SANKAR POLYTECHNIC COLLEGE

A Government Aided, Autonomous Institution, Approved by AICTE & Affiliated to DoTE

SANKAR NAGAR – 627 357

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

DEPARTMENT OF ELECTRICAL

AND

ELECTRONICS ENGINEERING

A JOURNEY TOWARDS EXCELLENCE



"Empowering Future Electrical Engineers Through Excellence, Innovation and Continuous Improvement"

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

MESSAGE FROM THE CORRESPONDENT



The Department of Electrical and Electronics Engineering has consistently contributed to the academic excellence and reputation of Sankar Polytechnic College through quality education, dedicated faculty members, modern infrastructure and strong industry interaction.

The department continues to nurture technically competent and socially responsible engineers who are capable of meeting the ever-changing demands of the engineering profession.

The management remains committed to providing all necessary resources and support to ensure continuous academic growth and excellence.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

MESSAGE FROM THE PRINCIPAL

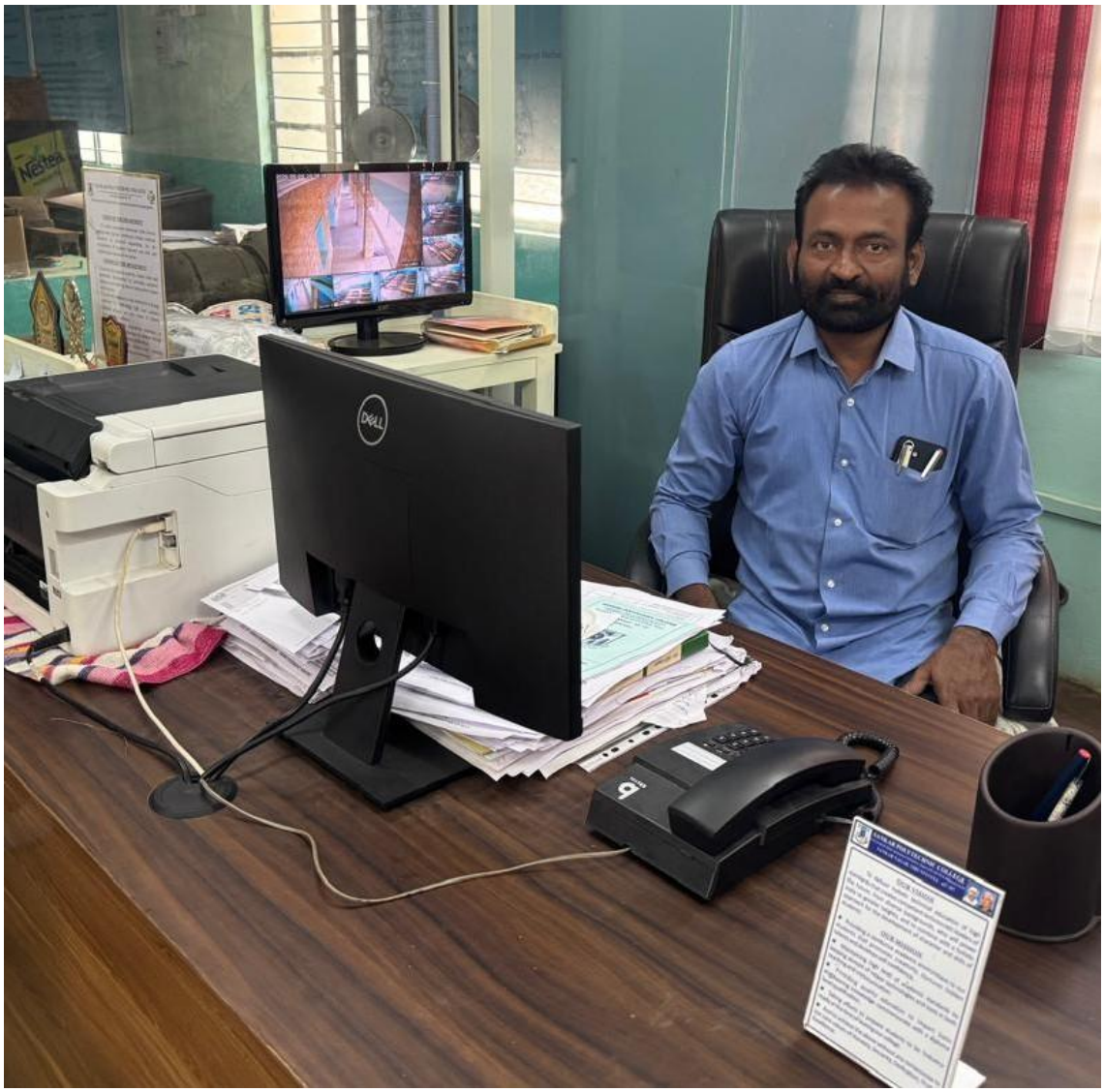


The Department of Electrical and Electronics Engineering plays a significant role in fulfilling the vision and mission of Sankar Polytechnic College. Through innovative teaching practices, outcome-based education, practical learning and continuous improvement initiatives, the department creates a vibrant learning environment that encourages students to achieve their full potential.

I appreciate the efforts of faculty members, students, alumni and stakeholders who continuously contribute to the growth of the department.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

MESSAGE FROM THE HEAD OF THE DEPARTMENT



The Department of Electrical and Electronics Engineering has established itself as a centre for quality technical education by fostering academic excellence, practical competency and professional ethics among students.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

The department is committed to producing industry-ready diploma engineers through innovative teaching-learning practices, modern laboratory facilities, industry collaborations and skill development programmes.

Through dedicated faculty members, active student participation and strong stakeholder support, the department continues to achieve excellence in academics, placements, higher education and co-curricular activities.

We remain committed to continuous improvement and strive to create competent electrical engineers who contribute positively to society and the nation.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ABOUT SANKAR POLYTECHNIC COLLEGE



Sankar Polytechnic College, Sankar Nagar, is one of the premier technical institutions committed to providing quality diploma education and developing competent professionals capable of meeting industrial and societal needs.

The institution has consistently focused on academic excellence, skill development, industry interaction, research culture and value-based education. The college provides a conducive learning environment supported by experienced faculty members, modern laboratories, library facilities, sports infrastructure and student support services. Through continuous innovation in

teaching-learning practices and strong industry engagement, the institution prepares students to excel in their professional careers and contribute effectively to national development.

DEPARTMENT AT A GLANCE

Particular	Details
Department	Electrical and Electronics Engineering
Sanctioned Intake	120 (60 Aided + 60 SF) + 10% Lateral Entry
Student Strength	256 (248M + 8F)
Faculty Members	14
Lab Assistant	5
Laboratories	6
Programme	Diploma in Electrical and Electronics Engineering

The Department of Electrical and Electronics Engineering is one of the vibrant departments of Sankar Polytechnic College, committed to imparting quality technical education through a balanced integration of theoretical knowledge, practical exposure and industry interaction.

The department provides students with opportunities to develop technical competence, leadership qualities, communication skills and professional ethics required for successful careers in the electrical engineering profession.

OUR VISION

Vision

To create competent technocrats from diverse backgrounds through world-class holistic technical education in electrical engineering, for the development of students' character and skill and promoting the success of our nation.

Realizing the Vision

The department strives to achieve its vision by:

- Delivering quality technical education.
- Enhancing practical competency.
- Promoting innovation and creativity.
- Developing leadership and professional ethics.
- Encouraging lifelong learning.
- Strengthening industry interaction.
- Creating employable and socially responsible graduates.

OUR MISSION

Mission

M1: To nurture the students' creativity, hidden skills and personality development by providing expedient education and enabling them to make positive impact on society.

M2: To create students capable of working effectively in diverse environments by maintaining high academic standards through honesty, dedication and excellence.

M3: To explore various engineering techniques and enhance the quality of education through innovative teaching-learning methodologies.

M4: To create successful industry-ready electrical engineers through cutting-edge technology.

Mission in Action

- Student-centric learning
- Outcome-Based Education
- Industry collaboration
- Skill enhancement programmes
- Laboratory-based learning
- Employability training

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

The Programme Educational Objectives define the expected achievements of graduates a few years after completion of the programme.

PEO 1: Diploma Electrical Engineers will have adequate knowledge to troubleshoot and fix technical issues effectively in their relevant field.

PEO 2: Diploma Electrical Engineers will possess the ability to work effectively in multidisciplinary environments.

PEO 3: Diploma Electrical Engineers will develop lifelong learning abilities and become successful professionals.

The department continuously evaluates the achievement of PEOs through stakeholder feedback, industry inputs, alumni interaction and programme assessment mechanisms.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO 1

Diploma Electrical Engineers have the ability to provide technical solutions for problems in electrical machines, power systems and industrial automation systems using appropriate tools and techniques.

PSO 2

Diploma Electrical Engineers have the ability to effectively operate, maintain and test equipment while adhering to safety protocols and promoting sustainable engineering practices.

The PSOs are aligned with industry requirements and help students develop competencies necessary for successful careers in electrical engineering.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

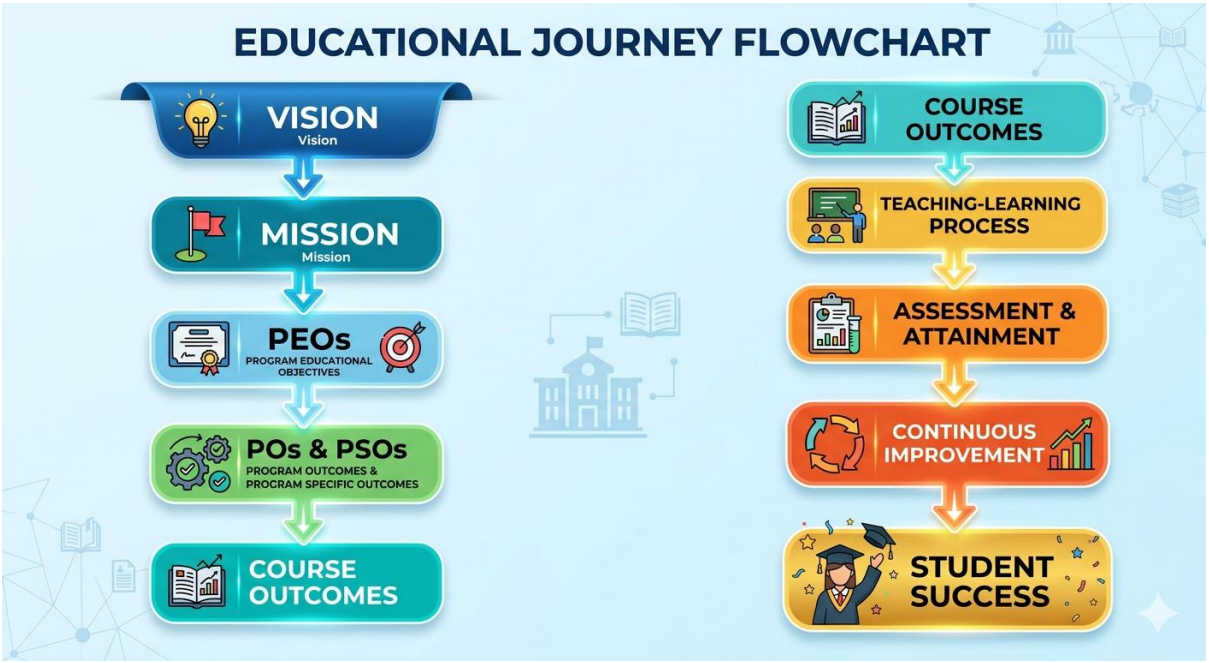
STRATEGIC ROADMAP OF THE DEPARTMENT

The Department of Electrical and Electronics Engineering follows a well-defined strategic roadmap to achieve academic excellence, technical competency and professional success among students.

