



**SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE**  
(An Autonomous Institution)

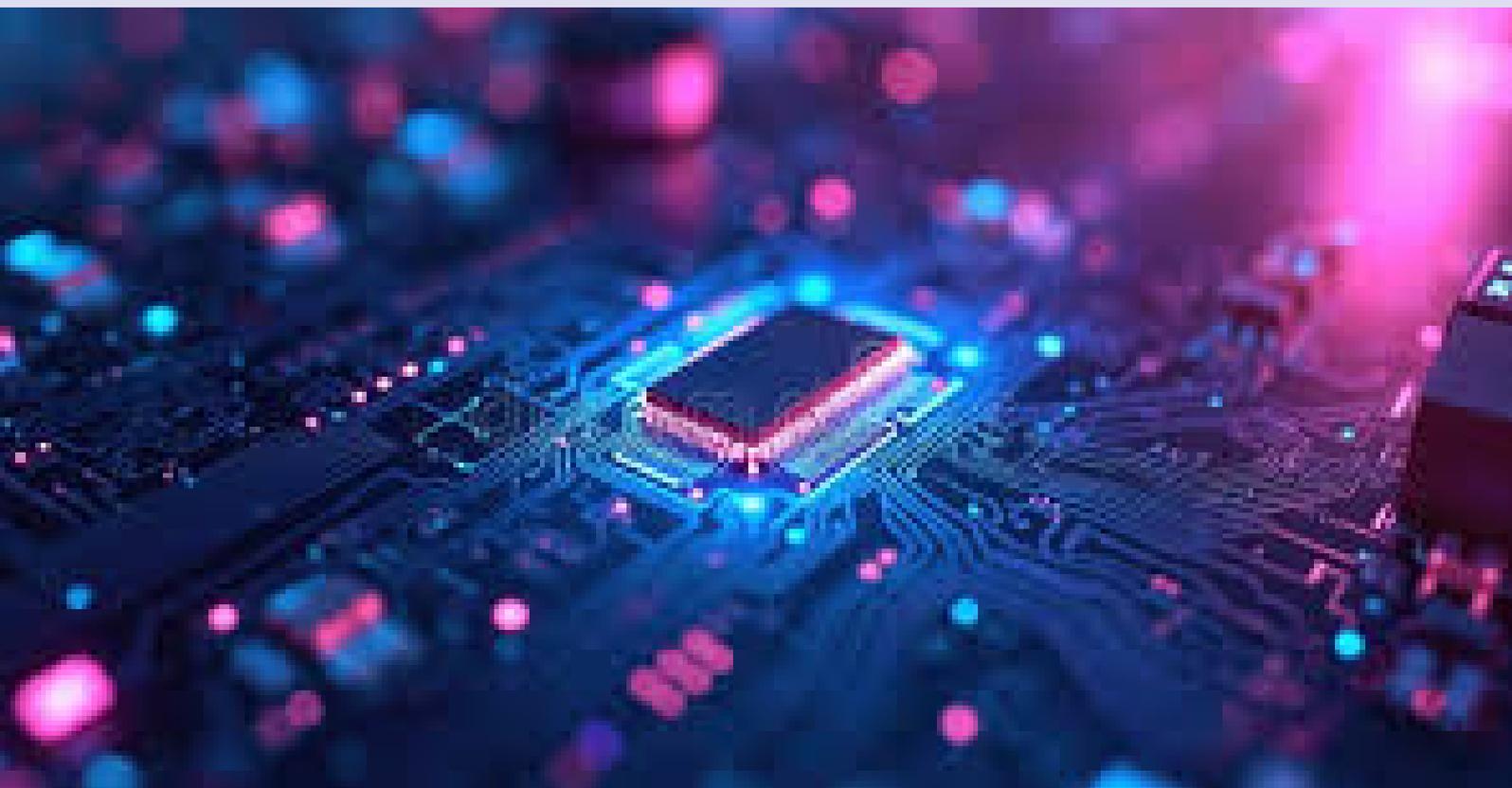
**DEPARTMENT OF  
ELECTRONICS AND COMMUNICATION**



**ELEKTOR CLUB**

A Technical endeavor to seek the unknown

**ANNUAL REPORT**  
**ACADEMIC YEAR : 2025-2026**



**Submitted By**  
**Ms.R.Priya**  
**Assistant Professor/ECE**  
**Faculty Coordinator**

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## PREFACE

The ELEKTOR Club of the Department of Electronics and Communication Engineering serves as a vibrant and collaborative platform dedicated to promoting interdisciplinary technical learning, innovation, and practical skill development among students. Established in 2013 with the vision of creating a common forum for electronics enthusiasts, the club brings together self-motivated students who actively explore innovative ideas and transform theoretical knowledge into real-world electronic applications. The club is committed to strengthening students' technical competence by integrating concepts from various domains of engineering and technology, thereby preparing them to meet the demands of an increasingly competitive and rapidly evolving technological landscape. Through hands-on training, technical workshops, expert lectures, and project-based learning, the ELEKTOR Club strives to bridge the gap between classroom learning and practical implementation in core electronics and emerging technologies. It provides an encouraging environment where students can experiment, design, and build innovative electronic systems while developing creativity, analytical thinking, and problem-solving abilities. supported by enthusiastic student members and dedicated faculty guidance, the ELEKTOR Club continues to function as a comprehensive resource and knowledge-sharing community for aspiring electronics engineers. By fostering collaboration, innovation, and continuous learning, the club remains committed to shaping technically proficient, socially responsible, and future-ready professionals who can contribute meaningfully to technological progress and societal development.

### Submitted By



**Ms.R.Priya**  
**Faculty Coordinator**



**HoD/ECE**  
**Dr.P.Raja**



**IQAC Coordinator**  
**Dr.A.A.Arivalagar**



**Director Cum Principal**  
**Dr.V.S.K Venkatachalapathy**

## ABOUT THE INSTITUTION

Sri Manakula Vinayaga Educational Trust was founded to provide quality and affordable education to the weaker sections of society. The trust established Sri Manakula Vinayagar Engineering College (SMVEC) in 1999. SMVEC is an autonomous institution affiliated to Pondicherry University. It offers a variety of undergraduate, postgraduate, and research programs in engineering. SMVEC has been accredited by NAAC with “A” grade and NBA. The institution is also accredited by TATA consultancy services. The college has a good placement record with students getting job offers from top companies in India and abroad. SMVEC students have won many awards and accolades for their academic achievements.



### Vision

To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society.

### Mission

**M1: Quality Education:** To provide comprehensive academic system that amalgamates the cutting edge technologies with best practices.

**M2: Research and Innovation:** To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.

**M3: Employability and Entrepreneurship:** To inculcate the employability and entrepreneurial skills through value and skill based training.

**M4: Ethical Values:** To instill deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.

## ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering is a top-notch department that offers high-quality UG, PG and Ph.D. programs. The UG program B.Tech - Electronics and Communication Engineering is accredited by the National Accreditation Board, AICTE-New Delhi, and has a placement record of over 80%. The department's graduates are highly sought-after by employers in the Electronics and Communication sector.

Our department contributes significantly to achieving the national objective of envisioning the world with a clear and deep commitment and a sincere desire to meet the expectations of a rising, fast-developing technology.

