

Nehru Institute of Technology

SELF ASSESSMENT REPORT(TIER - II) FOR Food Technology

Part A : Institutional Information

1 Name and Address of the Institution

Nehru Institute of Technology,
"Jawahar Gardens", Kaliapuram, Thirumalayampalayam Post, Coimbatore

2 Type of the Institution:

<input type="radio"/> Self-Supported Institute	<input checked="" type="radio"/> Autonomous
<input type="radio"/> Deemed University	<input type="radio"/> Non-Autonomous (Affiliated)
<input type="radio"/> University	<input type="radio"/> Any Other(Please Specify)
<input type="radio"/> Institute of National Importance	

3 Year of establishment of the Institution:

2008

4 Ownership Status:

<input type="radio"/> Central Government	<input type="checkbox"/> Any Other(Please Specify)
<input type="radio"/> State Government	
<input type="radio"/> Government Aided	
<input checked="" type="radio"/> Self financing	

5 Name and Address of Affiliating University

Anna University Chennai

6 Other Academic Institutions of the Trust/Society/Company etc., if any:

Name of Institutions	Year of Establishment	Programs of Study	Location
Jawaharlal College of Engir	2008	B.Tech, M.Tech MBA.	Palakkad
Jawaharlal Business Schoo	2010	MBA	Palakkad
Jawaharlal Aviation Institute	2010	A.M.E (Aircraft Maintenance	Palakkad
P K Das Institute of Medical	2014	MBBS, MD, MS, DNB, DrNI	Palakkad
P K Das College of Nursing	2012	B.Sc, M.Sc	Palakkad
Nehru College of Architectu	2015	B.Arch, D.Arch	Palakkad
Nehru Academy of Law	2015	B.Com LL.B BBA LL.B LL.B	Palakkad
P K Das Liberal College of /	2022	B.A, B,Sc	Palakkad
Nehru College of Aeronautic	1968	Aircraft Maintenance Engin	Coimbatore
Nehru Arts and Science Col	1998	B. A, BCA, B. Com, B. Sc. E	Coimbatore
Nehru Institute of Engineeri	2006	B.E, M.E M.B.A. Ph.D	Coimbatore
Nehru School of Architectur	2015	B.Arch	Coimbatore
Nehru College of Managem	1996	MBA, MCA	Coimbatore
Nehru Institute of Informatic	2006	MBA,MCA	Coimbatore
Nehru Institute of Health Sc	2022	B.Sc	Coimbatore
Nehru Institute of Design	2023	B.Des	Coimbatore
Nehru College of Nursing ai	2023	B.Sc	Coimbatore
Nehru College of Physiothe	2022	BPT	Coimbatore
Nehru International School	2020	Higher Secondary	Coimbatore
Nehru College of Engineerii	2002	B.Tech, M.Tech MBA. MCA	Thrissur
Nehru College of Pharmacy	2003	Pharm.D, B.Pharm, D.Pharm	Thrissur
Nehru School of Manageme	2005	MBA	Thrissur

7 Details of all the programs being offered by the institution:

Program Name	Program Applied level	Year of Start	AICTE approval details	Sanctioned Intake	Increase/decrease in intake	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Food Technology	UG	2019	2019	60	No	60	Applying first time	--	--		4
Master of Business Administration	PG	2009	2009	60	No	60	Applying first time	--	--	Yes	2
Civil Engineering	UG	2008	2014	60	Yes	30	Applying first time	--	--		4
Aeronautical Engineering	UG	2008	2008	60	No	60	Granted accreditation for 3 years for the period (specify period)	2023	2026	No	4
Computer Science and Engineering	UG	2008	2008	60	Yes	120	Granted accreditation for 3 years for the period (specify period)	2023	2026	No	4
Computer Science and Engineering(Artificial Intelligence and Machine Learning)	UG	2024	2024	60	No	60	Not eligible for accreditation	--	--	No	4
Computer Science and Engineering(Cyber Security)	UG	2024	2024	60	No	60	Not eligible for accreditation	--	--	No	4
Information Technology	UG	2022	2022	60	No	60	Not eligible for accreditation	--	--	No	4
Computer and Communication Engineering	UG	2025	2025	60	No	60	Not eligible for accreditation	--	--	No	4
Agricultural Engineering	UG	2019	2019	60	Yes	30	Applying first time	--	--	No	4

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Post Graduate	Management	Master of Business Administration
2	Under Graduate	Engineering & Technology	Civil Engineering
3	Under Graduate	Engineering & Technology	Food Technology

Table No. A8.2

S No	Name of the Department	Name of the Program	Name of Allied Departments/Cluster	Name of Allied Program
No record exist(s)				

9 Total Number of Faculty Members in Various Departments:

ID	Department Name	Number of faculty members in the Department (UG and PG)											
		2025-26 (CAY)				2024-25 (CAYm1)				2023-24 (CAYm2)			
		No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members
1	Aeronautical Engineering	1	1	7	9	0	3	6	9	0	0	10	10
2	Agricultural Engineering	1	2	5	8	1	2	6	9	1	1	7	9
3	Civil Engineering	1	2	3	6	1	1	5	7	4	0	6	10
4	Computer Science and Engineering	1	4	8	13	1	2	8	11	2	1	7	10
5	Computer Science and Engineering(Artificial Intelligence and Machine Learning)	1	0	2	3	0	0	1	1	0	0	0	0
6	Computer Science and Engineering(Cyber Security)	1	0	2	3	0	0	1	1	0	0	0	0
7	Information Technology	1	1	6	8	1	1	3	5	0	1	2	3
8	Food Technology	1	1	7	9	1	0	8	9	0	0	9	9
9	Computer and Communication Engineering	1	0	2	3	0	0	0	0	0	0	0	0
10	Science & Humanities / General Engineering	7	2	16	25	6	2	16	24	5	2	14	21
11	Master of Business Administration	2	1	4	7	1	2	5	8	0	1	5	6

10 Total Number of Engineering Students in Various Departments:

ID	Department Name	Number of students in the Department (UG and PG)		
		2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)
1	Aeronautical Engineering	238	223	188
2	Agricultural Engineering	118	136	161
3	Civil Engineering	110	85	87
4	Computer Science and Engineering	396	327	268
5	Computer Science and Engineering(Artificial Intelligence and Machine Learning)	121	57	0
6	Computer Science and Engineering(Cyber Security)	118	59	0
7	Information Technology	219	152	99
8	Food Technology	178	163	157
9	Computer and Communication Engineering	55	0	0
10	Master of Business Administration	116	118	120

11 Vision of the Institution:

To be a leading Institution in Academic excellence, Multidisciplinary Research, Innovation, Entrepreneurship and Industry relation in order to mould true citizens of the country

12 Mission of the Institution:

- To create innovative and vibrant young leaders in Engineering and Technology field for building India as a knowledge power by improving the teaching-learning process
- To enhance employability, entrepreneurship and to improve the research competence to address Societal needs.
- To generate engineering graduates who use knowledge as a powerful tool to drive societal transformation and inculcate in them ethical and moral values.

13 Contact Information of the Head of the Institution and NBA coordinator, if designated:

Head of the Institution	
Name	Dr M Sivaraja
Designation	Principal
Mobile No.	9003936801
Email ID	nitprincipal@nehrucolleges.com

NBA Coordinator, If Designated

PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	OUTCOME-BASED CURRICULUM	120	120.00
2	OUTCOME-BASED TEACHING LEARNING	120	120.00
3	OUTCOME-BASED ASSESSMENT	120	120.00
4	STUDENTS' PERFORMANCE	120	79.58
5	FACULTY INFORMATION	100	68.44
6	FACULTY CONTRIBUTIONS	120	103.00
7	FACILITIES AND TECHNICAL SUPPORT	100	100.00
8	CONTINUOUS IMPROVEMENT	80	80.00
9	STUDENT SUPPORT AND GOVERNANCE	120	118.00
	Total	1000	909

Part B : Criteria Summary

1 OUTCOME-BASED CURRICULUM (120)

Total Marks 120.00

1.1 Vision, Mission and Program Educational Objectives (PEOs) (35)

1.1.1 State the Vision and Mission of the Institute and the Department (5)

Institute Marks : 5.00

Vision of the institute	To be a leading Institution in Academic excellence, Multidisciplinary Research, Innovation, Entrepreneurship and Industry relation in order to mould true citizens of the country									
Mission of the institute	<ul style="list-style-type: none"> To create innovative and vibrant young leaders in Engineering and Technology field for building India as a knowledge power by improving the teaching-learning process To enhance employability, entrepreneurship and to improve the research competence to address Societal needs. To generate engineering graduates who use knowledge as a powerful tool to drive societal transformation and inculcate in them ethical and moral values. 									
Vision of the Department	To nurture competent food technologists through quality education, practical skills and innovative thinking to meet the evolving needs of the food industry and society.									
Mission of the Department	<table border="1"> <thead> <tr> <th>Mission No.</th> <th>Mission Statements</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>To deliver industry-oriented education through a strong foundation in food science, processing, quality assurance and emerging technologies.</td> </tr> <tr> <td>M2</td> <td>To promote research, innovation and entrepreneurship in sustainable food production, value addition and food safety systems.</td> </tr> <tr> <td>M3</td> <td>To collaborate with industry and research organizations to enhance practical exposure, skill development, and societal impact in the food sector</td> </tr> </tbody> </table>		Mission No.	Mission Statements	M1	To deliver industry-oriented education through a strong foundation in food science, processing, quality assurance and emerging technologies.	M2	To promote research, innovation and entrepreneurship in sustainable food production, value addition and food safety systems.	M3	To collaborate with industry and research organizations to enhance practical exposure, skill development, and societal impact in the food sector
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M1	To deliver industry-oriented education through a strong foundation in food science, processing, quality assurance and emerging technologies.									
M2	To promote research, innovation and entrepreneurship in sustainable food production, value addition and food safety systems.									
M3	To collaborate with industry and research organizations to enhance practical exposure, skill development, and societal impact in the food sector									

1.1.2 State PEOs of the Program (5)

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Become competent food technologists, innovative food developers and expert food scientists and researchers who provide solutions to human problems.
PEO2	Exhibit advanced technical expertise and leadership qualities to excel in the food industry and as entrepreneurs by effectively addressing industrial and societal challenges.
PEO3	Instill professional ethics, communication team work and interdisciplinary competence essential for sustainable practice in food technology

1.1.3 Process of Defining Vision, Mission and PEOs (15)

Institute Marks : 15.00

The Vision and Mission statements are defined by considering the Institutional Vision and Mission and also by consulting with the internal and external stake holders of the department. Also, the scope and future of the students were considered.

□ **Drafting of Vision and Mission of the department:**

- ı Considering the future scope of the department, industrial, academia and societal requirements, the department faculties draft the department's mission and vision aligning with the Institute's vision and mission.

□ **Feedback:**

- ı Feedbacks are received from the internal and external stake-holders of the programme regarding the drafted vision and mission

□ **Analysis and validation:**

- ı The received feedbacks are analyzed. If any modification is required, the vision and mission of the department are reframed.

□ **Approval and validation:**

- ı The reframed vision and mission statements are validated the DACand approved by the Head of the Institution.

□ **Dissemination:**

- ı Vision and Mission statements are published and disseminated.

The Vision, Mission statements are revised once in 3 years

The Vision, Mission and PEOs are published and disseminated among internal and external stakeholders.

Table 1.1.3.1 List of Stakeholders

Internal stakeholders	External stakeholders
<ul style="list-style-type: none"> Ø Management Ø Faculty members Ø Students 	<ul style="list-style-type: none"> Ø Parents Ø Alumni Ø Employer Ø Industry experts Ø Academic experts

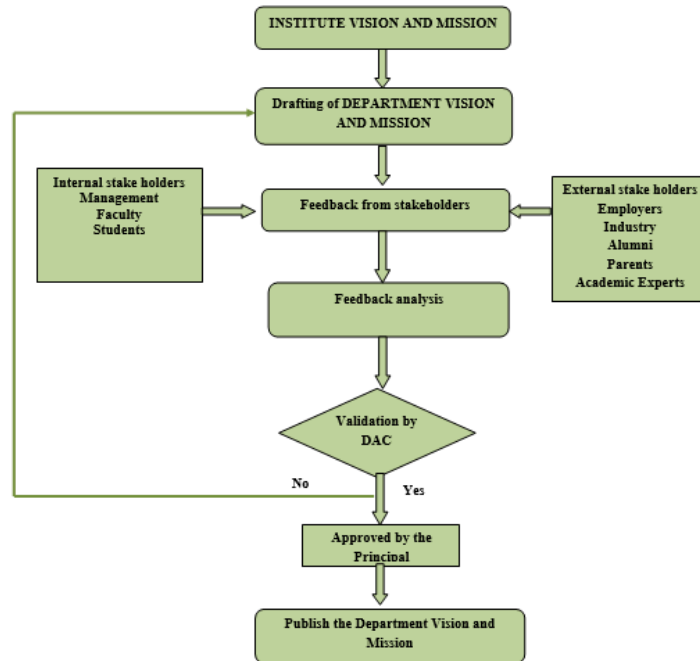


Figure 1.1.3.2(a) – Process followed for framing the Vision and Mission of the Department

B. Description of process involved in defining the PEOs of the program

- Taking the Vision and Mission of the Institute/Department, NBA Guidelines as inputs and views of the stake holders are included by getting feedback for preparing the draft of Program Educational Objectives (PEOs) of the Department.
- Drafted Program Educational Objectives (PEOs) of the Department were submitted to the Department Advisory Committee (DAC) for validation.
- The PEO validated in DAC and is submitted to principal for approval. The PEO statements are revised once in 3 years.
- Approved PEOs are published and disseminated

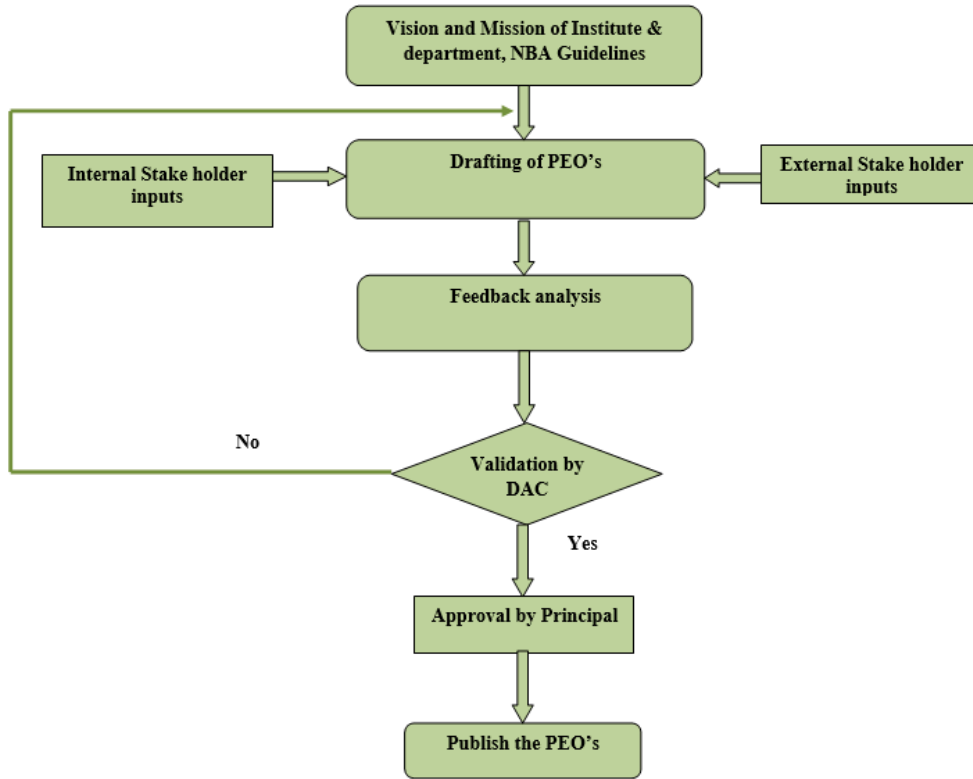


Figure 1.1.3.2(b) – Process followed for framing the PEO's of the Department

Dissemination of Vision, Mission and PEOs

Adequacy in respect of publication and dissemination

The Vision, Mission, and PEOs are published and displayed to the internal and external stakeholders through electronic, display and print media by various means as follows:

Table 1.1.4.1 – Means of Publication and Dissemination of Vision, Mission and PEO

ELECTRONIC MEDIA	DISPLAY MEDIA	PRINT MEDIA
<ul style="list-style-type: none"> Ø College website Ø HoD's E-mail Ø Faculty E-mail 	<ul style="list-style-type: none"> Ø Department Notice Board Ø HOD Cabin Ø Department Library Ø Laboratories Ø Faculty rooms Ø Classrooms 	<ul style="list-style-type: none"> Ø Regulation, Curriculum and Syllabi Ø Laboratory Manuals Ø Department magazine Ø Newsletters Ø Internal Question paper

The same is disseminated during the meeting with,

- v HOD and Faculty members
- v Faculty and Students
- v Alumni Meet
- v Parents Meet
- v Industry Personnel
- v Academic Experts

Process of dissemination among stakeholders

The stakeholders are segregated into internal and external stakeholders (shown in Table:1.1.4.1). The dissemination is done through appropriate methods of dissemination.

The process of disseminating Department Vision and Mission to the stakeholders through various means is as follows:

- Ø Vision, Mission, PEOs and PSOs are published on the college website for creating awareness among the internal and external stakeholders.
- Ø The Vision and Mission statements of the Institution and the Department are displayed in classrooms, laboratories, Faculty room, HoD cabin and Department library etc.
- Ø Vision and Mission are disseminated to all the stakeholders during faculty meetings, class committee meetings, events (guest lectures, webinars, seminars, workshops, conferences, FDPs, industry collaborations etc.), alumni meetings, and parent meetings.

Ø Corporate Relations will help in circulating Vision and Mission of the Institute and Department to the Industry personnel during their interaction.



Process of Dissemination of the Department Vision and Mission

Figure 1.1.4.2 Process of Dissemination of the Department Vision and Mission

Various stakeholders and dissemination methods are shown in Table 1.1.4.3 and 1.1.4.4:

Table 1.1.4.3 Stakeholders

Internal stakeholders	External stakeholders
<ul style="list-style-type: none"> Ø Management Ø Faculty members Ø Students 	<ul style="list-style-type: none"> Ø Parents Ø Alumni Ø Employer Ø Industry experts Ø Academic experts

Table 1.1.4.4 Methods of dissemination among stakeholders

S.No.	Dissemination Methods	Internal Stakeholders	External Stakeholders
1.	College Website: https://www.nitcbe.ac.in/	Management, Faculty members, Supporting staff, Students, Department Advisory Committee (DAC), BOS	Parents, Alumni, Employer, Industry Personnel
2.	Department notice board, Department library, class rooms and laboratories	Students, Faculty, Supporting staff, Management	Parents, Industry Personnel, Alumni

3.	Regulation, Curriculum and syllabi, Laboratory Manuals, Department magazine, Newsletters, Event Brochures.	Students, Faculty, Supporting staff, Management, Department Advisory Committee (DAC), BOS	Parents, Industry Personnel and Alumni
4.	Faculty room and HOD's cabin	Students, Faculty, Supporting staff, Management	Parents and Alumni
5.	Department Advisory Committee meetings (DAC)	Students, Faculty, Supporting Staff	Parents, Alumni.
6.	Board of Studies (BoS)	Students, Support Staff, Faculty	Parents, Alumni, Industry Personnel
7.	Events Organized	Students, Faculty, Supporting Staff	Parents, Industry Personnel, Alumni
8.	Placement programs	Students, Faculty, Corporate Relations Officer and Supporting Staff.	Employers, Industry Personnel
9.	Class Committee meetings	Students	-
10.	Parents Teachers Meeting	Students, Faculty, Supporting Staff.	Parents
11.	Faculty/Staff Meetings	Supporting Staff, Faculty	-
12.	Students' Orientation Programme	Students	Parents
13.	Social Media	Students, Faculty and Supporting Staff.	Parents, Alumni, Employer and Industry Personnel

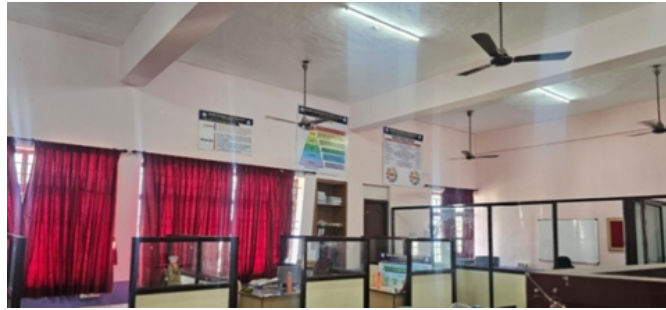


Figure 1.1.4.5 Dissemination of Vision and Mission in the Department



Figure 1.1.4.6 - Dissemination of Vision & Mission in class room

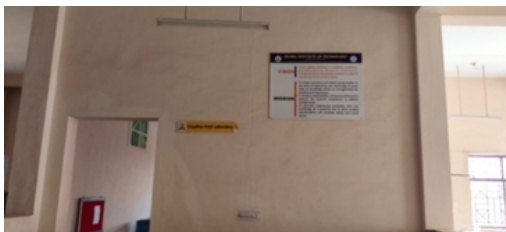


Figure 1.1.4.7 - Dissemination of Vision & Mission in laboratory

99+
Mail
Compose

Chat
Inbox 1,866
Starred
Snoozed
Meet
Sent
Drafts 23
More

Labels
FOOD TECH STAFF
result analysis

Search mail

Department of Food Technology
Nehru Institute of Technology, Coimbatore, Tamil Nadu.

Scopus Author ID: 57201430176
Researcher ID: B-6981-2019
<https://orcid.org/0000-0002-8532-9088>
<https://scholar.google.co.in/citations?user=6tdjksAAAAJ&hl=en>
https://www.researchgate.net/profile/Prem_Kumar141

Department of Food Technology: Vision
To nurture competent food technologists through quality education, practical skills, and innovative thinking society.

Department of Food Technology: Mission
To deliver industry-oriented education through a strong foundation in food science, processing, quality assurance, and entrepreneurship in sustainable food production, value addition, and
To promote research, innovation, and entrepreneurship in sustainable food production, value addition, and
To collaborate with industry and research organizations to enhance practical exposure, skill development, and

Figure 1.1.4.8 - Dissemination of Vision & Mission in Mail.

1.1.5 Mapping of PEOs with Mission (10)

Institute Marks : 10.00

PEO Statements	M1	M2	M3
Become competent food technologists, innovative food developers and expert food scientists and researchers who provide solutions to human problems.	3	3	2
Exhibit advanced technical expertise and leadership qualities to excel in the food industry and as entrepreneurs by effectively addressing industrial and societal challenges.	2	3	3
Instill professional ethics, communication team work and interdisciplinary competence essential for sustainable practice in food technology	1	1	3

Table 1.1.5.2 Justification for the mapping

	M1	M2	M3
Mission of the Department	To cultivate dynamic and innovative young leaders in the field of Food Technology, contributing to the countrys progress as a knowledge hub through improved teaching-learning approaches.	To foster employability and research skills through multidisciplinary research and innovation, addressing the specific requirements of the food industry.	To produce graduates who harness knowledge as a potent force for driving societal transformation, while instilling in them ethical and moral values, entrepreneurship, and industry engagement.
Program Educational Objectives			
PEO1: Become competent food technologists, innovative food developers, and expert food scientists and researchers who provide solutions to human problems	High: M1 emphasizes innovative teaching-learning practices that directly build strong technical competence and problem-solving abilities in food technology.	High: M2 strongly supports research orientation and innovation, enabling graduates to develop solutions aligned with industry and societal needs.	High: M3 aligns with applying scientific knowledge to address human and societal challenges through responsible and impactful food innovations.
PEO2: Exhibit advanced technical expertise and leadership qualities to excel in the food industry and as entrepreneurs by effectively addressing industrial and societal challenges.	Moderate: M1 contributes to foundational leadership and technical skills through quality education and skill-oriented learning.	High: M2 directly fosters employability, industry-relevant research, and innovation, which are essential for leadership and entrepreneurship.	High: M3 reinforces entrepreneurship and industry engagement, supporting leadership roles and societal impact.