The strategic framework begins with the Department Vision and Mission, which provide direction for all academic and developmental activities. These are translated into Programme Educational Objectives (PEOs), Programme Outcomes (POs), and Programme Specific Outcomes (PSOs), ensuring systematic student development.

The department continuously aligns its academic practices with stakeholder expectations, technological advancements and industry requirements.

STRATEGIC FLOW



This structured approach enables the department to produce competent, industry-ready and socially responsible diploma engineers.

STAKEHOLDER PARTICIPATION IN QUALITY ENHANCEMENT

The Department firmly believes that stakeholder participation is essential for continuous improvement and academic excellence.

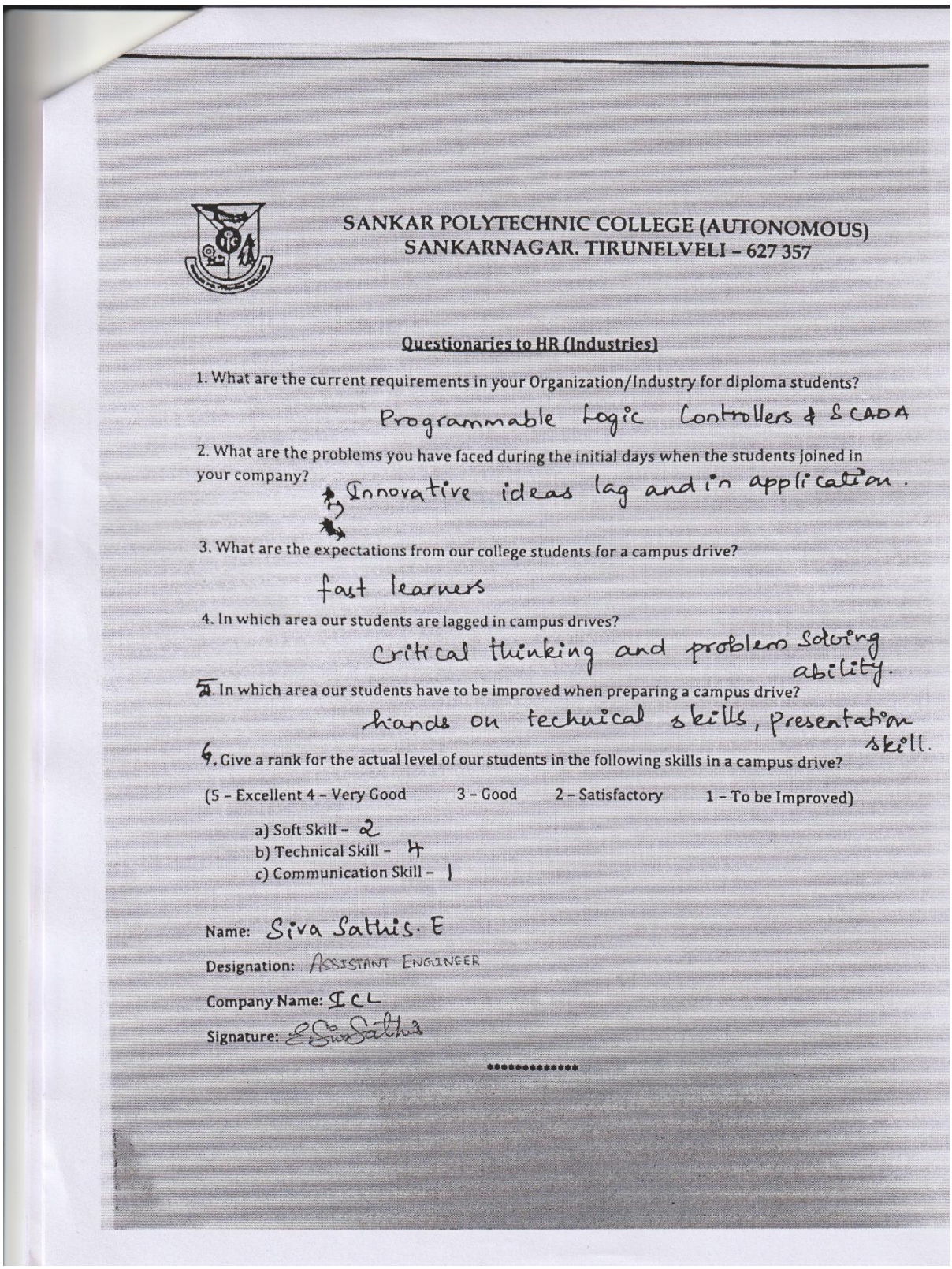
Various stakeholders actively contribute to the growth and development of the programme.

Internal Stakeholders	External Stakeholders
Students	Alumni
Faculty Members	Employers
Class Advisors	Industry Experts
PAQIC Members	Parents
	Academic Experts

The feedback received from stakeholders is systematically analysed and utilized for:

- Curriculum enhancement
- Skill development programmes
- Industry interaction activities
- Placement improvement initiatives
- Teaching-learning enhancement
- Laboratory development

This participative approach ensures that the programme remains relevant, dynamic and responsive to industry needs.



SANKAR POLYTECHNIC COLLEGE (AUTONOMOUS)
SANKARNAGAR. TIRUNELVELI – 627 357

Questionaries to HR (Industries)

1. What are the current requirements in your Organization/Industry for diploma students?

Programmable Logic Controllers & SCADA

2. What are the problems you have faced during the initial days when the students joined in your company?

Innovative ideas lag and in application.

3. What are the expectations from our college students for a campus drive?

fast learners

4. In which area our students are lagged in campus drives?

Critical thinking and problem solving ability.

5. In which area our students have to be improved when preparing a campus drive?

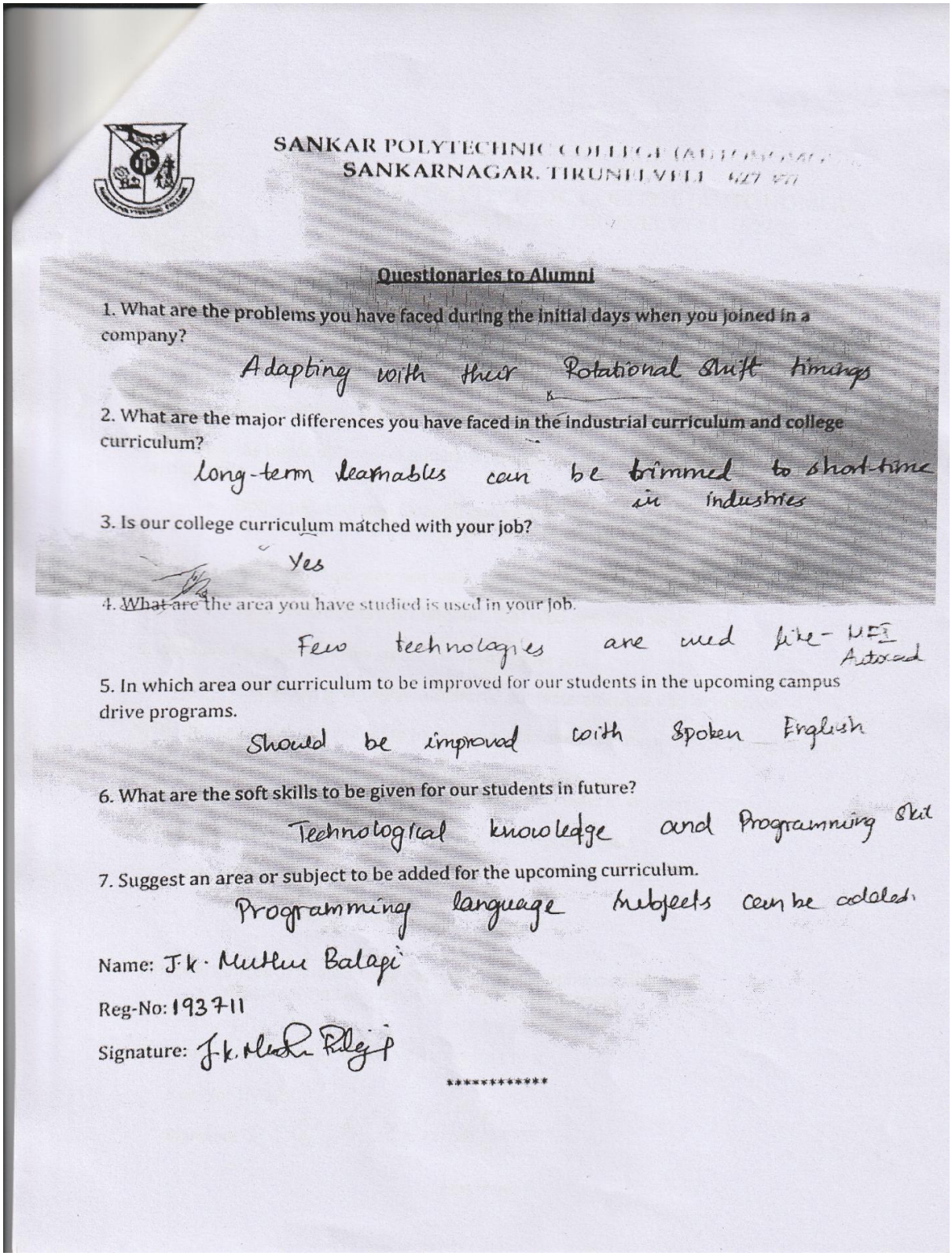
hands on technical skills, presentation skill.