### Vision

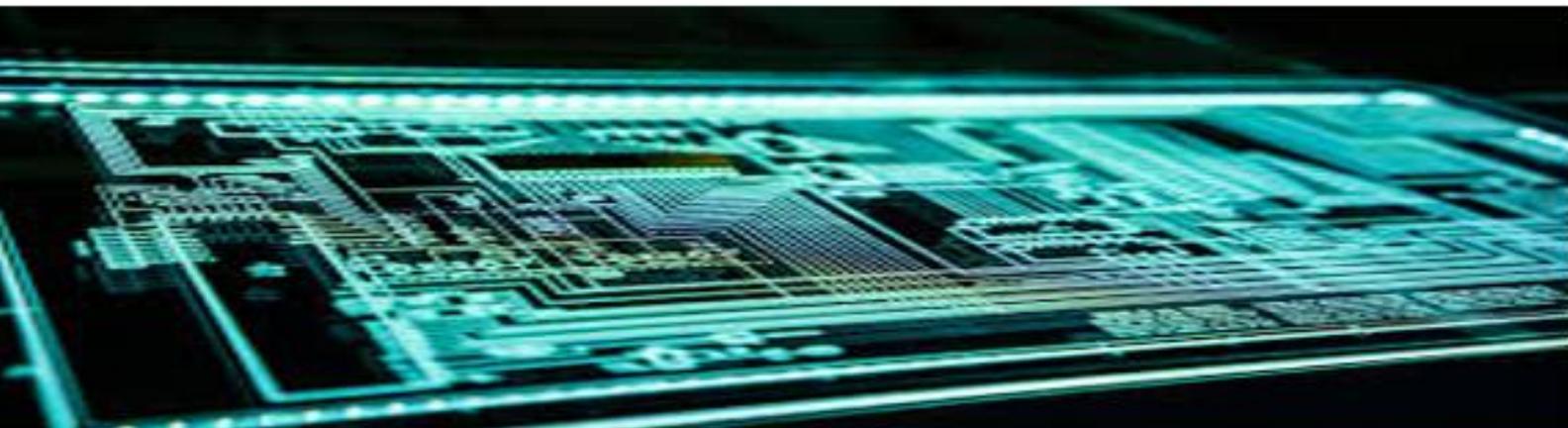
Facilitate academic excellence and research among Electronics and Communication Engineers to meet global needs with high competence and ethical professionalism.

### Mission

- **Academic Excellence:** To impart learning skills to meet the global challenges in the field of Electronics and Communication Engineering.
- **Research and Innovation:** To provide excellence in research and innovation through multidisciplinary specialization.
- **Employability and Entrepreneurship:** To enhance inter and intra-personal skills to make them employable and entrepreneurs.
- **Ethics:** To inculcate the significance of human values and professional skills to serve society.

### Programs offered

- B.Tech - Electronics and Communication Engineering
- M.Tech - Electronics and Communication Engineering
- M.Tech - VLSI & Embedded Systems
- Ph.D - Electronics and Communication Engineering



## ABOUT ELEKTOR CLUB

With the motive to provide a common platform for inter disciplinary technical activities of the Department, ELEKTOR Club was launched in 2013. The club consist of self -motivated students who gather together to come up with some innovative ideas and work on them. It aims to technically strengthen the students by integrating their skills in various fields of Engineering and Technology so as to cope up with the highly competitive world. The idea to develop a comprehensive knowledge of electronics and bring about projects based on core electronics gave the initiation to the Club. We strive to teach and help students acquire new skills in an era of rapidly evolving technology.

The club aims to fill in the void of Electronics hobbyists in the institute by providing a platform where the theory learnt in classes can be applied in the real world. The mission of the club is to expose students to challenges and new technologies in the field of electronics and thus to nurture and develop their skill set in this arena. The Elektor Club is designed to be a comprehensive resource and support network for anyone interested in electronics. Elektor club will expose students to new challenges and technologies in the field of electronics and thus to nurture and develop their skills set in this area by offering a wide range of benefits and fostering a collaborative environment, it aims to inspire innovation, learning, and the sharing of knowledge within the electronics community.

### Objectives of the Club

The objectives of the club typically revolve around fostering interest, education, and hands-on experience in electronics and related fields. Here are some common objectives:

- Provide hands-on experience and theoretical knowledge about various aspects of electronics
- To make the students learn and experience electronics, practically
- To provide a platform for students to shape their innovative ideas
- To utilize the latest technological advancements in the field of electronics to build project
- To expose students to the latest technological advancements in electronics.
- We help students to acquire and develop new skill-sets by conducting various lectures and workshops.

## DETAILS OF THE OFFICE BEARERS

The Elektor Club is guided by a committed team of office bearers who play a crucial role in shaping the club's technical vision and activities. The team generally consists of a President, Vice President, Secretary, Treasurer, and Technical Coordinators, each contributing distinct responsibilities and expertise. These leaders organize workshops, manage technical resources, support project development, and mentor fellow students in electronics and emerging technologies. Their coordinated efforts ensure the smooth functioning of the club while promoting innovation, teamwork, and practical learning.

### STAFF COORDINATOR



**MS.R.PRIYA**

**Assistant Professor  
ECE**

### STUDENT COORDINATORS



**MOHAN RAJ R**

**President  
III Year**



**RIJUL NAMBIAR P**

**Vice President  
III Year**



**NITHYA SREE**

**Secretary  
III Year**



**ANUSHA R**

**Technical Head  
III Year**



**JAYAPRIYAN**

**Creative Head  
II Year**



**SIVAPRIYAN**

**Publicity Head  
II Year**

## LIST OF ACTIVITIES CONDUCTED

S.No	Title of the Club Activity	Date of Conduction	Year/Sem/Sec	No.of Participants
1	Placement Perspectives: Guidance for Career Development and Placement Readiness	07.08.2025	III / V / A,B,C,D	200
2	Precision in Layers: A Practical Approach to PCB Design	09.08.2025	II/III/A	52
3	CodeWave x CircuitPlay	09.08.2025	II/III/C	56
4	Mastering Full Stack Development for the Modern Web	23.09.2025	III /V/ A	56
5	ElectroTech Trivia Quiz	11.10.2025	I / II / C	50
6	From Code to Circuit: Microcontrollers in Action	26.12.2025	II/IV/D	56
7	AptiQuest: Introduction to Quantitative Aptitude	27.12.2025	II/IV/C	56
8	Smart Device Design with Embedded IoT	27.12.2025	II/IV/A	56



## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### DETAILS OF CLUB ACTIVITY - 01

<b>Name of The Activity</b>	Placement Perspectives: Guidance for Career Development and Placement Readiness
<b>Name of the Club</b>	Elektor Club
<b>Date &amp; Day</b>	07.08.2025 – Thursday
<b>Activity executed (Year /Sem/ Sec)</b>	III / V / A,B,C, D
<b>Duration of Activity</b>	11.45 am – 12.35 am
<b>Objective of the Activity</b>	<ul style="list-style-type: none"> <li>To create awareness among students about career planning and placement opportunities.</li> <li>To guide students in identifying their career goals based on skills, interests, and industry demand.</li> <li>To enhance placement readiness through training in aptitude, technical, and soft skills.</li> <li>To familiarize students with recruitment processes, interview techniques, and employer expectations.</li> </ul>
<b>Outcome of the Activity</b>	<ul style="list-style-type: none"> <li>Students gain clarity about career pathways and placement requirements.</li> <li>Improved readiness for campus recruitment, internships, and higher studies.</li> <li>Enhanced confidence in facing aptitude tests, technical interviews, and HR rounds.</li> <li>Better understanding of resume preparation, group discussions, and interview etiquette.</li> </ul>
<b>Key Topics Covered</b>	<ul style="list-style-type: none"> <li>Career planning and goal setting</li> <li>Overview of placement processes and recruitment cycles</li> <li>Resume building and professional profiling</li> <li>Aptitude test preparation and problem-solving techniques</li> <li>Technical interview and HR interview strategies</li> </ul>



