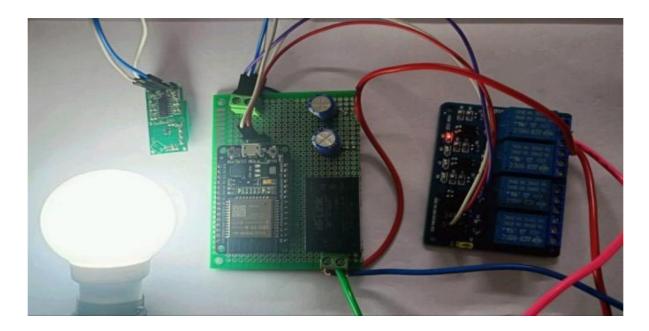
Motorcycle helmet visor fogging is a major problem that doesn't just occur in cold conditions but also in rainy weather. This fog occurs inside the visor. Due to varying temperatures inside concerning outside of the helmet, many modern motorcycle helmets have features that prevent fogging but are expensive.

> SOLAR VACUUM CLEANER ROBOT



In a contemporary busy lifestyle finding time to clean can be tough but having a clean living space is important for our well-being. Achieving cleanliness by using conventional cleaning methods can be a real pain that requires a lot of time and effort for effective cleanliness.

LOAD AUTOMATION USING RADAR SENSOR:



Generally we control Electrical appliances like light, fans using switches directly by switching ON or OFF. This research paper explores about the designing a controller by merging IoT Technology, advanced sensors, and Aurdino-based automation. Now, the Internet of Things integration into modern automation has transformed home and industrial systems. This project is aimed at developing a smart automation of loads using NodeMCU, WiFi dashboard, Blynk application, and relay modules. This system allows users to control electrical appliances remotely using a smartphone or web interface due to its ability to enhance ease of use, energy efficiency, and user control.

Above are some working models for the SSDC EEE department. These can be aligned with current trends in electrical engineering and can also support Project-Based Learning (PBL) and Sustainable Development Goals (SDGs).

List of Papers Published in Journals/Conferences

| <u>S.N</u> <u>o</u> | Name of the Author | Title of Paper | Name of Journal | Year |
|------------------------|------------------------|--|-------------------|--------|
| 1 | S.V.SATYANARAYANA | | | |
| 2 | I.RANJITH | | | |
| 3 | K.ARUN | Three Phase fault Rectification | | |
| 4 | N.KIRAN KUMAR | using Multi Functional | IJRAT | 2019 |
| 5 | S.V.SATYANARAYANA | | | |
| | C CALDAIACDI | Review Paper on PLC and its | IID.CC | 2020 |
| 6 | G. SAI RAJASRI | applications in industrial | IJRCS | 2020 |
| 7 | P.MADHAVI | - | | |
| 8 | BALAPURAM AARTHI REDDY | | | |
| 9 | BODDU NANDINI | | | |
| 10 | GINNARAM VYSHNAVI | Automated Irrigation System using | | |
| 11 | P. VIJAYA LAKSHMI | PLC | IJCRT | 2020 |
| 12 | S.V.SATYANARAYANA | | | |
| 13 | P.MADHAVI | _ | | |
| 14 | B.SRINIVAS | Motor Controlling in Industries | | |
| 15 | B.KASINADH | Using PLC | JES | 2020 |
| 16 | S.V.SATYANARAYANA | Review Paper on PLC and its applications in industrial | IJRCS | 2020 |
| 17 | S.V.SATYANARAYANA | Automation of Parking slot system | Solid State | |
| 18 | G. SAI RAJASRI | Analysis with | Technology | 2020 |
| 19 | AALA MADHU | | | |
| 20 | KUNTE NAVYA SRI | Control Scheme and Performance | | |
| 21 | RANGRECE VINAY | Analysis of Dual- Frequency | | |
| 22 | MOHAMMED ADIL | Single-Phase Grid-Connected | | |
| 23 | MOHAMMED MOIZ UDDIN | inverter interfaced with Weak and | Mukt Shabd | 2021 |
| 24 | B.Dheeraj | | | |
| 25 | S.Devender | | | |
| 26 | S.Anirudh | Design and Fabrication of | | |
| 27 | Ramu | customized | IJAEMA | 2021 |
| 28 | K. Abhishek Kumar | | | |
| 29 | R.Hemalatha | | | |
| 30 | T.Sindhuja | MONITORING OF STREET | | |
| 31 | V.Devi Maha Lakshmi | LIGHTS USING GSM | Mukt Shabd | 2021 |
| 32 | D.SWATHI | | | |
| 33 | K.PRAVALIKA | | | |
| 34 | ABDUL GHANI | DC-DC Boost Converter Using Lab | | |
| 35 | T.ASMITHA | view view | Mukt Shabd | 2021 |
| 36 | B.SRINIVAS | IOT based Feeder Control | Mukt Shabd | 2021 |
| 37 | S.V.Sathyanarayana | | | |
| 38 | P.Madhavi | | | |
| 39 | B.Roshini | | | |
| 40 | P.Akash | | | |
| 41 | M.Bharath | | Published in IEEE | |
| 42 | M.Sai Nikhil | Smart Bag for Womens Safety | XPLORE | Mar-23 |