6. Give a rank for the actual level of our students in the following skills in a campus drive?

(5 – Excellent 4 – Very Good 3 – Good 2 – Satisfactory 1 – To be Improved)

a) Soft Skill – 2
b) Technical Skill – 4
c) Communication Skill – 1

Name: Siva Sathis. E
Designation: ASSISTANT ENGINEER
Company Name: ICL
Signature: E Siva Sathis



SANKAR POLYTECHNIC COLLEGE (AUTONOMOUS)
SANKARNAGAR, TIRUNELVELI 627 357

Questionaries to Alumni

1. What are the problems you have faced during the initial days when you joined in a company?

Adapting with their Rotational Shift timings

2. What are the major differences you have faced in the industrial curriculum and college curriculum?

long-term learnables can be trimmed to short-time in industries

3. Is our college curriculum matched with your job?

Yes

4. ~~What are~~ the area you have studied is used in your job.

Few technologies are used like- VLSI Autocad

5. In which area our curriculum to be improved for our students in the upcoming campus drive programs.

Should be improved with Spoken English

6. What are the soft skills to be given for our students in future?

Technological knowledge and Programming Skil

7. Suggest an area or subject to be added for the upcoming curriculum.

Programming language subjects can be added.

Name: J.K. Muthu Balaji

Reg-No: 193711

Signature: J.K. Muthu Balaji

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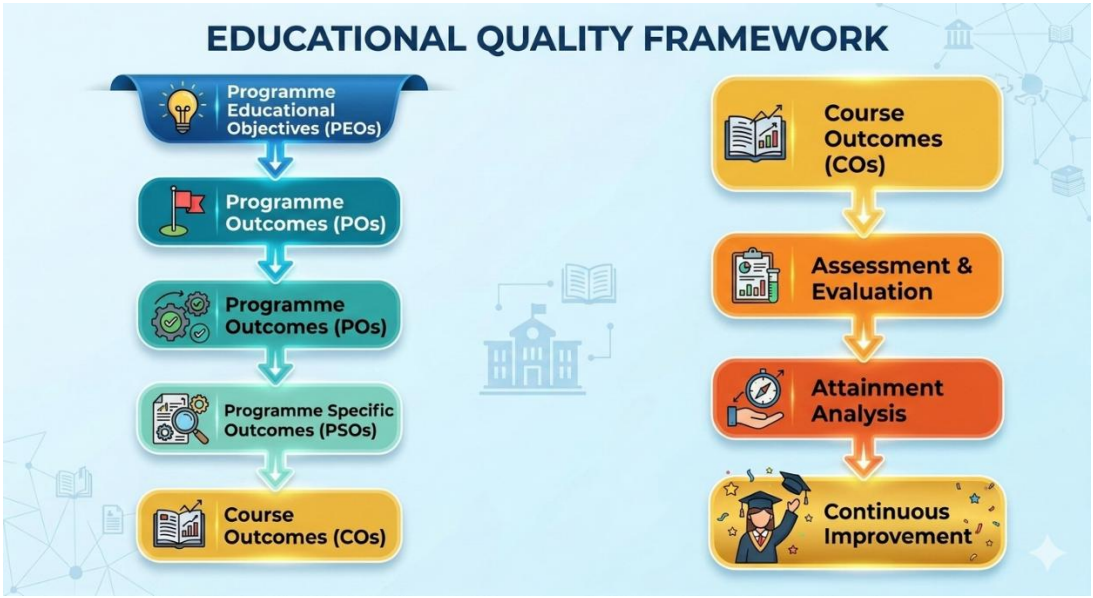
OUTCOME BASED EDUCATION (OBE)



The Department has adopted Outcome Based Education as a core academic philosophy to ensure measurable student learning and continuous quality improvement.

Outcome Based Education focuses on defining clear learning outcomes and assessing student attainment against those outcomes.

OBE Framework



Through OBE implementation, the department ensures that every student acquires the technical knowledge, practical skills, problem-solving abilities and professional competencies required by industry and society.

CURRICULUM DESIGN AND DEVELOPMENT



The curriculum followed by the department is designed to meet the evolving needs of industry and technological advancements.

Curriculum development is carried out through a systematic process involving:

- Faculty Members
- Industry Experts
- Alumni
- Employers
- Academic Experts
- Students

Inputs received from stakeholders are analyzed and incorporated through curriculum revision mechanisms.

Key Features

- Industry-oriented curriculum
- Outcome-based structure

- Practical learning emphasis
- Emerging technology integration
- Employability enhancement
- Skill-based training

The curriculum effectively bridges the gap between academic learning and industrial requirements.

STUDENT-CENTRIC LEARNING ENVIRONMENT

The department promotes a student-centric learning culture that encourages active participation, independent learning and collaborative problem-solving.

Various innovative approaches are adopted to make learning more effective and engaging.

Student-Centric Practices

- Peer Learning
- Group Discussion
- Seminar Presentation
- Quiz Programmes
- Technical Debates
- Self-Learning Activities
- Student Facilitator System
- Project-Based Learning

These practices improve communication skills, analytical thinking, teamwork and confidence among students.

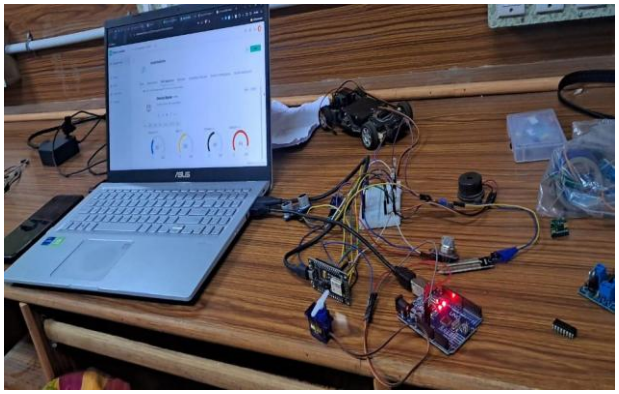
The learning environment motivates students to become active participants rather than passive learners.

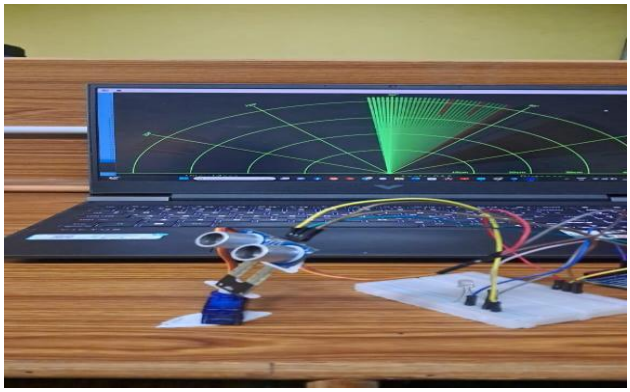
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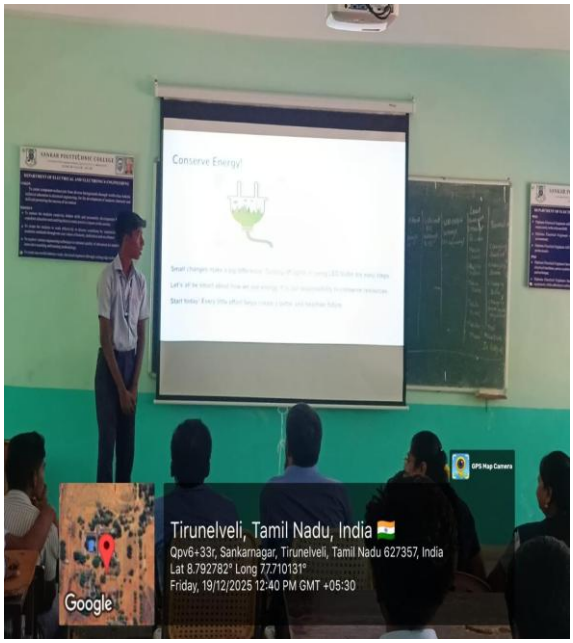