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

<b>Name of the Staff in-charge/ Program Coordinator</b>		Ms.R.Priya			
<b>Details of the Class</b>					
<b>Year</b>	III	<b>Semester /Section</b>	V/A , B , C, D	<b>Total strength of the class</b>	200
<b>PURPOSE/DETAILS OF THE CLUB ACTIVITIES &amp; ITS CONTENT</b>					
<p> <b>Foster Interest in Electronics</b> The electronics club aims to spark and nurture a genuine interest in electronics and electrical engineering among its members. By engaging in discussions, demonstrations, and activities, the club encourages students to explore the exciting world of electronics, understand its relevance in everyday life, and inspire them to pursue this field further.</p> <p> <b>Provide Hands-On Experience</b> One of the key purposes of the club is to give members practical experience with electronic circuits, components, and devices. Through workshops, lab sessions, and DIY projects, students can apply theoretical knowledge, develop essential skills, and gain confidence in working with various electronic tools and equipment.</p> <p> <b>Encourage Creativity and Innovation</b> The club promotes a creative and innovative mindset by encouraging members to design and build their own electronic projects. These project-based activities not only enhance problem-solving abilities but also allow students to experiment with new ideas, technologies, and techniques, fostering a spirit of innovation.</p> <p> <b>Create a Collaborative Environment</b> Building a strong sense of community is central to the club's mission. The electronics club provides a supportive and collaborative environment where members can share their knowledge, skills, and experiences. Through group projects, peer-to-peer learning, and discussions, students learn the value of teamwork and benefit from diverse perspectives.</p>					



## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Year/Sem/Sec: III / V / A, B,C ,D

Date: 07.08.2025

### Report on Club Activity

#### **“Placement Perspectives: Guidance for Career Development and Placement Readiness”**

On August 07, 2025, the Elektor Club under the aegis of Department of Electronics and Communication Engineering held a club activity for Third Year A , B ,C, D Section Students on the title **“Placement Perspectives: Guidance for Career Development and Placement Readiness”** was organized with the objective of equipping students with essential knowledge and skills required for successful career planning and campus placements. The program focused on providing a clear understanding of the current employment landscape, industry expectations, and the importance of early preparation. It aimed to bridge the gap between academic learning and professional requirements.

The session emphasized the significance of self-assessment in career development. Students were guided to analyze their strengths, interests, and skill sets in order to identify suitable career paths. Various career options, including core engineering roles, IT sectors, higher education, entrepreneurship, and emerging technologies, were discussed to help students make informed decisions.

Special attention was given to placement readiness by highlighting key components such as resume preparation, aptitude training, technical knowledge, and communication skills. The importance of developing a strong resume tailored to job roles and maintaining a professional online presence was explained. Students were also introduced to common recruitment processes followed by leading organizations.

The program provided valuable insights into interview preparation, including group discussions, technical interviews, and HR rounds. Effective communication, body language, problem-solving approach, and confidence-building strategies were discussed in detail. Real-time examples and practical tips helped students understand how to present themselves effectively during recruitment processes.

Overall, the Placement Perspectives program proved to be highly beneficial in preparing students for their future careers. It boosted their confidence, clarified career goals, and motivated them to take proactive steps toward placement readiness. The program successfully instilled a sense of responsibility and awareness among students, enabling them to approach their career development with clarity and determination.

## PHOTO GALLERY OF THE CLUB ACTIVITY



**Introduction to career planning and placement strategies**



**Explanation of placement procedures and recruitment process.**



**Discussion on resume preparation and professional profiling techniques.**



**Guidance on interview skills, aptitude tests, and group discussions.**



**Interaction between students and speaker on career goals and job readiness.**



**Clarification of common placement challenges and career development strategies.**



### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### DETAILS OF CLUB ACTIVITY - 02

<b>Name of The Activity</b>	Precision in Layers: A Practical Approach to PCB Design
<b>Name of the Club</b>	Elektor Club
<b>Date &amp; Day</b>	09.08.2025 – Saturday
<b>Activity executed (Year /Sem/ Sec)</b>	II/III/A
<b>Duration of Activity</b>	11.45 am – 12.35 am
<b>Objective of the Activity</b>	<ul style="list-style-type: none"> <li>To provide hands-on experience in PCB design focusing on precision and accuracy.</li> <li>To understand the layered structure of Printed Circuit Boards and their importance in circuit performance.</li> <li>To familiarize participants with PCB design software tools used in the electronics industry.</li> <li>To demonstrate best practices for component placement and routing for minimal interference.</li> </ul>
<b>Outcome of the Activity</b>	<ul style="list-style-type: none"> <li>Improved understanding of multi-layer PCB architecture and its role in high-speed circuits.</li> <li>Ability to convert circuit schematics into optimized PCB layouts.</li> <li>Hands-on experience in design rule checks (DRC) and understanding signal integrity issues.</li> <li>Knowledge of designing PCBs suitable for fabrication with industry standards.</li> </ul>
<b>Key Topics Covered</b>	<ul style="list-style-type: none"> <li>Basics and importance of PCBs in electronic devices.</li> <li>Single-layer, double-layer, and multi-layer structures.</li> <li>Translating circuit diagrams into PCB designs.</li> <li>Single-sided and multi-layer routing with signal integrity considerations.</li> </ul>



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

<b>Name of the Staff in-charge/ Program Coordinator</b>		Ms.R.Priya			
<b>Details of the Club Members who executed these activities</b>					
<b>S. No</b>	<b>Year/Sem</b>	<b>Sec</b>	<b>Name of the Club Members</b>		
1. 2. 3. 4. 5.	III/IV	D	Nithya Sree Mohan Raj R Preethi K Preethika J Mukkes S		
<b>Details of the Class</b>					
<b>Year</b>	II	<b>Semester /Section</b>	III/A	<b>Total strength of the class</b>	52
<b>PURPOSE/DETAILS OF THE CLUB ACTIVITIES &amp; ITS CONTENT</b>					
 <b>Foster Interest in Electronics</b> <p>The electronics club aims to spark and nurture a genuine interest in electronics and electrical engineering among its members. By engaging in discussions, demonstrations, and activities, the club encourages students to explore the exciting world of electronics, understand its relevance in everyday life, and inspire them to pursue this field further.</p>					
 <b>Provide Hands-On Experience</b> <p>One of the key purposes of the club is to give members practical experience with electronic circuits, components, and devices. Through workshops, lab sessions, and DIY projects, students can apply theoretical knowledge, develop essential skills, and gain confidence in working with various electronic tools and equipment.</p>					
 <b>Encourage Creativity and Innovation</b> <p>The club promotes a creative and innovative mindset by encouraging members to design and build their own electronic projects. These project-based activities not only enhance problem-solving abilities but also allow students to experiment with new ideas, technologies, and techniques, fostering a spirit of innovation.</p>					
 <b>Create a Collaborative Environment</b> <p>Building a strong sense of community is central to the club's mission. The electronics club provides a supportive and collaborative environment where members can share their knowledge, skills, and experiences. Through group projects, peer-to-peer learning, and discussions, students learn the value of teamwork and benefit from diverse perspectives.</p>					



## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Year/Sem/Sec: II / III / A

Date: 09.08.2025

### **Report on Club Activity “Precision in Layers: A Practical Approach to PCB Design”**

On August 09, 2025, the Elektor Club under the aegis of Department of Electronics and Communication Engineering held a club activity for Second Year A Section Students on the title **“Precision in Layers: A Practical Approach to PCB Design”** was a hands-on, knowledge-driven technical club activity aimed at bridging the gap between theoretical circuit design and real-world PCB manufacturing.

In the modern electronics industry, precision in PCB layout is not just an advantage—it’s a necessity for performance, reliability, and cost-effectiveness. This session provided participants with a step-by-step understanding of how multi-layer printed circuit boards are conceived, designed, and prepared for fabrication.

