Jyothi Engineering College
Reaccredited with NAAC (Grade A) and NBA Programmes*
Approved by AICTE and Affiliated to APJ Abdul Kalam Technological University
A CENTRE OF EXCELLENCE IN SCIENCE AND TECHNOLOGY BY THE CATHOLIC ARCHDIOCESE OF TRICHUR
JYOTHI HILLS, VETTIKATTIRI P.O., CHERUTHURUTHY, THRISSUR, 679531 | Ph. +91 4884 259000 | info@jecc.ac.in | www.jecc.ac.in
*NBA reaccredited BTech Programmes in Civil Engineering, Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering and Mechanical Engineering valid till 2025

Industrial Visit Report

Department: Electrical and Electronics Engineering (EEE)
Semester: S4 **Batch:** 2023-2027
Institution: Jyothi Engineering College, Thrissur
Date: 01-03-2025 **Time:** 2:00 PM
Location: Malanad Cooperative Tea Factory, Vagamon, Idukki (D), Kerala - 685503

Introduction

The industrial visit to the Malanad Cooperative Tea Factory in Vagamon on 01-03-2025, at 2:00 PM was organized by EEE department in association with the IEI Students Chapter of the EEE Department and the Institution Innovation Council (IIC) of Jyothi Engineering College. A total of 41 members (39 Students and 2 Faculty) took part in this visit. The visit aimed to provide students with practical exposure to industrial processes and operations, especially focusing on the electrical systems involved in tea production.

Objectives of the Visit

- To understand the industrial processes involved in tea manufacturing.
- To observe the working of electrical and electronic systems used in the factory.
- To bridge the gap between theoretical knowledge and practical applications.
- To gain insights into maintenance and safety procedures of industrial equipment.

Description of the Visit

The visit began with a warm welcome from the factory management, followed by a detailed briefing on the history and operations of the Malanad Cooperative Tea Factory. Students were guided through different sections of the factory, including:

- **Withering Section:** Observation of the initial stages of tea leaf processing.
- **Rolling and Fermentation:** Understanding the mechanical and electrical equipment used in shaping and fermenting the tea leaves.
- **Drying and Sorting:** Learning about the electrical systems that control temperature and airflow.
- **Packaging Unit:** Witnessing the automated systems for weighing, sealing, and packaging.

The factory staff explained the significance of each stage and how electrical automation plays a crucial role in maintaining efficiency and product quality.

Electrical Systems and Equipment

During the visit, students had the opportunity to observe and learn about the various electrical systems and motors used in the tea manufacturing process:

- **Motors:** Different types of motors were used at various stages of production. Induction motors powered the withering fans and rolling machines, while variable frequency drive (VFD) motors controlled the speed of conveyors and sorting equipment. High-torque motors were used in the fermentation and drying processes for precise operation.
- **Furnace:** The factory's furnace played a critical role in the drying process, maintaining consistent heat for optimal moisture removal. It was equipped with temperature control systems and safety interlocks.
- **Dryer:** The tea drying system utilized electrically operated dryers with automated temperature and humidity controls. The dryers ensured uniform drying of the tea leaves, preserving their quality and flavor.
- **Control Panel:** The centralized control panel monitored and managed the entire production line. It featured advanced PLC (Programmable Logic Controller) systems, touch-screen interfaces, and safety alarms, allowing seamless operation and quick fault detection.

- **Tea Refinement:** The refinement process involved sorting tea into different grades based on size, texture, and quality. Automated vibrating sieves and air classifiers, powered by electric motors, were used for accurate grading and packaging.

Interaction and Learning

Students actively engaged in discussions with the factory's technical team, inquiring about power consumption, equipment specifications, and safety measures. The visit provided valuable insights into real-world applications of electrical engineering principles.

S4 EEE Students along with the accompanying staff at Vagamon.

S4 EEE Students along with the accompanying staff at Malanad Cooperative Tea Factory, Vagamon.

Conclusion

The industrial visit to Malanad Cooperative Tea Factory was highly informative and educational. It provided S4 EEE students with practical exposure to industrial electrical systems, enhancing their understanding of automation, control systems, and safety protocols. The students expressed gratitude to the factory management and faculty coordinators for organizing this enriching experience.