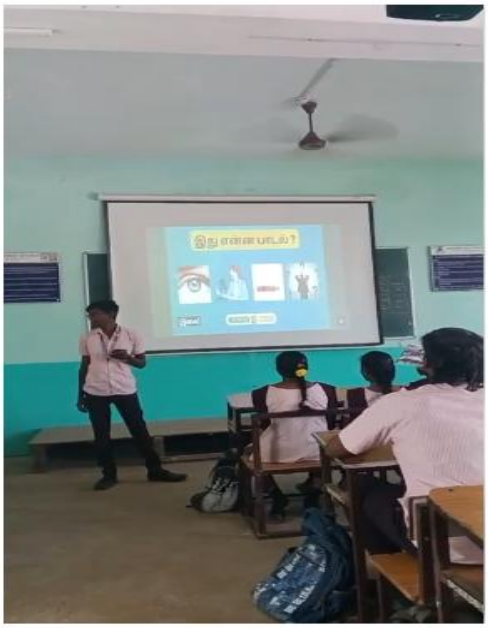


DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING









DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

INNOVATIVE TEACHING AND LEARNING PRACTICES

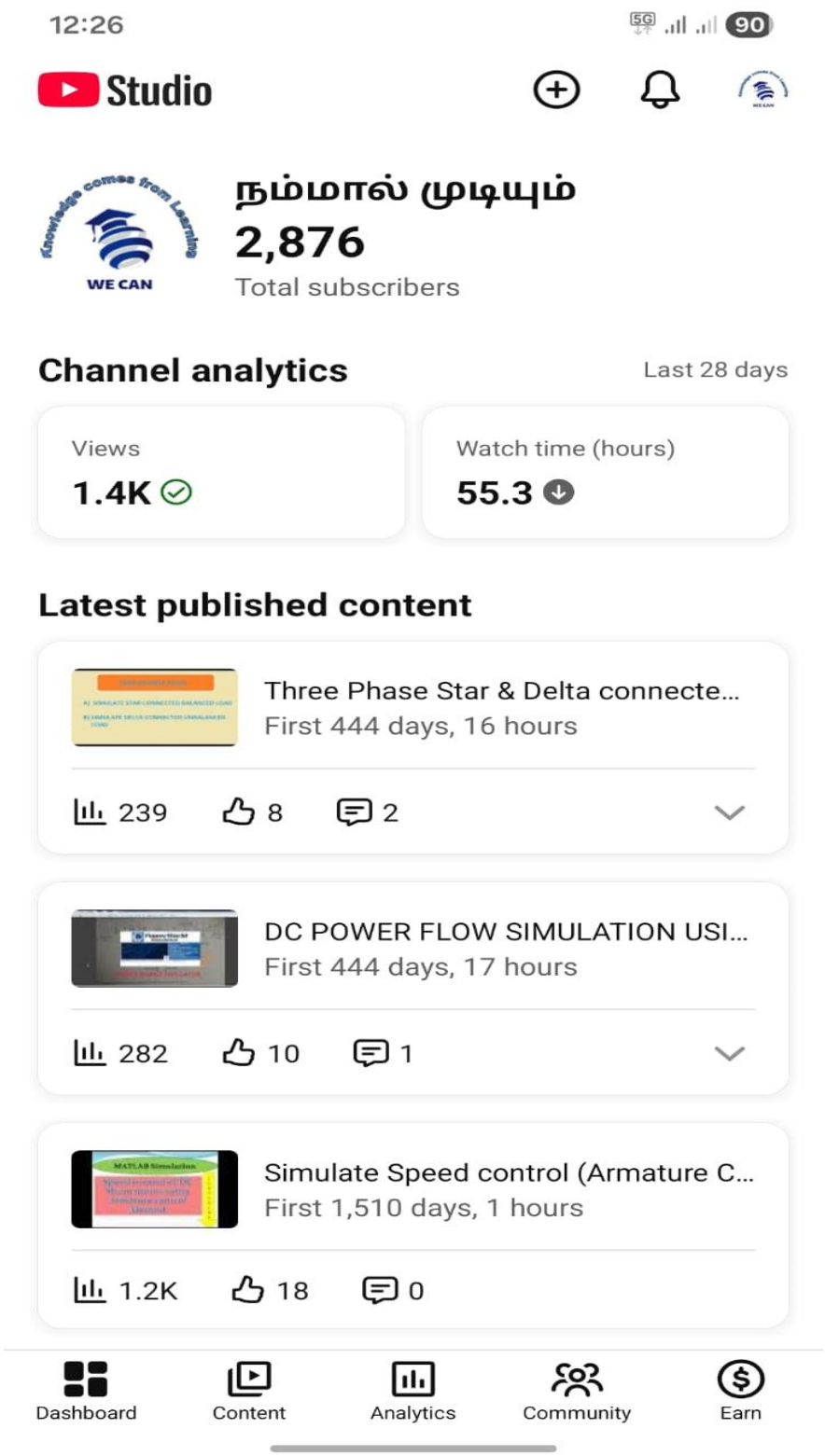
The department continuously adopts innovative teaching methodologies to enhance student understanding and learning outcomes.

Faculty members effectively utilize Information and Communication Technology (ICT) tools to create an engaging learning environment.

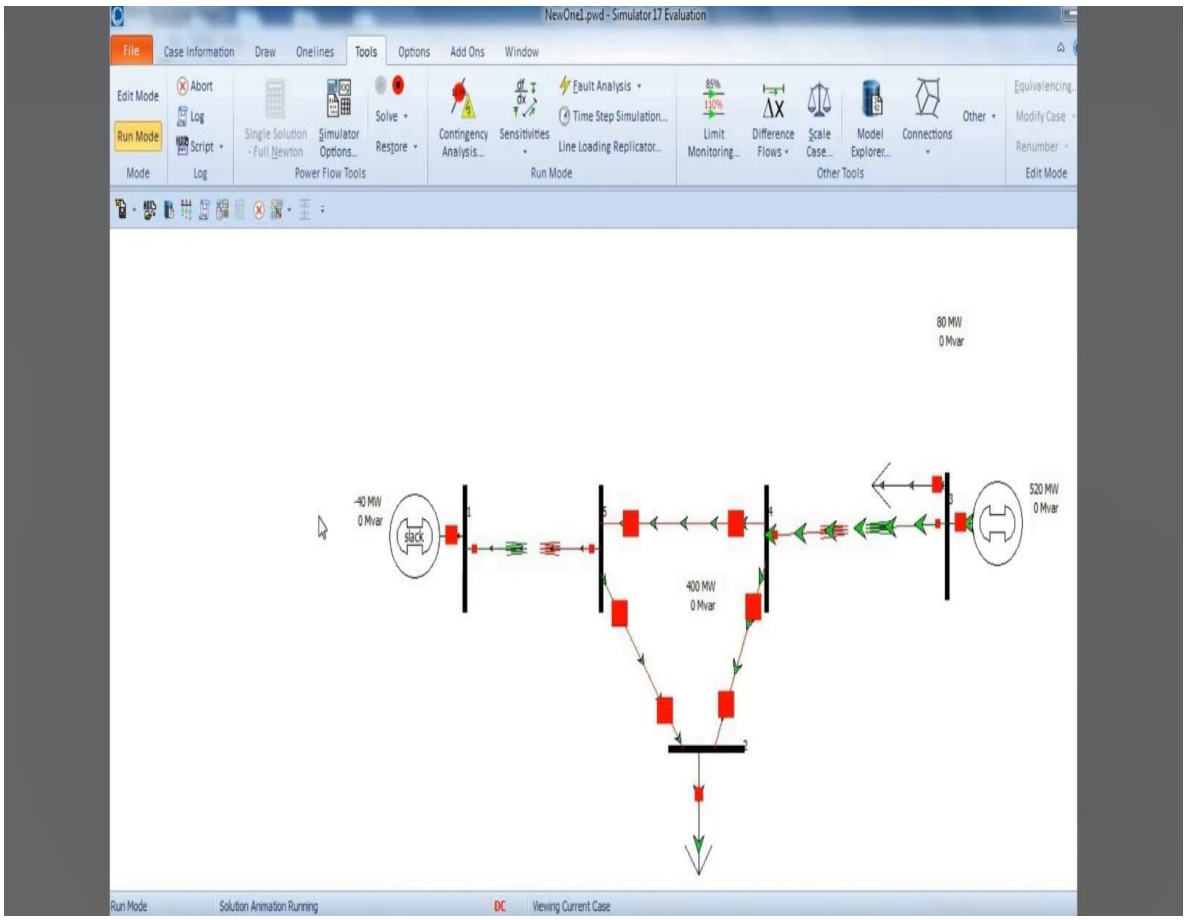
Innovative Practices

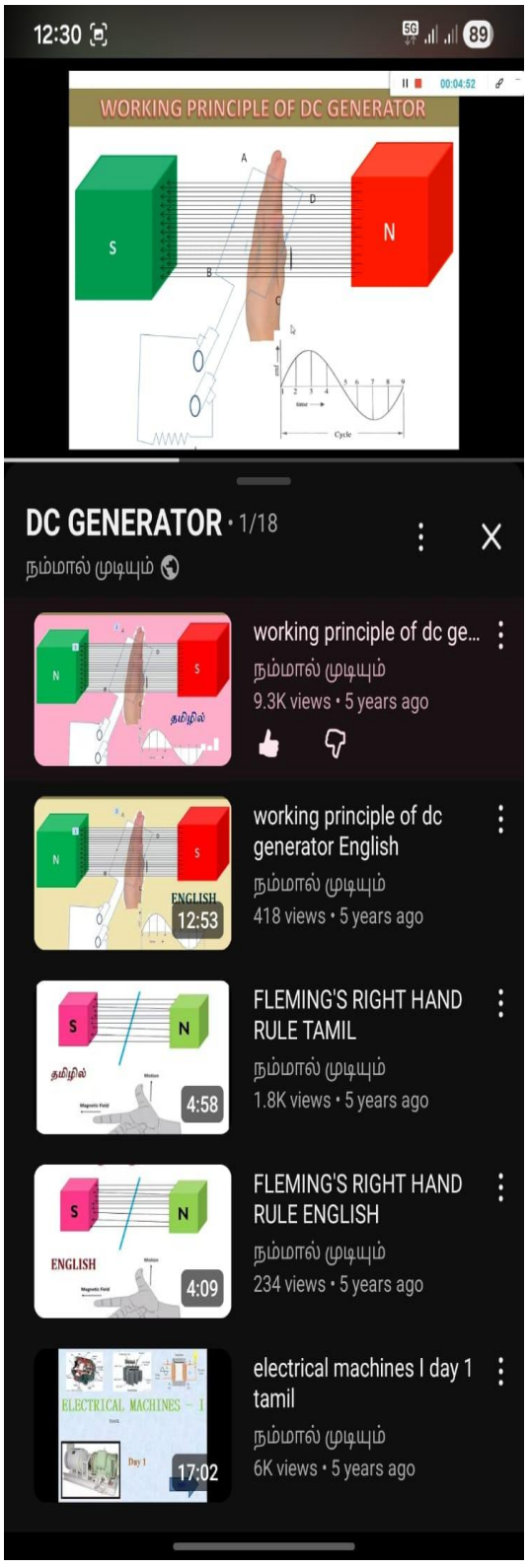
- Smart Classroom Teaching
- Multimedia Presentations
- Video-Based Learning
- Simulation-Based Learning
- Google Classroom
- Open Educational Resources
- Demonstration-Based Teaching
- Interactive Learning Sessions