The activity began with an introduction to PCB technology, highlighting the advantages of multi-layer boards in high-speed and compact electronics. Participants learned about layer stack-up design, a critical aspect that determines signal integrity, EMI performance, and mechanical strength. The session delved into signal routing strategies, emphasizing controlled impedance, minimizing crosstalk, and the importance of strategic ground plane placement.

A key focus of the session is layer management — understanding how to strategically separate signal, power, and ground paths across multiple layers to reduce interference and improve circuit stability. By working on practical examples, students will see how these principles apply to different types of projects, from simple single-layer boards to complex multi-layer designs.

A strong focus was given to via design and placement, explaining how blind, buried, and through-hole vias influence both performance and manufacturability. Real-world examples illustrated the consequences of poor via management on PCB reliability. The activity also covered Design for Manufacturability (DFM) principles, ensuring that participants could translate designs into cost-effective and error-free production files.

By the end, the students had not just with a conceptual understanding, but also with practical exposure to the design process. This approach not only builds technical competence but also cultivates the attention to detail and problem-solving mindset required for professional-quality PCB design. Whether the goal is academic projects, prototyping, or product development, this practical and structured experience ensures that each layer of the board — and each step of the process This activity served as a platform to cultivate precision-oriented thinking—a skill set that directly translates to better engineering outcomes in both academic projects and professional careers.

## PHOTO GALLERY OF THE CLUB ACTIVITY



**Introductory of the Club being given at the beginning of the Session**



**Engaging the students in Basic Concepts of PCB Designing**



**Discussion with the students about the Types of PCBs**



**Introduction to PCB Design Software Proteus at the Session**



**Students solving interactive Puzzle on related to PCBs**



**Interaction about the various Simulation Software for PCB with the Students**



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**DETAILS OF CLUB ACTIVITY - 03**

<b>Name of The Activity</b>	CodeWave x CircuitPlay
<b>Name of the Club</b>	Elektor Club
<b>Date &amp; Day</b>	09.08.2025 & Saturday
<b>Activity executed (Year /Sem/ Sec)</b>	II/III/C
<b>Duration of Activity</b>	3:10 PM to 4:50 PM
<b>Objective of the Activity</b>	<ul style="list-style-type: none"> <li>• Introduce participants to Proteus software for electronic circuit design and simulation.</li> <li>• Enable learners to integrate coding with circuit design inside Proteus.</li> <li>• Provide hands-on experience in virtual testing and debugging before hardware implementation.</li> </ul>
<b>Outcome of the Activity</b>	<ul style="list-style-type: none"> <li>• Ability to design, simulate, and test circuits virtually.</li> <li>• Develop skills in loading and linking code with microcontrollers in Proteus.</li> <li>• Gain confidence in debugging circuits without physical hardware.</li> <li>• Completion of mini-projects/prototypes using Proteus (e.g., LED blinking, sensor simulation, displays).</li> </ul>
<b>Key Topics Covered</b>	<ul style="list-style-type: none"> <li>• Overview of Proteus interface and workspace.</li> <li>• Schematic design basics: components, connections, libraries.</li> <li>• Simulating analog and digital circuits.</li> <li>• Microcontroller simulation (Arduino, PIC, 8051, etc.).</li> <li>• Importing hex files / compiled code into Proteus.</li> </ul>



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

<b>Name of the Staff in-charge/ Program Coordinator</b>		Ms.R.Priya			
<b>Details of the Club Members who executed these activities</b>					
S. No	Year/Sem	Sec	Name of the Club Members		
1. 2. 3. 4. 5.	III/V	D	Nithya Sree Mohan Raj R Preethi K Preethika J Mukkes S		
<b>Details of the Class</b>					
<b>Year</b>	II	<b>Semester /Section</b>	III/C	<b>Total strength of the class</b>	56
<b>PURPOSE/DETAILS OF THE CLUB ACTIVITIES &amp; ITS CONTENT</b>					
 <p><b>Foster Interest in Electronics</b> The electronics club aims to spark and nurture a genuine interest in electronics and electrical engineering among its members. By engaging in discussions, demonstrations, and activities, the club encourages students to explore the exciting world of electronics, understand its relevance in everyday life, and inspire them to pursue this field further.</p>					
 <p><b>Provide Hands-On Experience</b> One of the key purposes of the club is to give members practical experience with electronic circuits, components, and devices. Through workshops, lab sessions, and DIY projects, students can apply theoretical knowledge, develop essential skills, and gain confidence in working with various electronic tools and equipment.</p>					
 <p><b>Encourage Creativity and Innovation</b> The club promotes a creative and innovative mindset by encouraging members to design and build their own electronic projects. These project-based activities not only enhance problem-solving abilities but also allow students to experiment with new ideas, technologies, and techniques, fostering a spirit of innovation.</p>					
 <p><b>Create a Collaborative Environment</b> Building a strong sense of community is central to the club's mission. The electronics club provides a supportive and collaborative environment where members can share their knowledge, skills, and experiences. Through group projects, peer-to-peer learning, and discussions, students learn the value of teamwork and benefit from diverse perspectives.</p>					



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Year/Sem/Sec: II / III / C**

**Date: 09.08.2025**

**Report on Club Activity**  
**“CodeWave x CircuitPlay”**

On August 09, 2025, the Elektor Club under the aegis of Department of Electronics and Communication Engineering held a club activity for Second Year C Section Students on the title “**CodeWave x CircuitPlay**” was a focused and immersive learning activity aimed at introducing students to Proteus, a powerful and widely used simulation and design software for electronics engineering. Designed to bridge the often-wide gap between theoretical knowledge and hands-on application, the workshop provided participants with a structured yet interactive platform to explore the complete workflow of electronic design — from concept to virtual implementation.

The session began with an overview of Proteus, familiarizing students with its user interface, core modules, and extensive capabilities, including schematic capture, circuit simulation, microcontroller emulation, and PCB layout design. Emphasis was placed on understanding how Proteus allows for real-time simulation of both analog and digital circuits, thereby enabling learners to test and refine their ideas without the immediate need for physical components.

Following the introduction, students engaged in practical exercises that guided them through the creation of basic circuits using the built-in component libraries. They learned how to arrange and connect elements accurately, simulate their functionality, and observe the system’s behavior under different conditions.

By the conclusion of the activity, participants had not only acquired practical technical skills in circuit design, simulation, and PCB layout but had also gained a strong appreciation for the workflow of professional electronics development. The *CodeWave x CircuitPlay* session proved to be more than just a training exercise; it was an empowering experience that gave students the confidence to experiment, innovate, and pursue more complex projects in the realm of electronics and embedded systems. This event reinforced the value of simulation-based learning as a safe, cost-effective, and highly effective method of mastering the intricacies of electronic design automation.