Acknowledgment

We extend our sincere thanks to the management of Jyothi Engineering College and Malanad Cooperative Tea Factory for their hospitality and willingness to share their knowledge. Special thanks to the faculty members and coordinators from Jyothi Engineering College, the IEI Students Chapter of the EEE Department, and the Institution Innovation Council for their efforts in making this visit a success.

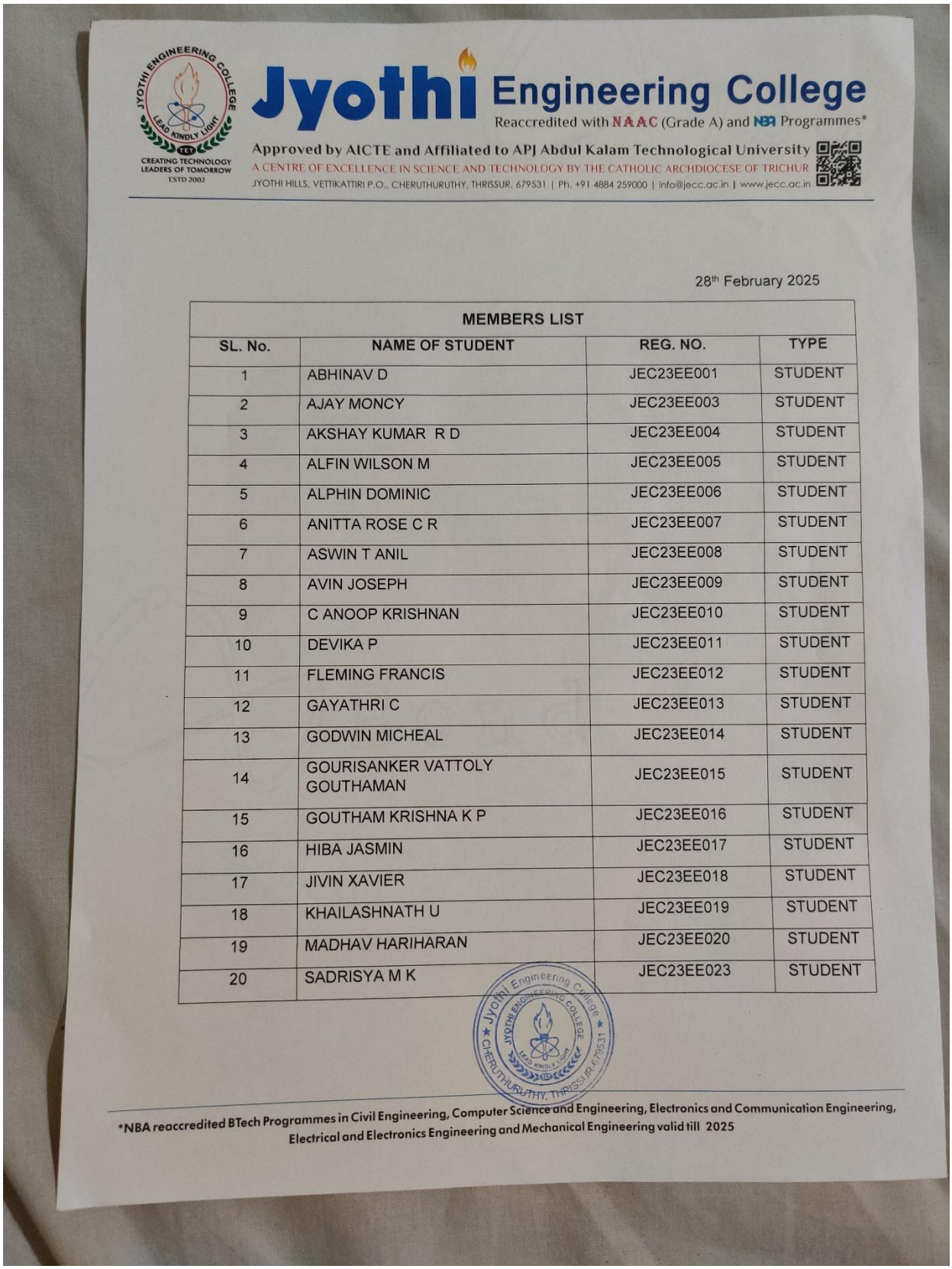
Prepared by: Mr. Navin Sam D
Designation: Assistant Professor / Dept. of EEE
Date: 05-03-2025