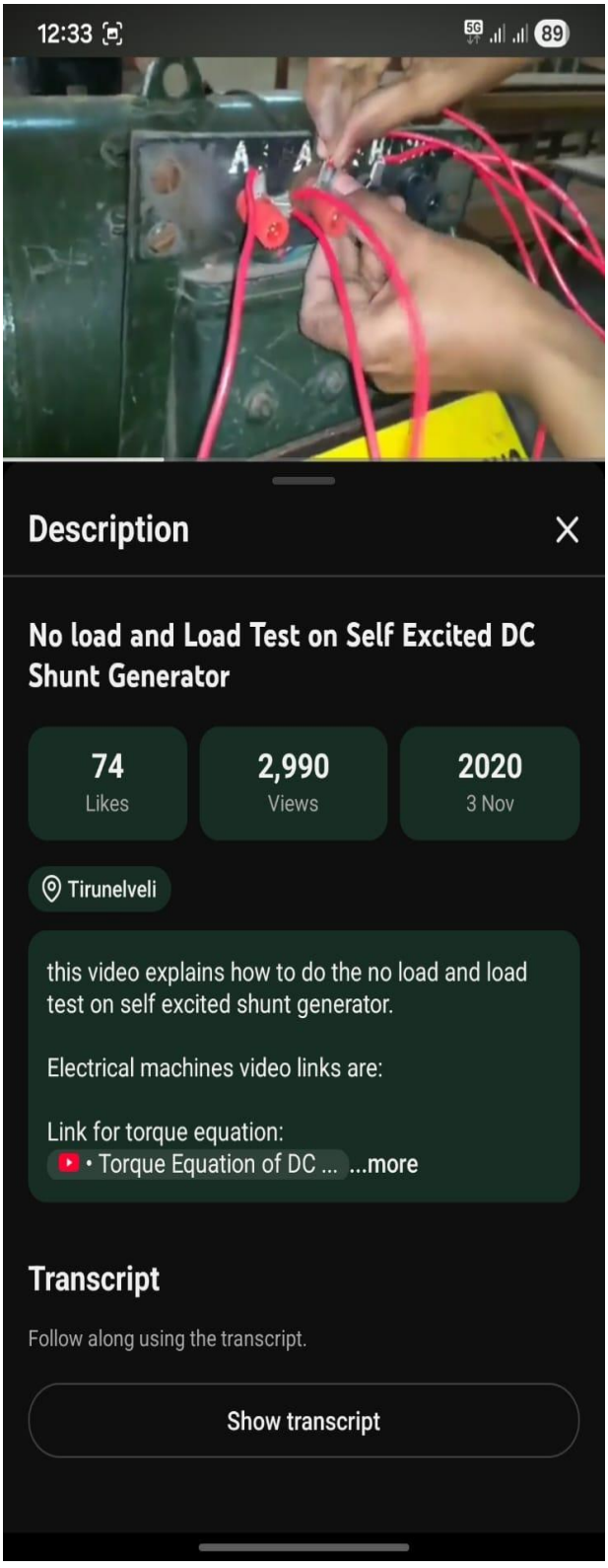
The integration of modern teaching tools enables students to understand complex engineering concepts effectively and improves overall learning outcomes.


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Studio
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2,876
Total subscribers
Channel analytics
Last 28 days
Views
1.4K
Watch time (hours)
55.3
Latest published content
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DC POWER FLOW SIMULATION USI...
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12:30
WORKING PRINCIPLE OF DC GENERATOR
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DC GENERATOR · 1/18
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working principle of dc ge...
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FLEMING'S RIGHT HAND RULE TAMIL
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FLEMING'S RIGHT HAND RULE ENGLISH
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234 views • 5 years ago
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electrical machines I day 1 tamil
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17:02


12:33
Description
No load and Load Test on Self Excited DC Shunt Generator
74
Likes
2,990
Views
2020
3 Nov
Tirunelveli
this video explains how to do the no load and load test on self excited shunt generator.
Electrical machines video links are:
Link for torque equation:
• Torque Equation of DC ...
...more
Transcript
Follow along using the transcript.
Show transcript

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING





DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING





EXPERIENTIAL LEARNING AND PRACTICAL EDUCATION

The department strongly believes that engineering education becomes meaningful only when students gain practical exposure and hands-on experience.

Experiential learning forms an integral part of the academic process.

Experiential Learning Activities

- Laboratory Experiments
- Mini Projects
- Industrial Visits
- In-Plant Training
- Model Development
- Project Exhibitions
- Technical Demonstrations
- Industry Supported Learning

These activities help students connect theoretical knowledge with practical applications and develop confidence in solving real-world engineering problems.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING









DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING







ACADEMIC SUPPORT FOR STUDENT SUCCESS

The department is committed to supporting every student in achieving academic excellence.

Students are continuously monitored and guided through an effective mentoring system.

Support for Slow Learners

- Remedial Classes
- Personal Counseling
- Additional Practice Sessions
- Special Assignments
- Academic Monitoring

Support for Advanced Learners

- Project Development
- Technical Competitions
- Paper Presentation
- Leadership Opportunities
- Industry Exposure

This inclusive academic support system ensures holistic student development and improved academic performance.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING





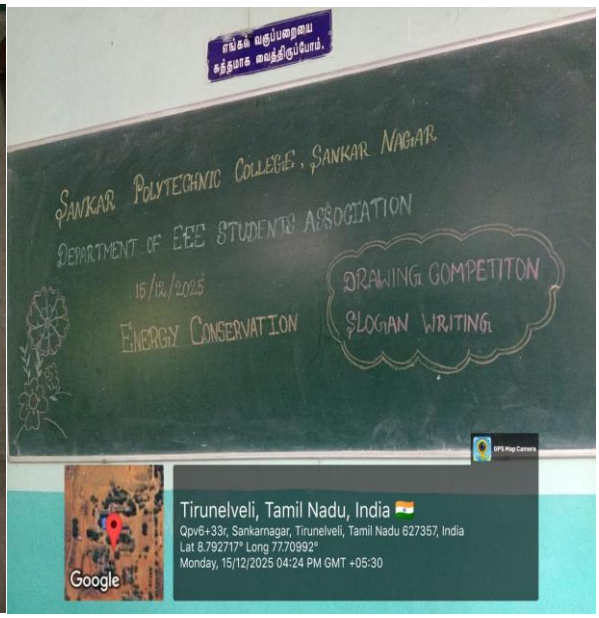
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING









ASSESSMENT AND EVALUATION SYSTEM

The department follows a transparent and comprehensive assessment system to evaluate student learning and attainment of Course Outcomes.

Assessment Components

Direct Assessment

- Internal Assessment Tests
- Assignments
- Laboratory Evaluation
- Mini Projects
- Model Examinations

Indirect Assessment

- Course Exit Survey
- Programme Exit Survey
- Stakeholder Feedback

The assessment process provides valuable insights into student performance and serves as a foundation for continuous improvement.

SANKAR POLYTECHNIC COLLEGE (AUTONOMOUS), SANKAR NAGAR – 627 357
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
ACADEMIC YEAR 2025 – 2026 (ODD SEMESTER)
UNIT TEST II
N3541 – CONTROL OF ELECTRICAL MACHINES

FACULTY NAME: Mr. GUNA A, Lecturer / EEE **YEAR & SEM: III / V**
TIME: 3 Hrs. **MAXIMUM MARKS: 70**

PART – A

ANSWER THE FOLLOWING QUESTIONS **4 X 10 = 40**

1. A. Explain the control circuit for reversing the direction of three phase induction motor. [CO2, L2]

(OR)

B. Draw the Power and Control circuit of field failure protection circuit of a dc shunt motor. [CO2, L2]

2. A. Draw and explain the control circuit for two speed control of induction motor. [CO2, L2]

(OR)

B. Draw and explain the control circuit and main circuit of series relay starter. [CO2, L2]

3. A. Explain the schematic arrangement and control circuit of automatic control for water pump with the neat diagram. [CO3, L2]

(OR)

B. Draw the control circuit of Overhead crane and explain its sequence of operation with the neat diagram. [CO3, L2]

4. A. Explain the mechanical arrangement and control circuit of planner machine with the neat diagram. [CO3, L2]

(OR)

B. Briefly discuss about the different trouble spots in control circuit. [CO3, L2]

PART – B

ANSWER THE FOLLOWING QUESTIONS **12 X 1 = 12**

5. Write the application of push button switch? [CO1, L1]
6. How much current is increased during single phasing [CO1, L1]
7. Plugging method of braking is also called as _____. [CO2, L1]
8. Draw any control circuit using interlocking contact? [CO2, L1]
9. Write the formula to find the frequency of rotor induced emf in an induction motor [CO2, L1]
10. What is the other name of sealing contact [CO2, L1]
11. What is the purpose of using auxiliary contact [CO2, L1]
12. List the types of electrical braking of motors. [CO2, L1]
13. What are the main annunciation circuits used in an elevator [CO3, L1]
14. Which heating element is used for temperature up to 3000°C [CO3, L1]
15. Full form of ACS is _____ [CO3, L1]
16. What are the reasons for low voltage problem [CO3, L1]

PART – C

ANSWER THE FOLLOWING QUESTIONS: **5 X 3 = 15**

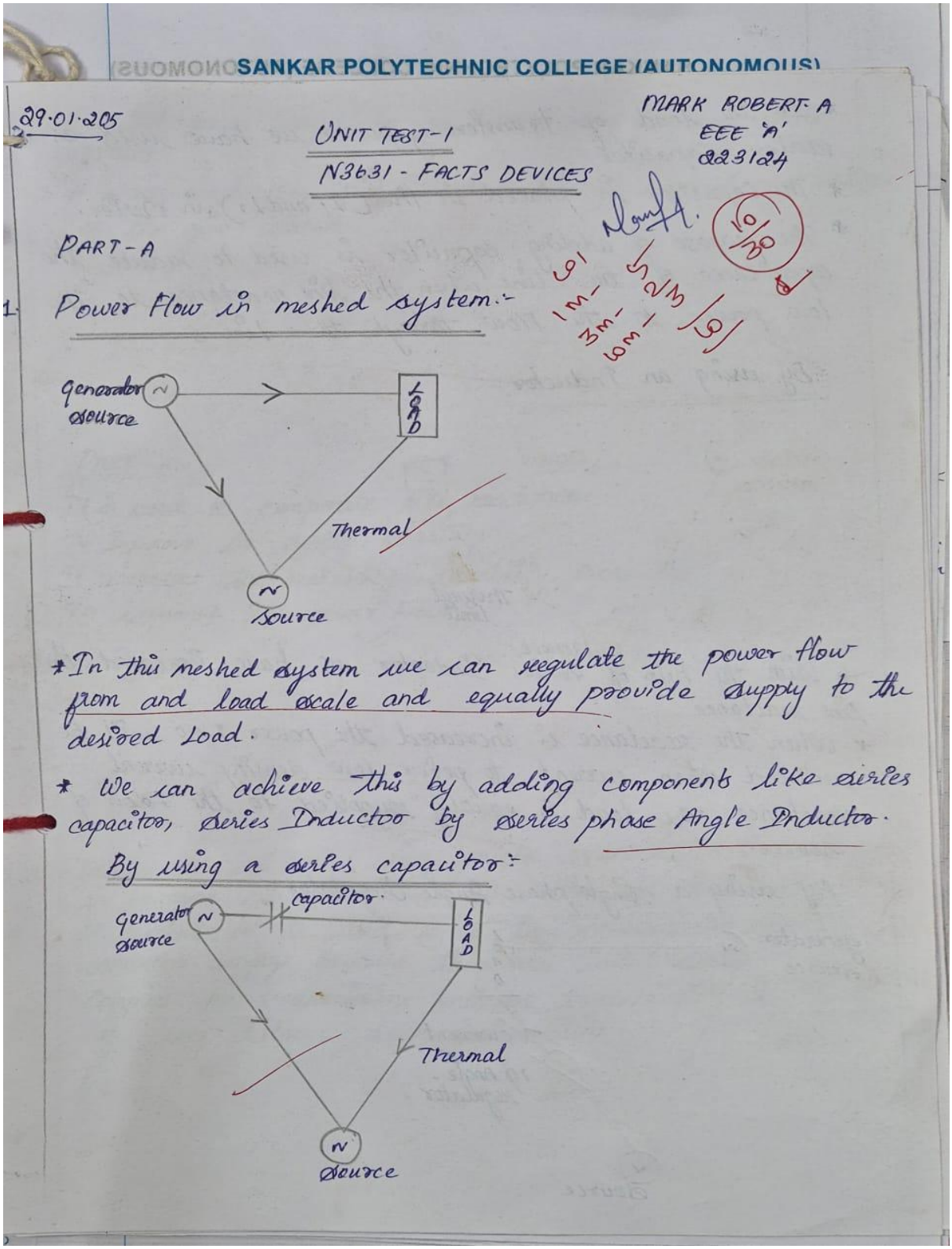
17. Draw the Power and Control circuit of definite time acceleration starter. [CO2, L2]
18. Explain the need of sealing contact and draw any control circuit using sealing contact [CO2, L2]
19. Explain about dynamic braking in cage induction motor? [CO2, L2]
20. Draw the control circuit for a skip hoist control. [CO3, L2]
21. Mention the differences between crisp sets and fuzzy sets. [CO3, L2]