## PHOTO GALLERY OF THE CLUB ACTIVITY



Madagadipet, Puducherry, India  
Wj6m+xxw, Madagadipet, Puducherry 605107, India  
Lat 11.912556° Long 79.634992°  
09/08/2025 03:29 PM GMT +05:30

**Introductory of the Club being given at the beginning of the Session**



**Introduction to Circuit Simulation being given at the of the Session**



Madagadipet, Puducherry, India  
Wj6m+xx, Madagadipet, Puducherry 605107, India  
Lat 11.911219° Long 79.634776°  
09/08/2025 03:48 PM GMT +05:30

**Discussion about various Electronics Prototyping**



Madagadipet, Puducherry, India  
Wj6m+xx, Madagadipet, Puducherry 605107, India  
Lat 11.912006° Long 79.63482°  
09/08/2025 03:40 PM GMT +05:30

**Introduction to the Basics of Microcontrollers**



Madagadipet, Puducherry, India  
Wj6m+xx, Madagadipet, Puducherry 605107, India  
Lat 11.911502° Long 79.634733°  
09/08/2025 03:58 PM GMT +05:30

**Students solving interactive Puzzle on various PCB Terminologies**



Madagadipet, Puducherry, India  
Wj6m+xx, Madagadipet, Puducherry 605107, India  
Lat 11.911853° Long 79.634793°  
09/08/2025 04:32 PM GMT +05:30

**Interactive Session with the Students about the Various PCB Designing Softwares**



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**DETAILS OF CLUB ACTIVITY - 04**

<b>Name of The Activity</b>	Mastering Full Stack Development for the Modern Web
<b>Name of the Club</b>	Elektor Club
<b>Date &amp; Day</b>	23.09.2025 & Tuesday
<b>Activity executed (Year /Sem/ Sec)</b>	III / V / A
<b>Duration of Activity</b>	03.10 PM to 4.00 PM
<b>Objective of the Activity</b>	<ul style="list-style-type: none"> <li>To provide comprehensive knowledge of full stack web development concepts and technologies.</li> <li>To familiarize students with front-end, back-end, and database integration techniques.</li> <li>To develop practical skills in building responsive, dynamic, and scalable web applications.</li> <li>To expose students to modern frameworks, tools, and deployment practices.</li> </ul>
<b>Outcome of the Activity</b>	<ul style="list-style-type: none"> <li>Students gain a clear understanding of complete web application architecture.</li> <li>Ability to design and develop responsive front-end interfaces.</li> <li>Proficiency in server-side development and database management.</li> <li>Enhanced problem-solving and debugging skills in web applications.</li> <li>Improved readiness for internships, projects, and careers in web development.</li> </ul>
<b>Key Topics Covered</b>	<ul style="list-style-type: none"> <li>Overview of full stack web development architecture</li> <li>Front-end technologies (HTML, CSS, JavaScript)</li> <li>Responsive design and user interface development</li> <li>Back-end development and server-side programming</li> </ul>



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

<b>Name of the Staff in-charge/ Program Coordinator</b>		Ms.R.Priya			
<b>Details of the Class</b>					
<b>Year</b>	III	<b>Semester /Section</b>	V/A	<b>Total strength of the class</b>	56
<b>PURPOSE/DETAILS OF THE CLUB ACTIVITIES &amp; ITS CONTENT</b>					
 <b>Foster Interest in Electronics</b> <p>The electronics club aims to spark and nurture a genuine interest in electronics and electrical engineering among its members. By engaging in discussions, demonstrations, and activities, the club encourages students to explore the exciting world of electronics, understand its relevance in everyday life, and inspire them to pursue this field further.</p>					
 <b>Provide Hands-On Experience</b> <p>One of the key purposes of the club is to give members practical experience with electronic circuits, components, and devices. Through workshops, lab sessions, and DIY projects, students can apply theoretical knowledge, develop essential skills, and gain confidence in working with various electronic tools and equipment.</p>					
 <b>Encourage Creativity and Innovation</b> <p>The club promotes a creative and innovative mindset by encouraging members to design and build their own electronic projects. These project-based activities not only enhance problem-solving abilities but also allow students to experiment with new ideas, technologies, and techniques, fostering a spirit of innovation.</p>					
 <b>Create a Collaborative Environment</b> <p>Building a strong sense of community is central to the club's mission. The electronics club provides a supportive and collaborative environment where members can share their knowledge, skills, and experiences. Through group projects, peer-to-peer learning, and discussions, students learn the value of teamwork and benefit from diverse perspectives.</p>					



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Year/Sem/Sec: III / V / A**

**Date: 23.09.2025**

**Report on Club Activity**  
**“Mastering Full Stack Development for the Modern Web”**

On September 23, 2025, the Elektor Club under the aegis of Department of Electronics and Communication Engineering held a club activity for Third Year A Section Students on the title **“Mastering Full Stack Development for the Modern Web”** was organized to equip students with in-depth knowledge of web application development using contemporary technologies. The objective of the program was to provide a holistic understanding of both front-end and back-end development, enabling students to build complete, functional, and user-friendly web applications. The session emphasized the growing demand for full stack developers in the modern digital ecosystem.

The program introduced students to the fundamentals of front-end development, focusing on creating responsive and interactive user interfaces. Key concepts such as HTML, CSS, JavaScript, and modern frameworks were discussed to help students understand how client-side applications are designed. Emphasis was placed on usability, responsiveness, and performance to meet modern web standards.

Back-end development concepts formed a core part of the training. Students were introduced to server-side programming, APIs, and database connectivity. The session explained how data is processed, stored, and retrieved efficiently using appropriate backend technologies. This provided learners with a clear understanding of how different components of a web application interact seamlessly.

The program also highlighted the importance of databases and data management in web applications. Students learned about database design, data modeling, and integration with backend systems. The significance of secure data handling, authentication, and authorization mechanisms was explained to ensure reliable and secure web applications.

Overall, the Mastering Full Stack Development for the Modern Web program successfully enhanced students' technical competence and confidence in web development. It motivated participants to pursue advanced projects, internships, and careers in software development. The program laid a strong foundation for continuous learning and innovation in the rapidly evolving field of web technologies.

## PHOTO GALLERY OF THE CLUB ACTIVITY



**Introduction to full stack web development concepts by the resource person..**



**Explanation of front-end and back-end technologies used in modern web applications.**



**Discussion of web application development and database integration.**



**Emphasizing on coding, debugging, and application deployment.**



**Discussion on industry-relevant tools and real-world web development practices.**



**Explanation of career opportunities in web development and software engineering.**



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**DETAILS OF CLUB ACTIVITY - 05**

<b>Name of The Activity</b>	ElectroTech Trivia Quiz
<b>Name of the Club</b>	Elektor Club
<b>Date &amp; Day</b>	11.10.2025 & Saturday
<b>Activity executed (Year /Sem/ Sec)</b>	I / I / C
<b>Duration of Activity</b>	03:10 PM to 04:00 PM
<b>Objective of the Activity</b>	<ul style="list-style-type: none"> <li>To strengthen students' understanding of electrical and electronics engineering concepts.</li> <li>To encourage quick thinking and application-based learning through quizzes.</li> <li>To promote interest in emerging trends and technologies in the electronics domain.</li> <li>To enhance analytical, problem-solving, and reasoning abilities.</li> <li>To foster healthy competition and collaborative learning among students.</li> </ul>
<b>Outcome of the Activity</b>	<ul style="list-style-type: none"> <li>Improved conceptual clarity in electrical and electronics fundamentals.</li> <li>Enhanced critical thinking and rapid decision-making skills.</li> <li>Increased awareness of recent advancements in electronics and electrical systems.</li> <li>Better teamwork, participation, and confidence among students.</li> <li>Greater enthusiasm for technical learning and competitive events.</li> </ul>
<b>Key Topics Covered</b>	<ul style="list-style-type: none"> <li>Basic electrical and electronics fundamentals</li> <li>Electronic components and their applications</li> <li>Circuit theory and analysis</li> <li>Emerging trends in electrical and electronics engineering</li> <li>General technical aptitude and problem-solving questions</li> </ul>