Annexure -I

Certificate from Malanad Cooperative Tea Factory, Vagamon

Annexure -II

List of Students and Accompanying Staff for the Malanad Cooperative Tea Factory Visit



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CREATING TECHNOLOGY LEADERS OF TOMORROW ESTD 2002

28th February 2025

MEMBERS LIST			
SL. No.	NAME OF STUDENT	REG. NO.	TYPE
1	ABHINAV D	JEC23EE001	STUDENT
2	AJAY MONCY	JEC23EE003	STUDENT
3	AKSHAY KUMAR R D	JEC23EE004	STUDENT
4	ALFIN WILSON M	JEC23EE005	STUDENT
5	ALPHIN DOMINIC	JEC23EE006	STUDENT
6	ANITTA ROSE C R	JEC23EE007	STUDENT
7	ASWIN T ANIL	JEC23EE008	STUDENT
8	AVIN JOSEPH	JEC23EE009	STUDENT
9	C ANOOP KRISHNAN	JEC23EE010	STUDENT
10	DEVIKA P	JEC23EE011	STUDENT
11	FLEMING FRANCIS	JEC23EE012	STUDENT
12	GAYATHRI C	JEC23EE013	STUDENT
13	GODWIN MICHEAL	JEC23EE014	STUDENT
14	GOURISANKER VATTOLY GOUTHAMAN	JEC23EE015	STUDENT
15	GOUTHAM KRISHNA K P	JEC23EE016	STUDENT
16	HIBA JASMIN	JEC23EE017	STUDENT
17	JIVIN XAVIER	JEC23EE018	STUDENT
18	KHAILASHNATH U	JEC23EE019	STUDENT
19	MADHAV HARIHARAN	JEC23EE020	STUDENT
20	SADRISYA M K	JEC23EE023	STUDENT

Jyothi Engineering College CHERUTHURUTHY, THRISSUR-679531

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21	SALIN P S	JEC23EE024	STUDENT
22	SHALVIN SHAIJU	JEC23EE025	STUDENT
23	SURYA NARAYANAN K S	JEC23EE027	STUDENT
24	TYSON TAJU	JEC23EE028	STUDENT
25	ABDUL RAHEEM P P	LJEC23EE029	STUDENT
26	AJAY KRISHNA V S	LJEC23EE030	STUDENT
27	ALBIN ANTO	LJEC23EE032	STUDENT
28	AMEL SHAJU	LJEC23EE033	STUDENT
29	ANAGHA P A	LJEC23EE034	STUDENT
30	ANAS ABDULLA K N	LJEC23EE035	STUDENT
31	ANS RENNY P	LJEC23EE036	STUDENT
32	ARJUN MOHAN	LJEC23EE037	STUDENT
33	ATHUL KRISHNA T S	LJEC23EE039	STUDENT
34	BENJO BENNY	LJEC23EE040	STUDENT
35	GOPIKA GOPI	LJEC23EE041	STUDENT
36	JIFIN K R	LJEC23EE042	STUDENT
37	JOEL BAIJU	LJEC23EE043	STUDENT
38	MUHAMMED SAHAL P S	LJEC23EE045	STUDENT
39	SREEDARSH V SAJEEVAN	LJEC23EE046	STUDENT
40	ANU SUNNY	9446766070	STAFF
41	D NAVIN SAM	8778703990	STAFF