PART – D

ANSWER THE FOLLOWING QUESTION (COMPULSORY): **1 X 3 = 3**

22. Explain about over load relay (OLR) [CO1, L2]

After successful completion of the course, the students will be able to,
CO1: Explain the principal of operation of various electrical control circuit components
CO2: Explain the operation of various of various control circuits for AC and DC motor
CO3: Explain the operation of control circuits for various industrial applications.
L1: Remember; L2: Understand; L3: Apply;



SANKAR POLYTECHNIC COLLEGE (AUTONOMOUS)

29.01.205

UNIT TEST-1

N3631 - FACTS DEVICES

MARK ROBERT. A
EEE 'A'
923124

10/20

PART-A

1. Power Flow in meshed system:-

* In this meshed system we can regulate the power flow from and load ocale and equally provide supply to the desired load.

* We can achieve this by adding components like series capacitor, series Inductor by series phase Angle Inductor.

By using a series capacitor:-

FACULTY EXCELLENCE – THE DRIVING FORCE



The strength of the Department lies in its dedicated and experienced faculty members who are committed to academic excellence and student success. The department is supported by highly qualified faculty possessing expertise in diverse areas of Electrical and Electronics Engineering.

Faculty Strengths

- Experienced Faculty Team
- Postgraduate Qualified Faculty
- Doctoral Expertise
- Industry Exposure
- Research Orientation
- Continuous Professional Development

Faculty members actively participate in Faculty Development Programmes, workshops, industrial training and professional activities to keep themselves updated with emerging technologies.

Their dedication, expertise and student-centric approach contribute significantly to the department's academic excellence and reputation.

AICTE ATAL FACULTY DEVELOPMENT PROGRAMME



One of the significant achievements of the department is the successful organization of an AICTE ATAL Sponsored Faculty Development Programme on **"Recent Developments in Internet of Things (IoT)"**. The programme brought together faculty members, researchers, and industry professionals from various institutions.

Highlights

- AICTE ATAL Sponsored Programme
- National-Level Participation
- Expert Sessions
- Hands-on Training
- Emerging Technology Focus
- Industry Applications

Major Topics Covered

- Smart Cities
- Home Automation
- Smart Energy Systems
- Electric Vehicle Applications
- Industrial IoT
- Smart Waste Management

The programme strengthened the department's commitment to technological advancement and faculty competency enhancement.

FACUTY DEVELOPMENT AND PROFESSIONAL EXCELLENCE

The Department of Electrical and Electronics Engineering strongly believes that faculty members are the most valuable assets in achieving academic excellence. Continuous professional development is encouraged to ensure that faculty members remain updated with emerging technologies, innovative pedagogical practices, and industry trends.

Faculty members actively participate in:

- Faculty Development Programmes (FDPs)
- Workshops
- Seminars
- Industrial Training Programmes
- Research Methodology Programmes
- NPTEL Courses
- AICTE Sponsored Programmes
- ATAL Academy FDPs

The department continuously motivates faculty members to enhance their technical expertise, research capability, and teaching effectiveness through lifelong learning.

"Committed educators continuously learning to empower future engineers."

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING





DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to

VIMALA V

for successfully completing the course

Digital Circuits

with a consolidated score of **66** %

Online Assignments	22.31/25	Proctored Exam	43.5/75

Total number of candidates certified in this course: **2526**

Jul-Oct 2023

(12 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL23EE115S648600895 To verify the certificate No. of credits recommended: 3 or 4

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING











DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

INDUSTRY EXPOSURE FOR FACULTY MEMBERS

The department encourages faculty members to gain practical exposure through industrial visits and training programmes.

Faculty participation in industrial exposure programmes helps bridge the gap between academic concepts and industrial practices.

Major Industrial Exposure Activities

- India Cements, Sankar Nagar
- Nuclear Power Plant, Koodankulam
- Industrial Automation Systems
- Manufacturing Processes
- Maintenance Practices

These experiences enable faculty members to integrate industry-oriented knowledge into classroom and laboratory teaching.

"Industry exposure enriches classroom learning."

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FULLY EQUIPPED LABORATORY INFRASTRUCTURE

The Department provides excellent laboratory facilities that enable students to gain practical knowledge and hands-on experience in various domains of Electrical and Electronics Engineering.

The department currently operates six specialized laboratories designed to support curriculum delivery, project work, skill development and industry-oriented training.

Laboratories Available

- Electrical Machines Laboratory I
- Electrical Machines Laboratory II
- PLC Laboratory

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- Electronics Devices and Circuits Laboratory
- Digital Electronics Laboratory
- Computer Laboratory

These laboratories create an environment where students can convert theoretical concepts into practical applications.

ELECTRICAL MACHINES I LABORATORY



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The Electrical Machines – I Laboratory is one of the most fundamental and essential laboratories of the Electrical and Electronics Engineering Department. This laboratory supports the practical learning of basic electrical machines such as DC generators, DC motors, transformers, and single-phase induction motors, which form the backbone of electrical engineering applications.

Electrical machines are widely used in power generation, transmission, industrial drives, domestic appliances, and commercial installations. While classroom teaching introduces theoretical concepts, true understanding of machine behaviour, performance, losses, and control can only be achieved through systematic laboratory experimentation. The Electrical Machines – I Laboratory therefore plays a vital role in converting theoretical knowledge into practical competence and professional confidence.

This laboratory establishes a strong foundation for advanced machine, drives, control, and automation courses offered in higher semesters and prepares students for industry-oriented electrical practices.

Learning through experimentation and application.

ELECTRICAL MACHINES II LABORATORY



The Electrical Machines – II Laboratory is an advanced and core laboratory facility of the Electrical and Electronics Engineering Department, designed to provide in-depth practical exposure to AC rotating machines, synchronous machines, advanced induction motor studies, and precision electrical measurements.

In modern electrical engineering practice, alternators, induction motors, synchronous motors, and measuring instruments play a crucial role in power generation, transmission systems, industrial drives, and large-scale electrical installations. Understanding their performance, control, and operational characteristics is essential for diploma engineers entering the power and manufacturing sectors.

The Electrical Machines – II Laboratory complements the foundational learning achieved in Electrical Machines – I and enables students to progress from basic machine concepts to advanced performance analysis and measurement techniques, thereby strengthening their professional competence.

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PLC LABORATORY



The PLC (Programmable Logic Controller) Laboratory is a specialized laboratory established to provide hands-on exposure to industrial automation, control systems, and programmable logic controllers (PLCs).

In modern industrial environments, PLCs are the backbone of automated manufacturing, process control, and electrical drive operations. Diploma engineers must acquire practical competence in PLC programming, interfacing, and real-time system control to meet industry expectations.

This laboratory bridges the gap between theoretical concepts of automation, relay logic, and sequential control taught in the classroom and practical industrial implementation. Students learn to design, implement, test, and troubleshoot PLC-based control systems that are widely used in industries such as manufacturing, energy, process control, and material handling.

Preparing students for Industry 4.0 technologies.

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DIGITAL ELECTRONICS LABORATORY



The Digital Electronics Laboratory is a core and indispensable laboratory facility of the Electrical and Electronics Engineering Department, established to impart practical knowledge in digital logic, microprocessor systems, and microcontroller-based applications.

In the present era of automation, embedded systems, industrial electronics, and smart control, digital electronics forms the backbone of modern electrical and electronic systems. Applications ranging from industrial automation, power system control, consumer electronics, communication systems, and instrumentation are heavily dependent on digital logic and programmable devices.

The Digital Electronics Laboratory enables students to translate abstract digital concepts into working hardware systems, thereby strengthening logical thinking, analytical ability, and system-level understanding essential for a diploma engineer.

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EEE COMPUTER LABORATORY



The Electrical Computer Laboratory is a core supporting laboratory of the Electrical and Electronics Engineering Department, established to provide students with computer-based knowledge, programming fundamentals, simulation skills, and digital documentation abilities essential for modern electrical engineering practice.

In the present technological environment, electrical engineers are expected to be proficient not only in hardware but also in software tools, computer applications, data processing, and digital documentation. Applications such as electrical circuit analysis, system simulation, technical reporting, project documentation, and data analysis heavily rely on computer usage.

The Electrical Computer Laboratory equips students with the digital competencies required to function effectively in academic, industrial, and professional environments.

"Technology-enabled learning for future-ready engineers."

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ELECTRONIC DEVICES CIRCUITS LABORATORY



The Electronics Devices and Circuits Laboratory is a core foundational laboratory of the Electrical and Electronics Engineering Department, established to provide practical exposure to electronic devices, analog circuits, and basic signal processing techniques.

Electronic devices form the building blocks of all modern electrical and electronic systems, including power electronics, communication systems, control systems, instrumentation, and embedded applications. A strong understanding of device characteristics, biasing methods, amplifier circuits, and wave-shaping circuits is essential for diploma engineers to function effectively in industry.