<p>PEO3: Instill professional ethics, communication, teamwork and interdisciplinary competence essential for sustainable practice in food technology.</p>	<p>Moderate: M1 supports collaborative learning environments that enhance communication skills and teamwork.</p>	<p>Moderate: M2 encourages multidisciplinary research exposure, strengthening teamwork and professional interaction.</p>	<p>High: M3 explicitly focuses on ethical values, societal responsibility, and industry engagement, strongly aligning with professional conduct and ethics.</p>
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1.2 Curriculum Structure and Features (30)

1.2.1 Program Curriculum Structure (5)

[Edit](#)

ID	Course Code	Course Title	Classroom Instruction (CI) (in hours per semester)		Lab Instruction (LI) (in hours per semester)	Term Work (TW) and Self Learning (SL) (TW+ SL) (in hours per semester)	Total no. of Hours per semester	Total Credits (C)* (Total Hours/30)
			L	T	P	SL		
1	C101	Professional English 1	90	0	0	0	90	3.00
2	C102	Matrices and Calculus	90	30	0	0	120	4.00
3	C103	Engineering Physics	90	0	0	0	90	3.00
4	C104	Engineering Chemistry	90	0	0	0	90	3.00
5	C105	Problem Solving and Python Programming	90	0	0	0	90	3.00
6	C106	Heritage of Tamils	30	0	0	0	30	1.00
7	C107	Problem Solving And Python Programming Laboratory	0	0	60	0	60	2.00
8	C108	Physics and Chemistry Laboratory	0	0	60	0	60	2.00
9	C109	English Laboratory	0	0	30	0	30	1.00
10	C110	Professional English II	60	0	0	0	60	2.00
11	C111	Statistics and Numerical Methods	90	30	0	0	120	4.00
12	C112	Physics of Materials	90	0	0	0	90	3.00
13	C113	Basic Electrical, Electronics and Instrumentation Engineering	90	0	0	0	90	3.00
14	C114	Engineering Graphics	60	0	60	0	120	4.00
15	C115	Tamils and Technology	30	0	0	0	30	1.00
16	C116	Engineering Practices Laboratory	0	0	60	0	60	2.00
17	C117	Basic Electrical, Electronics and	0	0	60	0	60	2.00
18	C118	Communication Laboratory	0	0	60	0	60	2.00
19	C201	Transforms and Partial Differential Equations	90	30	0	0	120	4.00

20	C202	Fluid Mechanics and Mechanical Operations	90	30	0	0	120	4.00
21	C203	Food Chemistry	90	0	0	0	90	3.00
22	C204	Food Microbiology	90	0	0	0	90	3.00
23	C205	Food Process Calculations	90	30	0	0	120	4.00
24	C206	Post Harvest Engineering	90	0	0	0	90	3.00
25	C207	Food Chemistry Laboratory	0	0	60	0	60	2.00
26	C208	Food microbiology laboratory	0	0	60	0	60	2.00
27	C209	Professional development	0	0	30	0	30	1.00
28	C210	Probability and Operations Research	90	30	0	0	120	4.00
29	C211	Biochemistry and Nutrition	90	0	0	0	90	3.00
30	C212	Environmental sciences and sustainability	60	0	0	0	60	2.00
31	C213	Food Additives and Flavours	90	0	0	0	90	3.00
32	C214	Heat and Mass Transfer in Food Processes	90	30	0	0	120	4.00
33	C215	Principles of Thermodynamics	90	0	0	0	90	3.00
34	C216	Biochemistry and nutrition laboratory	0	0	60	0	60	2.00
35	C217	Unit Operations Laboratory	0	0	60	0	60	2.00
36	C301	Food Processing and Preservation	90	0	0	0	90	3.00
37	C302	Food Analysis	90	0	0	0	90	3.00
38	C303	Processing of Tea	90	0	0	0	90	3.00
39	C304	Meat and Poultry Processin	90	0	0	0	90	3.00
40	C305	Innovative Packaging of Dairy Products	90	0	0	0	90	3.00
41	C306	Disaster Risk Reduction and Management	0	0	0	0	0	0.00

42	C307	Food Processing and Preservation Laboratory	0	0	60	0	60	2.00
43	C308	Food Analysis Laboratory	0	0	60	0	60	2.00
44	C309	Industrial Training / Internship I	0	0	0	30	30	1.00
45	C310	Food Process Engineering	90	30	0	0	120	4.00
46	C311	IOT Concepts and Applications	90	0	0	0	90	3.00
47	C312	Preservation Technology of Eggs, Meat, Poultry and Seafood	90	0	0	0	90	3.00
48	C313	Processing of Cereals, Oil Seeds and Pulses	90	0	0	0	90	3.00
49	C314	Food Fermentation Technolo	90	0	0	0	90	3.00
50	C315	Technology of Fruit and Vegetable Processing	90	0	0	0	90	3.00
51	C316	Industrial safety	90	0	0	0	90	3.00
52	C317	Food Process Engineering Lab	0	0	60	0	60	2.00
53	C401	Refrigeration and Cold Chain Management	90	0	0	0	90	3.00
54	C402	Food Plant Equipment Design	90	0	0	0	90	3.00
55	C403	Human Values and Ethics	60	0	0	0	60	2.00
56	C404	Total quality management	90	0	0	0	90	3.00
57	C405	Basics of microbial technology	90	0	0	0	90	3.00
58	C406	Artificial Intelligence and Machine learning fundamentals	90	0	0	0	90	3.00
59	C407	Industrial Training / Internship II	0	0	60	0	60	2.00
60	C408	Project work/ Internship	0	0	300	0	300	10.00
		Total	3540	240	1200	30	5010	167.00

1.2.2 Components of Program Curriculum (5)

Institute Marks : 5.00

Course Components	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	17	435.00	29.00
Basic Engineering	11	240.00	18.00
Humanities and Social Scie	8	180.00	12.00
Program Core	35	870.00	58.00
Program Electives	14	315.00	21.00
Open Electives	7	180.00	12.00
Project(s)	6	300.00	10.00
Internships/Seminars	2	84.00	3.00
Any other (Please specify)	10	60.00	4.00
Total number of Credits			167.00

1.2.3 State the Process Used to Identify Extent of Compliance of the University Curriculum for Attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure II. Also Mention the Identified Curricular Gaps, if any (10)

Institute Marks : 10.00

Nehru Institute of Technology, Coimbatore, is affiliated with Anna University, Chennai. In compliance with AICTE norms, the institution has systematically designed its curriculum to strengthen students' learning outcomes and equip them with the necessary skills to meet industry requirements upon graduation. Every three years, AU updates the curriculum by considering suggestions from connected institutions and consulting with academic and industry professionals as well as all stakeholders involved (parents, employers, alumni, and industry experts). The program runs R17 regulations for approved batches in 2020, R21 regulations for admitted batches in 2021 and 2022, and R23 regulations for the batch (2023) and ongoing II Year batch (2024). The following Table 2.1.1(a) shows the regulation followed for the three academic years to the students in their respective year of study.

Table 1.2.3(a): Regulation followed for respective year of study

Year	I	II	III	IV
2023-24	R23	R21	R21	R17
2022-23	R21	R21	R17	
2021-22	R21	R17		-
2020-21	R17	-	-	-

A. Process used to identify the extent of compliance with university curriculum for attaining POs and PSOs

The process used to identify the university curriculum compliance for attaining POs and PSOs is shown in figure 1.2.3(b).

There are two types of techniques used to find curricular gaps: internal and external tools. The university makes steps to ensure that the course content is regularly updated to meet the demands of society and industry. The majority of the curriculum classes are combined with labs and small projects to improve students' problem-solving abilities and keep up with technological advancements.

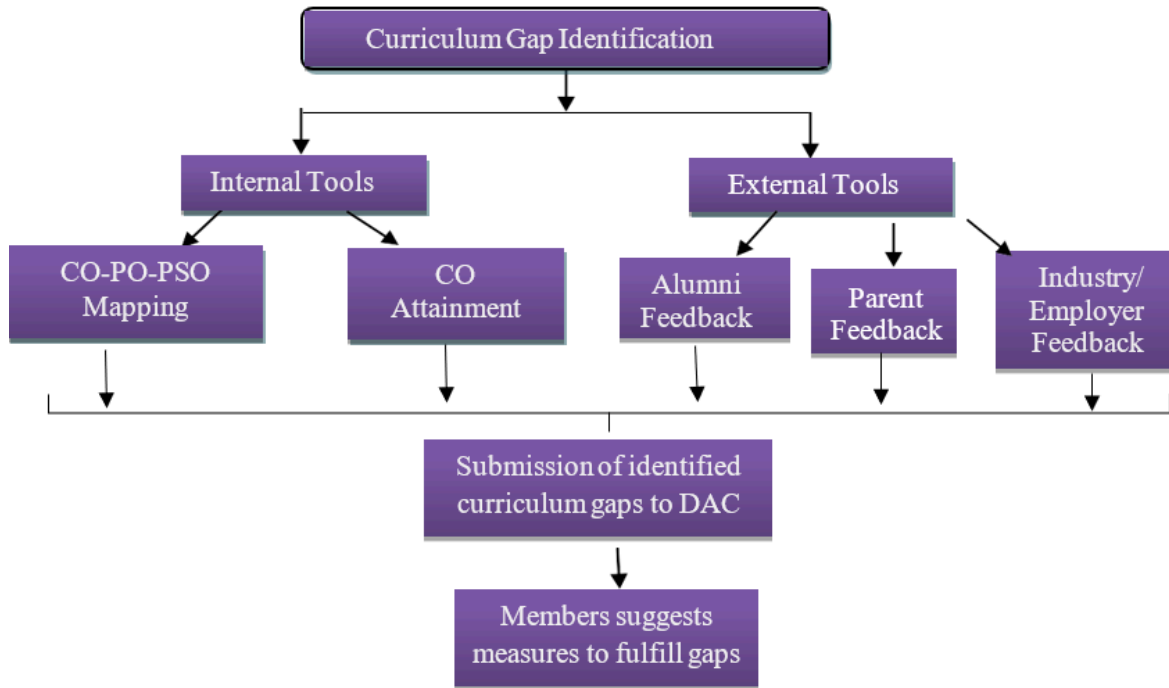


Figure1.2.3 (b): Tools to identify curriculum gap

I. External Tools:

The feedbacks were collected from the stakeholders every recurring year that helps for the continuous improvement of the curriculum.

- **Alumni feedback** is collected from the placed students at different industries in order to identify and fulfill the gaps regarding the skills required for companies to meet current trends etc. from their experiences.
- **Industry / Employers' feedback** is collected by the while framing the curriculum and syllabus in order to understand the industry needs and take necessary actions to fulfill the company's requirement.
- **Graduate feedback** is collected by the Head of the Department from the students at the completion of degree program to assess the level of PO and PSO accomplishment.

The Table1.2.3(c) represents the gaps identified through stakeholder feedback.

Table1.2.3(c): Gap identification through stakeholder feedback

Sl. No	Stakeholder	Gap Identification
1	Alumni	<ul style="list-style-type: none"> • Students require more practical exposure to modern techniques • Inculcate hands-on training-based knowledge to core concepts.

2	Industry/ Employer	<ul style="list-style-type: none"> Requirement of an industry project which uplifts academia to implement multi-disciplinary projects. Promote in-plant training for a 3 to 4 months.
3	Graduate	<ul style="list-style-type: none"> Impart more training towards improving soft skills. Suggested to introduce research-based courses in the curriculum.

II. Internal Tools:

As internal tools, the CO-PO-PSO mapping of the curriculums courses serves as one of the components for identifying the gaps. The input gathered from different stakeholders is regarded as an external instrument. Every course in the programs modules has established Course Outcomes (COs) that highlight how each course contributes to various Program Outcomes (POs) and ultimately lead to the achievement of all POs. There is a link between the defined CO and PO because of the manner the COs are defined. The definition of the COs is such that there is a link between the defined CO and PO.

The universitys programs courses address a wide range of topics that help students become competent engineers, including knowledge, skills, attitudes, values, and behavioural POs. The curriculum complies with POs, as evidenced by the mapping of the courses to POs. The programs specified Program Specific Outcomes (PSOs) are linked to the courses. The degree of curriculum adherence may be determined by mapping the courses to POs and PSOs. To determine the curriculum conformance, both internal and external tools must be used. The HoD and the senior faculties examines the benefits and drawbacks of the existing plan and determines any gaps based on PO and PSO compliance. A report on identified gaps is submitted to Department Advisory Committee (DAC) that takes necessary action to fulfill the identified curriculum gaps.

Extent of Compliance of University Curriculum for Attaining POs & PSOs

Methodology Adopted

The department followed a systematic CO–PO/PSO mapping to determine compliance.

Steps:

1. Framing of COs aligned with Bloom's Taxonomy.
2. CO–PO/PSO mapping with correlation levels (3/2/1/0).
3. Consolidated CO–PO matrix preparation.
4. Gap analysis and corrective measures implementation.

PO-wise Compliance

PO	Compliance %	Level
PO1	86.42%	High
PO2	77.16%	High
PO3	64.81%	Moderate
PO4	67.90%	Moderate
PO5	58.64%	Moderate
PO6	60.49%	Moderate
PO7	74.07%	High
PO8	52.47%	Moderate
PO9	61.73%	Moderate

PO	Compliance %	Level
PO10	64.81%	Moderate
PO11	54.32%	Moderate
PO12	60.49%	Moderate

PSO Compliance

PSO	Compliance Level
PSO1	High
PSO2	Moderate to High
PSO3	Moderate to High (≈71%)

Compliance Justification Matrix (PO vs Course List)

PO	Supporting Core Courses
PO1	Food Chemistry, Food Microbiology, Food Engineering, Unit Operations
PO2	Food Analysis, Engineering Mathematics, Heat & Mass Transfer
PO3	Food Plant Design, Mini Project, Final Year Project
PO4	Laboratory Courses (Microbiology Lab, Processing Lab, Analysis Lab)
PO5	Instrumentation Lab, AutoCAD VAC, Statistical Tools
PO6	Environmental Studies, Food Laws
PO7	Waste Management, Environmental Engineering
PO8	Professional Ethics
PO9	Internship, Group Projects
PO10	Technical English, Seminar, Project Viva
PO11	Entrepreneurship Development
PO12	Internship, Certifications, Workshops

Identified Gaps through CO-PO-PSO Mapping**1. Gap in Analytical and Mathematical Application Skills**

Courses such as Food Process Calculations, Probability and Operations Research, Fluid Mechanics and Mechanical Operations, and Transforms and Partial Differential Equations show comparatively lower CO attainment levels. This indicates difficulty among students in applying mathematical and analytical concepts to solve complex food engineering problems.

2. Limited Exposure to Modern Engineering and Digital Tools

CO–PO mapping shows moderate to low attainment in outcomes related to the use of modern tools, particularly in emerging areas such as computational analysis, automation, and data-driven decision making. Courses like Artificial Intelligence and Machine Learning Fundamentals indicate lower attainment in introductory COs.

3. Inadequate Emphasis on Design-Oriented and Problem-Based Learning

CO attainment related to design and investigation outcomes is moderate in several core courses. Limited incorporation of mini-projects, open-ended design problems, and real-world case studies restricts students' ability to translate theoretical knowledge into practical design solutions.

4. Insufficient Integration of Sustainability and Environmental Aspects

CO–PO mapping reveals limited direct assessment of sustainability, environmental impact, and waste management practices in food processing. Although these topics are introduced conceptually, their practical application and assessment are limited.

5. Limited Development of Professional, Managerial, and Communication Skills

Analysis indicates that professional skills such as teamwork, communication, project planning, and financial awareness are not uniformly assessed across courses. Industry exposure through internships and structured industrial assignments is limited.

6. Insufficient Contextualization of Ethics and Food Regulatory Frameworks

Ethical principles and human values are addressed through a common course; however, food industry-specific ethical issues, regulatory compliance, and food safety governance are not sufficiently reinforced through application-based assessments.

7. Moderate Attainment of Life-Long Learning Skills

CO attainment analysis indicates limited encouragement for self-learning, independent knowledge acquisition, and continuous professional development through MOOCs, certifications, and research-based learning.

Steps taken to get identified gaps included in the curriculum

The identified gaps are discussed with the Head of the Department for consideration for trying to fulfill the need or requirement by conducting seminars and hands on training. Beyond this, the department takes necessary measures to fill the gaps by imparting knowledge to the concepts through content beyond the syllabus.

- Seminars are arranged by experts frequently.
- Guest lectures are arranged by industry experts to overcome the gap between industry and academia.
- Practical Hands-on workshops are arranged to get exposure to modern tools.
- Students are sent for industrial visits to various industries.
- Aptitude tests, value-added courses, mini projects, employability enhancement programs etc. are regularly conducted to enhance their skills.
- Students are encouraged to undertake training in the industries during their semester holidays.

1.2.4 State the Delivery Details of the Content beyond the Syllabus for the Attainment of Program Outcomes and Program Specific Outcomes (10)

Institute Marks : 10.00

1.3 PO, PSO and their Mapping with Courses (20)

1.3.1 POs and PSOs (5)

PSO1	Professional Skill: The capability to comprehend, analyze, and devise innovative methods for advancing food processes and products using foundational principles from mathematics, science, and engineering.
PSO2	Problem solving skill: To acquire interdisciplinary skills in addressing challenges within the food industry, employing modern tools and techniques to promote an ethical and sustainable society.
PSO3	Career and Entrepreneurship: The ability to excel as a team player with strong leadership and communication skills, effectively managing projects in multidisciplinary environments and adapting to technological advancements.

1.3.2 Mapping between the Courses and POs/PSOs (10)

Institute Marks : 10.00

PO:

PO Number	List of Courses
PO1	C102-C108, C110-C116, C201-C217, C301-C317, C401-408
PO2	C102-C108, C110-C116, C201-C217, C301-C317, C401-402, C404-C408
PO3	C102-C108, C201-C217, C301-C317, C401-402, C405-C408
PO4	C102-C111, C113-C116, C202, C204-C207, C209-C211, C213-217, C301-C317, C401-402, C404-C408
PO5	C103-C108, C111-C116, C202-C205, C207-C213, C216-C217, C301-C317, C401, C404, C406-C408
PO6	C212, C306, C308, C316, C403-C404, C407-C408
PO7	C104, C108, C116, C212, C305, C306, C309, C312, C313, C315-C317, C403, C405-C408
PO8	C108, C309, C316, C403, C407-C408
PO9	C106, C108, C114, C116, C207-C209, C211, C217, C309-C316, C404, C407-408
PO10	C101, C108-C109, C116, C209, C307, C309, C316, C407-C408
PO11	C106, C108, C109, C116, C205, C215, C302, C306-C309, C311-C313, C316-C317, C407-C408
PO12	C101-C102, C106, C108, C111, C113, C116, C204, C205, C209, C211, C213, C214, C216, C217, C301-C317, C402-C408

1.4 Course Outcomes and Course Articulation Matrix (30)

1.4.1 Course Outcome (Semester Wise) (10)

No. of Core Courses : 10	C2 : 4	C3 : 4	C4 : 2
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Note : Number of Outcomes for a Course is expected to be around 6.

Course Code :	103	Semester :	1
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Course Outcome	Statements
103.1	Remember the importance of mechanics.
103.2	Express their knowledge in electromagnetic waves.
103.3	Understand a strong foundational knowledge in oscillations, optics and lasers.
103.4	Understand the importance of quantum physics.
103.5	Comprehend and apply quantum mechanical principles towards the formation of energy bands.

Course Code :	110	Semester :	2
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Course Outcome	Statements
110.1	Understand the concept of testing of hypothesis for small and large samples in real life problems.
110.2	Understand the basic concepts of classifications of design of experiments in the field of agriculture.
110.3	Understand the numerical techniques of interpolation in various intervals and apply the numerical techniques of differentiation and integration for engineering problems.
110.4	Apply the knowledge of various techniques and methods for solving first and second order ordinary differential equations.
110.5	Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications

Course Code :	203	Semester :	3
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Course Outcome	Statements
203.1	Understand the structural changes in carbohydrates during processing and predict their physiological effects in the body
203.2	Understand the functional and nutritional properties of proteins
203.3	Analyze the properties and physico-chemical changes of fats and oil during processing and their industrial importance
203.4	Analyze the importance of vitamins and minerals and their physiological role in the human body
203.5	Analyze the aroma and phytochemicals in food matrices

Course Code :	217	Semester :	4
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Course Outcome	Statements
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217.1	Understand and apply the size reduction techniques to convert solids and liquids into uniform particles
217.2	Understand and apply the mechanical separation process like sedimentation, centrifugation, and filtration to separate solids, liquids and gas in food processing
217.3	Understanding the mechanism of crystallization process and applying the principles of crystallization for the production of crystals
217.4	Applying mixing equipment for the uniform mixing of solids, semi solids and liquids
217.5	Apply the extrusion process for the preparation of extruded products and its texture analysis and understanding the material handling process with its application

Course Code :	301	Semester :	5
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Course Outcome	Statements
301.1	Understand the principles of food processing and preservation
301.2	Understand the role of different methods the processing of different foods.
301.3	Comprehend the impact on the shelf life, quality, and other physical and sensory characteristics of foods
301.4	Analyze the recent methods of minimal processing of foods.
301.5	Analyze the materials and types of packaging for foods

Course Code :	304	Semester :	5
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Course Outcome	Statements
304.1	To know the regulations and the monitoring agencies involved in controlling the safer use of additives in foods
304.2	Understand the process parameters poultry processing
304.3	Understand the structure and processing of egg
304.4	Understand the processing of meat and meat products
304.5	Apply the different processing and preservation operations of fish

Course Code :	310	Semester :	6
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Course Outcome	Statements
310.1	Remember the knowledge of physical properties of foods during the processing.
310.2	Understand time temperature required to achieve desired shelf life of foods
310.3	Understand the principles and current practices of mixing and the effects of processing parameters on product quality
310.4	Apply the encapsulation technology available in the field of processing
310.5	Develop novel products using extrusion cooking.

Course Code :	315	Semester :	6
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Course Outcome	Statements
315.1	Remember the agricultural aspects of fruits and vegetables
315.2	Understand the nature of fresh fruits and vegetables
315.3	Understand the concepts of freezing and dehydration
315.4	Understand the processing of canning
315.5	Understand the processing of fruits and vegetable products

Course Code :	401	Semester :	7
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Course Outcome	Statements
401.1	Remember the basics of refrigeration with thermodynamic principles and Carnot cycle
401.2	Understand the concept of refrigeration cycles
401.3	Understand the various components of refrigeration system and its types
401.4	Understand the concept of low temperature storage systems for foods
401.5	Understand and apply cold chain and refrigeration for food products

Course Code :	408	Semester :	8
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Course Outcome	Statements
408.1	Understand fundamental and disciplinary concepts and methods in ways appropriate to their principal areas of study for project selection
408.2	Understand concepts of Project based on relevant and reliable literatures to evaluate the state of the field.
408.3	Reproduce, improve and refine technical aspects for engineering projects
408.4	Work as an individual or in a team in development of technical projects.
408.5	Communicate and report effectively project related activities and findings.

1.4.2 Course Articulation Matrix (15)

:

1 . course name : C2103

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
103.1	Remember	3 ▾	2 ▾	1 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	1 ▾	- ▾	- ▾
103.2	Express the	3 ▾	2 ▾	1 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	1 ▾	- ▾	- ▾
103.3	Understand	3 ▾	2 ▾	1 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	1 ▾	- ▾	- ▾
103.4	Understand	3 ▾	2 ▾	1 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	1 ▾	- ▾	1 ▾
103.5	Compreher	3 ▾	2 ▾	1 ▾	- ▾	1 ▾	- ▾	- ▾	- ▾	2 ▾	- ▾	1 ▾
Average		3.00	2.00	1.00	0.00	1.00	0.00	0.00	0.00	1.20	0.00	1.00

2 . course name : C2110

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
110.1	Understand	3 ▾	3 ▾	3 ▾	3 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
110.2	Understand	3 ▾	3 ▾	3 ▾	3 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
110.3	Understand	3 ▾	3 ▾	3 ▾	3 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
110.4	Apply the k	3 ▾	3 ▾	3 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	- ▾	- ▾	- ▾
110.5	Solve the p	3 ▾	3 ▾	3 ▾	3 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾	1 ▾
Average		3.00	3.00	3.00	3.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00

3 . course name : C2203

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
203.1	Understand	3 ▾	3 ▾	2 ▾	- ▾	3 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
203.2	Understand	3 ▾	2 ▾	2 ▾	- ▾	3 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
203.3	Analyze the	3 ▾	2 ▾	3 ▾	- ▾	3 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
203.4	Analyze the	3 ▾	3 ▾	2 ▾	- ▾	3 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
203.5	Analyze the	3 ▾	3 ▾	2 ▾	- ▾	3 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
Average		3.00	2.60	2.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00

4 . course name : C2217

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
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217.1	Understand	3	3	3	3	-	-	-	3	-	-	-
217.2	Understand	3	3	2	3	-	-	-	3	-	-	-
217.3	Understand	3	3	3	2	-	-	-	3	-	-	-
217.4	Applying m	3	3	2	2	-	-	-	3	-	-	-
217.5	Apply the e	2	2	3	3	2	-	-	3	-	-	-
Average		2.80	2.80	2.60	2.80	2.00	0.00	0.00	3.00	0.00	0.00	0.00

5 . course name : C3301

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
301.1	Understand	3	3	3	2	-	-	-	-	-	-	3
301.2	Understand	3	3	3	3	-	-	-	-	-	-	3
301.3	Compreher	3	3	3	2	-	-	-	-	-	-	3
301.4	Analyze the	3	3	3	2	-	-	-	-	-	-	3
301.5	Analyze the	3	2	3	3	3	-	-	-	-	-	3
Average		3.00	2.80	3.00	2.40	3.00	0.00	0.00	0.00	0.00	0.00	3.00

6 . course name : C3304

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
304.1	To know the	3	2	3	3	3	-	-	-	-	-	3
304.2	Understand	3	3	3	2	3	-	-	-	-	-	3
304.3	Understand	3	2	2	3	2	-	-	-	-	-	3
304.4	Understand	2	3	3	2	3	-	-	-	-	-	3
304.5	Apply the d	3	2	3	3	3	-	-	-	-	-	3
Average		2.60	2.40	2.80	2.60	2.80	0.00	0.00	0.00	0.00	0.00	0.00

7 . course name : C3310

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
310.1	Remember	3	3	3	3	3	-	-	-	-	-	2
310.2	Understand	3	3	2	2	3	-	-	-	-	-	2
310.3	Undestand	3	3	2	3	3	-	-	-	-	-	2
310.4	Apply the e	3	3	3	2	3	-	-	-	-	-	3

310.5	Develop no	3	2	3	3	3	-	-	-	-	-	3
Average		3.00	2.80	2.60	2.60	3.00	0.00	0.00	0.00	0.00	0.00	2.40

8 . course name : C3315

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
315.1	Remember	2	2	3	3	-	-	-	-	-	-	3
315.2	Understand	3	3	3	3	2	3	-	-	-	-	2
315.3	Understand	3	3	3	2	2	-	-	-	-	-	2
315.4	Understand	2	3	2	2	3	-	-	-	-	-	3
315.5	Understand	3	2	2	2	2	-	-	-	-	-	3
Average		2.60	2.60	2.60	2.40	2.40	3.00	0.00	0.00	0.00	0.00	2.60

9 . course name : C4401

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
401.1	Remember	2	2	2	3	3	-	-	-	-	-	-
401.2	Understand	3	2	3	2	2	-	-	-	-	-	-
401.3	Understand	3	3	3	2	2	-	-	-	-	-	-
401.4	Understand	3	3	3	2	3	-	-	-	-	-	-
401.5	Understand	3	2	3	3	3	-	-	-	-	-	-
Average		2.80	2.40	2.80	2.40	2.60	0.00	0.00	0.00	0.00	0.00	0.00

10 . course name : C4408

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
408.1	Understand	3	3	3	3	3	2	2	2	2	3	2
408.2	Understand	3	3	3	3	3	2	2	2	2	3	2
408.3	Reproduce,	3	3	3	3	3	2	2	2	2	3	2
408.4	Work as an	3	3	3	3	3	2	2	2	2	3	2
408.5	Communica	3	3	3	3	3	2	2	2	2	3	2
Average		3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	3.00	2.00

1 . Course Name : C2103

Course	PSO1	PSO2	PSO3
103.1	- ▾	- ▾	- ▾
103.2	- ▾	- ▾	- ▾
103.3	- ▾	- ▾	- ▾
103.4	- ▾	- ▾	1 ▾
103.5	3 ▾	2 ▾	- ▾
Average	3.00	2.00	1.00

2 . Course Name : C2110

Course	PSO1	PSO2	PSO3
110.1	- ▾	- ▾	- ▾
110.2	- ▾	- ▾	- ▾
110.3	- ▾	- ▾	- ▾
110.4	- ▾	- ▾	- ▾
110.5	- ▾	- ▾	- ▾
Average	0.00	0.00	0.00

3 . Course Name : C2203

Course	PSO1	PSO2	PSO3
203.1	3 ▾	2 ▾	2 ▾
203.2	3 ▾	2 ▾	2 ▾
203.3	3 ▾	3 ▾	3 ▾
203.4	3 ▾	3 ▾	3 ▾
203.5	3 ▾	2 ▾	3 ▾
Average	3.00	2.40	2.60

4 . Course Name : C2217

Course	PSO1	PSO2	PSO3
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217.1	3	▼	2	▼	3	▼
217.2	3	▼	2	▼	2	▼
217.3	2	▼	2	▼	3	▼
217.4	2	▼	3	▼	2	▼
217.5	3	▼	3	▼	3	▼
Average	2.60		2.40		2.60	

5 . Course Name : C3301

Course	PSO1	PSO2	PSO3			
301.1	3	▼	2	▼	3	▼
301.2	3	▼	2	▼	3	▼
301.3	3	▼	3	▼	2	▼
301.4	3	▼	3	▼	2	▼
301.5	3	▼	3	▼	3	▼
Average	3.00		2.60		2.60	

6 . Course Name : C3304

Course	PSO1	PSO2	PSO3			
304.1	3	▼	3	▼	3	▼
304.2	3	▼	3	▼	3	▼
304.3	2	▼	2	▼	2	▼
304.4	3	▼	3	▼	3	▼
304.5	3	▼	2	▼	2	▼
Average	2.80		2.60		2.60	