Dr. Jose P Therattil
Principal

Jyothi Engineering College
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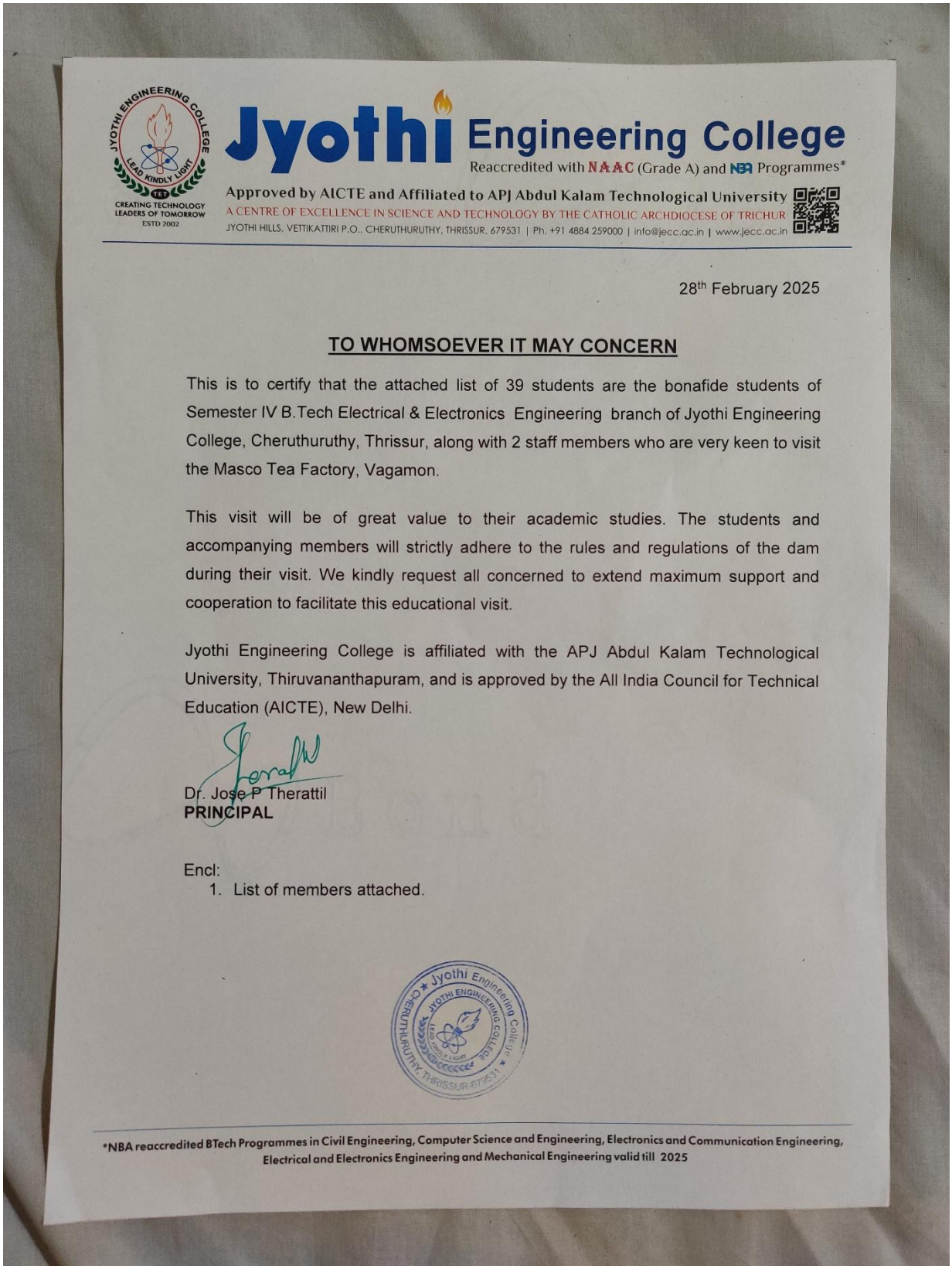
LEAD ENJOY LIGHT
CHERUTHURUTHY, THRISSUR-679531

Annexure -III

Bonafide Certificate



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28th February 2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the attached list of 39 students are the bonafide students of Semester IV B.Tech Electrical & Electronics Engineering branch of Jyothi Engineering College, Cheruthuruthy, Thrissur, along with 2 staff members who are very keen to visit the Masco Tea Factory, Vagamon.

This visit will be of great value to their academic studies. The students and accompanying members will strictly adhere to the rules and regulations of the dam during their visit. We kindly request all concerned to extend maximum support and cooperation to facilitate this educational visit.

Jyothi Engineering College is affiliated with the APJ Abdul Kalam Technological University, Thiruvananthapuram, and is approved by the All India Council for Technical Education (AICTE), New Delhi.