This laboratory enables students to experimentally verify theoretical concepts, understand real-time device behavior, and develop confidence in handling electronic circuits and instruments.

SAFETY, TECHNICAL SUPPORT AND COMPUTING FACILITIES





The department places the highest priority on safety, maintenance and operational excellence. All laboratories are equipped with essential safety facilities and are maintained through systematic procedures.

Safety Measures

- Fire Extinguishers
- First Aid Facilities
- Safety Instruction Boards
- Emergency Power Backup
- Preventive Maintenance System

Technical Support

Dedicated technical staff ensure the smooth functioning of laboratories and provide valuable support during practical sessions.

Computing Resources

- 60 Computer Systems
- 1:1 Student-Computer Ratio

The department continuously upgrades its facilities to provide a safe, efficient and technology-rich learning environment.

Safety, reliability and technological excellence in every learning space.

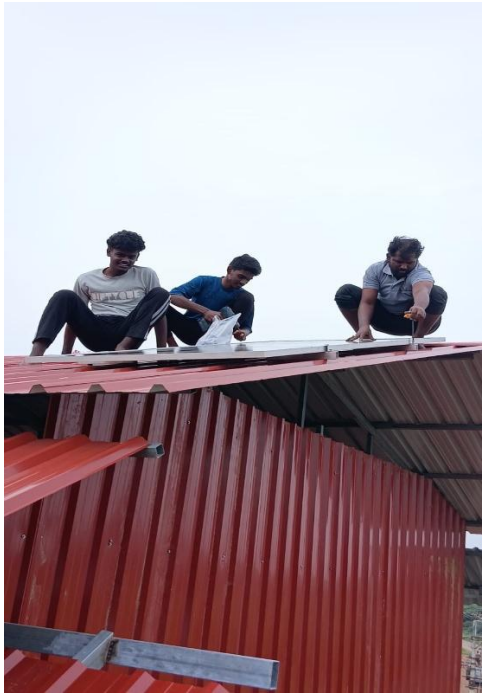
INDUSTRY COLLABORATION AND PROFESSIONAL CONNECT

The Department of Electrical and Electronics Engineering actively collaborates with industries to bridge the gap between academic learning and industrial requirements. Industry partnerships play a crucial role in enhancing students' technical knowledge, employability skills, and professional competencies.

Major Industry Collaborations

- Delphi TVS Technologies Ltd.
- Parvathi Power Systems
- Tessolve Semiconductor
- Tamil Nadu Electricity Board (TNEB)
- Ingage Technologies
- Face Prep
- IBM Skill Build

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Benefits to Students

- Industry-Oriented Training
- Internship Opportunities
- Expert Lectures
- Skill Development Programmes
- Placement Support
- Exposure to Emerging Technologies

The department continuously strengthens its industry relationships to ensure students are well prepared for modern engineering careers.



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EMERGING TECHNOLOGY TRAINING

The department proactively introduces students to emerging technologies that are transforming the engineering industry.

Special training programmes are conducted to equip students with future-ready skills and competencies.

Emerging Technology Areas

- Internet of Things (IoT)
- Electric Vehicle Technology
- Industrial Automation
- Renewable Energy Systems
- Electrical CAD
- Smart Energy Systems
- Embedded Systems

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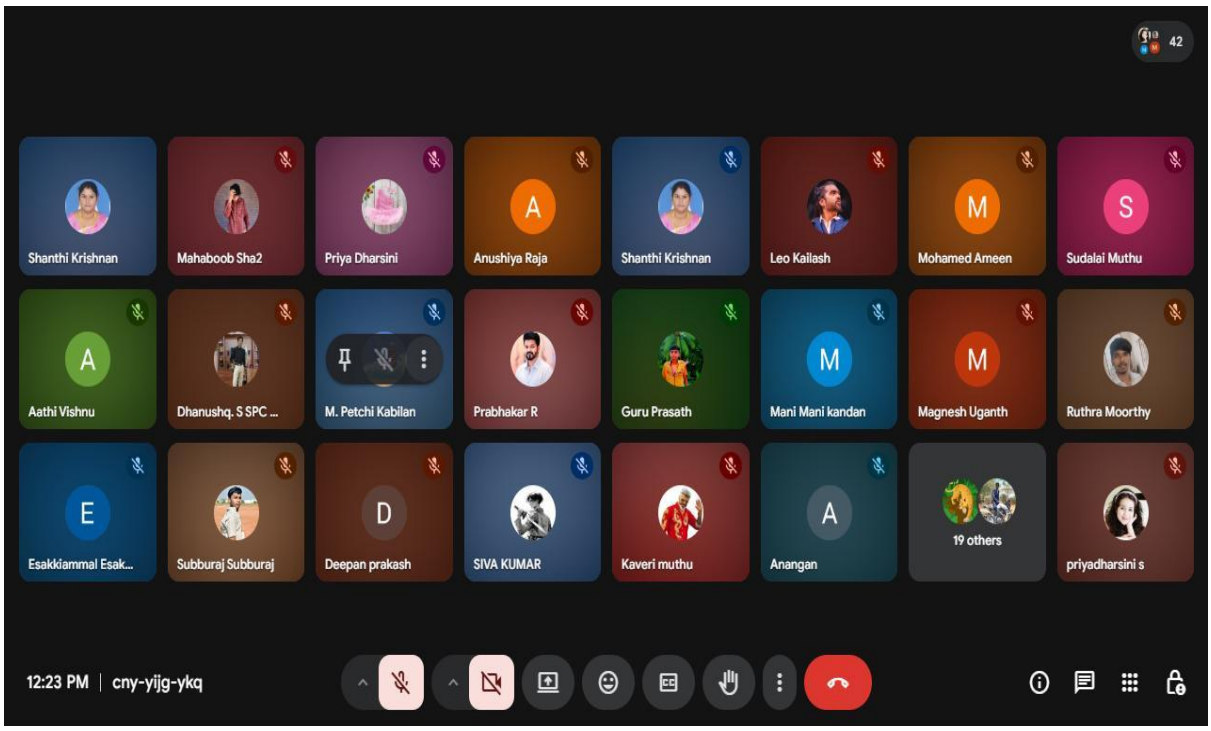
- Digital Skills

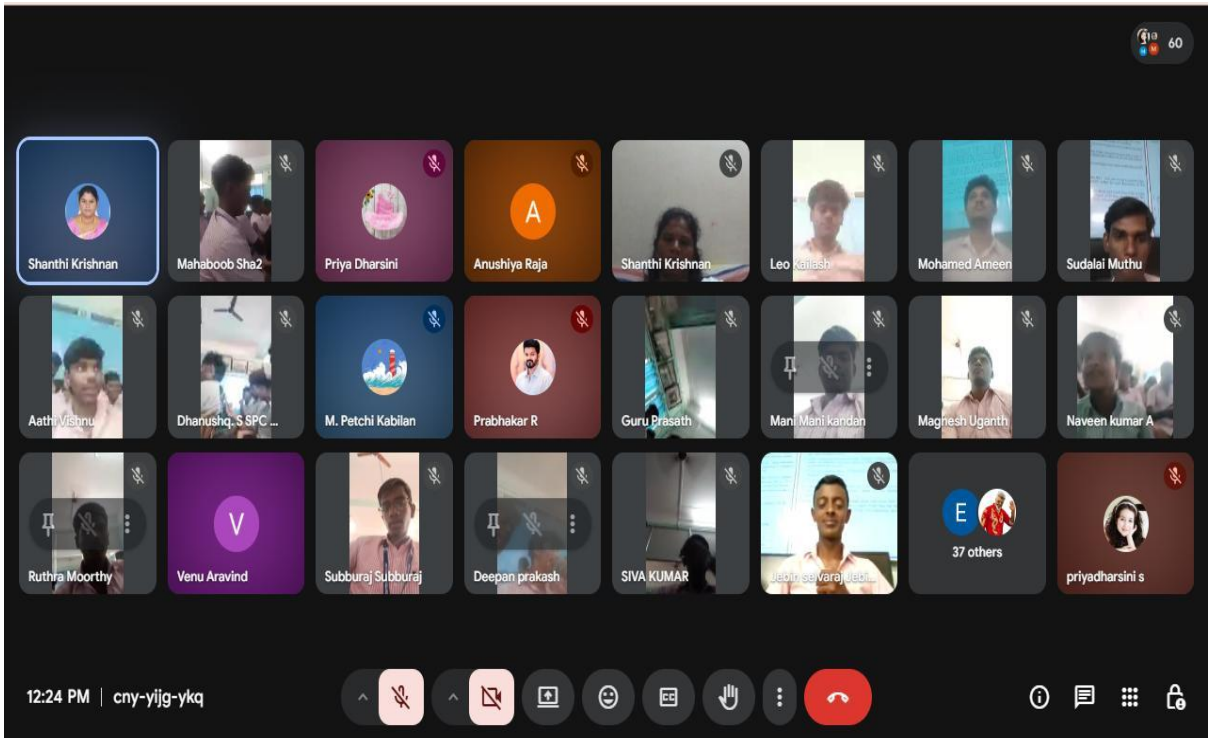
These initiatives enable students to remain competitive in a rapidly evolving technological environment and enhance their employability.