7 . Course Name : C3310

Course	PSO1	PSO2	PSO3			
310.1	3	▼	3	▼	3	▼
310.2	3	▼	3	▼	3	▼
310.3	3	▼	3	▼	2	▼
310.4	3	▼	3	▼	2	▼

310.5	3 ▾	2 ▾	2 ▾
Average	3.00	2.80	2.40

8 . Course Name : C3315

Course	PSO1	PSO2	PSO3
315.1	3 ▾	3 ▾	3 ▾
315.2	3 ▾	3 ▾	3 ▾
315.3	2 ▾	3 ▾	2 ▾
315.4	3 ▾	3 ▾	3 ▾
315.5	3 ▾	3 ▾	3 ▾
Average	2.80	3.00	2.80

9 . Course Name : C4401

Course	PSO1	PSO2	PSO3
401.1	3 ▾	- ▾	3 ▾
401.2	2 ▾	- ▾	2 ▾
401.3	2 ▾	- ▾	2 ▾
401.4	3 ▾	3 ▾	3 ▾
401.5	3 ▾	3 ▾	3 ▾
Average	2.60	3.00	2.60

10 . Course Name : C4408

Course	PSO1	PSO2	PSO3
408.1	3 ▾	3 ▾	3 ▾
408.2	3 ▾	3 ▾	3 ▾
408.3	3 ▾	3 ▾	3 ▾
408.4	3 ▾	3 ▾	3 ▾
408.5	3 ▾	3 ▾	3 ▾
Average	3.00	3.00	3.00

1.5 Program Articulation Matrix (5)

Program Articulation Matrix

(10)

:

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C101	0	0	0	0	0	1.6	2.6	3	1	0	2.6
C102	3	3	3	1	0	0	0	1	0	0	1
C103	3	2	1	0	1	0	0	0	1.2	0	1
C104	3	2.4	1.5	0	1	0	2.25	2	0	0	2
C105	2	2	2	0	2	0	0	0	0	0	2
C106	0	0	0	0	0	3	3	0	2	0	3
C107	2	2	2	0	2	0	0	0	0	0	2
C108	3	2.4	1.6	1.75	2	1.5	1	1	0	1	1.2
C109	2	3	3	3	2	3	3	3	3	3	3
C110	0	0	0	0	0	1.7	2.6	3	1.6	0	3
C111	3	3	3	3	0	0	0	1	0	0	0
C112	3	1.8	2	0	1.2	1.6	1	0	0	0	1
C113	2.4	1.6	1.4	1.2	0	0	0	0	0	0	1
C114	3	3	3	3	3	3	3	0	2	0	1
C115	0	0	0	0	0	3	3	0	2	0	3
C116	3	1	2	0	1	2	0	0	0	0	0
C117	3	1	2	0	1	2	0	0	0	0	0
C118	3	2	2.6	1.6	1	1.6	0	2.4	0	2	2.4
C201	2.8	3	2.6	0	0	0	0	0	0	0	0
C202	2.8	2.6	2.6	2.5	2	0	0	0	0	0	0
C203	3	2.6	2.2	0	3	0	0	0	0	0	0
C204	2.6	2.8	2.2	2	2.8	0	0	0	0	0	0
C205	2.6	2.6	2.6	2.2	2.4	0	0	0	0	1.4	2
C206	3	2.6	3	2.4	0	0	0	0	0	0	2.4
C207	3	2.6	2.8	2	3	0	0	0	3	0	0
C208	3	2.6	2.6	0	3	0	0	0	3	0	0
C209	2.6	2.4	2.8	2.6	3	0	0	0	2	2.3	0
C210	2.8	2.8	2.6	3	3	0	0	0	0	0	0
C211	2.8	2.6	2.4	2	2.8	0	0	3	0	0	2.6
C212	2.6	2.4	2.8	0	3	3	3	0	0	0	0

C213	2.8	2.4	2.4	2	2	0	0	0	0	0	2.6
C214	2.8	2.8	2.6	2.8	0	0	00	0	0	0	2.4
C215	2.8	2.4	2.8	2.4	0	0	0	0	0	0	0
C216	2.8	2.4	2.6	2.5	3	0	1	0	0	1.2	2.6
C217	2.8	2.8	2.6	2.8	2	0	0	3	0	0	0
C301	3	2.8	3	2.4	3	0	0	0	0	0	3
C302	2.8	2.6	3	3	3	0	0	0	0	3	2.6
C303	2.8	2.4	2.4	2.6	2.8	0	0	0	0	0	2.4
C304	2.6	2.4	2.8	2.6	2.8	0	0	0	0	0	0
C305	2.6	2.4	2.6	2.8	2.6	3	0	0	0	0	2.4
C306	2.2	2.2	2	2.6	3	3	2	0	0	1.2	2.6
C307	2.2	2.8	3	2.8	3	0	0	0	1.8	2	3
C308	2.8	2	3	3	3	3	0	0	0	3	2.6
C309	2.6	3	3	3	3	2	3	3	2	3	2
C310	3	2.8	2.6	2.6	3	0	0	0	0	0	2.4
C311	2	2.4	2.2	2.6	3	0	0	0	0	2	2.6
C312	2.8	2.4	2.4	2.5	2.8	1.5	0	0	0	2	2.5
C313	2.8	2.6	2.6	2.6	2.6	3	0	0	0	0	2.6
C314	2.8	2.4	2.2	2.4	2.8	0	0	0	0	0	2
C315	2.6	2.6	2.6	2.4	2.4	3	0	0	0	0	2.6
C316	2.6	3	3	2.8	2.4	2	2	2	2	2	3
C317	2.8	2.6	2.8	2.4	2.2	1.6	0	0	0	2	2.4
C401	2.8	2.4	2.8	2.4	2.6	0	0	0	0	0	0
C402	2.8	2.8	2.6	2.6	0	0	0	0	0	0	2.4
C403	2	0	0	0	0	2.2	3	0	0	0	2
C404	2.8	2.5	0	2.6	2	2	0	2	0	0	2.2
C405	2.8	2	2.8	2.4	0	1	0	0	0	0	2
C406	2.6	2	2.6	2.8	3	2	0	0	0	0	3
C407	2.6	3	3	3	3	2	2	2	2	3	2
C408	3	3	3	3	3	2	2	2	2	3	2

Course Code	PSO1	PSO2	PSO3
C101	1	0	0
C102	0	3	0
C103	2	3	1
C104	2	3	1
C105	1	3	3
C106	0	0	0
C107	1	2	0
C108	1	2	1
C109	1	0	0
C110	0	0	0
C111	2	3	2
C112	2	2	1
C113	2	1	0
C114	0	0	0
C115	0	0	0
C116	1	0	0
C117	2	2	0
C118	0	0	0
C201	0	0	0
C202	2.2	2.2	2.2
C203	3	2.4	2.6
C204	3	2.6	2.6
C205	2	2.4	2.2
C206	2.8	2.6	2.6
C207	3	2.2	2.4
C208	3	2.6	2.6
C209	2	2	2
C210	0	0	0
C211	3	2.6	2.2
C212	2	2	2

C213	2.8	2.6	2.4
C214	2.6	2.4	2.4
C215	2.2	2.4	2.4
C216	2.2	2.4	2.6
C217	2.6	2.4	2.6
C301	3	2.6	2.6
C302	2.6	2.6	2.6
C303	2.8	3	3
C304	2.8	2.6	2.6
C305	2.8	3	3
C306	2	2	2
C307	3	3	3
C308	2.6	2.6	2.4
C309	3	3	3
C310	3	2.8	2.4
C311	2.2	2.4	2.4
C312	2.8	2.6	2.8
C313	3	3	2.8
C314	3	2.8	2.6
C315	2.8	3	2.8
C316	2.4	3	3
C317	2.8	3	3
C401	2.6	3	2.6
C402	3	2.8	2.6
C403	2	2	3
C404	2	2.4	2.4
C405	2	2.8	2.6
C406	2	3	3
C407	3	3	3
C408	3	3	3

2 OUTCOME-BASED TEACHING LEARNING (120)

Total Marks 120.00

2.1 Describe Processes Followed to Ensure Quality of Teaching & Learning (20)

2.1 Describe Processes Followed to Ensure Quality of Teaching & Learning

(Processes may include adherence to academic calendar and instruction methods using pedagogical initiatives such as real-world examples, collaborative learning, quality of laboratory experience with regard to conducting experiments, recording observations, analysis of data etc. encouraging fast learners, assisting slow learners etc. The implementation details and impact analysis need to be documented.)

The Department of Food Technology adopts a student-centric teaching–learning approach, emphasizing experiential learning, participatory methods, Project based learning as a constructivist practices. The teaching–learning process is planned and executed in a systematic and structured manner to ensure effective knowledge delivery and skill development. The curriculum designed under R-23 is aligned with SDG-4 (Quality Education) to strengthen and enhance the overall teaching–learning process.

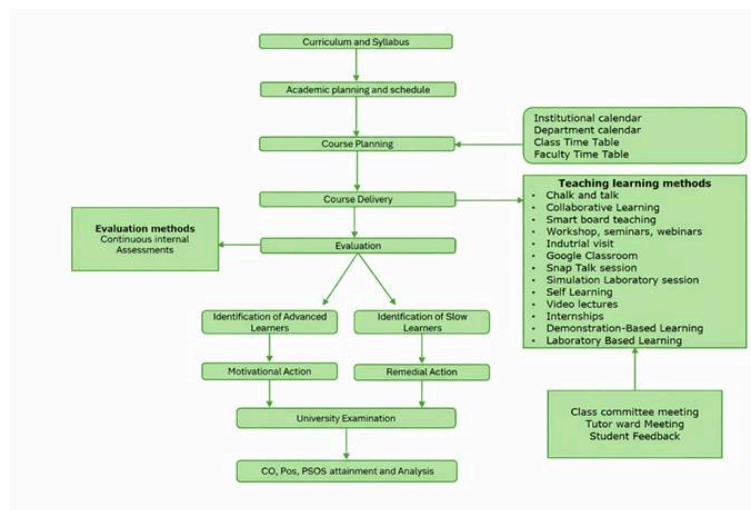


Fig. 2.1.1 Systematic approach followed to improve Teaching–Learning effectiveness

A. Adherence to Academic Calendar

The Academic Council, chaired by the principal, is the apex academic body responsible for formulating and approving the institutional Academic Calendar in alignment with the academic schedule prescribed by the affiliating university. The approved Academic Calendar is prepared with due deliberation and is disseminated to all stakeholders—faculty, students, and administrative units—well in advance of the commencement of each semester to ensure effective academic planning and preparedness.

Following the conferment of autonomous status, the institution continues to strictly adhere to the Academic Calendar, building upon the robust and systematic academic practices established during its period of affiliation with Anna University. While autonomy provides flexibility in curriculum design, assessment methods, and academic innovations, the institution ensures that all academic activities are executed within a well-defined and structured academic framework. The Academic Calendar clearly outlines important academic milestones, including semester commencement and completion date, continuous internal assessment timelines, end-semester examinations, and evaluation periods.

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Academic Calendar for UG - Academic Year 2024 - 2025
5000 Semester - For 8 Year 101 Sem

S/N	Day	Date	Description	S/N	Day	Date	Description
1	Mon	15.07.2024	Placement Training	34	Sat	17.08.2024	Third Saturday
2	Tue	16.07.2024	Placement Training	35	Sun	18.08.2024	Sunday
3	Fri	27.07.2024	Maharajam	36	Tue	19.08.2024	(24)
4	Thu	18.07.2024	(21)	37	Tue	20.08.2024	(25)
5	Fri	19.07.2024	(22)	38	Wed	21.08.2024	(26)
6	Sat	20.07.2024	Third Saturday	39	Thu	22.08.2024	(27)
7	Sun	21.07.2024	Holiday	40	Fri	23.08.2024	(28)
8	Mon	22.07.2024	(23)	41	Sat	24.08.2024	(29)
9	Tue	23.07.2024	(24)	42	Sun	25.08.2024	Holiday
10	Wed	24.07.2024	(25)	43	Mon	26.08.2024	Krishna Jayanthi
11	Thu	25.07.2024	(26)	44	Tue	27.08.2024	(30)
12	Fri	26.07.2024	(27)	45	Wed	28.08.2024	(31)
13	Sat	27.07.2024	(28)	46	Thu	29.08.2024	(32)
14	Sun	28.07.2024	Holiday	47	Fri	30.08.2024	Internal Test - I
15	Mon	29.07.2024	(29)	48	Sat	31.08.2024	Internal Test - I
16	Tue	30.07.2024	(30)	49	Sun	01.09.2024	Holiday
17	Wed	15.07.2024	(31)	50	Mon	02.09.2024	Internal Test - I
18	Thu	08.08.2024	(32)	51	Tue	09.08.2024	Internal Test - I
19	Fri	09.08.2024	(33)	52	Wed	06.09.2024	Internal Test - I
20	Sat	10.08.2024	(34)	53	Thu	05.09.2024	Internal Test - I
21	Sun	04.08.2024	Holiday	54	Fri	06.09.2024	Internal Test - I
22	Mon	06.08.2024	(35)	55	Sat	07.09.2024	Vineyagar Chaturthi
23	Tue	08.08.2024	(36)	56	Sun	08.09.2024	Holiday
24	Wed	07.08.2024	(37)	57	Mon	09.09.2024	(33)
25	Thu	08.08.2024	(38)	58	Tue	10.09.2024	(34)
26	Fri	09.08.2024	(39)	59	Wed	11.09.2024	(35)
27	Sat	10.08.2024	Second Saturday	60	Thu	12.09.2024	(36)
28	Sun	11.08.2024	Holiday	61	Fri	13.09.2024	(37)
29	Mon	12.08.2024	(40)	62	Sat	14.09.2024	Onam Holidays
30	Tue	13.08.2024	(41)	63	Sun	15.09.2024	Holiday
31	Wed	14.08.2024	(42)	64	Mon	16.09.2024	Mid sem ends
32	Thu	15.08.2024	Independence Day	65	Tue	17.09.2024	(38)
33	Fri	16.08.2024	(43)	66	Wed	18.09.2024	(39)

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S/N	Day	Date	Description	S/N	Day	Date	Description
67	Thu	19.09.2024	(40)	103	Wed	20.10.2024	(64)
68	Fri	20.09.2024	(41)	104	Thu	21.10.2024	(65)
69	Sat	21.09.2024	Third Saturday	105	Fri	25.10.2024	(66)
70	Sun	22.09.2024	Holiday	106	Sat	26.10.2024	(67)
71	Mon	23.09.2024	(42)	107	Sun	27.10.2024	Holiday
72	Tue	24.09.2024	(43)	108	Mon	28.10.2024	(68)
73	Wed	25.09.2024	(44)	109	Tue	29.10.2024	(69)
74	Thu	26.09.2024	(45)	110	Wed	30.10.2024	(70)
75	Fri	27.09.2024	(46)	111	Thu	31.10.2024	(71)
76	Sat	28.09.2024	(47)	112	Fri	01.11.2024	Dussehra Holidays
77	Sun	29.09.2024	Holiday	113	Sat	02.11.2024	(72)
78	Mon	30.09.2024	(48)	114	Sun	03.11.2024	Holiday
79	Tue	01.10.2024	(49)	115	Mon	04.11.2024	(73)
80	Wed	02.10.2024	Gandhi Jayanthi	116	Tue	05.11.2024	Internal Test - II
81	Thu	03.10.2024	(50)	117	Wed	06.11.2024	Internal Test - II
82	Fri	04.10.2024	(51)	118	Thu	07.11.2024	Internal Test - II
83	Sat	05.10.2024	(52)	119	Fri	08.11.2024	Internal Test - II
84	Sun	06.10.2024	Holiday	120	Sat	09.11.2024	Internal Test - II
85	Mon	07.10.2024	(53)	121	Sun	10.11.2024	Holiday
86	Tue	08.10.2024	(54)	122	Mon	11.11.2024	Internal Test - II
87	Wed	09.10.2024	(55)	123	Tue	12.11.2024	Internal Test - II
88	Thu	10.10.2024	(56)	124	Wed	13.11.2024	(72)
89	Fri	11.10.2024	Ayudha Pooja	125	Thu	14.11.2024	(73)
90	Sat	12.10.2024	Vijaya Dusami	126	Fri	15.11.2024	(74)
91	Sun	13.10.2024	Holiday	127	Sat	16.11.2024	(75)
92	Mon	14.10.2024	(57)	128	Sun	17.11.2024	Holiday
93	Tue	15.10.2024	(58)	129	Mon	18.11.2024	Model lab exam (76)
94	Wed	16.10.2024	(59)	130	Tue	19.11.2024	Model lab exam (77)
95	Thu	17.10.2024	(60)	131	Wed	20.11.2024	Model lab exam (78)
96	Fri	18.10.2024	(61)	132	Thu	21.11.2024	Model lab exam (79)
97	Sat	19.10.2024	Third Saturday	133	Fri	22.11.2024	Last Working Day (80)
98	Sun	20.10.2024	Holiday				
99	Mon	21.10.2024	(62)				All The Best
100	Tue	22.10.2024	(63)				Commencement of End Semester Exams - 02.12.2024

P. Princy
Principal

Fig. 2.1.2 Institutional Academic Calendar

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Academic Calendar 2024-2025
(EVEN Semester)

Department of Food Technology

S/N	Day	Date	Description	S/N	Day	Date	Description
1	Thu	26.12.2024	Respecting for 6 MBA	33	Mon	27.01.2025	Respecting Day
2	Fri	27.12.2024	(1)	34	Tue	28.01.2025	(2)
3	Sat	28.12.2024	(2)	35	Wed	29.01.2025	(3)
4	Sun	29.12.2024	Holiday	36	Thu	30.01.2025	(4)
5	Mon	30.12.2024	(3)	37	Fri	31.01.2025	(5)
6	Tue	31.12.2024	(4)	38	Sat	01.02.2025	(6)
7	Wed	01.01.2025	New Year	39	Sun	02.02.2025	Holiday
8	Thu	02.01.2025	(5)	40	Mon	03.02.2025	(7)
9	Fri	03.01.2025	(6)	41	Tue	04.02.2025	(8)
10	Sat	04.01.2025	(7)	42	Wed	05.02.2025	(9)
11	Sun	05.01.2025	Holiday	43	Thu	06.02.2025	HR Conclave
12	Mon	06.01.2025	(8)	44	Fri	07.02.2025	HR Conclave
13	Tue	07.01.2025	(9)	45	Sat	08.02.2025	Second Saturday (BTA)
14	Wed	08.01.2025	(10)	46	Sun	09.02.2025	Holiday
15	Thu	09.01.2025	(11)	47	Mon	10.02.2025	(10)
16	Fri	10.01.2025	(12)	48	Tue	11.02.2025	Thaipusam
17	Sat	11.01.2025	Pongal Holiday	49	Wed	12.02.2025	(11)
18	Sun	12.01.2025	Pongal Holiday	50	Thu	13.02.2025	(12)
19	Mon	13.01.2025	Pongal Holiday	51	Fri	14.02.2025	(13)
20	Tue	14.01.2025	Pongal Holiday	52	Sat	15.02.2025	Herritage2025
21	Wed	15.01.2025	Pongal Holiday	53	Sun	16.02.2025	Holiday
22	Thu	16.01.2025	Pongal Holiday	54	Mon	17.02.2025	(14)
23	Fri	17.01.2025	(15)	55	Tue	18.02.2025	(15)
24	Sat	18.01.2025	(16)	56	Wed	19.02.2025	First Krishna's Court Lecture
25	Sun	19.01.2025	Holiday	57	Thu	20.02.2025	(16)
26	Mon	20.01.2025	(17)	58	Fri	21.02.2025	(17)
27	Tue	21.01.2025	(18)	59	Sat	22.02.2025	Astoria2025
28	Wed	22.01.2025	(19)	60	Sun	23.02.2025	Holiday
29	Thu	23.01.2025	(20)	61	Mon	24.02.2025	(18)
30	Fri	24.01.2025	(21)	62	Tue	25.02.2025	(19)

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S/N	Day	Date	Description	S/N	Day	Date	Description
63	Sat	25.03.2025	(49)	107	Wed	26.03.2025	(81)
64	Sun	26.03.2025	Republic Day	108	Thu	27.03.2025	(82)
65	Mon	27.03.2025	One day field visit - I (FT)	109	Fri	04.04.2025	(83)
66	Tue	01.04.2025	(50)	110	Sat	05.04.2025	Vaduvu2025
67	Wed	02.04.2025	(51)	111	Sun	06.04.2025	Holiday
68	Thu	03.04.2025	(52)	112	Mon	07.04.2025	(84)
69	Fri	04.04.2025	(53)	113	Tue	08.04.2025	One day workshop on Microbial safety of food.
70	Sat	05.04.2025	(54)	114	Wed	09.04.2025	(85)
71	Sun	06.04.2025	Holiday	115	Thu	15.04.2025	Industrial Visit - I (FT)
72	Mon	07.04.2025	(55)	116	Fri	16.04.2025	Industrial Visit - I (FT)
73	Tue	08.04.2025	(56)	117	Sat	13.04.2025	Industrial Visit - I (FT)
74	Wed	09.04.2025	(57)	118	Sun	14.04.2025	Holiday
75	Thu	10.04.2025	(58)	119	Mon	14.04.2025	Tamil New Year/Vishu
76	Fri	11.04.2025	(59)	120	Tue	15.04.2025	(86)
77	Sat	12.04.2025	(60)	121	Wed	16.04.2025	(87)
78	Sun	13.04.2025	Holiday	122	Thu	22.04.2025	Convergence2025
79	Mon	14.04.2025	(61)	123	Fri	17.04.2025	(88)
80	Tue	15.04.2025	(62)	124	Sat	18.04.2025	Good Friday
81	Wed	16.04.2025	(63)	125	Sun	19.04.2025	Ethical Saturday
82	Thu	17.04.2025	(64)	126	Mon	25.04.2024	Holiday
83	Fri	18.04.2025	(65)	127	Tue	21.04.2025	(89)
84	Sat	19.04.2025	(66)	128	Wed	22.04.2025	(90)
85	Sun	20.04.2025	(67)	129	Thu	28.04.2025	Sports Day2025
86	Mon	21.04.2025	(68)	130	Fri	29.04.2025	Annual Day2025
87	Tue	22.04.2025	(69)	131	Sat	27.04.2025	Holiday
88	Wed	23.04.2025	(70)	132	Sun	27.04.2025	(91)
89	Thu	24.04.2025	(71)	133	Mon	28.04.2025	(92)
90	Fri	25.04.2025	(72)	134	Tue	05.05.2025	(93)
91	Sat	26.04.2025	(73)	135	Wed	06.05.2025	(94)
92	Sun	27.04.2025	Holiday	136	Thu	06.05.2025	(95)
93	Mon	28.04.2025	(74)	137	Fri	06.05.2025	May Day
94	Tue	29.04.2025	(75)	138	Sat	07.05.2025	(96)
95	Wed	30.04.2025	(76)	139	Sun	08.05.2025	(97)
96	Thu	01.05.2025	(77)	140	Mon	08.05.2025	(98)
97	Fri	02.05.2025	(78)	141	Tue	08.05.2025	(99)
98	Sat	03.05.2025	(79)	142	Wed	08.05.2025	(100)
99	Sun	04.05.2025	(80)				

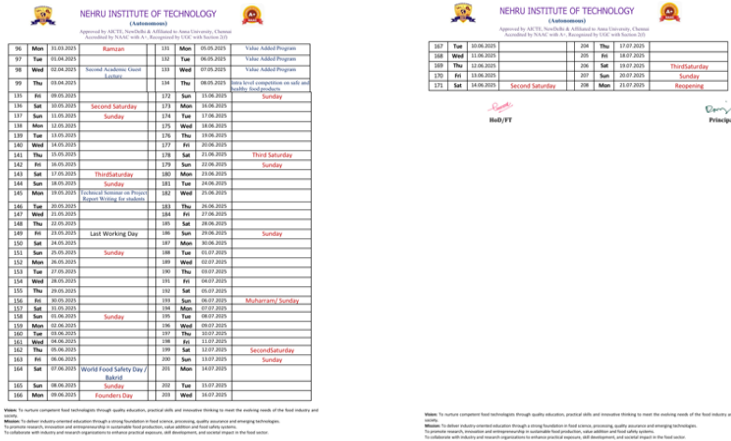


Fig. 2.1.3 Department Academic calendar

B. Use of Various Instructional Methods and Pedagogical Initiatives

The Department encourages the adoption of diverse instructional and pedagogical strategies to enhance the effectiveness of curriculum delivery and facilitate the attainment of course and program outcomes. The use of multiple teaching-learning methods strengthens students' self-directed learning capabilities and supports holistic academic development.

The lecture method is systematically employed to ensure clarity and conceptual understanding of core theoretical principles. Complementing this, project-based learning and demonstration-oriented instruction promote experiential learning, professional competence, and awareness of industrial practices as well as socio-economic considerations. Activity-based learning approaches further encourage independent learning, critical thinking, and problem-solving skills, thereby improving overall learning outcomes.

Academic planning is initiated well in advance of each semester. Course allocation is finalized at least one month prior to semester commencement, based on faculty expertise and preferences. Following course assignment, faculty members prepare comprehensive course files, including detailed course outlines, lesson plans, assignments, quizzes, learning resources, and assessment tools aligned with defined Course Outcomes (COs).

Lesson plans incorporating course objectives, COs, and teaching strategies are prepared before the start of the semester and are reviewed and approved by the Program Coordinator and Head of the Department. Teaching progress and syllabus coverage are systematically documented in academic files and periodically monitored by the Head of the Department to ensure adherence to the planned schedule.

Lecture Methods

The lecture method continues to play an important role in introducing core concepts, providing foundational knowledge, and creating interest in the subject. Acknowledging its limitations in fostering active learning, lectures are used purposefully and effectively, with emphasis on the following aspects:

- **Well-Structured Delivery:** Lectures are systematically planned with clearly defined learning outcomes, a logical sequence of topics, and precise explanations. Complex concepts are simplified and presented in manageable segments, with key ideas highlighted for better comprehension.
- **Engaging and Relevant Content:** Real-world applications, case studies, and subject-related examples are integrated into lectures to enhance relevance and sustain student interest.
- **Interactive Components:** To promote active participation, lectures include interactive strategies such as brief quizzes, think-pair-share exercises, and open discussions. These activities help assess student understanding and reduce passive learning.
- **Instructional Support:** Lectures are complemented with additional teaching methods such as demonstrations, group activities, and practical exercises to reinforce concepts and address diverse learning preferences.

The Department of Food Technology implements these pedagogical methodologies systematically to enhance student engagement, competency development, and overall outcome. The instructional methods employed by the faculty are given below:

Teaching learning methods

A. Participative Learning Methods

S. No	Teaching-Learning Method
1	Chalk and talk
2	Collaborative Learning
3	Snap Talk Session
4	Smart Board Teaching
5	E-Learning
6	Google Classroom
7	Self-Learning
8	Group Discussion
9	Mind Map

B. Experiential Learning Methods

S. No	Teaching-Learning Method
1	Laboratory Based Learning
2	Simulation Laboratory Session
3	Demonstration-Based Learning
4	Workshops
5	Seminars
6	Webinars
7	Industrial Visit
8	Internships

C. Project-Based Learning Methods

S. No	Teaching–Learning Method
1	Mini Projects
2	Product Development Projects
3	Skill Development and Employability Enhancement

A. Participative learning

Participative learning methods involve active student involvement in the teaching–learning process through discussions, presentations, and collaborative activities. These methods enhance communication skills, critical thinking, and deeper understanding of the subject.