| 43 | S.V.Sathyanarayana | | | |
|----|--|--|--------------------------|-----------|
| 44 | M.Manasa | - | | |
| 45 | akanksha | 1 | | |
| 46 | B.vishwanth | 1 | D.11' 1 1' IEEE | |
| 47 | anil | Iot based college bus tracking System | Published in IEEE XPLORE | Mar-23 |
| 48 | P.Madhavi | System | ALCKE | IVIdI-23 |
| 49 | S.V.Sathyanarayana | - | International | |
| 50 | E.Chakra Harish | | Conferences | |
| 51 | L. Sindhu Sri | | Advances in | |
| 52 | P.Sai kiran Reddy | | Electrical & Electronics | |
| 53 | B.Sangamesh | MultiFunctional Electric Bicycle | Engineering | Feb-23 |
| 54 | S.V.Sathyanarayana | THE STATE OF THE S | | 100 20 |
| | 21 · · · · · · · · · · · · · · · · · · · | Big Data Analytics for Electrical | | |
| | DAG III. ' | Systems using Machine learning | TEMSTET & | E 1 22 |
| 55 | P.Madhavi | Algorithms | Published in W3S | Feb-23 |
| 56 | Pillalamarri Madhavi | Prediction of Power and Current | ICPEEV-2024& | |
| | | for Self Charging E-Bicycle Using | Published in IEEE | 26-28 Sep |
| 57 | Salava V Satyanarayana | Machine Learning Algorithms | XPLORE | 2024 |
| 58 | Pillalamarri Madhavi | Dua 4: -4: | | |
| | | Prediction of Voltage Discharge for Electric Tricycle | ICPEEV-2024& | |
| | | Using Machine Learning | Published in IEEE | 26-28 Sep |
| 59 | Salava V Satyanarayana | Algorithms | XPLORE | 2024 |
| | | | | |
| 60 | Pillalamarri Madhavi | | | |
| | | Effectiveness of a PBL curriculum | | |
| | | in Preparing Electrical Engineering Students for Industry through | RRSPBL-2024& | 19-21 Dec |
| 61 | Salava V Satyanarayana | SSDC | Published in JEET | 2024 |
| 62 | Salava V Satyanarayana | | | |
| 63 | Pillalamarri Madhavi | | | |
| 64 | K.Sathwika | Life Guardian: Enhancing Health | ICSGET-2024 | July 2024 |
| 65 | Shaik Abdul Adil | Awareness Through Sensor Fusion | ICSGE1-2024 | July 2024 |
| 66 | Arthi | | | |
| 67 | L.Suman | | | |
| 68 | Dr.O.P.Suresh | | | |
| 69 | Salava V Satyanarayana | | | |
| 70 | P Hema Bindhu | Solar Wireless Electric Vehicle | ICSGET-2024 | Indy 2024 |
| 71 | K.Anand | Charging System | 1CSGE1-2024 | July 2024 |
| 72 | N.Srujith Kumar | | | |
| 73 | V.Sujith | | | |
| 74 | Pillalamarri Madhavi | | | |
| 75 | Salava V Satyanarayana | | | |
| 76 | Yashwanth Sannidhi | IoT & Sensor-Driven Automation | PICET 2024 | Oct 2024 |
| 77 | Uday Kiran Mamindla | in Streamlined Lab | 11011 2024 | OCI 2024 |
| 78 | Mahesh Babu Puttapaka | | | |
| 79 | Mangali Shiva Kumar | | | |
| 80 | Pillalamarri Madhavi | | | \neg |
| 81 | Salava V Satyanarayana | Compact High Efficients Description | Industrial | |
| 82 | Rohit Kumar | Compact High Efficiency Power Inverter System | | Feb 2025 |
| 83 | Mali Kailash | Inverter System | Journal | |
| 84 | T.Vinay Kumar | | 1 | |