Dr. Jose P Therattil
PRINCIPAL

Encl:
1. List of members attached.

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Annexure -IV

INDUSTRIAL VISIT FEEDBACK FORM

Dear Students

We value your feedback and would appreciate it if you could take a few minutes to share your thoughts and experiences. Your responses will help us enhance future industrial visits and provide a better learning experience for our students.

Name	:
Semester / Year	:
Department	:
Name of the Industry Visited	:
Date of Visit	:

Please rate the following aspects of the industrial visit on a scale of 1 to 3, with 1 being the lowest and 3 being the highest.

Particulars	3	2	1
Organization and Planning			
How well was the industrial visit organized?			
Were the necessary arrangements made in advance?			
Were the visit timings and schedule communicated clearly?			
Relevance to Course			
Did the industrial visit align with the course objectives and content?			
Did it provide practical insights related to the subject matter?			
Did the visit enhance your understanding of the industry?			
Learning Experience			
Did the industrial visit contribute to your learning experience?			
Were the concepts and theories from the course applied and demonstrated during the visit?			
Did you gain valuable knowledge and insights from the visit?			
Interaction and Engagement			
Were you able to interact with industry professionals during the visit?			
Did you have the opportunity to ask questions and clarify doubts?			
Were you engaged and actively involved throughout the visit?			
Organization Representatives			
How knowledgeable and helpful were the representatives from the visited organization?			
Did they provide valuable information and insights?			
Were they approachable and willing to address your queries?			
Overall Experience			

Signature of student:
Date:

Annexure -IV

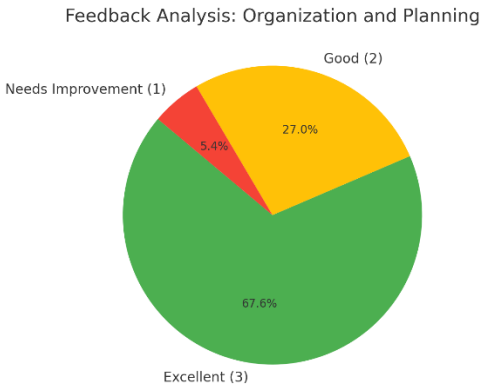
Feedback Analysis Report

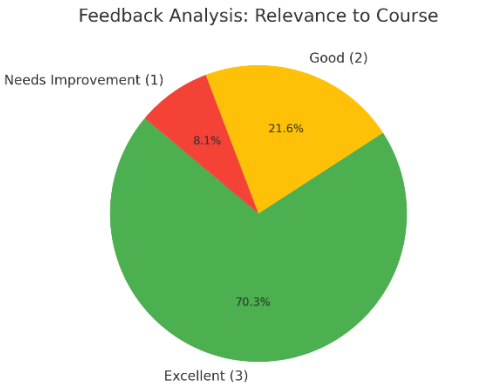
This feedback analysis report summarizes the responses gathered from the students of S4 EEE who participated in the industrial visit to the Malanad Cooperative Tea Factory, Vagamon, on March 1, 2025. The feedback was collected to assess the effectiveness of the visit, its alignment with course objectives, and its contribution to the student's learning experience.