1. Traditional Chalk-and-Talk Method

Despite advancements in instructional technology, the chalkboard remains an effective and reliable teaching aid, especially for the following reasons:

- **Spontaneous Explanation:** The chalkboard enables on-the-spot explanation of complex concepts, diagrams, and equations, allowing instructors to clearly demonstrate their thought process and enhance student comprehension.
- **Visual Support:** It serves as a simple yet powerful visual aid for drawing diagrams, sketches, flowcharts, and mind maps, which is particularly beneficial for visual learners.
- **Step-by-Step Problem Solving:** The chalkboard is well suited for solving problems in a sequential manner, helping students follow each step of the reasoning process and develop a clear understanding of the solution.

The Chalk and Talk method are predominantly adopted for theory-based courses, as it ensures clarity, better conceptual understanding, and effective knowledge transfer. A sample screenshot illustrating the explicit teaching method is shown in Fig.2.1.4



Fig. 2.1.4 Classroom teaching through chalk-and-talk mode of instruction

2. Collaborative Learning

Collaborative learning is regularly practiced to promote peer-to-peer learning, where academically strong students support and guide slower learners in understanding concepts more effectively. Students are provided opportunities to gain knowledge through group discussions and debates on selected topics. The concerned faculty member facilitates and monitors these collaborative activities. A sample collaborative learning group is shown in the figure below.



Fig. 2.1.5 Collaborative learning

3. Snap Talk session

Faculty members conduct a 5-minute “Snap Talk” before the lecture. After the talk, feedback is given to help students assess and improve themselves. This activity helps students build communication skills and reduce stage fear. The talks are recorded on their mobile phones for self-review. Students can choose their own topic or speak on a topic given by the faculty, covering both technical and non-technical areas. This activity improves confidence, presentation skills and active participation in class.



Fig. 2.1.6 Snap talk Session

4. Smart board teaching

Use of PowerPoint presentations, animations, videos, simulations and virtual demonstrations to support visualization of complex concepts and improve comprehension among undergraduate learners. The smart board has become an essential component of the teaching–learning process, offering several advantages that enhance classroom instruction:

- **Multimedia Integration:** It enables the seamless incorporation of multimedia elements such as videos, animations, and interactive simulations, thereby enriching the overall learning experience.
- **Interactive and Dynamic Presentations:** Lessons can be made more engaging through interactive tools, on-screen annotations, highlighting, and real-time modifications to content.
- **Inclusive and Accessible Learning:** Smart boards support diverse learning styles and help provide appropriate accommodations for students with different learning needs and disabilities.
- **Recording and Content Sharing:** Lectures and presentations can be recorded and shared with students for revision and self-paced learning, benefiting those who require additional time or are unable to attend classes.
- **Access to Online Resources:** Smart boards allow instant access to online materials, enabling instructors to integrate current information, digital content, and real-world examples into classroom teaching.

Smart board teaching uses interactive digital boards to deliver lessons through presentations, videos, animations, and real-time explanations. It enhances visual learning, student engagement, and effective understanding of concepts in the classroom.



Fig. 2.1.7 Smart Classroom

5. E-Learning

Students access e-books, e-journals, research databases, online lecture materials, recorded videos, and learning modules through the institutional digital library and e-learning platforms. The use of e-learning platforms enables students to engage in self-paced learning, online assessments, quizzes, and assignment submissions, promoting continuous learning beyond the classroom. Students can revisit course content anytime to reinforce conceptual clarity. The digital library e-resources available in the institution are presented in the Fig. 2.1.8

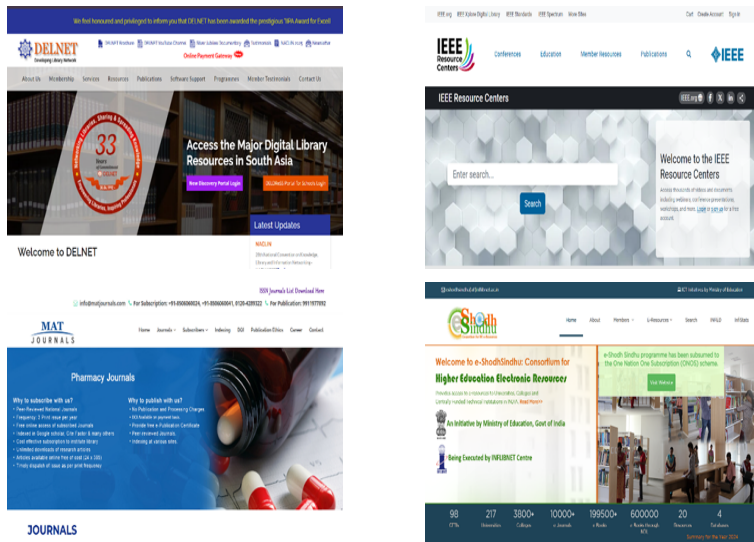


Fig. 2.1.8 e-resources available in the institution



Fig. 2.1.9 Students using institutional facility for e-learning

Table 2.1.1 List of E – Journal/ digital platform for e-content introduced by the teaching faculties

S.No.	Subject	E – Journal/ digital platform for e-content
1.	Food Processing and Preservation	https://onlinecourses.nptel.ac.in/noc25_ag24 (https://onlinecourses.nptel.ac.in/noc25_ag24) https://agrimoon.com/food-engineering-icar-ecourse-pdf-book/?utm
2.	Food Analysis	https://onlinecourses.nptel.ac.in/noc26_ag05/ https://onlinecourses.nptel.ac.in/noc26_ag05/preview?utm_source=chatgpt.com https://fssai.gov.in/upload/uploadfiles/files/Manual_Food_Additive
3.	Food Chemistry	https://onlinecourses.swyam2.ac.in/cec26_ag03/preview https://onlinecourses.swyam2.ac.in/cec26_ag03/preview?utm_s= https://onlinecourses.swyam2.ac.in/cec26_ag03/preview https://onlinecourses.swyam2.ac.in/cec26_ag03/preview?utm_source https://onlinecourses.swyam2.ac.in/nou26_ag13/preview https://onlinecourses.swyam2.ac.in/nou26_ag13/preview
4.	Food Additives	https://fssai.gov.in/upload/uploadfiles/files/Manual_Food_Additives_25_05_2016%281%29.pdf https://fssai.gov.in/upload/uploadfiles/files/Manual_Food_Additives_25_05_2016%281%29.pdf?utm_ https://onlinecourses.swyam2.ac.in/nou26_ag13/preview https://onlinecourses.swyam2.ac.in/nou26_ag13/preview
5.	Food Process Calculations	https://onlinecourses.nptel.ac.in/noc25_ag24/preview?utm https://onlinecourses.nptel.ac.in/noc25_ag24/preview?utm https://www.classcentral.com/course/swyam-thermal-operations-in-food-process-engineering-theory-and-applications-14333

6. Google Classroom

Google Classroom is an integrated platform that brings together various Google Workspace tools in a single, user-friendly environment. It serves as a digital classroom organizer, enabling teachers to create, store, and share learning materials electronically without the need for printed copies. Its ease of use and seamless integration with other widely used Google applications make it an effective tool for managing teaching-learning activities.

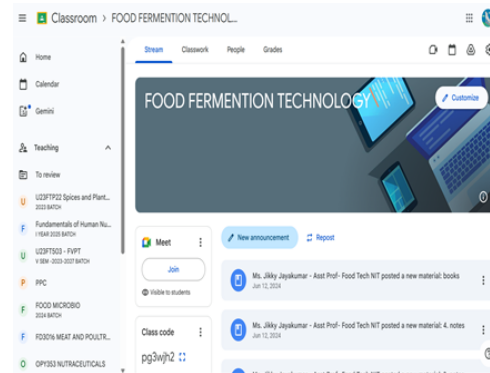


Fig. 2.1.10 Google classroom

7. Self-learning

A Massive Open Online Course (MOOC) is a web-based distance learning program that offers a wide range of courses to a large number of students. Students are encouraged and guided to enroll in in-demand and future-oriented courses on various platforms to enhance their knowledge, meet industry standards, and improve their employment opportunities. The self-paced learning model promotes continuous and lifelong learning among students. Periodic assessments and certifications validate the learning outcomes achieved.



Fig. 2.1.11 NPTEL students' certificates

8. Group Discussion

Group Discussion is a participative learning method where students discuss a given topic in small groups. It helps improve communication skills, confidence, teamwork, and understanding of the subject through active participation.



Fig. 2.1.12 Students group discuss session

9. Mind map

Mind Mapping is used as a participative learning method where students prepare visual diagrams to organize and present key concepts of a topic. Students create mind maps individually or in groups to summarize lessons, connect ideas, and improve clarity of understanding. This practice enhances creativity, analytical thinking, and effective learning.

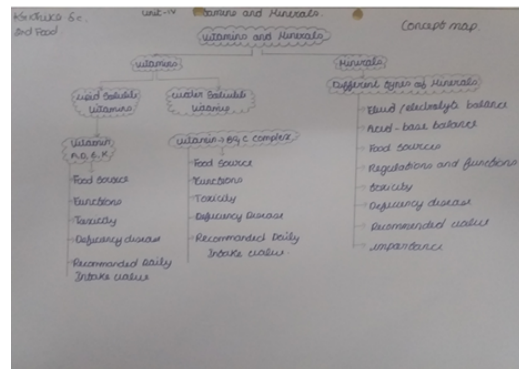


Fig. 2.1.13 Mind map

B. Experiential Learning Methods

Experiential learning methods emphasize learning through direct experience, hands-on activities, and reflection. Students actively engage in laboratory work, projects, field visits, and real-world problem-solving to strengthen conceptual understanding and practical skills. Some of the experiential learning methods adopted for teaching are given below.

1. Laboratory-Based Learning

Laboratory-based learning allows students to perform experiments related to their laboratory courses. It helps students understand concepts through hands-on practice. Students learn to use laboratory equipment and follow standard procedures. This method also creates awareness about safety practices in laboratories. Overall, it improves practical skills and application of knowledge. Fig. 2.1.14 shows a snapshot of a practical session conducted by the faculty member.



Fig. 2.1.14 students performing experiment

2. Simulation Laboratory session

Simulation Laboratory sessions are conducted to provide students with practical exposure through simulated experiments and process models. This method enhances practical knowledge, problem-solving skills, and understanding of concepts through experiential learning.

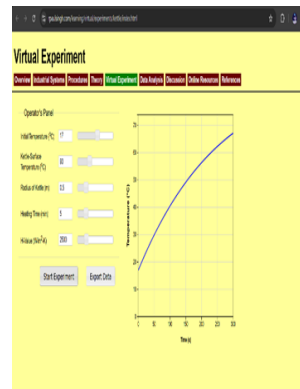


Fig. 2.1.15 Simulation laboratory teaching

3. Demonstration-Based Learning

The instructor demonstrates the equipment, process, or experiment step-by-step, and students observe and learn the practical application of theoretical concepts. This method helps improve understanding, practical skills, and confidence by directly linking theory with hands-on practice.



Fig. 2.1.16 Demonstration Class

4. Workshops

Workshops are organized to provide hands-on training and practical exposure to students on specific topics or emerging technologies. Resource persons from academia or industry conduct interactive sessions to enhance technical knowledge and skill development. This experiential learning method helps students gain practical insights beyond regular classroom teaching.



Fig. 2.1.17 Workshop Session

5. Seminar

These seminars provide insights into current trends, real-time applications, and industry practices. Through interaction with resource persons, students enhance their professional knowledge, awareness, and career readiness. This activity supports experiential learning by connecting academic concepts with real-world experiences.



Fig. 2.1.18 Seminar session

6. Webinar

The department encourages students to attend webinars conducted by industry experts and academicians to gain exposure to current trends and real-world applications. This experiential learning activity enhances professional knowledge and industry awareness. The department also organizes webinar sessions to facilitate interaction between students and experts from academia and industry.



Fig. 2.1.19 Webinar session

7. Industrial Visit

Industrial visits are organized to expose students to food processing industries and allied sectors. Students observe industrial operations and equipment used in processing. These visits help students understand quality control and safety practices. Students also learn about basic regulatory requirements. Overall, industrial visits support practical and experiential learning.

i) Visit to Igloo Dairy and John Paul Distillery

During the Academic Year 2023–2024, Food Technology students visited Igloo Dairy on 20.03.2024 and John Paul Distillery on 21.03.2024. The visits provided exposure to dairy and beverage processing operations. These industrial visits enhanced the students' practical knowledge and understanding of industry practices.



Fig. 2.1.20 Visit to Igloo Dairy and John Paul Distillery, Goa on 20.03.24 and 21.03.24.

ii) Visit to ICAR-CIAE -TNAU

During the Academic Year 2024–2025, Food Technology students undertook a one-day field visit to ICAR–CIAE, Central Institute of Agricultural Engineering, Coimbatore, on 11.09.2024. The visit provided insight into food process engineering infrastructure and research initiatives, thereby strengthening students' practical understanding and industry-focused learning.



Fig. 2.1.21 Visit to ICAR-CIAE Central Institute of Agriculture Engineering, Coimbatore on 11.09.2024

8. Internships / In-Plant Training

Students undergo training in industries or research organizations to gain hands-on experience and real-time exposure. This enables them to apply theoretical concepts to practical situations. Internships familiarize students with professional work culture and industrial practices, while also helping them develop essential technical and soft skills. Overall, this training prepares students for future industry roles and improves their employability. A sample student internship report from Naga is attached below.

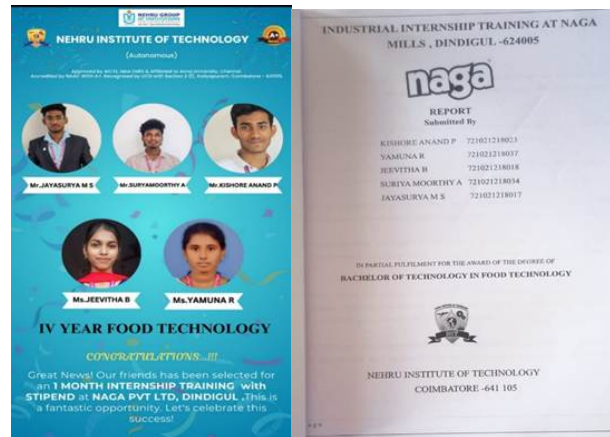


Fig. 2.1.22 Internship report

C. Project-Based Learning

Project-Based Learning allows students to work on projects to apply what they have learned in class. It helps improve practical skills, problem-solving ability, and teamwork.

1. Micro/Mini project

Mini Projects provide students with hands-on learning opportunities to apply theoretical concepts to practical problems. They enhance problem-solving ability, teamwork, creativity, and technical skills, while preparing students for real-world applications and higher-level projects.



Fig. 2.1.23 Students performing mini project

2. Product Development Projects

Product Development Projects enable students to apply theoretical knowledge to design and develop new or improved products. These projects enhance creativity, practical skills, problem-solving ability, and understanding of real-world industry requirements. New project development learning helps the students take part in state government projects and receive grants.



Fig. 2.1.24 Product Development Projects

3. Skill Development and Employability Enhancement

Skill Development and Employability Enhancement Activities help students develop practical skills, industry exposure, and professional competence through hands-on training, workshops, internships, and expert interactions. These activities improve job readiness and overall employability.

During the Academic Year 2024–2025, students underwent hands-on training in the preparation of fruit-based value-added products. They prepared products such as ketchup, jam, jelly, baked items, fresh and fermented beverages, and snack products. This training improved their practical skills, confidence in processing techniques, and ability to evaluate the sensory quality of the prepared products.



Fig.2.1.25 Skill Development and Employability Enhancement session

C. Strategies to support slow and encourage advanced learners

The academic performance of students is regularly monitored by class advisors and mentors.

Class committee meetings and regular mentor-mentee interactions are conducted in each semester to review students' academic progress. The department has a well-defined process of monitoring, guiding and assisting slow learners and encourage advanced learners.

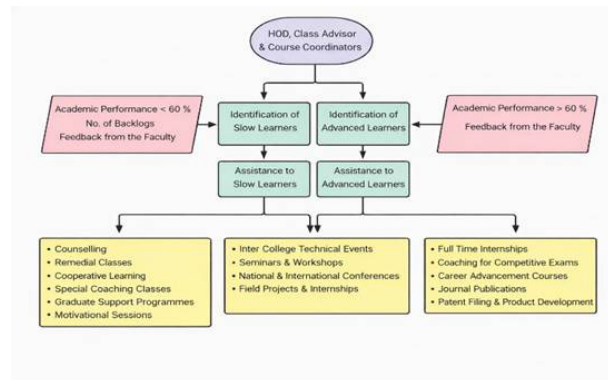


Fig. 2.1.26 Flow process to support slow and encourage advanced learners

A. Support System for slow learners Students

1. Identification of Slow Learners

The Department follows a systematic process for the identification of slow learners. Students are identified by the course handling faculty, Class Advisors, and the Head of the Department (HoD) based on the following criteria:

- Performance in Class Tests and Continuous Internal Assessment Examinations
- Level of participation and interaction in theory and laboratory sessions
- Basic conceptual understanding of subjects
- Higher Secondary cut-off marks

- Medium of instruction and socio-academic background (locality)
- Irregularity in attending classes / lack of attendance
- Personal and behavioural factors affecting academic performance

Students scoring below 60% in academic performance are categorized as slow learners.

2. Monitoring and Mentoring Mechanism

- Faculty mentors continuously monitor the academic progress of identified slow learners.
- Periodic review meetings are conducted to assess improvement.
- Parents/guardians are informed about the student's performance through regular interaction and counselling sessions.
- Class advisor communicates with parents regarding students' irregular attendance

3. Academic Support Measures

The Department implements the following structured support mechanisms:

a) Remedial Measures

- Conduct of remedial classes to strengthen fundamental concepts.
- Provision of question banks, lecture notes, handouts, and smart learning materials.
- Frequent class tests to monitor progress and enhance academic performance.

b) Cooperative Learning Strategy

- For each unit, 4–5 key questions are identified by the faculty.
- Students are divided into groups and assigned specific questions.
- Group discussions are conducted, and students present explanations to their peers to reinforce understanding.

c) Additional Academic Assistance

- Special attention during laboratory sessions and project work.
- Academic support during collaborative learning activities.

4. Counselling and Motivation

- Regular counselling sessions are conducted to motivate students and ensure regular attendance in classes and examinations.
- Special attention is given to encourage and build confidence among slow learners.
- Class mentors counsel students during tutor–ward meeting hours.

5. Skill Development Initiatives

To enhance confidence and communication skills, slow learners are encouraged to participate in:

- Seminars
- Workshops
- Technical presentations

Impact observed for slow learners

- Slow learner students were able to pass previously failed subjects after attending remedial classes.
- More students participated in internships and in-plant training to improve technical skills.
- Students took part in workshops, seminars, and technical competitions.
- Career training and counselling helped some students get jobs in reputed industries

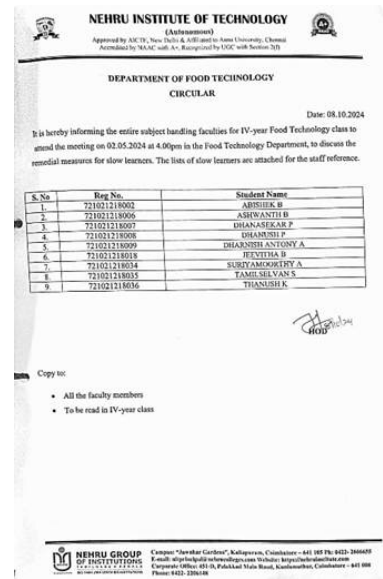


Fig. 2.1.27 Circular for slow learners identification



Fig. 2.1.28 Remedial Measures for slow learners

NEHRU INSTITUTE OF TECHNOLOGY (Autonomous) Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai Accredited by NAAC with 'A' - Recognized by UGC with Section 2(B)		
DEPARTMENT OF FOOD TECHNOLOGY		
MINUTES OF MEETING		
At 20/02/2025 (09:00 AM)		
REMEDIAL CLASS TIME TABLE-BASED ON CLASS TEST I		
SEMESTER: VII		
CLASS: IV YEAR FOOD TECHNOLOGY		
TIME: 04:15 PM - 05:15 PM		
DAY	SUBJECT	FACULTY
Monday	FD370 Refrigeration and cold chain management	Dr. J. Ashish
Tuesday	GD372 Total Quality Management	Dr. J. Premkumar
Wednesday	FD370 Food Plant Equipment Design	Prof. David Paul P
Thursday	OPV353 Nutraceuticals	Dr. Jibky Jayakumar
Friday	OC351 Artificial Intelligence & Machine Learning	Prof. Esvase Leelitha

CLASS ADVISOR

Copy to:

- All the faculty members
- IV-year class

Fig. 2.1.29 Remedial Measures subject allocation



Fig. 2.1.30 Cooperative class

B. Support System for Advanced Students

Students who secure above 60% in academic performance are identified as Advanced Learners.

To further enhance their academic excellence, research aptitude, and professional competencies, the Department provides the following enrichment initiatives:

- Students are honoured with an best outgoing student award during college annual day during the academic year.
- Advanced learners are encouraged to participate in national and international level technical events, including paper presentations, conferences, project expos, and journal publications.
- Students are motivated to enroll in value-added and online certification courses such as NPTEL, Coursera, and Spoken Tutorial programs to strengthen domain knowledge.
- Guidance is provided to apply for Government and Non-Government funded research projects such as TNSCST, NEWGEN IEDC, and other innovation/endowment schemes.
- Students are encouraged to participate in hackathons, innovation challenges, and to become active members of professional bodies and technical societies.
- Special mentoring and counselling are offered for higher studies and competitive examinations.
- Students are motivated to appear for examinations such as GATE, GRE, CAT, TANCET, TOEFL, IELTS, and Civil Services.
- Structured placement training and career guidance programs are conducted to enhance employability and facilitate placement in reputed organizations.

Impact Observed for Advanced Students

- Students to took up internships and industry-based projects.
- Placement and soft-skill training helped students perform well in placement drives.
- Some students pursued entrepreneurship after completing their programs.

Table 2.1.2 Achievement of advanced Learners in the AY 2022-2023

S. No	Student Name	Activity / Achievement
1	Deepika A	Secured 3rd Position in Aggnite 3.0 organized by a-IDEA, ICAR-NAARM, Hyderabad – 17.03.2023
		Completed FoSTaC Course: Basic Manufacturing & COVID – 30.04.2023
		Completed FoSTaC Course: Basic Catering & COVID – 30.04.2023
		Completed ISO 22000:2018 – 01.05.2023
		Completed HACCP Level 3 – 30.04.2023
		Published paper in Journal of Systems Engineering and Electronics, 1671-1793, Scopus on "Optimizing Whey Drinks Using Taguchi Method: Enhancing Taste and Texture"
		Own first prize in paper and poster presentation in national level symposium at Bannari Amman Institute of Technology
2	Indhu S	Participated in National Millet Summit – 2023, SRMIST, Chennai –06.05.2023
		Completed FoSTaC Course: Basic Manufacturing & COVID – 30.04.2023
		Completed FoSTaC Course: Basic Catering & COVID – 30.04.2023
		Completed ISO 22000:2018 – 01.05.2023
		Completed HACCP Level 3 – 30.04.2023
3	Jeevitha S	Completed FoSTaC Course: Basic Manufacturing & COVID – 30.04.2023
		Completed FoSTaC Course: Basic Catering & COVID – 30.04.2023
		Completed ISO 22000:2018 – 01.05.2023
		Completed HACCP Level 3 – 30.04.2023
4	Kousiga A	Participated in Regulatory Webinar – PNDAI – 06.05.2022
		Participated in National Webinar organized by CEFF – 09.06.2022
5	Mahalakshmi G	Participated in World Food Day – 21.10.2022
		Awarded Best Co-Curricular Student – 2022-2023
		Presented Paper in National Technical Symposium, KAHE – 21.02.2023
		Completed 2-Day Hands-on Training at NIT, Coimbatore – 15-16.02.2023
6	Sivasankari B	Completed FoSTaC Course: Basic Manufacturing & COVID – 30.04.2023
		Completed FoSTaC Course: Basic Catering & COVID – 30.04.2023
		Completed ISO 22000:2018 – 01.05.2023
		Completed HACCP Level 3 – 30.04.2023

7	Saran M	Published paper in Journal of Systems Engineering and Electronics, 1671-1793, Scopus on "Optimizing Whey Drinks Using Taguchi Method: Enhancing Taste and Texture"
		Completed FoSTaC Course: Basic Manufacturing & COVID – 30.04.2023
		Completed FoSTaC Course: Basic Catering & COVID – 30.04.2023
		Completed ISO 22000:2018 – 01.05.2023
		Completed HACCP Level 3 – 30.04.2023
		Own first prize in paper and poster presentation in national level symposium at Bannari Amman Institute of Technology
8	Janani S	Received Grant ₹2.5 Lakhs (NewGen IEDC – NSTEDB – DST) – 2022–2023
		Completed FoSTaC Course: Basic Manufacturing & COVID – 30.04.2023
		Completed FoSTaC Course: Basic Catering & COVID – 30.04.2023
		Completed ISO 22000:2018 – 01.05.2023
		Completed HACCP Level 3 – 30.04.2023
9	Lakshman S	Completed FoSTaC Course: Basic Manufacturing & COVID – 30.04.2023
		Completed FoSTaC Course: Basic Catering & COVID – 30.04.2023
		Completed ISO 22000:2018 – 01.05.2023
		Completed HACCP Level 3 – 30.04.2023

Table 2.1.3 Achievement of advanced Learners in the AY 2023-2024

S. No	Student Name	Activity / Achievement
1.	Gayathri K	Paper Presentation – HICET – Second Prize
		Paper Presentation – Avinashilingam Institute – Second Prize
		Best Oral Presentation – Sethu Institute of Technology
		Presented Paper – American College, Madurai – March 2024
		Oral Presentation – National Conference, Anna University Regional Campus, Coimbatore – 21–22 Sept 2023
2.	Janani S	Poster Presentation – RVS Technical Campus – First Prize
		Participated in Quiz – FSSAI, Thiruvananthapuram – 08.09.2023
		Paper Presentation – SITBioconics'24 International Conference – 17.04.2024
		Participated in ICEFTE'24 International Conference – 25.04.2024
		First Prize – Poster Presentation, National Conference, RVS Technical Campus – 26.04.2024
		Participated in Webinar on GMP – 19.05.2024