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

<b>Name of the Staff in-charge/ Program Coordinator</b>		Ms.R.Priya			
<b>Details of the Club Members who executed these activities</b>					
<b>S. No</b>	<b>Year/Sem</b>	<b>Sec</b>	<b>Name of the Club Members</b>		
1. 2. 3. 4.	III/V	D	Anusha.R Madhumitha.M Nithya Sree Lakshmi Priya.K		
<b>Details of the Class</b>					
<b>Year</b>	I	<b>Semester /Section</b>	I /C	<b>Total strength of the class</b>	50
<b>PURPOSE/DETAILS OF THE CLUB ACTIVITIES &amp; ITS CONTENT</b>					
 <b>Foster Interest in Electronics</b> <p>The electronics club aims to spark and nurture a genuine interest in electronics and electrical engineering among its members. By engaging in discussions, demonstrations, and activities, the club encourages students to explore the exciting world of electronics, understand its relevance in everyday life, and inspire them to pursue this field further.</p>					
 <b>Provide Hands-On Experience</b> <p>One of the key purposes of the club is to give members practical experience with electronic circuits, components, and devices. Through workshops, lab sessions, and DIY projects, students can apply theoretical knowledge, develop essential skills, and gain confidence in working with various electronic tools and equipment.</p>					
 <b>Encourage Creativity and Innovation</b> <p>The club promotes a creative and innovative mindset by encouraging members to design and build their own electronic projects. These project-based activities not only enhance problem-solving abilities but also allow students to experiment with new ideas, technologies, and techniques, fostering a spirit of innovation.</p>					
 <b>Create a Collaborative Environment</b> <p>Building a strong sense of community is central to the club's mission. The electronics club provides a supportive and collaborative environment where members can share their knowledge, skills, and experiences. Through group projects, peer-to-peer learning, and discussions, students learn the value of teamwork and benefit from diverse perspectives.</p>					



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Year/Sem/Sec: I / I / C**

**Date: 11.10.2025**

**Report on Club Activity**  
**“ElectroTech Trivia Quiz”**

On October 11, 2025, the Elektor Club under the aegis of Department of Electronics and Communication Engineering held a club activity for First Year C Section Students on the title **“ElectroTech Trivia Quiz”** was organized to with the aim of reinforcing core concepts in electrical and electronics engineering through an engaging and interactive learning approach. The quiz provided a platform for students to test their technical knowledge beyond classroom learning while encouraging active participation and intellectual curiosity.

The event covered a wide range of topics including basic electrical principles, electronic components, circuit analysis, power systems, control systems, and emerging technologies. Questions were designed to assess both fundamental understanding and application-oriented knowledge, ensuring a balanced evaluation of students’ technical competence.

The quiz format promoted quick thinking, accuracy, and effective time management. Students were challenged to analyze problems rapidly and apply their theoretical knowledge in a competitive environment. This approach helped in improving their reasoning abilities and confidence in handling technical questions.

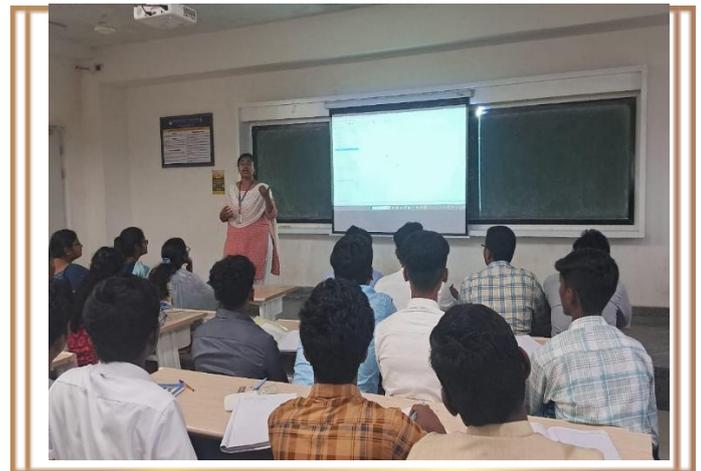
The ElectroTech Trivia Quiz also encouraged teamwork and collaborative learning. Participants worked together to discuss answers, exchange ideas, and learn from one another. This collaborative environment enhanced peer learning and strengthened communication and interpersonal skills. In addition to technical knowledge, the quiz created awareness about recent developments and innovations in the field of electronics and electrical engineering. Students were motivated to explore current trends, new technologies, and practical applications, thereby broadening their technical perspective.

Overall, the ElectroTech Trivia Quiz was a successful academic activity that combined learning with competition. It increased students’ enthusiasm for technical subjects, strengthened their conceptual understanding, and encouraged continuous learning. The event proved to be an effective method for reinforcing knowledge while promoting a spirit of healthy competition and academic excellence.

## PHOTO GALLERY OF THE CLUB ACTIVITY



**Introduction to the ElectroTech Trivia Quiz rules and format by the club members.**



**Explanation of quiz rounds covering electrical and electronics concepts.**



**Students demonstrating quick thinking while responding to quiz questions.**



**Students answering application-based and current technology questions.**



**Students applying theoretical knowledge to solve technical questions.**



**Students actively participating in technical quiz rounds.**



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**DETAILS OF CLUB ACTIVITY - 06**

<b>Name of The Activity</b>	From Code to Circuit: Microcontrollers in Action
<b>Name of the Club</b>	Elektor Club
<b>Date &amp; Day</b>	26.12.2025 & Friday
<b>Activity executed (Year /Sem/ Sec)</b>	II/IV/D
<b>Duration of Activity</b>	03:10 PM to 04:50 PM
<b>Objective of the Activity</b>	<ul style="list-style-type: none"> <li>To introduce students to microcontrollers and their applications.</li> <li>To demonstrate how programming code can control real-world circuits.</li> <li>To provide hands-on experience with microcontroller platforms like Arduino, PIC, and 8051.</li> <li>To enhance students' understanding of circuit design and simulation.</li> </ul>
<b>Outcome of the Activity</b>	<ul style="list-style-type: none"> <li>Students understood the basics of microcontroller architecture and operation.</li> <li>Gained practical experience in programming and simulating circuits.</li> <li>Learned to interface hardware components with microcontrollers.</li> </ul>
<b>Key Topics Covered</b>	<ul style="list-style-type: none"> <li>Overview of microcontrollers and their real-world applications.</li> <li>Introduction to programming microcontrollers (Arduino, PIC, 8051).</li> <li>Interfacing sensors, LEDs, and other peripherals with microcontrollers.</li> <li>Simulation of microcontroller circuits using software tools like Proteus.</li> </ul>



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

<b>Name of the Staff in-charge/ Program Coordinator</b>		Ms.R.Priya			
<b>Details of the Club Members who executed these activities</b>					
<b>S. No</b>	<b>Year/Sem</b>	<b>Sec</b>	<b>Name of the Club Members</b>		
1. 2. 3. 4. 5.	III/VI	D	Mohan Raj R Anusha.R Preethika.J Swetha.J		
<b>Details of the Class</b>					
<b>Year</b>	II	<b>Semester /Section</b>	IV/D	<b>Total strength of the class</b>	56
<b>PURPOSE/DETAILS OF THE CLUB ACTIVITIES &amp; ITS CONTENT</b>					
 <b>Foster Interest in Electronics</b> <p>The electronics club aims to spark and nurture a genuine interest in electronics and electrical engineering among its members. By engaging in discussions, demonstrations, and activities, the club encourages students to explore the exciting world of electronics, understand its relevance in everyday life, and inspire them to pursue this field further.</p>					
 <b>Provide Hands-On Experience</b> <p>One of the key purposes of the club is to give members practical experience with electronic circuits, components, and devices. Through workshops, lab sessions, and DIY projects, students can apply theoretical knowledge, develop essential skills, and gain confidence in working with various electronic tools and equipment.</p>					
 <b>Encourage Creativity and Innovation</b> <p>The club promotes a creative and innovative mindset by encouraging members to design and build their own electronic projects. These project-based activities not only enhance problem-solving abilities but also allow students to experiment with new ideas, technologies, and techniques, fostering a spirit of innovation.</p>					
 <b>Create a Collaborative Environment</b> <p>Building a strong sense of community is central to the club's mission. The electronics club provides a supportive and collaborative environment where members can share their knowledge, skills, and experiences. Through group projects, peer-to-peer learning, and discussions, students learn the value of teamwork and benefit from diverse perspectives.</p>					



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Year/Sem/Sec: II / IV / D**

**Date: 26.12.2025**

**Report on Club Activity**  
**“From Code to Circuit: Microcontrollers in Action”**

On December 26, 2025, the Elektor Club under the aegis of Department of Electronics and Communication Engineering held a club activity for Second Year C Section Students on the title “**From Code to Circuit: Microcontrollers in Action**” was organized to help students bridge the gap between theoretical programming knowledge and practical electronics applications. The session introduced participants to microcontrollers and explained how they can be programmed to control electronic devices and systems.