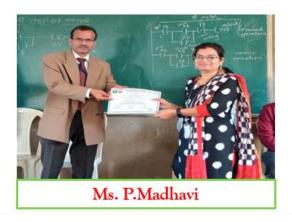
| 85 | Pillalamarri Madhavi | | | |
|----|----------------------------|-------------------------------|---------------------------|-----------|
| 86 | Salava V Satyanarayana | | | |
| 87 | Lingala Akanksha | Creation of Web Page for SSDC | Industrial Engineering | A 2025 |
| 88 | Mankali Akshitha | Creation of web rage for SSDC | Journal | Apr 2025 |
| 89 | Ramagiri chandra Saicharan | | o di ilai | |
| 90 | Gunji Poojitha | | | |
| 91 | Salava V Satyanarayana | | | |
| 92 | Pillalamarri Madhavi | | T 1 | |
| 93 | Sindhuja | RADAR-DRIVEN | Industrial Engineering | A mr 2025 |
| 94 | Bharath | AUTOMATION | Journal | Apr 2025 |
| 95 | Sai Priya | | | |
| 96 | Pranay | | | |

Glimpses of Student Engagement @SSDC EEE Center:



Certified Trainers:





Technical Talks:

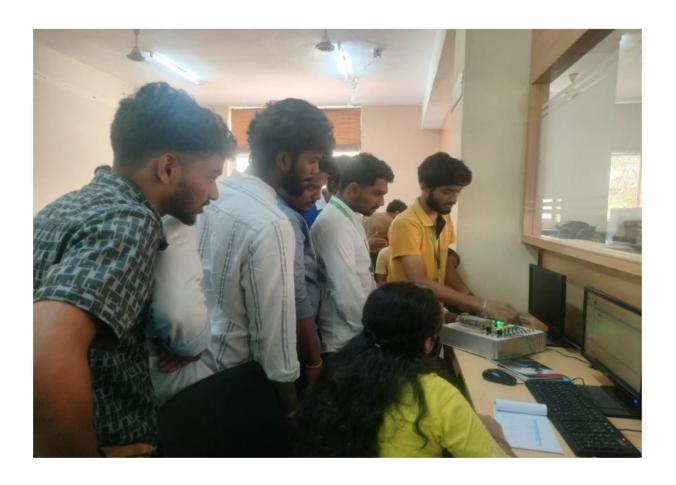


WORKSHOPS:



Two-Day Workshop on Real Time Applications of Sensors with IOT





Two-Day Workshop on Optimizing Industrial Processes: A Hands-on SCADA Workshop



Receiving Top performer - PLC certification



Receiving Best paper Award- NCRCEST



Receiving Best Project Team - PLC certification

- ✓ Industry-Relevant Curriculum
- ✓ Focus on Practical Skills
- ✓ Flexible Learning Options
- ✓ Practical Teaching Methodologies
- ✓ Continuous Skill Upgradation



Student Testimonials

It's a great place to grab knowledge with the experience teacher and with proper guide lines. Specially in PLC course we learned how to work on actual industrial projects. Now I am very confident to face the interviews of core companies. Thanks to SSDC.



G.Sai Rajasri

SSDC helped me to learn the new electrical technologies like MATLAB and PLC. It gave me a confidence to do my mini and major projects in my academic curriculum. I personally suggest to all if you want to learn and get your first job in electrical industry, be a student of SSDC training.



Ashish

Planned activities for the Upcoming year (2025-2026):

| S NO | Name of Planned Activity | Expected Outcome |
|------|--|--|
| 1 | Training on ARDUINO, PLC, PYTHON | Students acquire comprehensive knowledge and practical abilities in critical industry skills. |
| 2 | Guest Lectures by Industry Professionals | Students gain insights into emerging technologies and career paths in Electrical & Electronics Engineering. |
| 3 | Workshops on IoT, Industrial Automation | Students acquire practical skills and hands-on experience with industry-relevant software and hardware. |
| 4 | Student-Led Tech Talks | Students enhance their understanding of recent advancements and develop communication skills by presenting on relevant topics. |
| 5 | Semester-Long Skill-Based Projects | Students apply learned skills to solve real-world engineering problems, fostering critical thinking and problem-solving abilities. |
| 6 | Industry Visits to Companies Using Taught Technologies | Students gain exposure to practical applications of the technologies learned in the Skill Development Center. |
| 7 | Internal & Inter-Collegiate Skill Development Competitions | Students showcase their acquired skills, receive feedback, and gain valuable competitive experience. |
| 8 | Mentorship Program | Senior students provide guidance and support, promoting knowledge sharing and fostering a supportive learning environment. |
| 9 | Attending International Conferences to present their work | Students gain exposure to cutting-edge research, network with professionals, and broaden their understanding of the field. |