3.	Lakshman S	Paper Presentation – HICET – Second Prize
		Paper Presentation – JCT – First Prize
		Paper Presentation – Avinashilingam Institute – Second Prize
		Best Oral Presentation – Sethu Institute of Technology
		Presented Paper – American College, Madurai – March 2024
		Oral Presentation – National Conference, Anna University Regional Campus – 21–22 Sept 2023
4.	Krithika S C	Received Grant ₹2.5 Lakhs (NewGen IEDC – NSTEDB – DST)
5.	Sarvadarshini M	Received Grant ₹2.5 Lakhs (NewGen IEDC – NSTEDB – DST)
		Poster Presentation – RVS Technical Campus – First Prize
		Participated in Quiz – FSSAI, Thiruvananthapuram – 08.09.2023
		First Prize – Poster Presentation, National Conference – 26.04.2024
		Participated in Webinar on GMP – 19.05.2024
6.	Lega Shri K	Received Grant ₹2.5 Lakhs (NewGen IEDC – NSTEDB – DST)
7.	Rahini M V	Paper Presentation – Avinashilingam Institute – Second Prize
		Presented Paper – American College, Madurai – March 2024
8.	Anantharaman S	Paper Presentation – Avinashilingam Institute – Second Prize
		Presented Paper – American College, Madurai – March 2024
9.	Safran Nusrath M	Participated in ICCSR National Seminar – JCE&T, Lakkidi – 18–20 Oct 2023
10.	Vaishavi G	Participated in One-Day Workshop – TNAU, Coimbatore – 17.10.2023
11.	Aarathy N	Participated in ICCSR National Seminar – 18–20 Oct 2023
		Attended International Webinar – 06.10.2023
		Presented Paper – ASTHRA 2023 National Symposium – 05.08.2023
12.	Adith H	Presented Paper – ASTHRA 2023 National Symposium – 05.08.2023
13.	Aparna B Menon	Participated in ICCSR National Seminar – 18–20 Oct 2023
		Presented Paper – ASTHRA 2023 – 05.08.2023
		Awarded Best Academic Performer – 2023–2024 – NIT, Coimbatore
14.	Dheepalakshmi A	Participated in International Workshop – FOODXPLORE'23 – TNAU – 30.11.2023
		Awarded Second Rank – 2023–2024 – NIT, Coimbatore
15.	Jasna J	Participated in ICCSR National Seminar – 18–20 Oct 2023
		Presented Paper – ASTHRA 2023 – 05.08.2023
16.	Khavya S	Participated in National Level Symposium "ALTRUIX 2024" – 16.04.2024

17.	Muralidharan G	Participated in International Workshop – FOODXPLORE'23 – 30.11.2023
		Presented Paper – ASTHRA 2023 – 05.08.2023
18.	Nakshatraa Sree S R	Participated in International Workshop – FOODXPLORE'23 – 30.11.2023

Table 2.1.4 Achievement of advanced Learners in the AY 2024-2025

S. No	Student Name	Activity / Achievement
1	Vaishavi G	Participated in Hackathon – ICIHES 2025 (International) – 26–27 Feb 2025
2	Aarathy N	Published Paper – Journal of System Engineering & Electronics – 2024
		Completed Course in Food Safety Management System – 08.06.2024
3	Aparna B Menon	Awarded Best Academic Performer – 2024–2025 – NIT, Coimbatore
4	Aravinth K J	Participated in Technical Quiz – CHEMRSATZ'24 – 20.09.2024
		Participated in Hackathon – ICIHES 2025 – 26–27 Feb 2025
5	Dheepalakshmi A	Participated in Technical Quiz – CHEMRSATZ'24 – 20.09.2024
6	Jasna J	Presented Paper – National Level Symposium – NIT, Coimbatore – 06.11.2024
7	Khavya S	Participated in National Level Symposium “ALTRUIX 2024” – 16.04.2024 (<i>falls under AY 2023–24 if before June; confirm date</i>)
		Presented Paper – International Conference AFS25, Madurai – 12–13 March 2025
		Completed Course in Food Safety Management System – 19.06.2024
		Completed Course in Food Innovation – 22.06.2024
		Completed Course in Food Branding & Marketing – 22.06.2024
8	Muralidharan G	Won First Prize – Hackathon – ICIHES 2025 (International) – 26–27 Feb 2025
		Won Second Prize – ICNGTS 2025 – 27–29 March 2025
		Participated in Technical Quiz – CHEMRSATZ'24 – 20.09.2024
9	Nakshatraa Sree S R	Participated in Technical Quiz – CHEMRSATZ'24 – 20.09.2024
		Presented Paper – CHEMRSATZ'24 – 20.09.2024
		Participated in Hackathon – ICIHES 2025 – 26–27 Feb 2025
10	Rajeshkumar G	Completed Course on Quality Control & Quality Assurance – 29.09.2024
		Secured First Prize – Technical Quiz – CHEMRSATZ'24 – 20.09.2024
11	Sarankumar V	Secured Third Prize – Technical Quiz – NIFTEM-T – 07.06.2024
12	Sowndarya Veeramani N	Participated in Technical Quiz – CHEMRSATZ'24 – 20.09.2024

13	Swathi S K	Completed Course on Quality Control & Quality Assurance – 29.09.2024
		Won First Prize – Hackathon – ICHES 2025 (International) – 26–27 Feb 2025
		Secured First Prize – Technical Quiz – CHEMRSATZ'24 – 20.09.2024

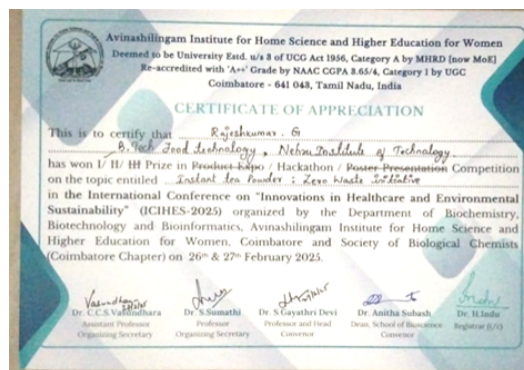


Fig. 2.1.31 Students won First Prize in Hackathon

D. Quality of Classroom Teaching

(i) Classroom Ambience

- Classrooms are equipped with adequate benches, proper lighting, and good ventilation to meet academic requirements.
- Seating is arranged to ensure clear visibility of the blackboard and comfortable learning for all students.

(ii) Measures to Keep Students Engaged

- Structured lecture plans are prepared for all theory and practical courses and reviewed by the Head of the Department.
- Students are encouraged to actively participate in classroom discussions.
- Opportunities are provided for students to prepare and present seminars.
- Faculty members use resources such as NPTEL and other internet-based materials for effective teaching.
- Learning is enhanced through textbooks, journal articles, and subject-related case studies.

(iii) Impact

- Improved student performance is observed in end-semester examinations.
- Increased classroom interaction helps build students' confidence.
- Focused academic guidance supports the development of industry-ready graduates.

E. Conduct of Experiments

- The concerned faculty prepares the laboratory manual and experiment schedule for each course.

- Students are assigned to small groups for conducting experiments.
- Experiments are taught in cycles by the course-handling faculty, assisting faculty and lab technicians.
- Students are educated on the safety measures and operational procedures before the start of the experiments.
- Students perform the experiments and record observations in the laboratory manual.
- Faculty members verify the observations and maintain proper records.
- Laboratory courses enable students to analyze and interpret experimental data.
- Practical sessions provide real-time exposure to laboratory practices, documentation, teamwork, and timely completion of work.
- Students are instructed to complete the experiments and get their manuals signed by the faculty on the same day and their record notes before the next laboratory class.
- Viva-voce is conducted for all the students to evaluate their level of understanding of the experiments.

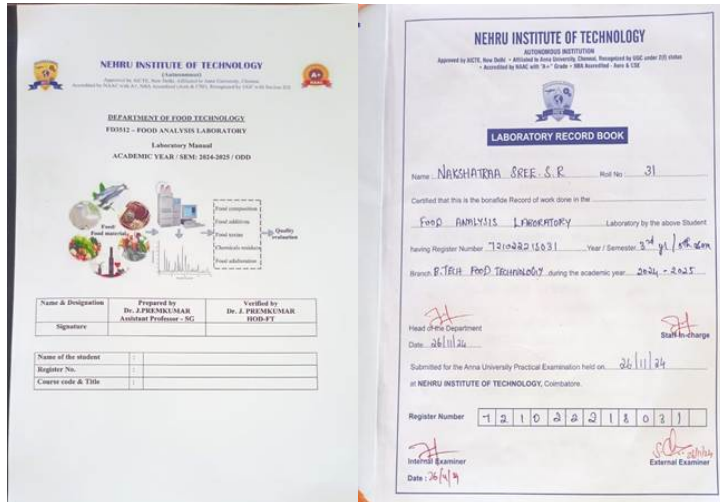


Fig.2.1.32 Sample Laboratory manual and record

F. Student feedback of teaching-learning process and actions taken

Students provide feedback and share their views on the teaching-learning process through the following mechanisms:

Class Committee

- The Class Committee addresses both academic and non-academic issues of students.
- Meetings are conducted three times each semester.
- The committee includes the HoD, Class Advisors, course-handling faculty, and student representatives.
- Students offer feedback on subjects and suggest co-curricular and extracurricular activities.
- Faculty members discuss students' academic progress and concerns.
- The HoD reviews the issues raised and provides directions for appropriate action.

Mentor-Mentee Meeting

- Mentor-Mentee meetings are held between the entire class and the class advisor/tutor.
- These meetings are conducted weekly as per the timetable.
- The mentor collects academic issues faced by students and forwards them to the Head of the Department for necessary remedial measures.

Student Feedback

- Each semester, students provide feedback on all course-handling faculty members.
- Structured questionnaires are used to collect feedback after industrial visits, in-plant training, internships, and industrial projects.
- The feedback helps faculty members identify their strengths and areas for improvement in the teaching-learning process.

Based on the Students feedback necessary actions are taken for improvement. These actions taken reinforces the Department's commitment to academic excellence.

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Report on Student Feedback Survey on Odd Semester 2022-23 (2024 - 2024 Batch)
15.08.2022

Student feedback was collected during the Odd Semester of the Academic Year 2022-23 for both Theory and Laboratory courses offered to B.Tech Food Technology students. The purpose of soliciting this feedback was to evaluate the effectiveness of teaching-learning processes, faculty aptitudes, assessment practices, and overall academic environment. The feedback was collected using structured Google Forms, and the responses were analyzed using the corresponding Excel spreadsheets to ensure accuracy and transparency.

Total of 28 students participated in the feedback process.

Student Participation Details

Sl. No.	Register Number	Student Name	Email Address
1	22102021829	Vidya R	vidyark@gmail.com
2	22102021828	Vignesh U	v419066@gmail.com
3	22102021827	Pranav Mohan P	pranavmohan2003@gmail.com
4	22102021824	Sudhak J	sudhakj@gmail.com
5	22102021823	Pranav M R	pranavm18@gmail.com
6	22102021822	Srinivasa R	srinivasa17@gmail.com
7	22102021821	Shravan B	shravanhb07@gmail.com
8	22102021820	Subash P	subashp18@gmail.com
9	22102021819	Sameer M	sameer37@gmail.com
10	22102021818	Tarun Rajan K	tarunrajank@gmail.com
11	22102021817	Rishu M V	rishuv@gmail.com
12	22102021816	Rishu R	rishur@gmail.com
13	22102021815	Nishu R	nishur@gmail.com
14	22102021814	Mithu K Roy	mithukr@gmail.com
15	22102021813	Karthika B	karthika@gmail.com
16	22102021812	Kishore Anand P	kishoreanandp@gmail.com
17	22102021811	Indu S	indus@gmail.com
18	22102021810	Harsh H	harshh@gmail.com
19	22102021809	Gayathri K	gayathrik@gmail.com
20	22102021808	Prathima Soma A	prathimasoma@gmail.com
21	22102021807	Deepika A	deepika@gmail.com
22	22102021806	Anushka S	anushkas@gmail.com
23	22102021805	Ashish B	ashishb@gmail.com
24	22102021804	Aarthy N	aarthy@gmail.com
25	22102021803	Aash C	aashch@gmail.com
26	22102021802	Anand C	anandc@gmail.com

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Feedback Questionnaire Used
Students were asked to rate each faculty using the following 10 parameters, with responses coded on a 1-10 scale:

1. Classroom delivery, whether by reading or interactive communication
2. Use of training aids (models, charts, videos, presentations, board work, etc.)
3. Involvement in internal assessment with corrective remarks
4. Level of preparedness for class
5. Ease of maintenance of order without threats or punishment
6. Temperament of the faculty (calmness, patience, approachability)
7. Intellectual stature and command over subject
8. Honesty
9. Impartiality (unbiased behavior)
10. Fairness and justifiable behavior

Method of Calculation

- Each question carries a maximum score of 10
- Maximum score per faculty per subject = 100
- Feedback scores were calculated using the formula:
Feedback Score (out of 100) = $(\text{Average of 10 question scores}) \times 100$
- Theory and Laboratory feedback data were combined subject-wise.

Isolated Faculty Feedback Summary

Subject Code	Subject Name	Faculty Name	Feedback Score (Out of 100)
FDK511	Food Processing and Preservation Laboratory	Prof. Anitha Krishnan	87.6
FDK512	Biochemical Engineering Laboratory	Dr. Suganya Jayaramkash	86.9
FDK501	Food Additives	Prof. V. Shrinidhi	84.3
FDK502	Biochemical Engineering for Food Technologists	Dr. Suganya Jayaramkash	87.4
FDK503	Refrigeration and Cold Chain Management	Dr. Sheralakshmi Nishant	85.8
FDK504	Food Processing and Preservation	Prof. P. Abhirami	83.6
GER071	Waste Management	Prof. V. Rajambaraman	80.1
GER051	Renewable Energy Sources	Prof. N. Mohammod Rafiq	87.9

Observations
Students expressed high satisfaction with faculty teaching effectiveness.

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- Interactive teaching methods and fair assessment practices were strongly appreciated.
- Laboratory sessions were found to be well structured and informative.
- Students suggested inclusion of more real-time examples and industry-oriented discussions.

Action Taken

Faculty Name	Highlights of Feedback	Action Taken
Prof. Anitha Krishnan	Effective lab demonstrations and fair evaluation	Enhanced hands-on practice and experiment-based discussions
Dr. Suganya Jayaramkash	Strong conceptual clarity in theory and lab	Added problem-solving sessions and application-oriented teaching
Prof. V. Shrinidhi	Interactive teaching and effective use of teaching aids	Increased multimedia use and industry case studies
Dr. Sheralakshmi Nishant	Systematic course coverage and subject command	Included real-life examples and numerical problem discussions
Prof. P. Abhirami	Clear explanation and effective classroom delivery	Strengthened tutorial sessions and learning materials
Prof. V. Rajambaraman	High clarity and interdisciplinary approach	Continued best practices and discussion-based learning
Prof. N. Mohammod Rafiq	Fairness and impartiality in assessment	Introduced activity-based learning and student presentations

Based on the student feedback received for the Odd Semester 2022-23, the department has implemented faculty-specific improvement measures focusing on interactive teaching, practical process, and continuous assessment elements. These actions reinforce the department's commitment to academic excellence and continuous quality improvement.

Student Feedback for the Odd Semester 2022-23 reflects a positive learning environment & effective faculty performance. The feedback outcomes and corresponding action plans will be revised periodically to further enhance teaching-learning quality and student satisfaction.

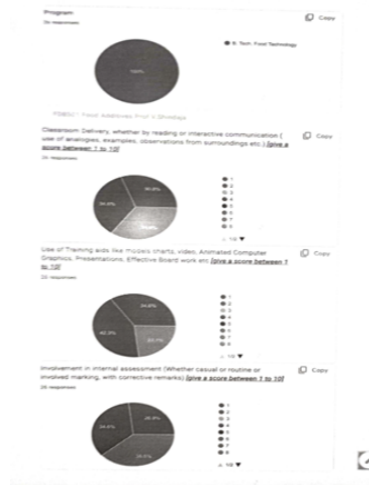


Fig. 2.1.33 Feedback Analysis and Action taken report

2.2 Quality of Student Capstone Project (25)

2.2. Quality of Student Capstone Project

(Quality of the capstone/major project is measured in terms of consideration to factors including, but not limited to, environment, sustainability, safety, ethics, cost, type (application, product, research, review etc.) and standards. Processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing the relevance of projects. Mention implementation details including details of POs and PSOs addressed through the projects with justification.)

2.2. Quality of Student Capstone Project (25)

(Quality of the capstone/major project is measured in terms of consideration to factors including, but not limited to, environment, sustainability, safety, ethics, cost, type (application, product, research, review etc.) and standards. Processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing the relevance of projects. Mention implementation details including details of POs and PSOs addressed through the projects with justification.)

A. Identification of Projects and allocation methodology to faculty members

To apply engineering knowledge and principles, students are assigned project work during the final semester of the undergraduate program. These projects encourage critical thinking and problem-solving while enhancing students' abilities in problem formulation, data collection, analysis and validation through experimental and analytical studies. Interdisciplinary and multidisciplinary projects are strongly encouraged, enabling students to integrate concepts and skills from multiple subject areas to address real-world engineering challenges.

The procedure adopted for project identification and the systematic methodology followed for allocating projects to faculty members are illustrated in Fig.2.2.1.

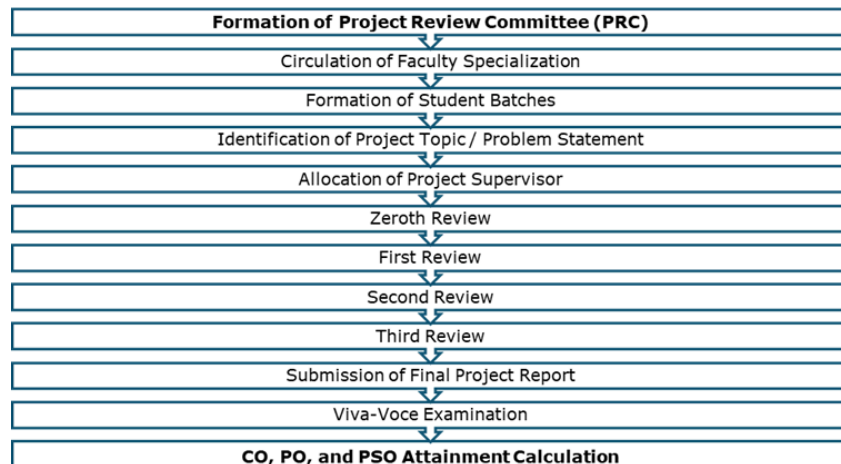


Fig.2.2.1. Process for identifying projects and allocation methodology to faculty members

- The Project Review Committee (PRC) is constituted by the Head of the Department with senior faculty members from relevant specializations (Fig. 2.2.2).
- Faculty areas of specialization are circulated to students to facilitate selection of project domains (Fig 2.2.3).
- Students form project teams based on their areas of interest.
- An orientation program is conducted by the project coordinator to create awareness regarding project objectives, expected outcomes, review stages, and evaluation criteria.
- Students are guided to identify project topics in alignment with the Department Vision, Mission, Program Outcomes (POs), and Program Specific Outcomes (PSOs).
- Problem statements are identified through literature review, real-time industrial problems, Smart India Hackathon themes and emerging technological trends.
- Students approach faculty members for guidance and finalize their project guide based on the problem statement and the expertise of the faculty members (Fig. 2.2.4).

- In consultation with the project guide a feasible, relevant, and practically implementable project topic is finalized and approved during the Zeroth Review. Balanced team composition maximum of four members is ensured by the Project Coordinator (Fig.2.2.5).
- Students carry out literature survey, problem definition, work planning, and budgeting. Project progress is monitored and evaluated through a minimum of three periodic reviews conducted by the PRC at regular intervals.
- Students are encouraged to undertake industry-oriented projects, apply for external funding schemes such as TNSCST, and gain industrial exposure during the project period.
- Students are motivated to publish or present project outcomes in national/international conferences and journals and to apply for patents, wherever applicable.
- The project concludes with a final presentation and submission of the project report before the PRC for evaluation.

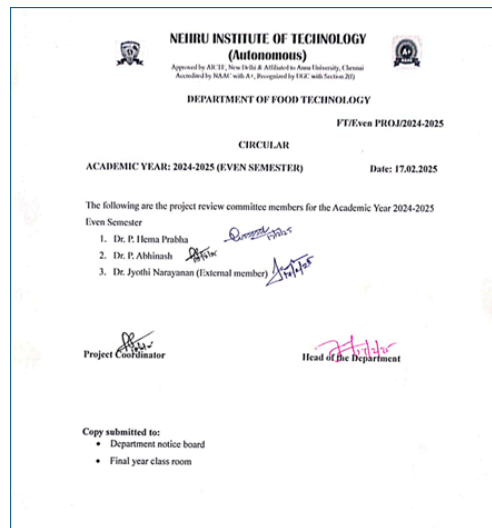


Fig. 2.2.2 Project review committee details

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DEPARTMENT OF FOOD TECHNOLOGY
FT/Even PROJ/2024-2025

CIRCULAR
ACADEMIC YEAR: 2024-2025 (EVEN SEMESTER) Date: 10.02.2025

The Final year students are to select the project guides for their final year Project Work from the list of the faculty members based on their expertise and project interest

Project Guide Expertise

S.No.	Faculty Name	Qualification	Area of Specialization
1.	Dr. P. Hema Prabha	M.Tech, Ph.D	Food Processing and Engineering
2.	Dr. J. Prem Kumar	M.Tech, Ph.D	Food Processing and Engineering
3.	Mr. Daniel Paul P	M.Tech, M.P.S	Processing, Waste Value addition and Data Science
4.	Dr. Abhinash P	M.Tech, Ph.D	Dairy Processing and Equipment Development
5.	Dr. Jijky Jayakumar	M.Tech, Ph.D	Food Processing and Engineering
6.	Mr. L. Veerapandi	M.Tech	Food Technology
7.	Mr. P. Abirami	M.Tech	Food Process Engineering
8.	Mr. V. Simhaaja	M.Tech	Food Technology
9.	Mr. R. Rashmiha	M.Tech	Food Process Technology
10.	Mr.K. Keerthana	M.Tech	Food Technology

Project Coordinator: *[Signature]* Head of the Department: *[Signature]*

Copy submitted to:

- Department notice board
- Final year class room

Fig. 2.2.3 Circular Area of Specialization of the faculty

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DEPARTMENT OF FOOD TECHNOLOGY
Project Guide Willingness Form

Subject: FT2041 Project Work
Batch: 2021-25
Project Title: *Development and quality evaluation of innovative novel protein based wheat rich high fiber diet*
Project Guide: *Dr. J. Jijky*

Group Members:

a)	<i>Neelima Kiran</i>
b)	<i>Thamizhavel S</i>
c)	<i>Ravikiran P</i>
d)	<i>Adarsh S</i>

I agree to be the project guide for the above-mentioned students.

[Signature]
Signature of Project Guide with name and date

NEHRU GROUP
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E-mail: admission@jeh.edu.in Website: www.jeh.edu.in
Corporate Office: 41/10, Park Road, Main Road, Kallangudi, Coimbatore - 641 008
Phone: 9442 226118

Fig. 2.2.4 Guide requisition form

 NEHRU INSTITUTE OF TECHNOLOGY (Autonomous) <small>Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai</small> <small>Accredited by NAAC with 'A' Re-accredited by UGC with Section 2(B)</small> DEPARTMENT OF FOOD TECHNOLOGY FINAL YEAR PROJECT LIST				
S. No.	Name of the student	Title of the Project	Guide Name	Signature of the mentor
1	Janani S Sarojadarshini M Karan Pandi S Dhanush P	Development of fibre rich spicy stick	Mr. Daniel Paul P	
2	Gayathri K Anantha Raman S Rabin M V	Development of Mexican mint squash	Ms.K. Keerthana	
3	Legha Shri K Krithika S C Thanush K	Development of plant-based protein beverage from Mucuna pruriens	Dr. J. Prem Kumar	
4	Karthika S Asha M Dhanasekar P Jeevilha B	Development of functional tissue powder	Mr. L. Veerapandi	
5	Aathilyan S Javies L Kishore Anand P Yamuna R	Development of Biodegradable film using waste potato peels	Dr. Jikky Jayakumar	
6	Akash C Madhumitha R Dhanish Antony A Keerthana M	AI based real time milk quality monitoring kit	Dr. P. Hema Prabha	
7	Lakshman S Jayasurya M S Abhishek B Surya Moorthy A	Citrus Peel-Incorporated Banana Sap-Based Fermented Beverage	Dr. P. Abhinash	
8	Ragul G Hainath T H Fathima D Fathima Sinsina P A	Orange peel incorporated jack fruit seed-based Whey Drink	Dr. P. Abhinash	
9	Neelima Lovejith Tamil Sebas S Rimeaha R Ashwani B	Development and quality evaluation of innovative sweet potato muffin: A nutrient rich high fiber delight	Dr. Jikky Jayakumar	

 Project Coordinator
  Head of the Department

Fig. 2.2.5 Guide and team details

B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs

Based upon the functional area of the projects, they are categorized as follows:

- Design and fabrication
- Product and Process Development
- Analysis and Quality Control
- Waste Management and Byproduct Utilization

After categorizing the projects, they will be mapped with POs and PSOs and the attainments are assessed based on the following:

- Solution to the real time industrial problems
- Depth of understanding of fundamental concepts
- Clarity in problem identification, analysis, and adopted methodology
- Effective use of modern tools and techniques
- Societal relevance and impact through useful products or processes
- Scope for future development and technological advancement
- Novelty and originality of the proposed work
- Teamwork, collaboration, and role sharing
- Quality and effectiveness of presentation and documentation
- Cost effectiveness and efficiency in project planning and execution
- Contribution to employability, professional skills, and overall skill development

Based on the area of study, the projects are classified into the following categories:

Table 2.2.1 Classification of Research Area and Relevant Pos and PSOs Addressed

S. No	Common Study Area	Relevant POs Addressed	Relevant PSOs Addressed
1	Functional Foods and Nutraceuticals	PO1- PO12	PSO1 -PSO3
2	Bakery, Snack and Convenience Food Product Development	PO1- PO12	PSO1 -PSO3
3	Food Processing, Preservation and Fermentation Technology	PO1- PO12	PSO1 -PSO3
4	Sustainable Food Systems and Waste Utilization	PO1- PO12	PSO1 -PSO3
5	Smart Food Technology and Quality Control	PO1- PO12	PSO1 -PSO3
6	Bioactive Compound Analysis	PO1- PO12	PSO1 -PSO3

Relevance to the POs and PSOs: High

Table 2.2.2 POs and PSOs Addressed through the projects AY: 2023-2024 (2020-2024 Batch)

Sl. No.	Name of the student	Title of the Project	Area of Specialization	Project classification	Relevance to PO/PSO		Justification
					PO	PSO	
1	Kousiga A Safeeq Rahman K Keerthana B Pasupathi P	Development of Nutritive Sour Gummies Containing Gooseberry and Roselle	Functional Foods and Nutraceuticals	Product	PO1-PO12	PSO1- PSO3	Applied food science knowledge to develop and evaluate a functional product ensuring quality, safety, teamwork, and sustainability.
2	Sivasankari B Navin Kumar H V Mohamad Rafique K Anand K	Development and Formulation of Gluten Free Cookies Using Palmyra Sprouts	Bakery Technology	Product	PO1-PO12	PSO1- PSO3	Designed and evaluated a gluten free bakery product using scientific formulation, quality control, and sustainable ingredients.
3	Maha Lakshmi G Indhu S Jeevitha S	Development and Optimization of Ready to Drink Herbal Juice with Triphala Extract	Functional Beverages and Process Optimization	Product	PO1-PO12	PSO1- PSO3	Developed and optimized a functional beverage using processing knowledge, analytical tools, and quality assessment.
4	Saran M Vishva R Deepika A Shabeeb P	Development of Millet Milk Infused Low Calorie Banana Blossom Milk Cake	Millet Processing and Value-Added Food Products	Product	PO1-PO12	PSO1- PSO3	Formulated an innovative low-calorie product applying food science principles and quality evaluation methods.
5	Melvin K Roy Sinasira B Mohammad Farsil A Thanveer Shahin P K	Study on Individual Quick Freezing	Food Processing and Preservation Technology	Research	PO1-PO12	PSO1-PSO3	Applied food engineering and preservation techniques to study freezing efficiency and product quality.