Preparing students for the technologies of tomorrow



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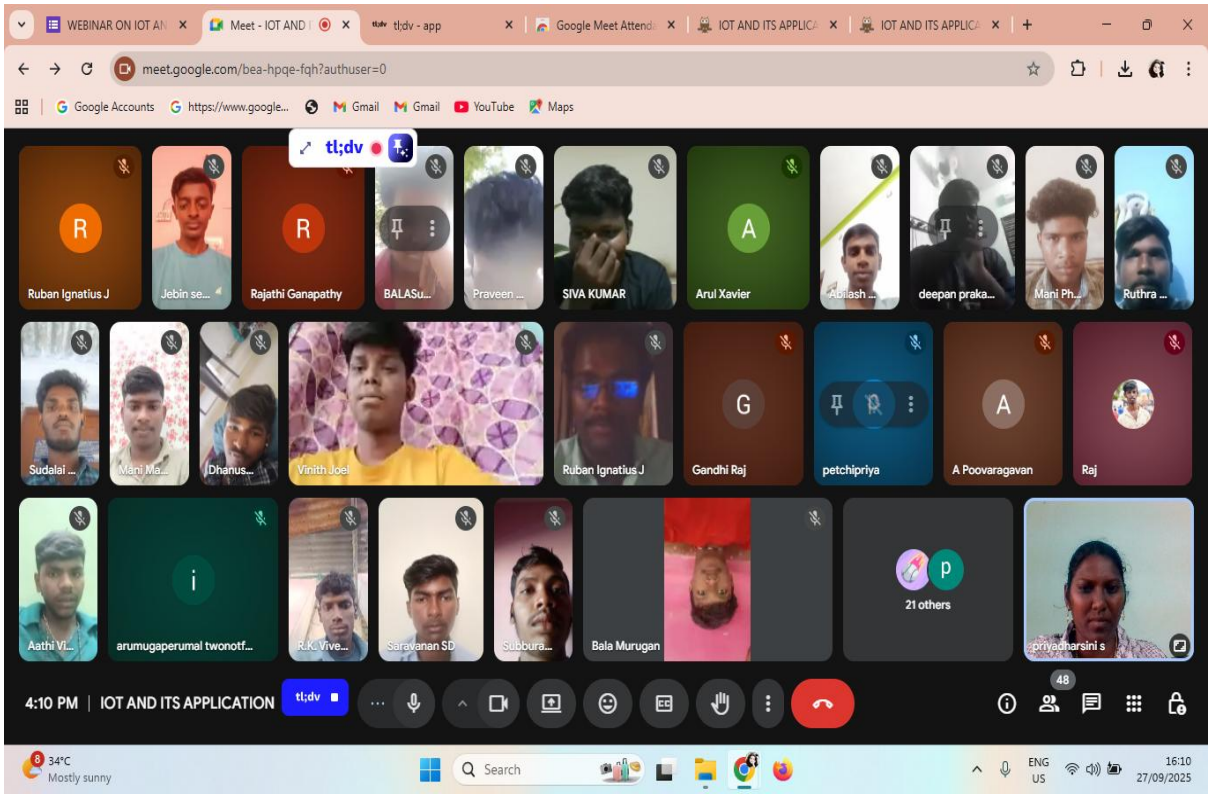




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ELECTRICAL AND ELECTRONICS ENGINEERING STUDENTS' ASSOCIATION (EEESA)

The Electrical and Electronics Engineering Students Association (EEESA) serves as a vibrant platform for nurturing leadership, communication, technical and organizational skills among students.

The association regularly organizes programmes that complement classroom learning and promote holistic development.

Major Activities

- Technical Seminars
- Guest Lectures
- Workshops
- Technical Competitions

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- Quiz Programmes
- Career Guidance Sessions
- Leadership Activities
- Awareness Programmes

The association provides opportunities for students to showcase their talents, exchange ideas and develop professional confidence.

Learning beyond classrooms through active participation.



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STUDENT ACHIEVEMENTS

The department takes pride in the accomplishments of its students in academics, technical competitions, co-curricular activities and professional events.

Students actively participate in state-level and national-level competitions and consistently demonstrate excellence.

Major Achievements

- First Prize in Technical Paper Presentation
- First Prize in Poster Presentation
- Third Prize in Technical Competitions
- Best Student Awards
- Participation in State-Level Technical Conventions
- Project Exhibition Achievements

These accomplishments reflect the department's commitment to nurturing talent, innovation and leadership among students.

Celebrating excellence and recognizing achievement

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A Government Aided, Autonomous Institution, Approved by AICTE & Affiliated to DoTE

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PLACEMENT EXCELLENCE

One of the key strengths of the department is its strong placement performance. The department consistently supports students through placement training, technical skill enhancement and industry interaction.

Major Recruiters

- TVS
- Sundaram Clayton Ltd.
- KYB
- IP Rings Ltd.
- Delphi TVS
- Wheels India Ltd.
- Saint-Gobain
- MRF
- HL Mando Anand India Pvt. Ltd.

The department continuously works towards enhancing employability through aptitude training, soft skill development, mock interviews and career guidance programmes.

Placement Highlights

- Strong Industry Participation
- Core Engineering Opportunities
- Consistent Placement Performance
- Industry-Ready Graduates

Transforming students into successful professionals.

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HIGHER EDUCATION AND CAREER PROGRESSION

The department encourages students to pursue higher education and lifelong learning opportunities.

Several graduates have secured admission in reputed engineering institutions and universities.

Institutions Joined by Alumni

- Government College of Engineering, Tirunelveli
- College of Engineering, Guindy
- CIT, Coimbatore
- Kalasalingam University
- MEPCO Schlenk Engineering College

The department provides continuous support for students aspiring to pursue advanced studies and professional certifications.

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Creating lifelong learners and future innovators

ENTREPRENEURSHIP AND INNOVATION

The department encourages innovation, creativity and entrepreneurial thinking among students.

Students are motivated to identify real-world challenges and develop innovative engineering solutions through project-based learning and technical activities.

A notable example of entrepreneurial success is the establishment of **BJ Transports and Lorry Booking Services** by one of the department's graduates.

Entrepreneurship Initiatives

- Innovation-Oriented Projects
- Technical Competitions
- Industry Exposure
- Leadership Development
- Business Awareness Activities

The department strives to create not only job seekers but also future job creators.

Inspiring innovation and entrepreneurial spirit.

CONTINUOUS IMPROVEMENT – OUR CULTURE OF EXCELLENCE

The Department firmly believes that excellence is achieved through continuous evaluation, reflection and improvement.

A structured continuous improvement process is followed to enhance every aspect of the programme.

Continuous Improvement Initiatives

- Outcome Attainment Analysis
- Student Feedback Analysis
- Stakeholder Feedback Review
- Academic Audits
- Placement Review Meetings
- Faculty Development Programmes
- Infrastructure Enhancement
- Laboratory Upgradation

Based on systematic evaluation, corrective actions are implemented to improve teaching-learning processes, student performance and programme effectiveness.

The department's commitment to continuous improvement has resulted in consistent achievement of Programme Outcomes and Programme Specific Outcomes.

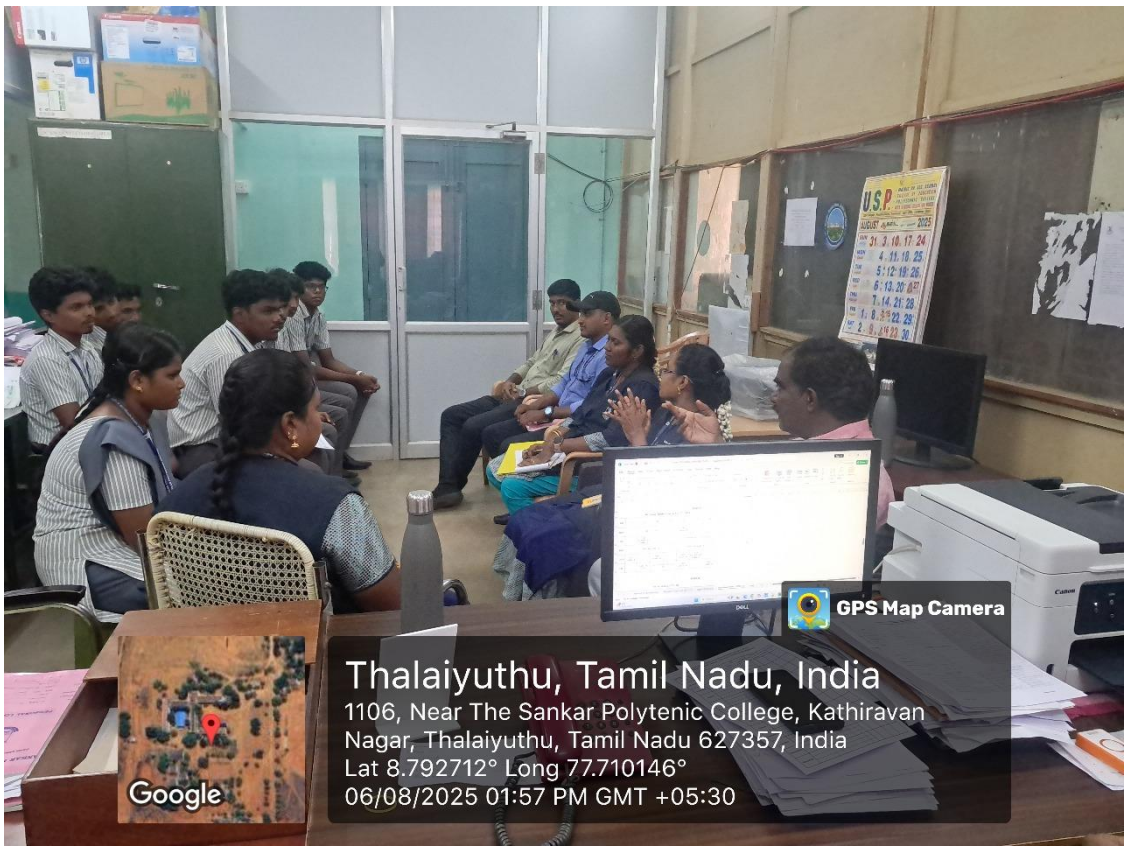
Excellence through evaluation, innovation and improvement

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QUALITY ASSURANCE AND BEST PRACTICES

Quality assurance forms the backbone of all academic and administrative activities in the department.

The department follows a systematic Plan–Do–Check–Act approach to ensure continuous quality enhancement.

Best Practices

- Outcome-Based Education
- Student-Centric Learning
- Peer Learning
- Mentoring System
- Industry Interaction
- Online Certification Courses
- NPTEL Participation
- Continuous Academic Monitoring

Academic Quality Assurance Measures

- Course File Verification
- Internal Academic Audit
- Class Committee Meetings
- Attainment Analysis
- Feedback Analysis
- Corrective Action Implementation

These practices contribute significantly towards maintaining academic excellence and student success.

Quality is not an act; it is a habit.

OUR COMMITMENT TO THE FUTURE

Vision 2030

The Department of Electrical and Electronics Engineering envisions becoming a recognized centre of excellence in diploma technical education by continuously enhancing academic quality, strengthening industry collaboration, promoting innovation and fostering sustainable engineering practices.

The department remains committed to:

Future Goals

- Strengthening Industry Partnerships
- Expanding Emerging Technology Training
- Enhancing Placement Opportunities
- Increasing Higher Education Admissions
- Promoting Innovation and Entrepreneurship
- Strengthening Research and Development Activities
- Upgrading Laboratory Facilities
- Expanding Community Engagement Activities

Through the collective efforts of faculty members, students, alumni, industry partners and stakeholders, the department will continue its journey towards academic excellence and professional distinction.

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