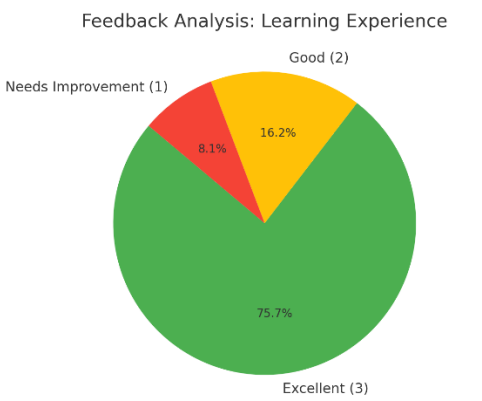
Feedback Summary

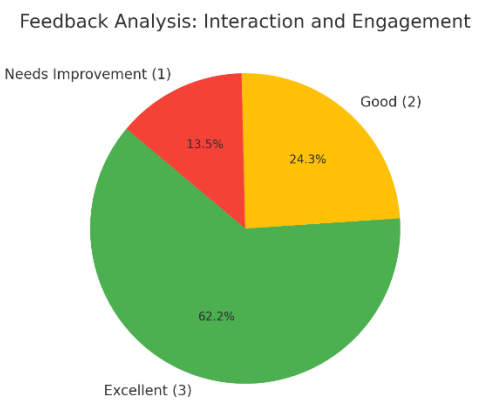
Particulars	Excellent (3)	Good (2)	Needs Improvement (1)	Average Score
Organization and Planning				
How well was the visit organized?	25	10	2	2.7
Were the necessary arrangements made in advance?	23	12	2	2.6
Were the visit timings and schedule communicated clearly?	24	9	4	2.6
Relevance to Course				
Did the visit align with course objectives and content?	26	8	3	2.7
Did it provide practical insights related to the subject matter?	27	7	3	2.8
Did the visit enhance your understanding of the industry?	25	9	3	2.7
Learning Experience				
Did the visit contribute to your learning experience?	28	6	3	2.8
Were the concepts and theories from the course applied and demonstrated?	24	8	5	2.6
Did you gain valuable knowledge and insights?	26	7	4	2.7
Interaction and Engagement				
Were you able to interact with industry professionals?	23	9	5	2.6
Did you have the opportunity to ask questions and clarify doubts?	25	7	5	2.6
Were you engaged and actively involved throughout the visit?	24	8	5	2.6
Organization Representatives				
How knowledgeable and helpful were the representatives?	27	6	4	2.8

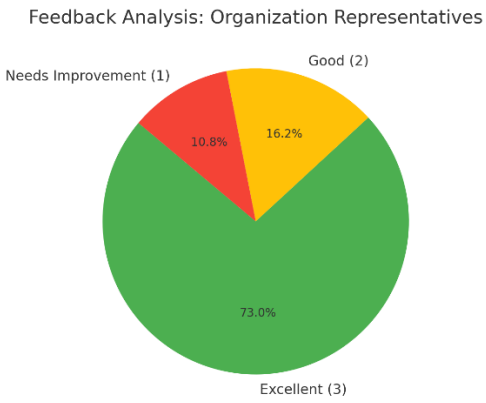
Particulars	Excellent (3)	Good (2)	Needs Improvement (1)	Average Score
Did they provide valuable information and insights?	26	7	4	2.7
Were they approachable and willing to address queries?	25	8	4	2.7











Key Observations

- The organization and planning of the visit received positive feedback, with an average score of 2.7.
- Students found the visit highly relevant to their course, gaining practical insights into industrial processes.
- The learning experience was rated highly, especially in terms of the application of theoretical knowledge.
- Interaction and engagement during the visit were satisfactory, though a few students suggested more opportunities for direct discussions.
- The knowledge and approachability of the factory representatives were appreciated, with a strong average rating of 2.7.

Conclusion

The feedback indicates that the industrial visit was well-organized, educational, and engaging. It successfully bridged the gap between theoretical learning and practical application, enriching the student's understanding of electrical systems in an industrial setting. Areas for improvement include providing more opportunities for student interaction and clarifying schedules more effectively.

Recommendations

- Enhance pre-visit communication to avoid any confusion regarding the schedule.
- Increase opportunities for students to interact directly with industry professionals.
- Incorporate more live demonstrations and hands-on sessions to strengthen practical learning.

Annexure -IV

Mapping of Industrial Visit Outcomes with PO and PSO

Industrial Visit Outcomes

1. Understand industrial processes in tea manufacturing
2. Observe electrical and electronic systems in the factory
3. Bridge the gap between theoretical knowledge and practical applications
4. Gain insights into maintenance and safety procedures

IV Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	3	3											2		
2				3	3									3	
3			3									3	3		
4						3	2							3	
PO Average	0.75	0.75	0.75	0.75	0.75	0.75	0.5	0	0	0	0	0.75	1.25	1.5	0

This mapping ensures that the outcomes of the industrial visit are closely aligned with the educational outcomes expected from the Electrical and Electronics Engineering program. The visit provided students with practical exposure, enhancing their theoretical knowledge, technical skills, and understanding of professional responsibilities.