6	Liberna B Aravindswamy B Vignesh G Kesavaram S	Development of Antioxidant Enriched Black Rice Flour Choco Cookie	Functional Bakery Products	Product	PO1-PO12	PSO1-PSO3	Developed a value-added antioxidant-rich bakery product using functional ingredient knowledge and quality analysis.
7	Pugazhoviyan S Srinithin M B Mukil K S Subash E	Cheminformatics -Biophysics Correlate to Identify Promising Lead Molecules from Pithecellobium Dulce Leaf Extract: A Promising Anti-Cancer and Anti-Cholesterol Target	Food Bioinformatics and Nutraceutical Research	Research	PO1-PO12	PSO1-PSO3	Applied biochemical knowledge and modern computational tools to identify and analyze potential bioactive compounds.

Table 2.2.3 POs and PSOs Addressed through the projects AY – 2024-2025 (2021 -2025 Batch)

Sl. No.	Name of the student	Title of the Project	Area of Specialization	Project classification	Relevance to PO/PSO		Justification
					PO	PSO	
1	Janani S Saravadarshini M Karan Pandi S Dhanush P	Development of fibre rich spicy stick	Snack Food Technology and Product Development	Product	PO1-PO12	PSO1-PSO3	Applied food science knowledge to develop and evaluate a value-added product ensuring quality safety, teamwork, and sustainability.
2	Gayathri K Anantha Raman S Rahim M V	Development of Mexican mint squash	Functional Beverages	Product	PO1-PO12	PSO1-PSO3	Developed and tested a functional beverage using processing knowledge, control methods, and innovative formulation.
3	Legha Shri K Krithika S C Thanush K	Development of plant-based protein beverage from Mucuna pruriens	Plant-Based Foods and Alternative Proteins	Product	PO1-PO12	PSO1-PSO3	Used plant-based protein technology to develop a nutritious beverage with quality and safety evaluation.
4	Karthika S Asha M Dhanasekar P Jeevitha B	Development of functional tisane powder	Functional Foods and Nutraceuticals	Product	PO1-PO12	PSO1-PSO3	Formulated and evaluated functional herbal product using food science principles and quality assessment techniques.
5	Aathithyan S Javies L Kishore Anand P Yamuna R	Development of Biodegradable film using waste potato peels	Food Packaging Technology and Waste Utilization	Product/Research	PO1-PO12	PSO1-PSO3	Developed an eco-friendly packaging material using waste utilization concept and experimental validation.

6	Akash C Madhumitha R Dharnish Antony A Keerthana M	AI based real time milk quality monitoring kit	Smart Food Technology and Quality Assurance	Product/ Research	PO1-PO12	PSO1-PSO3	Designed a smart system for milk quality monitoring using modern AI tools and food quality principles.
7	Lakshman S Jayasurya M S Abishek B Surya Moorthy A	Citrus Peel-Incorporated Banana Sap-Based Fermented Beverage	Fermentation Technology and Byproduct Utilization	Product	PO1-PO12	PSO1-PSO3	Developed a fermented beverage using byproduct utilization and ensured product quality and safety.
8	Ragul G Hairath T H Fathima D Fathima Sinsina P A	Orange peel incorporated jack fruit seed-based Whey Drink	Functional Dairy Alternatives and Waste Utilization	Product	PO1-PO12	PSO1-PSO3	Developed a value-added beverage using waste materials with proper formulation and quality evaluation.
9	Neelima Lovejith Tamil Selvan S Rineesha R Ashwant B	Development and quality evaluation of innovative sweet potato muffin: A nutrient rich high fiber delight	Bakery Technology and Product Innovation	Product	PO1-PO12	PSO1-PSO3	Developed and evaluated high-fiber bakery products through scientific formulation and quality testing.

C. Process for Monitoring and Evaluation

Process for Monitoring Project Progress

- The project review schedule is prepared by the Project Coordinator in accordance with the department academic calendar and approved by the Head of the Department.
- The approved schedule is displayed on the department notice board for student reference.
- After commencement of the project, students meet their respective project guide regularly to discuss and report project progress.
- The project guide provides guidance, and suggest corrective measures to ensure steady progress.
- The project concludes with a viva-voce examination, conducted in the presence of internal and external experts from academia, for final assessment.

Process for Evaluation

- Evaluation is carried out at each review by the Project Review Committee.
- Students present the project progress during every review as per the implementation stage.
- The presentation includes problem definition, methodology, simulations/experimental work, and current progress.
- Screenshots, test data, and results are submitted as supporting evidence.
- Reviewers assess the work, identify gaps or incomplete aspects, and suggest improvements.
- Feedback is provided to students and verified in the subsequent review.
- Evaluation is based on predefined rubrics for each review, with a total of 100 marks allotted for the project.
- Internal assessment marks are awarded based on review performance.

· End-semester marks are awarded through final viva-voce, evaluated by internal and external examiners.

Table 2.2.4. Project evaluation process

Project Work	
Zeroth review	Based on the presentation and discussion during the review, the project title is tentatively finalized .
First review	The problem statement is identified and reviewed based on literature survey and, where applicable, industrial problems faced by industries.
Second review	The materials, methodologies, experimental design, and individual responsibilities of team members are reviewed and approved.
Third review	Experimental work, analytical results, and prototype development are reviewed before the end-semester examination .

Table 2.2.4. Project Continuous Internal Assessment

Internal Assessment				End Semester Examinations				
Review I	Review II	Review III	Total Marks	Project Report		Viva-Voce Examination		Total Marks
10 Marks	15 Marks	15 Marks	40	Internal	External	Internal	External	60
				10	10	10	30	

During the final semester, for project work and viva – voce, 60 marks are given for external evaluation and the internal marks are 40. Out of the overall 100 marks student has to score minimum of 50 marks for pass.

NEHRU INSTITUTE OF TECHNOLOGY
Autonomous Institute of Technology

Department of Food Technology
Project Review Criteria for Assessment

Project Title: *Development of ready-to-eat biscuits*

Students Name: *Aradhya, Arushi, Anshika, Anshika, Anshika*

Zeroth Review

Item Evaluated	Weightage	a	b	c	d
Group Presentation					
Topic Limit	2	2	2	2	2
Member Participation	2	2	2	2	2
Content of Presentation	2	2	2	2	2
Voice, Expression and Presentation	2	2	2	2	2
Sub Total	10	10	10	10	10
Content					
Formative File	4	4	4	4	4
Introduction	4	4	4	4	4
Objective and scope of the project	4	4	4	4	4
Background	4	4	4	4	4
Literature survey	4	4	4	4	4
Sub Total	30	30	30	30	30
Graphics and Visual Presentation					
Use of Visual	5	5	5	5	5
Adequate number of Visual / Quality of Visual	5	5	5	5	5
Sub Total	10	10	10	10	10
Question Oral					
Questions related to project title	50	44.0	44.0	44.0	44.0
Sub Total	50	44.0	44.0	44.0	44.0
Total Presentation	100	88	88	88	88

Project Review Comments: *Handwritten notes on the form*

Signature of Review Committee member with date: *[Signature]*

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Fig. 2.2.6 Monitoring and Evaluation- Zeroth Review

NEHRU INSTITUTE OF TECHNOLOGY
Autonomous Institute of Technology

Department of Food Technology
Project Review Criteria for Assessment

Project Title: *Development of ready-to-eat biscuit using*

Students Name: *Aradhya, Arushi, Anshika, Anshika, Anshika*

First Review

Item Evaluated	Weightage	a	b	c	d
Group Presentation					
Topic Limit	2	2	2	2	2
Member Participation	2	2	2	2	2
Content of Presentation	2	2	2	2	2
Voice, Expression and Presentation	2	2	2	2	2
Sub Total	10	10	10	10	10
Content					
Confirmation of title	10	10	10	10	10
Literature survey	10	10	10	10	10
Project progress in project (45%)	10	10	10	10	10
Sub Total	30	30	30	30	30
Graphics and Visual Presentation					
Use of Visual	5	5	5	5	5
Adequate number of Visual / Quality of Visual	5	5	5	5	5
Sub Total	10	10	10	10	10
Question Oral					
Questions related to project title	50	45	45	45	45
Sub Total	50	45	45	45	45
Total Presentation	100	85	85	85	85

Project Review Comments: *Handwritten notes on the form*

Signature of Review Committee member with date: *[Signature]*

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Fig. 2.2.7 Monitoring and Evaluation- First Review

NEHRU INSTITUTE OF TECHNOLOGY
 Department of Food Technology

Project Review Checks for Assessment

Project Title: *Development of Edible Coated Nuts using organic preservatives*

Students Name: (a) *Aravindhan S*
 (b) *Divya K*
 (c) *Madhava Aravind P*
 (d) *Srinivas R*

Second Review

Item Evaluated	Weightage	a	b	c	d
Group Presentation					
Time Limit	3	1	1	2	1
Member Participation	2	1	1	2	1
Continuity of Presentation	2	1	1	1	1
Voice Expression and Presentation	3	1	1	1	1
Sub Total	10	5	5	7	5
Content					
Relevance contribution	10	10	10	10	10
Use of proper analysis methods	10	5	5	5	5
Clarity of experimental design	10	5	5	5	5
Sub Total	30	20	20	18	20
Graphics and Visual Presentation					
Use of Visual	5	5	5	5	5
Adequate number of Visual / Quality of Visual	5	5	5	5	5
Sub Total	10	10	5	10	10
Questions Oral					
Questions related to project title	50	45	45	45	45
Sub Total	50	45	45	45	45
Total Presentation	100	85	80	90	85

Project Review Comments: *Methods including sweetness and other taste experiment should be carried out*

Signature of Review Committee member with date: *[Signature]* *[Signature]*

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Fig. 2.2.8 Monitoring and Evaluation- Second Review

NEHRU INSTITUTE OF TECHNOLOGY
 Department of Food Technology

Project Review Checks for Assessment

Project Title: *Development of Edible Coated Nuts using organic preservatives*

Students Name: (a) *Taru Seelan S*
 (b) *Ravish R*
 (c) *Aravindhan S*

Third Review

Item Evaluated	Weightage	a	b	c	d
Group Presentation					
Time Limit	3	2	2	2	2
Member Participation	2	2	2	2	2
Continuity of Presentation	2	2	2	2	2
Voice Expression and Presentation	3	2	2	2	2
Sub Total	10	8	8	8	8
Content					
Discussion of result	10	10	10	10	10
Quality of statistical analysis / model	10	10	5	5	5
Teamwork	10	10	10	10	10
Sub Total	30	25	25	25	25
Graphics and Visual Presentation					
Use of Visual	5	5	5	5	5
Adequate number of Visual / Quality of Visual	5	5	5	5	5
Sub Total	10	10	10	10	10
Questions Oral					
Questions related to project title	50	45	45	45	45
Sub Total	50	45	45	45	45
Total Presentation	100	88	88	88	88

Project Review Comments: *Analysis furtherative can be better*

Signature of Review Committee member with date: *[Signature]* *[Signature]*

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Fig. 2.2.9 Monitoring and Evaluation- third Review

Sl. No.	Reg. No.	Name of the Candidate	Review I	Review II	Review III	Review IV	AVG
1	221021210001	AATHIVANAN S.	18	18	17	17	17.5
2	221021210002	ABHIRAM D.	16	16	16	15	15.75
3	221021210003	ANAND K.	18	18	16	16	17
4	221021210004	ANANDHARAMAN S.	17	17	17	16	16.75
5	221021210005	ANILAM	16	16	16	16	16
6	221021210006	ANISHANATH D.	15	15	16	15	15.25
7	221021210007	ANUSHA RANJAN P.	15	15	15	15	15
8	221021210008	ANUSHA RANJAN P.	15	15	15	15	15
9	221021210009	ANUSHA RANJAN P.	15	15	15	15	15
10	221021210010	ATHISHA D.	18	18	17	17	17.75
11	221021210011	ATHISHA ANUSHA RANJAN P.	18	18	18	18	18
12	221021210012	GAVATHI K.	18	18	17	17	17.75
13	221021210013	GAURAV K.	18	18	17	17	17.75
14	221021210014	JANANI S.	18	18	17	17	17.75
15	221021210015	JAYATEJ	17	17	16	16	16.75
16	221021210016	JAYANUSHA S.	18	18	17	17	17.75
17	221021210017	JAYANUSHA S.	18	18	17	17	17.75
18	221021210018	JAYANUSHA S.	18	18	17	17	17.75
19	221021210019	JAYANUSHA S.	18	18	17	17	17.75
20	221021210020	JAYANUSHA S.	18	18	17	17	17.75
21	221021210021	JAYANUSHA S.	18	18	17	17	17.75
22	221021210022	JAYANUSHA S.	18	18	17	17	17.75
23	221021210023	JAYANUSHA S.	18	18	17	17	17.75
24	221021210024	JAYANUSHA S.	18	18	17	17	17.75
25	221021210025	JAYANUSHA S.	18	18	17	17	17.75
26	221021210026	JAYANUSHA S.	18	18	17	17	17.75
27	221021210027	JAYANUSHA S.	18	18	17	17	17.75
28	221021210028	JAYANUSHA S.	18	18	17	17	17.75
29	221021210029	JAYANUSHA S.	18	18	17	17	17.75
30	221021210030	JAYANUSHA S.	18	18	17	17	17.75
31	221021210031	JAYANUSHA S.	18	18	17	17	17.75
32	221021210032	JAYANUSHA S.	18	18	17	17	17.75
33	221021210033	JAYANUSHA S.	18	18	17	17	17.75
34	221021210034	JAYANUSHA S.	18	18	17	17	17.75

Fig. 2.2.10 Continuous Evaluation score card

D. Process to Assess Individual and Team Performance

- The Project Review Committee evaluates the quality of project work, including individual contribution, team performance, and communication and presentation skills.
- A standardized project evaluation form is used to ensure uniform and transparent assessment.
- Continuous monitoring of project progress is carried out at different stages.
- Feedback and recommendations are provided to improve individual performance and overall project quality.



Fig. 2.2.11. Students Presenting Project

E. Quality of completed projects/ working prototypes

- In order to ensure the quality of the projects, the project review committee along with the project coordinator and supervisors conducts internal reviews at frequent intervals.
- The students are advised to present the work completed so far before the committee. Deficiencies, corrections, and suggestions if any are conveyed to the students during these reviews.
- The final viva-voce examination is conducted in the presence of an external examiner and internal examiner appointed by the COE.

The project review committee encourages publication of project-based research in reputed conferences or journals and promotes projects with potential for patent applications.

F. Grades of projects

The award of letter grades will be decided using relative grading principle. The performance of a student will be reported using letter grades, each carrying certain points as detailed below:

Table 2.2.6 AWARD OF LETTER GRADES

Letter Grade	Grade Points	Marks Range
O (Outstanding)	10	91-100
A+ (Excellent)	9	81-90
A (Very Good)	8	71-80
B+ (Good)	7	61-70
B (Average)	6	50-60
RA (Re-appearance)	0	<50
SA (Shortage of attendance)	0	
W (Withdrawal)	0	

A student is considered to have passed the course and earned the corresponding credits if he/she secures any one of the following grades: "O", "A+", "A", "B+", "B", or "C". The graphical representation showing the grades obtained by students in the AY – 2024-2025 as an outcome of the project evaluation is presented below:

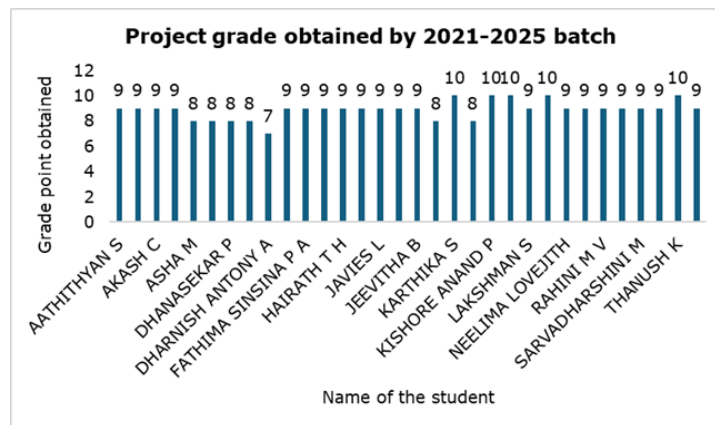


Fig. 2.2.12 graphical representation student grades for the Academic Year 2024–2025.

F. Evidences of papers published /Awards received by projects etc.

The project guide encourages students to publish papers in reputed journals/conferences or / patents.

Table 2.2.5 List of students participated in conference/ published papers/or patents

SI No.	Name of student	Title of the paper/patent	Remarks
1.	Saran M Deepika A Viswa R Shabeeb P	Optimizing Whey Drinks Using Taguchi Method: Enhancing Taste and Texture	Journal of Systems Engineering and Electronics, 1671-1793, Scopus
2.	Lakshman S Suriyamoorthy A Jaysurya M S Abhishek B	Development and Optimization of a Vitamin C-Fortified Banana Sap-Based Fermented Beverage with Enhanced Functional Properties	International Conference on "New-Gen Technologies for Sustainable Development" March 27-29, 2025, Coimbatore
3.	Hairath T H Ragul G Fathima D Fathima Sinsina P A	Optimizing Whey Beverage Formulation: A Taguchi Method Approach to Enhance Consumer Acceptance and Nutritional Quality	International Conference on "New-Gen Technologies for Sustainable Development" March 27-29, 2025, Coimbatore
4.	Sivasankari B Navin Kumar H V Mohamad Rafique K Anand K	Process Optimization for the Development of Gluten Free Cookies Using Palmyra Sprouts	National Conference on Innovations in Science, Technology, Agriculture & Healthcare Application: ISBN: 978-93-341-0270-3
5.	Aathithyan S Kishore Anand P Javies L Yamuna R	Development of Biodegradable Films from Potato Peel Waste for Sustainable Food Packaging	National Conference on AGROINNOVATE 2025: Sustainable Food Processing and Smart Agriculture for New India November 20-22, 2025
6.	Lakshman S	Development and Optimization of a Vitamin C-Fortified Banana Sap-Based Fermented Beverage with Enhanced Functional Properties	Ideathon at NGI – TBI 2024



Fig 2.2.13 Project Presentation Certificate of the student for participated in Ideathon

2023- 2024

Journal of Systems Engineering and Electronics (ISSN NO: 1671-1793) Volume 34 ISSUE 6 2024

Optimizing Whey Drinks Using Taguchi Method: Enhancing Taste and Texture

Abhinash P, Saran M, Deepika A, Viswa R, Shabeeb P

Department of Food Technology, Nehru Institute of Technology, Coimbatore

Abstract

The research article delves into the surging popularity of whey drinks due to their high protein content and associated health benefits. It highlights the intricate formulation process involved in creating these functional beverages, emphasizing the importance of balancing palatability with nutritional efficacy. Traditional trial-and-error methods for optimization are deemed inefficient, prompting the adoption of advanced statistical techniques like the Taguchi method. By systematically varying key parameters such as whey protein concentration, sweetener type, and stabilizer concentration, the study aims to identify the optimal combination that maximizes consumer acceptance in terms of taste, texture, and stability. The application of the Taguchi method offers a robust framework for streamlining the formulation process, leading to cost savings, efficient production, and improved nutritional profiles of whey drinks. This research not only contributes to enhancing product quality but also holds broader implications for the food and beverage industry by meeting evolving consumer demands for healthier and more functional foods.

Keywords: Honey, Optimization, Taguchi, Whey drink

Fig 2.2.14 Journal Paper publication by the students as project outcome

2.3 Internship/Industrial Training (10)

2.3 Internship/Industrial Training

2.3 Internship/Industrial Training (10)

(Describe process, duration, POs/PSOs addressed.)

A. Industrial / In-Plant Training

The food technology industry is continuously evolving due to global changes, including the impact of events such as the COVID-19 pandemic. These changes have influenced industry priorities in areas such as sustainability, plant-based and alternative proteins, food safety and traceability, personalized nutrition, smart packaging, automation, artificial intelligence and emerging technologies like cultured and lab-grown foods. To keep pace with these developments, the Department of Food Technology actively encourages and facilitates student participation in industrial training and industry visits.

Industrial visits provide students with practical exposure to real industrial operations and working environments. This experience increases their interest and confidence in working in core industries. As a result, students are motivated to apply for industrial internships to gain deeper hands-on experience and improve employability skills.

Industrial / In-Plant Training is a mandatory component of the curriculum designed to provide students with practical exposure beyond classroom learning. In addition, interested and motivated students are encouraged to undertake internships to enhance their practical knowledge and technical skills. Such exposure strengthens their professional competence and improves industry readiness.

These initiatives help students gain real-time exposure to industrial practices and contemporary challenges based on the following significant attributes:

- Connects classroom learning with real-time industrial practices and applications.
- Provides exposure to current industry trends, technological advancements, and innovations in food technology.
- Strengthens technical skills related to food processing operations, quality assurance, and food safety systems.
- Enhances problem-solving abilities and critical thinking through practical, real-world situations.
- Creates awareness of industry regulations, standards, and statutory compliance requirements.
- Encourages teamwork through collaborative activities and interaction with industry professionals.
- Improves communication skills through professional interaction with supervisors, colleagues, and experts.
- Motivates students by highlighting the role of food technology in societal development and the global economy.
- Teaches students professional ethics, workplace discipline, punctuality, and a sense of responsibility.
- Strengthened entrepreneurial and managerial competencies.

Table 2.3.1 Details of Industrial Visit in the AY 2022-2023 and POs/PSOs addressed.

Date	Industry / Organization	Objective	No. of Students	PO	PSO
29.09.2022	Savorit Limited, Dindigul,	Exposure to industrial manufacturing of pasta, noodles, and extruded products along with quality and R&D practices	61	PO1-PO5, PO7, P10-PO12	PSO1-PSO3
07.02.2023	Milma, Palakkad, Kerala	Practical exposure to milk chilling operations, quality control measures, and hygiene practices	34	PO1, PO2, PO4-PO8, PO9, PO10, PO12	PSO1-PSO3
18.05.2023	A1Chip Manufacturing Unit, Coimbatore	Practical exposure to chip manufacturing processes and industrial operations	27	PO1-PO7, PO9-PO12	PSO1-PSO3



Fig. 2.3.1. Industrial visit to Savorit Limited, Dindigul

Table 2.3.2 Details of Industrial Visit in the AY 2023-2024 and PSO addressed

Date	Industry / Organization	Objective	No. of Students	PO	PSO
15.09.2023	Post Harvest Technology Centre, TNAU, Coimbatore	Exposure to post-harvest handling, processing, storage, and value-addition technologies	63	PO1-PO7, PO9-PO12	PSO1-PSO3
21.03.2024	Paul John Whisky, Goa	Understanding the industrial process involved in malt whisky production	68	PO1-PO12	PSO1-PSO3
21.03.2024	Igloo Dairy, Goa	Understanding industrial-scale processing of milk and milk products	68	PO1-PO7, PO9-PO12	PSO1-PSO3



Fig. 2.3.2 Industrial visit to Igloo Dairy, Goa

Table 2.3.3 Details of Industrial Visit in the AY 2023-2024 and PSO addressed

Date	Industry / Organization	Objective	No. of Students	PO	PSO
11.09.2024	ICAR-CIAE, TNAU, Coimbatore	Understanding the design and operation of modern agricultural and food processing equipment	34	PO1–PO7, PO9–PO12	PSO1–PSO3
04.02.2025	CODISSIA – Ice Cream Tech Fair	Exposure to latest technologies and innovations in ice cream and frozen dessert processing	87	PO1–PO3, PO5, PO7, PO9–PO12	PSO1–PSO3
18.04.2025	Yashaswi Fish Meal and Fish Oil, Udupi	Understanding processing of fish waste into value-added products	47	PO1–PO12	PSO1–PSO3



Fig. 2.3.3 Industrial visit to Yashaswi Fish Meal and Fish Oil, Udupi

B1. Internship Initiative

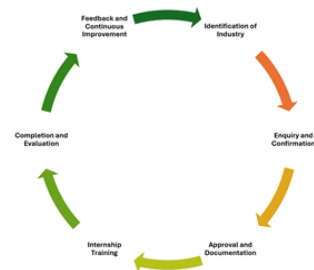
Students of the Food Technology are encouraged to undergo internships in food and allied industries to gain practical exposure. Final year students are also encouraged to carry out their project work along with internship during the eighth semester.

The department supports the process by issuing Bonafide certificates, coordinating with industries and obtaining necessary approvals. Faculty members interact with industry experts to ensure effective training.

After completion, students submit an internship report explaining the work done and skills gained. The training is evaluated through seminar presentation or viva-voce. Feedback from students is collected and reviewed periodically to improve the internship process.

B2. Internship Process

- Students are informed about internship opportunities through email or WhatsApp groups.
- After getting an offer, students seek department approval by submitting details such as duration, company name, location, and nature of work.
- Students undergo training and gain practical industrial experience.
- After completion, they submit an internship report.
- A viva-voce is conducted, and credits are awarded.
- Student feedback is collected and reviewed to improve the internship process.

**Fig.2.3.4. Internship process****B3. Duration**

The details of the students' internships, batch-wise along with the duration of each internship, are given below.