The session began with an overview of microcontroller architectures, highlighting popular platforms like Arduino, PIC, and 8051. Students learned about the features and applications of each platform and how microcontrollers are used in real-world devices. The facilitator explained the connection between coding and circuit functionality, providing students with a clear understanding of embedded systems.

Students were then introduced to circuit design and simulation using Proteus software. They learned to create schematics, connect components, and simulate the behavior of microcontroller-based circuits. The session also demonstrated importing compiled code (hex files) into simulations, allowing students to observe how their programs controlled circuit elements in real-time.

Hands-on exercises formed a crucial part of the activity. Students, under guidance, programmed microcontrollers to control LEDs, sensors, and other peripherals. The club members assisted in testing and debugging circuits, helping students understand common errors and their solutions. This interactive approach enhanced both technical knowledge and practical skills.

The activity also highlighted the importance of collaboration and peer learning. Students worked together in small groups to solve programming and circuit challenges, sharing strategies and helping each other troubleshoot errors. Club members encouraged discussions and idea exchanges, which not only strengthened understanding but also fostered teamwork, communication skills, and a collaborative approach to problem-solving.

The activity concluded with a discussion on applications of microcontrollers in robotics, automation, and IoT systems. Students expressed enthusiasm about implementing their knowledge in real-world projects. Overall, the session successfully combined theoretical learning with practical experience, giving students the confidence and skills to design and simulate microcontroller-based circuits.

## PHOTO GALLERY OF THE CLUB ACTIVITY



**Introduction to microcontrollers and embedded systems by club members.**



**Demonstration of microcontroller programming and circuit operation.**



**Club members explaining the practical importance of code-to-circuit applications.**



**Discussion on career opportunities in embedded systems and electronics.**



**Discussion on application of programming code to control electronic circuits.**



**Students sharing feedback at the end of the activity**



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**DETAILS OF CLUB ACTIVITY - 07**

<b>Name of The Activity</b>	AptiQuest: Introduction to Quantitative Aptitude
<b>Name of the Club</b>	Elektor Club
<b>Date &amp; Day</b>	27.12.2025 & Saturday
<b>Activity executed (Year /Sem/ Sec)</b>	II/IV/C
<b>Duration of Activity</b>	10:55 PM to 12:35 PM
<b>Objective of the Activity</b>	<ul style="list-style-type: none"> <li>To introduce students to the fundamentals of quantitative aptitude.</li> <li>To enhance problem-solving and numerical reasoning skills.</li> <li>To build confidence in handling aptitude questions in exams and interviews.</li> <li>To familiarize students with various types of quantitative problems such as arithmetic, algebra, percentages, and ratios.</li> <li>To develop logical thinking and analytical abilities through practice and examples.</li> </ul>
<b>Outcome of the Activity</b>	<ul style="list-style-type: none"> <li>To introduce students to the fundamentals of quantitative aptitude.</li> <li>To enhance problem-solving and numerical reasoning skills.</li> <li>To build confidence in handling aptitude questions in exams and interviews.</li> <li>To familiarize students with various types of quantitative problems such as arithmetic, algebra, percentages, and ratios.</li> <li>To develop logical thinking and analytical abilities through practice and examples.</li> </ul>
<b>Key Topics Covered</b>	<ul style="list-style-type: none"> <li>Overview of quantitative aptitude and its importance.</li> <li>Arithmetic fundamentals: percentages, ratios, averages</li> <li>Number systems, simplification, and basic algebra</li> <li>Time, speed, distance, and work-related problems.</li> <li>Problem-solving strategies and tips for competitive exams.</li> </ul>



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

<b>Name of the Staff in-charge/ Program Coordinator</b>		Ms.R.Priya			
<b>Details of the Club Members who executed these activities</b>					
<b>S. No</b>	<b>Year/Sem</b>	<b>Sec</b>	<b>Name of the Club Members</b>		
1. 2. 3. 4. 5.	III/VI	D	Mohan Raj R Gayathri.D Swetha.J		
<b>Details of the Class</b>					
<b>Year</b>	II	<b>Semester /Section</b>	IV/C	<b>Total strength of the class</b>	56
<b>PURPOSE/DETAILS OF THE CLUB ACTIVITIES &amp; ITS CONTENT</b>					
 <b>Foster Interest in Electronics</b> <p>The electronics club aims to spark and nurture a genuine interest in electronics and electrical engineering among its members. By engaging in discussions, demonstrations, and activities, the club encourages students to explore the exciting world of electronics, understand its relevance in everyday life, and inspire them to pursue this field further.</p>					
 <b>Provide Hands-On Experience</b> <p>One of the key purposes of the club is to give members practical experience with electronic circuits, components, and devices. Through workshops, lab sessions, and DIY projects, students can apply theoretical knowledge, develop essential skills, and gain confidence in working with various electronic tools and equipment.</p>					
 <b>Encourage Creativity and Innovation</b> <p>The club promotes a creative and innovative mindset by encouraging members to design and build their own electronic projects. These project-based activities not only enhance problem-solving abilities but also allow students to experiment with new ideas, technologies, and techniques, fostering a spirit of innovation.</p>					
 <b>Create a Collaborative Environment</b> <p>Building a strong sense of community is central to the club's mission. The electronics club provides a supportive and collaborative environment where members can share their knowledge, skills, and experiences. Through group projects, peer-to-peer learning, and discussions, students learn the value of teamwork and benefit from diverse perspectives.</p>					



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Year/Sem/Sec: II / IV / C**

**Date: 27.12.2025**

**Report on Club Activity**  
**“AptiQuest: Introduction to Quantitative Aptitude”**

On December 27, 2025, the Elektor Club under the aegis of Department of Electronics and Communication Engineering held a club activity for Second Year C Section Students on the title **“AptiQuest: Introduction to Quantitative Aptitude”** was organized to help students strengthen their mathematical and analytical skills. It aimed to provide a clear understanding of the basics of quantitative aptitude, which is an essential component of competitive exams and recruitment processes.

The activity began with an introduction to quantitative aptitude, highlighting its significance in professional exams, placements, and daily problem-solving. Students were explained the importance of a systematic approach and logical thinking when solving numerical problems. The facilitator emphasized practical applications and real-life examples to connect theory with practice.

The core topics covered included arithmetic operations, percentages, ratios, averages, and number systems. Basic algebraic concepts were also introduced to help students tackle a wide range of problems. The session focused on step-by-step problem-solving methods, ensuring that participants could apply these techniques independently.

Additionally, the activity incorporated practice sessions where students solved example problems individually and in groups. Tips and shortcuts were shared to improve calculation speed and accuracy. This hands-on approach helped students internalize concepts and boosted their confidence in approaching quantitative problems.