Table 2.3.4 Details of students Internship batch 2020-2024

S.No.	Name of the student	Reg.No.	Internship Organization	Duration
1.	Aravindswamy B	721020218003	ITC -Veeralimalai	01.07.2023-29.07.2023 (29 days)
2.	Deepika A	721020218004	VVV& sons' edible oil Pvt Ltd	19.6.2023-30.06.2023 (12 days)
3.	Indhu S	721020218005	RCT -Vadavalli	28.1. 2023 – 3.2.2023 (7 days)
4.	Jeevitha S	721020218006	RCT -Vadavalli	28.1. 2023 – 3.2.2023 (7 days)
5.	Keerthana B	721020218007	Tantea -cunoor ooty	11.07.2023-17.07.2023 (7 days)
6.	Kesavram S	721020218008	Udhaiya krishna Ghee, Pollachi	10.07.2023-30.09.2023 (3 months)

7.	Liberna B	721020218010	Naga foods Pvt Ltd - Dindigul Christy fried gram industries -Nammakal	09.01.2023-28.02.2023, 51 days 27.06.2023 –07.07.2023 (11 days)
8.	Melvin K Roy	721020218012	Naga foods Pvt Ltd - Dindigul	09.01.2023- 28.02.2023
9.	Mohammed Farsil A	721020218014	Tantea-Cunoor ooty	11.07.2023-17.07.2023 (7 days)
10.	Navin Kumar H V	721020218016	Tamil Nadu Cooperative Milk Producers Federation Limited Erode	15 days
11.	Safeeq Rahman K	721020218018	ITC -VEERALIMALAI	01.07.2023-29.07.2023 (29 days)
12.	Saran M	721020218019	Naga foods Pvt Ltd - Dindigul	09.01.2023- 28.02.2023 (51 days)
13.	Shabeeb P	721020218020	Tantea-Cunoor ooty	11.07.2023-17.07.2023
14.	Thanveer shahin P K	721020218027	Tantea -cunoor ooty	(7 days)
15.	Vignesh G	721020218028	Tantea -cunoor ooty	11.07.2023-17.07.2023
16.	Vishva R	721020218029	Naga foods Pvt Ltd - Dindigul	09.01.2023- 28.02.2023 (51 days)

Table 2.3.5 Details of students Internship batch 2021- 2025

S.No.	Name of the student	Reg.No.	Internship Organization	Duration
1.	AATHITHYAN S	721021218001	SKM Egg Products Export Limited, Erode	20.05.2024-03.06.2024 (15 days)
2.	ABISHEK B	721021218002	Ivory Gull Candy, Salem	13.05.2024-25.05.2024 (15 days)
3.	AKASH C	721021218003	CavinKare Pvt. Ltd., Chennai	23.09.2024-23.10.2025 (30 days)
4.	ANANTHA RAMAN S	721021218004	Ivory Gull Candy, Salem	13.05.2024-25.05.2024 (15 days)
5.	ASHA M	721021218005	RKG ghee company, Kangeyam	01.07.2024-31.07.2024 (30 days)

6.	ASHWANTH B	721021218006	Aavin, Thanjavur	17.09.2024-17.10.2024 (30 days)
7.	DHANASEKAR P	721021218007	Ivory Gull Candy, Salem	13.05.2024-25.05.2024 (15 days)
8.	DHANUSH P	721021218008	Ivory Gull Candy, Salem	13.05.2024-25.05.2024 (15 days)
9.	DHARNISH ANTONY A	721021218009	Mondelēz International, Chennai	10.08.2024-10.10.2024 (2 months)
10.	FATHIMA DILEEF	721021218010	Ivory Gull Candy, Salem	13.05.2024-25.05.2024 (15 days)
11.	FATHIMA SINSINA P A	721021218011	Premier Agro Products Pvt. Ltd., palakkad, Kerala	10.07.2023-25.07.2023 (15 days)
12.	GAYATHRI K	721021218012	Camery Ice-Cream, Kerala	19.06.2023-03.07.2023 (15 days)
13.	HAIRATH T H	721021218013	Camery Ice-Cream, Kerala	19.06.2023-03.07.2023 (15 days)
14.	JANANI S	721021218015	CavinKare Pvt. Ltd., Chennai	23.09.2024-23.10.2024 (30 days)
15.	JAVIES L	721021218016	Mondelēz International, Chennai	10.08.2024-10.10.2024 (2 months)
16.	JAYASURYA M S	721021218017	Naga Limited, Dindigul	01.10.2024-29.10.2024 (1 month)
17.	JEEVITHA B	721021218018	Naga Limited, Dindigul	01.10.2024-29.10.2024 (1 months)
18.	KARANPANDI S	721021218019	CavinKare Pvt. Ltd., Chennai	23.09.2024-23.10.2024 (1 month)
19.	KARTHIKA S	721021218020	Fibro Foods Private Limited, Salem	20.05.2024-03.06.2024 (15 days)
20.	KEERTHANA M	721021218022	April 3rd Foods Pvt Ltd., Bengaluru	18.10.2024-18.12.2024 (2 months)
21.	KISHORE ANAND P	721021218023	Naga Limited, Dindigul	01.10.2024-29.10.2024 (1 month)
22.	KRITHIKA S C	721021218024	ITC ICML, Trichy	24.07.2024-25.08.2024 (1 month)

23.	LAKSHMAN S	721021218025	April 3rd Foods Pvt Ltd., Bengaluru	04.07.2024-15.09.2024 (2 months)
24.	LEGHA SHRI K	721021218026	ITC ICML, Trichy	24.07.2024-25.08.2024 (1 month)
25.	MADHUMITHA R	721021218027	Kannan devan hills plantation, Munnar	05.02.2024-25.02.2024 (20 days)
26.	NEELIMA LOVEJITH	721021218028	Ruby Foods Pvt Ltd., Madurai	02.09.2024-02.10.2024 (1 month)
27.	RAGUL G	721021218029	Camery Ice-Cream, Kerala	19.06.2023-03.07.2023 (15 days)
28.	RAHINI M V	721021218030	Ivory Gull Candy, Salem	13.05.2024-25.05.2024 (15 days)
29.	RINEESHA R	721021218031	Premier Agro Products Pvt. Ltd., palakkad, Kerala	10.07.2023-25.07.2023 (15 days)
30.	SARVADHARSHINI M	721021218032	Fibro Foods Private Limited, Salem	20.05.2024-03.06.2024 (15 days)
31.	SURIYAMOORTHY A	721021218034	Naga Limited, Dindigul	01.10.2024-29.10.2024 (30 days)
32.	TAMILSELVAN S	721021218035	SKM Egg Products Export Limited, Erode	20.05.2024-03.06.2024 (15 days)
33.	THANUSH K	721021218036	Christy foods, Tiruchengode	23.08.2024-23.09.2024 (30 days)
34.	YAMUNA R	721021218037	Naga Limited, Dindigul	01.10.2024-29.10.2024 (30 days)

Table 2.3.6 Details of students Internship batch 2022- 2026

S.No.	Name of the student	Reg.No.	Internship Organization	Duration
1.	AADHITHYA S	721022218001	Hindustan foods, Coimbatore	03.04.2025- 20.06.2025 (2 months)
2.	AARATHY N	721022218002	Milma Dairy, Palakkad, Kerala	03.01.202- 23.01.2024 (20 days)
3.	AARCHA S	721022218003	Manjilas Food Tech Pvt Ltd., Thrissur, Kerala	18.03.2024-25.04.2024 (40 days)

4.	ABISHEK V	721022218005	Anil Foods, Dindigul	02.09.2024-06.09.2024 (15 days)
5.	ADITH H	721022218006	Milma Dairy, Palakkad, Kerala	03.01.2024-23.01.2024 (20 days)
6.	ALFINO VIN JOHN	721022218007	Milma Dairy, Palakkad, Kerala	03.01.2024-23.10.2024 (20 days)
7.	AMARNATH M	721022218008	International Agricultural Processing Pvt Ltd, Dindigul	14.10.2024-28.10.2024 (15 days)
8.	ANUSHIYA C	721022218009	Anil Foods, Dindigul	02.09.2024-17.09.2024 (15 days)
9.	APARNA B MENON	721022218010	Milma Dairy, Palakkad, Kerala	03.01.2024-23.10.2024 (20 days)
10.	ARAVINTH K J	721022218011	Bioblooms Agro India Pvt.Ltd, Coimbatore	15.03.2025-15.05.2025 (2 months)
11.	BARATH S	721022218012	International Agricultural Processing Pvt Ltd, Dindigul	14.10.2024-28.10.2024 (15days)
12.	BHUVANESWARI R	721022218013	Vocon Manufacturing Pvt. Ltd., Tiruppur	21.01.2025-05.02.2025 (15 days)
13.	DEENADHAYALAN K D	721022218014	International Agricultural Processing Pvt Ltd, Dindigul	14.10.2024-28.10.2024 (15days)
14.	DHEEPALAKSHMI A	721022218016	Jeevan Nutri Foods and Bakes, Coimbatore	27.12.2024-10.01.2025 (15 days)
15.	GEORGE V	721022218017	Ruby Foods Pvt Ltd., Madurai	17.10.2024-31.10.2024 (15 days)
16.	GIRI S	721022218018	Amilma icecream, Rasipuram	07.10.2024-21.10.2024 (15 days)
17.	GOKULASAKTHIVEL K	721022218019	Anil Foods, Dindigul	2.09.2024-17.09.2024 (15 days)
18.	GOWTHAM M	721022218020	International Agricultural Processing Pvt Ltd, Dindigul	14.10.2024-28.10.2024 (15 days)
19.	HAROON RAEZ P Y	721022218021	Milma Dairy, Palakkad, Kerala	03.01.2024-23.10.2024 (20 days)
20.	JASNA J	721022218022	Ruby Foods Pvt Ltd., Madurai	02.09.2024-01.10.2024 (30 days)
21.	KARKUZHALI A	721022218023	Aavin, Thanjavur	23.12.2024-07.01.2024 (15 days)
22.	KAVIYARASAN K	721022218024	Amilma ice creams, Rasipuram	07.10.2024-22.10.2024 (15 days)
23.	KHAVYA S	721022218025	Ruby Foods Pvt Ltd., Madurai	02.09.2024-02.10.2024 (30 days)
24.	KISHORE KUMAR M S	721022218026	Teddy Cakes N Creams, Coimbatore	23.10.2024-06.11.2024 (15 days)

25.	LIYANA N M	721022218027	Elanadu Milk Pvt Ltd, Kerala	26-07-2024-10-08-2024 (15 days)
26.	MOHAMED YUSUFF H	721022218029	Amilma icecream, Rasipuram	07.10.2024-21.10.24 (15 days)
27.	MURALIDHARAN G	721022218030	Tey Tea Factory Private Limited, Coimbatore	23.12.2024-31.01.2025 (30 days)
28.	NAKSHATRAA SREE S R	721022218031	Jeevan Nutri Foods and Bakes, Coimbatore	27.12.2024-10.01.2025 (15 days)
29.	PACHAMUTHU A	721022218033	Teddy Cakes N Creams, Coimbatore	23.10.2024-06.11.2024 (15 days)
30.	RAJESH R	721022218034	Ruby Foods Pvt Ltd., Madurai	17.10.2024-31-10-2024 (15 days)
31.	RAJESHKUMAR G	721022218035	Tey Tea Factory Private Limited, Coimbatore	23.12.2024-31.01.2025 (30 days)
32.	SAFRAN NUSRATH M	721022218036	Senthil parpain and food product Pvt Limited, Coimbatore	07.10-2024-21.10.2024 (15 days)
33.	SARANKUMAR V	721022218037	Bioblooms Agro India Pvt.Ltd, Coimbatore	15.03.2025-15.05.2025 (2 months)
34.	SARANYA K	721022218038	Vocon Manufacturing Pvt. Ltd., Tiruppur	21.01.2025-05.02.2025 (15 days)
35.	SELVAHARITHIRA S	721022218039	Anil Foods, Dindigul	02.09.2024-17.09.2024 (15 days)
36.	SIMBU G	721022218040	Amilma icecream, Rasipuram	07.10.2024-21.10.2024 (15 days)
37.	SOMNATH S	721022218041	Amilma icecream, Rasipuram	07.10.2024-22.10.2024 (15 days)
38.	SOWNDARYA VEERAMANI N	721022218042	Jeevan Nutri Foods and Bakes, Coimbatore	27.12.2024-10.01.2025 (15 days)
39.	SRI SAMRITHA N	721022218043	Anil Foods, Dindigul	02.09.2024-17.09.2024 (15 days)
40.	SUBASH CHANDRABOSE M	721022218044	Amilma icecream, Rasipuram	07.10.2024-21.10.2024 (15 days)
41.	SWATHI S K	721022218045	Senthil parpain and food product Pvt Limited, Coimbatore	07.10.2024-21.10.2024 (15 days)
42.	TRISHA A	721022218046	Anil Foods, Dindigul	02.09.2024-16.09.2024 (15 days)
43.	VAISHNAVI G	721022218047	Anil Foods, Dindigul	02.09.2024-16.09.2024 (15 days)
44.	VANISRI V	721022218048	Vocon Manufacturing Pvt. Ltd., Tiruppur	21.01.2025-05.02.2025 (15 days)
45.	VIGNESHWARAN R	721022218049	International Agricultural Processing Pvt Ltd, Dindigul	14.10.2024-28-10-2024 (15 days)
46.	VINOTH V	721022218051	Hindustan foods, Coimbatore	03.04.2025- 20.06.2025 (2 months)

B4. POs/PSOs addressed

Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations are given below.

Table 2.3.7 Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations batch 2020-2024

S.No.	Industry	PO Mapping	PSO Mapping
1.	ITC Limited	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
2.	VVV & Sons Edible Oil Pvt. Ltd	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
3.	RCT – Vadavalli	PO1, PO2, PO4, PO5, PO9, PO10, PO12	PSO1, PSO3
4.	Tamil Nadu Tea Plantation Corporation Limited (TANTEA)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
5.	Udhaiya Krishna Ghee – Pollachi	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10	PSO1, PSO2, PSO3
6.	Naga Foods Pvt Ltd	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
7.	Christy Fried Gram Industries – Namakkal	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
8.	Tamil Nadu Cooperative Milk Producers Federation Limited	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3

Table 2.3.8 Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations batch 2021-2025

S.No.	Internship Organization	PO Mapping	PSO Mapping
1.	SKM Egg Products Export Limited	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
2.	Ivory Gull Candy, Salem	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
3.	CavinKare Pvt. Ltd.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
4.	RKG Ghee Company, Kangeyam	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10	PSO1, PSO2, PSO3
5.	Aavin	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3

6.	Mondelēz International	PO1–PO12	PSO1, PSO2, PSO3
7.	Premier Agro Products Pvt. Ltd.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
8.	Camery Ice Cream	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
9.	Naga Limited	PO1–PO12	PSO1, PSO2, PSO3
10.	Fibro Foods Private Limited, Salem	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
11.	April 3rd Foods Pvt Ltd.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
12.	ITC Limited (ICML)	PO1–PO12	PSO1, PSO2, PSO3
13.	Kannan Devan Hills Plantations Company	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO12	PSO1, PSO2, PSO3
14.	Ruby Foods Pvt Ltd., Madurai	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
15.	Christy Foods, Tiruchengode	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3

Table 2.3.9 Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations batch 2022-2026

S.No	Name of the Industry		
1	Hindustan Foods, Coimbatore	PO1–PO12	PSO1-PSO3
2	Milma Dairy, Palakkad, Kerala	PO1–PO12	PSO1-PSO3
3	Manjilas Food Tech Pvt Ltd., Thrissur, Kerala	PO1–PO12	PSO1-PSO3
4	Anil Foods, Dindigul	PO1–PO12	PSO1-PSO3
5	International Agricultural Processing Pvt Ltd, Dindigul	PO1–PO12	PSO1-PSO3
6	Bioblooms Agro India Pvt Ltd., Coimbatore	PO1–PO12	PSO1-PSO3
7	Vocon Manufacturing Pvt. Ltd., Tiruppur	PO1–PO12	PSO1-PSO3
8	Jeevan Nutri Foods and Bakes, Coimbatore	PO1–PO12	PSO1-PSO3

9	Ruby Foods Pvt Ltd., Madurai	PO1- PO12	PSO1-PSO3
10	Amilma Ice Cream, Rasipuram	PO1- PO12	PSO1-PSO3
11	Aavin, Thanjavur	PO1- PO12	PSO1-PSO3
12	Teddy Cakes N Creams, Coimbatore	PO1- PO12	PSO1-PSO3
13	Elanadu Milk Pvt Ltd, Kerala	PO1- PO12	PSO1-PSO3
14	Tey Tea Factory Private Limited, Coimbatore	PO1- PO12	PSO1-PSO3
15	Senthil Parboiled and Food Product Pvt Ltd, Coimbatore	PO1- PO12	PSO1-PSO3

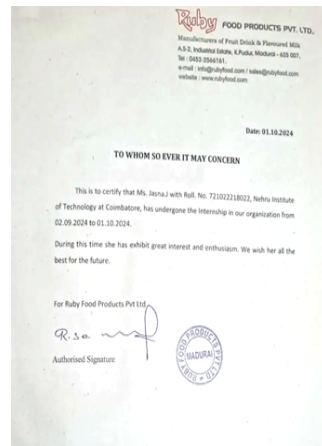


Fig.2.3.5. Internship certificate students

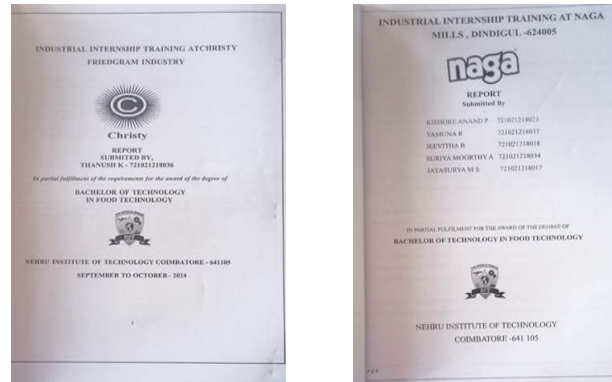


Fig.2.3.6 Internship Report

C. Impact analysis of industrial training and industrial visit

- Students gain awareness of industry standards, current trends and best practices.
- Real-world exposure strengthens learning and makes it easier to apply theoretical knowledge.
- Industrial experience helps in developing interpersonal skills, teamwork, and practical knowledge.
- Industrial training provides opportunities for active/interactive learning experiences outside classroom environment in addition to casual classroom learning.
- Students become familiar with professional work culture
- Communication skills are improved through interaction with industry professionals.
- After the completion of the Internship, students give a talk on Industrial ambience and practical knowledge which motivates the fellow students to undergo an internship.
- Students were placed in reputed industries after gaining skills and practical knowledge through internships.
- Students were also placed in the industries where they underwent Internships owing to their satisfactory performance during the internship period.

Table 2.3.10 Details of students Internship Batch 2023- 2027

S.No.	Name of the student	Reg.No.	Internship Organization	Duration
1	J Samson	721023218035	Sri Krishna Sweets, Coimbatore	10-10-25 -19-10-25
2	M Ajay Raj	721023218001	Sri Krishna Sweets, Coimbatore	10-10-25 -19-10-25
3	Muthulakshmi P	721023218026	Pappa Rich Food and beverages	05-01-26 - 06-02-26
4	Avandhika R	721023218007	Pappa Rich Food and beverages	05-01-26 - 06-02-26
5	Parthasarathi	721023218020	M & N goodies pvt ltd, OOTY	22-12-25 - 22-01-26
6	Madhumathy T R	721023218022	Aavin, Thanjavur	22-12-25 - 22-01-26
15	Gogul U	721023218012	Vivekananda Foods Pvt Ltd	30-12-25 - 02-02-26

16	S Gadil Mathew	721023218011	J P Masalas	29-12-25 - 01-02-26
17	Jeevansri	721023218016	Vivekananda Foods Pvt Ltd	30-12-25 - 02-02-26

Table 2.3.11 Details of students Internship Batch 2024- 2028

S.No.	Name of the student	Reg.No.	Internship Organization	Duration
1	Akshaya K U	721024218001	H T foods pvt ltd, Kochi	22-12-25 - 22-01-26
2	Bhavadharani S	721024218004	Adayar Ananda bhavan	22-12-25 - 05-01-27
3	Chaithanya K	721024218005	Chippo: Fresh products, Kochi	26-12-25 - 09-01-26
4	Divya Priyan B	721024218008	Milka Wonder	05-01-26 - 05-02-26
5	Haridarshini	721024218011	Adayar Ananda bhavan	22-12-25 - 05-01-26
6	Haya Fathima T S	721024218013	Chippo: Fresh products, Kochi	26-12-25 - 09-01-26
7	Karthika V	721024218015	H T foods pvt ltd, Kochi	22-12-25 - 22-01-26
8	Krishna Bharathi	721024218017	Aavin	11-01-26 - 20-01-26
9	Kumuthasri S	721024218018	ITC	01-01-26 - 01-02-26
10	Lokesh Sharma L	721024218019	SKM Egg products pvt ltd, Erode	01-01-26 - 15-01-26
11	Logeswaran J	721024218020	SKM Egg products pvt ltd, Erode	01-01-26 - 15-01-26
12	K. Mahalakshmi	721024218021	SKM Egg products pvt ltd, Erode	01-01-26 - 15-01-26
13	Mathish M	721024218023	SKM Egg products pvt ltd, Erode	01-01-26 - 15-01-26
14	Nikhitha Raj j	721024218026	Grain N garce food ingredients manufacturing pvt ltd	24-12-25 - 24-01-26
15	Princy Agnes B	721024218030	SKM Egg products pvt ltd, Erode	01-01-26 - 15-01-26
16	Samuthra S	721024218034	Adayar Ananda bhavan	22-12-25 - 05-01-28
17	Sudharsan M	721024218037	Jannatha Bakery	21-12-25 - 04-01-26
18	Vishwa R	721024218040	SKA Dairy,Salem	29-12-26 - 12-01-26



Fig.2.3.7 Internship Report of Second Year Student Fig.2.3.8 Placement offer

D. Student Feedback on Industrial visit and Internship Initiative

- After industrial training, every student submits feedback about their training program and internships.
- The feedbacks obtained from the students are used effectively in strengthening the industrial relations of the Department and serves as a guideline for the junior students.
- Insights from the feedback are used to implement corrective measures and enhance the quality of internship programs in subsequent semesters.

A sample feedback form is provided below:

NEHU INSTITUTE OF TECHNOLOGY
(Autonomous)
Approved by AICTE, New Delhi & Affiliated to Co's University, Coimbatore
Established in 1984 & Affiliated to Co's University, Coimbatore

Department of Food Technology
Internship Feedback Form

Student Details

Field	Details
Name	S. SOMNATH
Reg. No.	221032210010
Department	Food Tech
Internship Organization	Mannar Ice Cream
Duration	From 21/10/25 to 22/10/25
Mentor/Supervisor	Ramesh Kumar R

I. Internship Experience
(Rate 1-5, 1 = Poor, 5 = Excellent)

Aspects	1	2	3	4	5
Relevance in course					
Hands-on experience					✓
Learning industry practices					✓
Use of tools/equipment				✓	
Guidance from mentor				✓	
Work culture experience					✓
Problem-solving & analytical skills				✓	
Communication & teamwork					✓
Overall satisfaction					✓

II. Open Feedback

- Key skills and knowledge gained: *production of ice cream*
- Suggestions to improve the internship: _____
- Would you recommend this organization? (Yes/No): *Yes*

Student Signature: *S. Somnath* Date: *22/10/25*

Fig. 2.3.9 Student Internship Feedback

NEHRU INSTITUTE OF TECHNOLOGY
UNIVERSITY COLLEGE
 NEHRU COLLEGE OF ENGINEERING & TECHNOLOGY
 NEHRU COLLEGE OF MANAGEMENT & BUSINESS STUDIES

DEPARTMENT OF FOOD TECHNOLOGY
INDUSTRIAL VISIT FEEDBACK FORM

NAME OF THE INDUSTRY/INSTITUTION VISITED: Tamil Nadu Agricultural University
 Date of visit: 15.09.2023
 No. of Students visited: 08

Please respond to the following statements by using 5-point scale to indicate the extent to which the industrial visit became beneficial

5= Excellent 4 = Very good 3= Good 2= Fair 1= Poor

Sl. No.	Register No.	Name of Student	Understanding level of latest technology used in food processing sector	Understanding level of genetic harvest technology used in food industries	Understanding level of Nano Technology and its use in food sector	Overall visit experience	Signature
1.	221021218001	AARTHIEYAN S	5	5	4	5	<i>Aarthieyan S</i>
2.	221021218002	ADITHYAN S	4	5	5	4	<i>Adithyan S</i>
3.	221021218003	ADARSH C	4	4	4	4	<i>Adarsh C</i>
4.	221021218004	ANANTHA RAMAN S	5	4	5	5	<i>Anantha Raman S</i>
5.	221021218005	ASHA M	4	5	4	5	<i>Asha M</i>
6.	221021218006	DIHANSHI P	4	3	3	3	<i>DiHanshi P</i>
7.	221021218009	DHARSHI ANTONY A	3	4	3	4	<i>Dharshi Antony A</i>

NEHRU GROUP OF INSTITUTIONS
 Company: "Jeevathi Care Services" - Bangalore, Karnataka - 844 103 78; 0425-2844655
 E-mail: adp@nehrugroupofinstitutions.com; nehrugroupofinstitutions.com; nehrugroupofinstitutions.com
 Corporate Office: 61/6B, Park Road, Madhavaram, Chennai - 600 030
 Phone: 0425-2284344

Fig. 2.3.10 Industrial visit student feedback

2.4 Seminar and Mini/Micro Projects (10)

2.4 Seminar and Mini/Micro Projects

(Describe process, POs/PSOs addressed.)

2.4 Seminar and Mini/Micro Projects

(Describe process, POs/PSOs addressed.)

A. Seminar and Mini/Micro Projects

- As per R2023 Regulations, the Continuous Assessment framework provides adequate flexibility in evaluating Seminar and Mini/Micro Projects (Table 2.4.1), ensuring alignment with Outcome-Based Education (OBE)
- The Continuous assessment components especially Seminar and Mini Project will be decided by the course coordinator who has the liability to go for any mode of continuous assessment suitable to the course.
- The assessment methodology, including rubrics and weightage distribution, shall be finalized prior to the commencement of the semester and approved by the Head of the Department to ensure transparency.
- The Course Coordinator shall identify and allot suitable topics aligned with the Programme Outcomes (POs), and Programme Specific Outcomes (PSOs).
- The scope of work, deliverables, evaluation rubrics, timelines, and submission guidelines shall be clearly communicated to students at the beginning of the course,
- This approach ensures outcome-based learning, encourages analytical and practical skills, and promotes active student engagement beyond conventional written examinations.

Table 2.4.1. Continuous Assessment Seminar and Mini/Micro Projects

Assessment I (100Marks)		Assessment II (100Marks)		Total Internal Assessment
Individual Assignment / Case Study / Seminar / Mini Project / any other experiential Learning etc.	Written Test	Individual Assignment / Case Study / Seminar / Project /any other experiential Learning etc.	Written Test	
40		60	40	60
				200*

B. Process for Seminar

1. Student Group Formation

- o Students are allotted individually or divided into small groups (3–5 members) based on class strength and course requirements.

2. Topic Allotment

- o The Course Coordinator assigns topics aligned with relevant POs/PSOs.
- o Students may also propose topics subject to approval.

3. Presentation

- o Students deliver seminar presentations within the stipulated time.
- o Followed by Question & Answer session to assess depth of understanding.

4. Evaluation

- o Evaluation is done by the Course Coordinator based on predefined rubric (content quality, understanding, communication, relevance, and response to questions).