The activity also emphasized the role of collaboration and peer learning among students. Club members encouraged participants to discuss different problem-solving approaches and share strategies with one another. This collaborative environment not only enhanced understanding but also fostered teamwork and communication skills, making the learning experience more engaging and effective.

The “AptiQuest” activity concluded with a discussion on problem-solving strategies for competitive exams and assessments. Students expressed increased interest in quantitative aptitude and recognized its relevance in academic and professional contexts. The session successfully provided both foundational knowledge and practical skills, motivating students to continue practicing and improving their aptitude abilities.

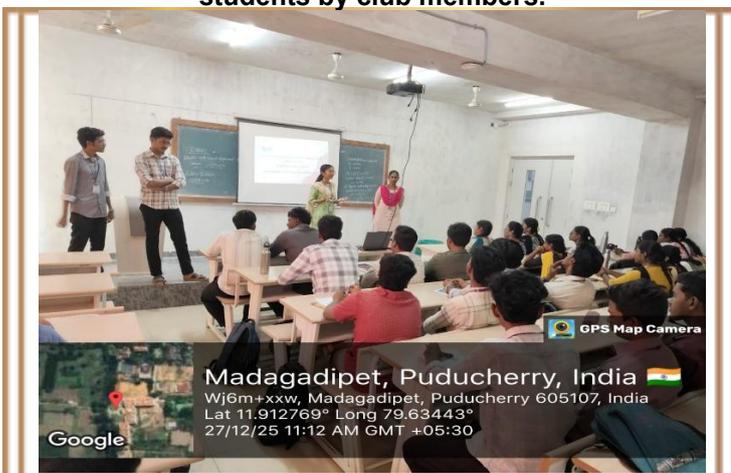
PHOTO GALLERY OF THE CLUB ACTIVITY



Introduction of quantitative aptitude concepts to students by club members.



Discussion on the role of aptitude in placements and competitive exams.



Club members explaining the importance of aptitude skills to students.



Discussion on learning basic quantitative aptitude concepts.



Students explaining problem-solving steps after solving aptitude questions.



Active participation of students in aptitude problem solving



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**DETAILS OF CLUB ACTIVITY - 08**

<b>Name of The Activity</b>	Smart Device Design with Embedded IoT
<b>Name of the Club</b>	Elektor Club
<b>Date &amp; Day</b>	28.12.2025 & Saturday
<b>Activity executed (Year /Sem/ Sec)</b>	II/IV/A
<b>Duration of Activity</b>	03:10 PM to 04:50 PM
<b>Objective of the Activity</b>	<ul style="list-style-type: none"> <li>To introduce students to embedded IoT systems and smart device design.</li> <li>To demonstrate how IoT enables connectivity and automation in smart devices.</li> <li>To provide hands-on experience with sensors, microcontrollers, and IoT platforms.</li> <li>To enhance students' understanding of designing and implementing smart solutions.</li> </ul>
<b>Outcome of the Activity</b>	<ul style="list-style-type: none"> <li>Students understood the concept of IoT and its applications in smart devices.</li> <li>Gained practical experience in designing and implementing IoT-enabled circuits.</li> <li>Learned to interface sensors, actuators, and microcontrollers for IoT projects.</li> <li>Developed problem-solving and analytical skills in IoT-based system design.</li> </ul>
<b>Key Topics Covered</b>	<ul style="list-style-type: none"> <li>Overview of IoT and embedded systems in smart device design.</li> <li>Introduction to IoT platforms and communication protocols (Wi-Fi, MQTT, etc.).</li> <li>Sensor and actuator interfacing with microcontrollers (Arduino, ESP32, etc.).</li> <li>Designing and simulating smart IoT circuits.</li> </ul>



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

<b>Name of the Staff in-charge/ Program Coordinator</b>		Ms.R.Priya			
<b>Details of the Club Members who executed these activities</b>					
<b>S. No</b>	<b>Year/Sem</b>	<b>Sec</b>	<b>Name of the Club Members</b>		
1. 2. 3. 4. 5.	III/IV	D	Gayathri.D Swetha.J Theema.S Rupawaani.K		
<b>Details of the Class</b>					
<b>Year</b>	II	<b>Semester /Section</b>	IV/A	<b>Total strength of the class</b>	56
<b>PURPOSE/DETAILS OF THE CLUB ACTIVITIES &amp; ITS CONTENT</b>					
 <b>Foster Interest in Electronics</b> <p>The electronics club aims to spark and nurture a genuine interest in electronics and electrical engineering among its members. By engaging in discussions, demonstrations, and activities, the club encourages students to explore the exciting world of electronics, understand its relevance in everyday life, and inspire them to pursue this field further.</p>					
 <b>Provide Hands-On Experience</b> <p>One of the key purposes of the club is to give members practical experience with electronic circuits, components, and devices. Through workshops, lab sessions, and DIY projects, students can apply theoretical knowledge, develop essential skills, and gain confidence in working with various electronic tools and equipment.</p>					
 <b>Encourage Creativity and Innovation</b> <p>The club promotes a creative and innovative mindset by encouraging members to design and build their own electronic projects. These project-based activities not only enhance problem-solving abilities but also allow students to experiment with new ideas, technologies, and techniques, fostering a spirit of innovation.</p>					
 <b>Create a Collaborative Environment</b> <p>Building a strong sense of community is central to the club's mission. The electronics club provides a supportive and collaborative environment where members can share their knowledge, skills, and experiences. Through group projects, peer-to-peer learning, and discussions, students learn the value of teamwork and benefit from diverse perspectives.</p>					



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Year/Sem/Sec: II / IV / A**

**Date: 27.12.2025**

**Report on Club Activity**  
**“Smart Device Design with Embedded IoT”**

On December 27, 2025, the Elektor Club under the aegis of Department of Electronics and Communication Engineering held a club activity for Second Year A Section Students on the title “**Smart Device Design with Embedded IoT**” was organized to provide students with practical exposure to designing intelligent systems. The session introduced participants to the concept of IoT and how it connects physical devices to collect and exchange data. Emphasis was placed on understanding embedded systems and their role in creating smart, automated solutions.

The session began with an overview of IoT, including its architecture, communication protocols, and real-world applications. Students learned about the relevance of IoT in smart homes, automation, healthcare, and industry. The facilitator explained the integration of sensors, actuators, and microcontrollers to create responsive systems.

Hands-on training formed a key component of the activity. Students learned to interface sensors and actuators with microcontrollers such as Arduino and ESP32. They explored IoT platforms to monitor and control devices remotely. The activity also included simulation exercises to help students understand how code and hardware interact to achieve real-time functionality.

Students participated in small projects, designing simple smart devices under the guidance of club members. They were encouraged to experiment with different sensors, write code for automation, and visualize real-time data. Club members assisted students in troubleshooting issues, debugging circuits, and optimizing their designs.

The activity also emphasized collaboration and knowledge sharing among students. Club members encouraged participants to discuss design ideas, share programming techniques, and troubleshoot circuits together. This interactive approach not only reinforced technical understanding but also promoted teamwork, problem-solving, and effective communication, making the learning experience more engaging and impactful.

The activity concluded with a discussion on potential applications of IoT in daily life and future career opportunities in smart device design. Students gained confidence in combining hardware and software to implement practical IoT solutions. Overall, the session successfully bridged theoretical knowledge and hands-on experience, inspiring students to explore embedded IoT technologies further.

## PHOTO GALLERY OF THE CLUB ACTIVITY



**Introduction to IoT and smart device concepts by club members.**



**Discussion on future scope and applications of embedded IoT systems.**



**Club members explaining the importance of IoT in modern technology.**



**Discussion on career opportunities in embedded systems and electronics.**



**Hands on Training on Designing of simple IoT Circuits using Proteus**



**Students sharing feedback at the end of the Session**