B.1 Table 2.4.2 A sample seminar topics, subject: Unit Operations in Food Processing and POs/PSOs addressed for the topics

S.No	Students Name	Seminar Topic	PO Mapping	PSO Mapping
1	AJAY RAJ M AJMAL A ARUL SUTHISH M ASWINI ANGEL N	Different Methods of Drying Used in Food Industry	PO1, PO2, PO7, PO10	PSO1, PSO2
2	AVANDHIKA R DHANUSHYA G FULTON SHEEN N GADIL MATHEW S	Freeze Drying and Its Applications	PO1, PO3, PO5, PO7, PO10	PSO1, PSO2
3	GOGUL U GUNAL K HARSHINI DEVI K JANANI N	Working of Single and Multiple Effect Evaporators	PO1, PO2, PO3, PO10	PSO1, PSO3

4	JEEVANSRI G JEGAN N JEROLIN SELVIN S JOTHIKA G	Sugar Crystallization Process in Food Industry	PO1, PO2, PO3, PO10	PSO1, PSO3
5	KEWIN LUTZ R MADHUMATHY T R MOHAMED ISMAIL S MOHAN KUMAR P	Centrifugation in Dairy Industry	PO1, PO2, PO3, PO5, PO10	PSO1, PSO3
6	MURUKANANDA M M MUTHU LAKSHMI P NARAYANA SABARISH M PARGUNAN K	Filtration Methods Used in Beverage Processing	PO1, PO2, PO3, PO5, PO10	PSO1, PSO2
7	PARTHASARATHI S PRADEEPA K RAGU BALAN S RESHMA JOSE A	Basics of Distillation and Its Use in Food Processing	PO1, PO2, PO3, PO10	PSO1, PSO3
8	SABARESWARAN V SAMSON J SIVABALAN S V SNEHA C	Continuous Distillation in Alcohol Production	PO1, PO2, PO3, PO5, PO10	PSO1, PSO3
9	SUBAHARINI A R SUBASH K SUBASHINI B THANUSHREE D	Principles of Size Reduction in Food Processing	PO1, PO2, PO3, PO10	PSO1, PSO3
10	VIGNESH P G VISVESSAKTHI SUNDARAM M YOGITHA K SRUTHIKA M	Working of Hammer Mill and Roller Mill	PO1, PO2, PO3, PO5, PO10	PSO1, PSO3

B.2 Table 2.4.3 Rubrics for seminar evaluation

S.No.	Criteria	Description	Marks
1.	Technical Content & Concept Clarity	Understanding of topic, engineering principles, subject knowledge	10
2.	Analysis & Application	Problem analysis, practical relevance, examples, case studies	10
3.	Presentation & Communication	Organization, clarity, confidence, time management	10
4.	Visual Aids & Question Handling	Quality of PPT/diagrams and ability to answer questions	10
	Total		40 Marks

B.3 Specific outcome of conducting seminar

After conducting the seminar, students:

- Understood the topic clearly instead of memorizing it.
- Connected theoretical concepts with real industry applications.
- Improved their communication skills through effective presentation and discussion.
- Enhanced their ICT tool usage skills while preparing and delivering seminar presentations.
- Built confidence to participate in technical events, paper presentations, and competitions.



Fig. 4.2.1 Students presenting seminar

C. Process for Mini Project**1. Student Group Formation**

- o Students are segregated into groups (typically 3–5 members) depending on project scope.

2. Problem Identification & Topic Allotment

- o The Course Coordinator allots problem statements aligned with course objectives and industry relevance.
- o Students may suggest innovative ideas subject to approval.

3. Execution Phase

- o Students carry out design/experimental work/analysis/product development as applicable.
- o Periodic reviews are conducted by the Course Coordinator.

4. Report Submission

- o Students submit a structured project report including introduction, methodology, results, discussion, and conclusion.

5. Evaluation

- o Evaluation is done by the Course Coordinator based on innovation, technical approach, teamwork, report quality, and viva voce.

These processes ensure experiential learning, teamwork, problem-solving ability, and effective communication skills.

C.1 Table 2.4.4 A sample Mini Project topics, subject: fruits and vegetables processing technology and POs/PSOs addressed for the topics

S.No	Student Name	Topic	POs Mapped	PSOs Mapped
1.	PRADEEPA	Development of Ready-to-Serve (RTS) Beverage from Seasonal Fruits	PO1, PO2, PO3, PO4, PO8, PO9, PO10, PO12	PSO1-PSO3
2.	GUNAL			
3.	MUTHU LAKSHMI			
4.	SUBASHINI			
5.	JANANI	Preparation and Shelf-Life Study of Fresh-Cut Fruits under Different Packaging Conditions	PO1, PO2, PO4, PO8, PO9, PO10, PO12	PSO1-PSO3
6.	SNEHA			
7.	JEROLIN SELVIN			
8.	PARGUNAN			
9.	HARSHINI DEVI	Development of Value-Added Pickle from Mango or Mixed Vegetables	PO1, PO2, PO3, PO8, PO9, PO10	PSO1-PSO3
10.	GOGUL			
11.	SRUTHIKA			
12.	AJAY RAJ			
13.	SAMSON	Production and Shelf-Life Study of Tomato Ketchup or Sauce	PO1, PO2, PO3, PO4, PO8, PO9, PO10	PSO1-PSO3
14.	AJMAL			
15.	THANU SHREE			
16.	VIGNESH			

17.	DHANUSHYA	Production of Fermented Vegetable Product	PO1, PO2, PO3, PO4, PO8, PO9, PO10, PO12	PSO1-PSO3
18.	JOTHIKA			
19.	MOHAN KUMAR			
20.	SUBAHARINI			
21.	MADHUMATHY	Development of Soy-Based Meat Analog	PO1, PO2, PO3, PO4, PO8, PO9, PO10, PO12	PSO1-PSO3
22.	RESHMA JOSE			
23.	SUBASH			
24.	FULTON SHEEN			
25.	ARUL SUTHISH	Comparative Study on Sensory and Texture Profile of Plant-Based Meat Alternatives	PO1, PO2, PO4, PO8, PO9, PO10, PO12	PSO1-PSO3
26.	AVANDHIKA			
27.	PARTHASARATHI			
28.	NARAYANA SABARISH			
29.	VISVES SAKTHI SUNDARAM	Preparation and Quality Evaluation of Mixed Fruit Jam	PO1, PO2, PO3, PO8, PO9, PO10	PSO1-PSO3
30.	RAGU BALAN			
31.	GADIL MATHEW			
32.	SABARESWARAN			
33.	SIVA BALAN	Preparation of Dehydrated Vegetable products	PO1, PO2, PO3, PO4, PO8, PO9, PO10	PSO1-PSO3
34.	MOHAMED ISMAIL			
35.	MURUKANANDHAM			
36.	YOGITHA			
37.	ASWINI ANGEL	Standardization of Osmotic Dehydration Process for different fruits	PO1, PO2, PO3, PO4, PO8, PO9, PO10, PO12	PSO1-PSO3
38.	JEEVAN SRI			
39.	JEGAN			
40.	KEWIN LUTZ			

C.2 Table 2.4.5 Rubrics for mini project evaluation

S.No	Attribute	Description	Marks
1	Problem Identification & Literature Review	Clarity of problem, relevance to subject, and proper background study	8
2	Methodology & Execution	Planning, implementation, and systematic approach	8
3	Analysis & Innovation	Data interpretation, critical thinking, originality	8
4	Report Writing Quality	Organization, technical clarity, formatting, references	8

5	Presentation & Viva Voce	Communication skill, confidence, and response to questions	8
	Total		40 Marks



Fig. 4.2.2 Students mini project work

C.3 Specific outcome of mini project

- Gained confidence to attend placements by improving their technical and presentation skills.
- Developed interest in applying for project funding and innovation grants.
- Participated in ideathons, hackathons, and technical competitions with improved confidence.
- Showed increased interest in applying for internships in industries and research organizations.
- Developed an entrepreneurial mindset to convert ideas into products.

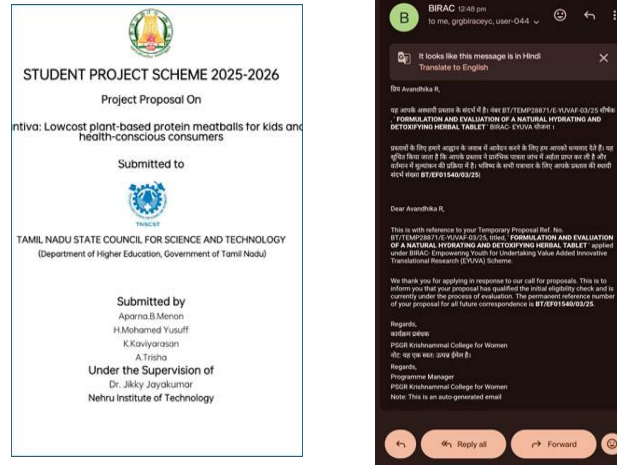


Fig. 4.2.3 Specific outcome of mini project

2.5 Case Studies and Real-Life Examples (10)

As per Regulation 2023, the Department of Food Technology follows a structured and transparent Continuous Assessment process. Continuous Assessment comprises two primary assessments of equal weightage in which Assessment I consists of Assignment/Seminar/ Quiz and Assessment II consists of Case study/Mini project/Experiential Learning, managed by the course coordinator to ensure consistent monitoring of student progress in both theoretical and practical application of the courses.

These diverse assessment modes are selected by the course coordinator based on the specific requirements of the course and are approved by the Head of the Department before the commencement of the semester. This ensures that the evaluation methods are directly aligned with the Program Outcomes (POs) and provide students with real-world context for engineering challenges

- **Type & POs/PSOs Addressed**

Table 2.5.1: Sample Case studies of the courses offered in the curriculum

Course Code & Name	Case Study / Real-Life Example	Type & Complexity	POs/PSOs Addressed
C203: C Programming	Reynolds Number Estimation in Food Fluid Flow	High Complexity : While the base formula is standard, complexity increases when dealing with Non-Newtonian food fluids (like tomato puree) where viscosity changes with shear rate, requiring advanced iterative calculations.	PO1, PO2, PO3, PO5, PO9, PO12 PSO1, PSO2
C204: Food Microbiology	Analysis of the 2018 Listeriosis Outbreak: Investigating the root cause of contamination in ready-to-eat products.	High Complexity: Involves microbial kinetics, cross-contamination paths, and public health ethics.	PO2, PO4, PO8, PSO1
C214: Heat and Mass Transfer	Energy Audit of a Local Dairy Pasteurizer: Real-life calculation of heat loss and steam requirement in an aged plate heat exchanger.	Medium Complexity: Involves thermodynamics, fouling factors, and cost-efficiency analysis.	PO1, PO3, PO7, PSO2
C301: Food Processing and Preservation	Cold Chain Breakdown in Seafood Export: Simulating the impact of a 4-hour power failure on the shelf-life and safety of frozen shrimp.	High Complexity: Requires modeling of temperature abuse and predictive microbiology.	PO3, PO4, PO6, PSO2
C311: IOT Concepts and Applications	Real-time Milk Quality Monitoring: Designing an IoT-based sensor network to detect early-stage souring in rural collection centers.	High Complexity: Integration of electronics, data science, and food chemistry.	PO3, PO5, PO12, PSO2
C401: Refrigeration and Cold Chain Management	Design of a Solar-Powered Cold Room: Developing a storage solution for small-scale farmers to reduce post-harvest losses.	Medium Complexity: Focuses on renewable energy integration and thermal insulation design.	PO7, PO11, PSO2
C404: Total Quality Management	Six Sigma in a Biscuit Factory: Analyzing weight variations in packaging lines to reduce overfill and material wastage.	Medium Complexity: Involves statistical process control and industrial economics.	PO2, PO11, PSO1

D. Haridharshini
 B.Tech [Food-Tech]-
 IInd-Year
 ASSIGNMENT=2
 Sub-C= Programming
 Code = U23C5203
 Roll no: 11

Reynolds Number Estimation in Food Fluid Flow

In food process engineering fluids such as milk, fruit juice, tomato paste, and edible oil often flow through pipelines heat exchangers, and pumps.

Understanding whether the flow is laminar, transitional, or turbulent is essential for designing efficient processing systems.

The Reynolds number (Re) is a dimensionless quantity used to predict the flow regime of a fluid. It represents the ratio of inertial forces to viscous forces acting on the flow.

The case study demonstrates how to calculate the Reynolds number for a given food liquid and interpret the flow behavior using a C program.

Problem Statement:

Develop a C program to:

1. Accept the density, viscosity, velocity, and pipe diameter for a food liquid.
2. Compute the Reynolds number (Re) using the standard formula.

Fig 2.5.1: Case study of the Student

2.6 SWAYAM/NPTEL/MOOC/Self Learning (10)

The department actively promotes self-learning through the SWAYAM / NPTEL / MOOC platforms to enhance the technical depth of students beyond the standard curriculum. As per Regulation 2023, students are permitted to credit a maximum of two online courses (up to six credits) in lieu of professional elective courses.

To ensure academic rigor and avoid curriculum overlap, the Head of the Institution forms a three-member committee-comprising the HOD, a departmental faculty member, and an HOD from another branch-to verify that the chosen course does not repeat content from professional core or elective subjects. These courses must include a proctored examination. Successfully earned credits are reported to the Controller of Examinations to be substituted for professional electives or recorded as additional credits on the consolidated grade sheet (though additional credits are not used for GPA/CGPA calculations).

- **Student Registration and Certification in NPTEL**

Students of the Food Technology Department have successfully completed certifications in specialized processing sectors. These courses bridge the gap between academic theory and industrial application. They have demonstrated a strong technical foundation in Food Oils and Facts: Chemistry and Technology, Dairy and Food Process and Products Technology, Canning Technology, Value Addition of Seafood (Fish Processing).

Table 2.6.1 Participation and registration of students in NPTEL in the AY 2025-2026

No. of Students Registered	No. of Students Certified
27	11

Table 2.6.2: Participation of students in NPTEL:

S.NO	Register NO.	NAME	COURSE NAME
1.	721024218008	Divya Priyan B	Dairy and Food Process and Products Technology
2.	721024218018	Kumuthasri S	Dairy and Food Process and Products Technology
3.	721024218024	Moniga S	Dairy and Food Process and Products Technology
4.	721024218037	Sudarsan M	Dairy and Food Process and Products Technology
5.	721024218027	Nishanth R S	Dairy and Food Process and Products Technology
6.	721024218039	Umar Hataff A	Dairy and Food Process and Products Technology
7.	721024218026	Nikitha Raj J	Dairy and Food Process and Products Technology
8.	721024218036	Subasri S K	Dairy and Food Process and Products Technology
9.	721024218012	Harshini A	Dairy and Food Process and Products Technology
10.	721024218030	Princy Agnes B	Dairy and Food Process and Products Technology
11.	721024218040	Vishwa R	Dairy and Food Process and Products Technology
12.	721023218001	Ajay Raj	Food Oils and Facts: Chemistry and Technology
13.	721023218006	Aswini Angel N	Dairy and Food Process and Products Technology
14.	721023218007	Avandhika R	Dairy and Food Process and Products Technology
15.	721023218041	Thanusree D	Dairy and Food Process and Products Technology
16.	721023218030	Pradeepa K	Food Oils and Facts: Chemistry and Technology

17.	721023218023	Mohammed Ismail S	Food Oils and Facts: Chemistry and Technology
18.	721023218301	Sruthika M	Food Oils and Facts: Chemistry and Technology
19.	721023218037	Sneka C	Food Oils and Facts: Chemistry and Technology
20.	721023218036	Sivabalan S V	Food Oils and Facts: Chemistry and Technology
21.	721023218003	Ajmal A	Dairy and Food Process and Products Technology
22.	721022218022	Jasna J	Food Oils and Facts: Chemistry and Technology
23.	721022218036	Safran Nusrath M	Canning Technology, Value Addition of Seafood (Fish Processing)
24.	721022218025	Khavya S	Food Oils and Facts: Chemistry and Technology
25.	721022218047	Vaishnavi G	Food Oils and Facts: Chemistry and Technology
26.	721022218011	Aravinth K J	Food Oils and Facts: Chemistry and Technology
27.	721022218030	Muralidharan G	Food Oils and Facts: Chemistry and Technology



Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
THANU SHREE
for successfully completing the course
Dairy and Food Process and Products Technology
with a consolidated score of **65** %

Online Assignments	23.44/25	Proctored Exam	42/75
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Total number of candidates certified in this course: **1688**

Jul-Oct 2025
(12 week course)





Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No: NPTEL25AG225966300091 To verify the certificate  No. of credits recommended: 3 or 4

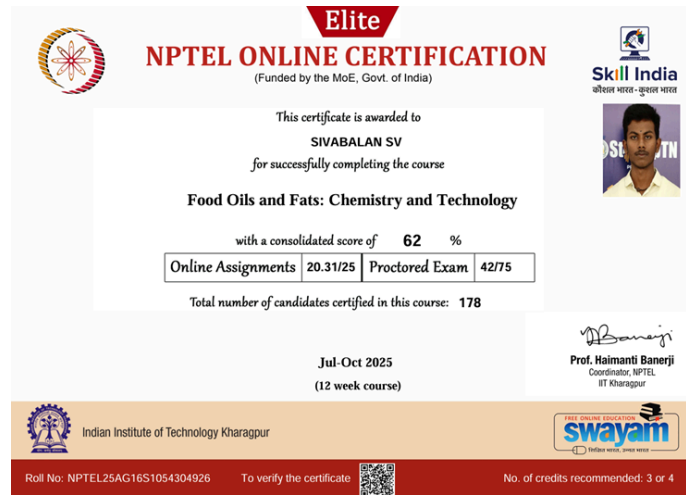


Fig 2.6.1: Sample NPTEL Certificate of Students

- **POs & PSOs Addressed**

Table 2.6.3 : Mapping of the NPTEL Programs

Course	POs/PSOs Addressed
Food Oils and Facts: Chemistry and Technology	PO1, PO2, PO4, PO7, PSO1
Dairy and Food Process and Products Technology	PO1, PO3, PO5, PO11, PSO1, PSO2
Canning Technology, Value Addition of Seafood (Fish Processing)	PO2, PO3, PO7, PO12, PSO1, PSO3

- **Student Participation and Certification in Coursera**

To foster a culture of lifelong learning, the Department of Food Technology encourages students to enroll in high-impact online courses from premier international and national institutions via platforms like Coursera.

Table 2.6.4: Certification of students in the AY 2024 - 2025

S.No	Course Name	Authorizing Institution	No of Students Certified
1	Biochemical Principles of Energy Metabolism	KAIST, South Korea	30
2	Transformation of the Global Food System	University of Copenhagen	33
3	Metaliteracy: Empowering Yourself in a Connected World	State University of New York	34
4	Interpersonal Communication for Engineering Leaders	Rice University	34

5	Effective Problem-Solving and Decision-Making	University of California, Irvine	34
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Table 2.6.5: Mapping of the Coursera courses authorized by global universities

S.No	Course Name	Authorizing Institution	POs Addressed	PSO Addressed
1	Biochemical Principles of Energy Metabolism	KAIST, South Korea	PO1, PO4	PSO1
2	Transformation of the Global Food System	University of Copenhagen	PO7, PO12	PSO2
3	Metaliteracy: Empowering Yourself in a Connected World	State University of New York	PO5, PO12	PSO2
4	Interpersonal Communication for Engineering Leaders	Rice University	PO9, PO10	PSO2
5	Effective Problem-Solving and Decision-Making	University of California, Irvine	PO2, PO8	PSO2

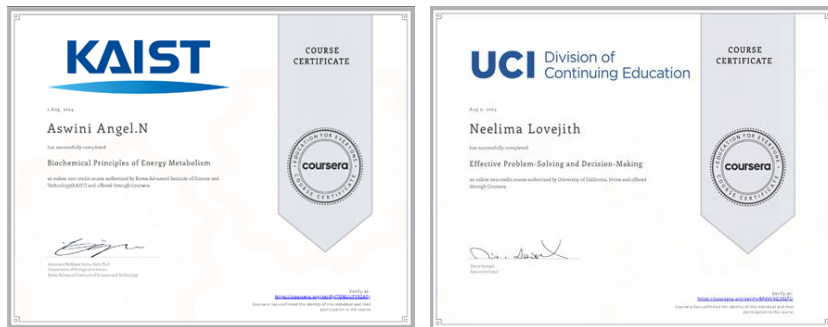


Fig 2.6.2: Coursera Certificates of Students

2.7 Solving Complex Engineering Problems Incorporating Sustainability Goals (20)

The Department of Food Technology integrates Project Based Learning across the curriculum to challenge students with "Complex Engineering Problems." These initiatives require students to synthesize engineering fundamentals, navigate conflicting constraints, and utilize modern tools to develop solutions that directly target the United Nations Sustainable Development Goals (SDGs).

- **Core Courses**

Core courses provide fundamental knowledge in food processing, packaging, fermentation, refrigeration, and preservation technologies. They build technical competence, problem-solving skills, and industry readiness aligned with sustainable and safe food production practices.

Table 2.7.1 Sample of Core Courses with relevant SDG that are offered in the curriculum

S. No	Core Course	Problem-Based Activity	Relevant SDG	Justification
1	U23FT501- Food Packaging Technology	Study different types of packaging materials available in the market for different food products with their properties and design	SDG 12 Responsible Consumption and Production	Promotes sustainable packaging, reduction of food waste, eco-friendly materials
2	FD3701 - Refrigeration And Cold Chain Management	Case study discussion on Cold storage operations, refrigerated transportation, and temperature-sensitive handling of food products	SDG 12 Responsible Consumption and Production	Ensures food preservation, reduces post-harvest losses, improves food security
3	FD3010 - Food Fermentation Technology	Microorganisms- importance in food fermentations	SDG 3 – Good Health and Well-being	Enhances food preservation, improves nutritional quality, promotes probiotics and gut health

- **Mini Projects**

As per R2023, based on the course and preference of the course coordinator the students are allotted to do Mini Projects for Non written part of Assessment II. These enhance hands-on skills, teamwork, innovation, and application of theoretical concepts to real-time food processing challenges.

Table 2.7.2 List of Mini Projects completed for Food Microbiology course in AY 2023 - 2024

S.No	Student Name	Project Title	Relevant SDG	Justification
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1	Ajay Raj M Ajmal A Arul Suthish M Aswini Angel N Avandhika R	Development and Standardization of Fermented Kimchi	SDG 3: Good Health & Well-being	Involves the complex optimization of lactic acid fermentation to create a probiotic-rich product with high antioxidant capacity.
2	Harshini Devi K Janani N Jeevansri G Jegan N Jerolin Selvin S	Development of Traditional Fermented Vegetable Pickle	SDG 2: Zero Hunger	Focuses on standardized engineering of shelf-stable vegetable products to reduce post-harvest waste and improve food availability.
3	Kewin Lutz R Madhumathy T R Mohamed Ismail S Mohan Kumar P Murukanandam M	Preparation and Quality Evaluation of Fermented Yoghurt	SDG 3: Good Health & Well-being	Addresses industrial efficiency in dairy processing by ensuring consistent microbial quality and sensory standards in fermented products.
4	Ragu Balan S Reshma Jose A Sabaeswaran V Samson J Sivabalan S V Sneha C	Processing and Fermentation Study of Sauerkraut	SDG 12: Responsible Consumption	Utilizes fermentation as a sustainable preservation method to transform perishable cabbage into a high-value, long-life functional food.
5	D Vignesh P G Visves Sakthi Sundaram M Yogitha K Sruthika M	Development of Value-Added Flavoured Yoghurt	SDG 9: Industry & Innovation	Involves complex product formulation to balance natural flavoring with probiotic viability and industrial-scale stability.
6	Dhanushya G Fulton Sheen N Gadil Mathew S Gogul U Gunal K	Optimization of Probiotic Ginger Ale using Indigenous Yeast	SDG 3: Good Health & Well-being	Focuses on engineering a low-sugar, carbonated functional beverage that promotes gut health through natural fermentation.

7	Muthu Lakshmi P Narayana Sabarish M Pargunan K Parthasarathi S Pradeepa K	Development of Fermented Bio-preservatives from Fruit Peels	SDG 12: Responsible Consumption & Production	Utilizes lactic acid bacteria to ferment agro-industrial waste into natural preservatives, reducing food spoilage and chemical additive use.
8	Subaharini A R Subash K Subashini B Thanushree Jothika G	Production of Protein-Enriched Fermented Cashew Apple Juice	SDG 2: Zero Hunger	Addresses post-harvest losses of underutilized cashew apples by converting them into a nutrient-dense, fermented energy drink.

• Capstone Projects

Capstone projects are final-year researchworkaddressing real food technology problems. They integrate technical knowledge, sustainability, quality control, and innovation to prepare students for professional careers or higher studies.

Table 2.7.3 Detail of Capstone Project of the students AY 2023 - 2024

S.No	Students Name	Project Title	Relevant SDG	Justification
1	Kousiga A, Safeeq Rahman K, Keerthana B, Pasupathi P	Development of Nutritive Sour Gummies Containing Gooseberry and Roselle	SDG 3: Good Health & Well-being	Focuses on formulating confectionery with natural Vitamin C and antioxidants to replace synthetic additives.
2	Sivasankari B, Navin Kumar H V, Mohamad Rafique K, Anand K	Development and Formulation of Gluten Free Cookies Using Palmyra Sprouts	SDG 2: Zero Hunger & SDG 3	Addresses celiac disease and nutritional security by utilizing underutilized local Palmyra sprouts in gluten-free baking.
3	Maha Lakshmi G, Indhu S, Jeevitha S	Development and Optimization of Ready to Drink Herbal Juice with Triphala Extract	SDG 3: Good Health & Well-being	Optimizes the extraction and stabilization of traditional Ayurvedic compounds for modern functional beverages.
4	Saran M, Vishva R, Deepika A, Shabeeb P	Development of Millet Milk Infused Low Calorie Banana Blossom Milk Cake	SDG 12: Responsible Consumption & Production	Promotes circular economy by incorporating banana blossom (agro-waste) into a low-calorie, plant-based dairy alternative.
5	Melvin K Roy, Sinasira B, Mohammad Farsil A, Thanveer Shahin P K	Study on Individual Quick Freezing	SDG 9: Industry, Innovation & Infrastructure	Investigates advanced preservation techniques to reduce post-harvest losses and improve industrial food logistics.
6	Liberna B, Aravindswamy B, Vignesh G, Kesavaram S	Development of Antioxidant Enriched Black Rice Flour Choco Cookie	SDG 3: Good Health & Well-being	Utilizes specialty grains (Black Rice) rich in anthocyanins to design functional snack foods.
7	Pugazhoviyan S, Srinithin M B, Mukil K S, Subash E	Cheminformatics - Biophysics Correlate to Identify Lead Molecules from Pithecellobium Dulce	SDG 3: Good Health & Well-being	Employs computational "Modern Tools" to identify anti-cancer molecules, bridging the gap between biotechnology and food engineering.

• Innovation and Entrepreneurship Development through New Gen IEDC

The department actively fosters a culture of innovation and entrepreneurship among students through the **New Gen IEDC** (Innovation and Entrepreneurship Development Centre). This initiative encourages students to transition from job seekers to job creators by providing a platform to transform their creative ideas into commercially viable prototypes and startups.

Table 2.7.4: Details of New Gen IEDC

S. NO	Team Members	Project Title & Company	SDG	Justification & Impact
1	Mahalakshmi G, Liberna B, Kousiga A, Sivasankari B	Nutritious Healthy Bar (MUSA FOODS)	SDG 12: Responsible Consumption and Production	Implements "waste to wealth" by fortifying millet-based bars with raw banana peel powder to supplement dietary calcium and fiber.
2	Saran M, Keerthana B, Vignesh G	Multifloral Tea (Vierdo Foods)	SDG 3: Good Health and Well-being	Utilizes edible flowers and herbs (Hibiscus, Butterfly pea) to produce antioxidant-rich tea that manages blood pressure and boosts brain health.
3	Melvin K Roy, Sinasira B, Thanveer Shahin P K	Bija Treat Cookies (Bija Cookies)	SDG 12: Responsible Consumption and Production	Formulates healthy snacks using nutrient-dense banana flour instead of refined flour (maida), incorporating fruit and vegetable seed waste.
4	Janani S, Karthika S, Sarvadarshini M, Legha Shri K	Nutritive Jelly with Fibre Enrichment (Yummy Circle)	SDG 3: Good Health and Well-being	Converts banana pseudo stem biowaste and green pea extract into protein-rich convenience food, reducing global carbon prints in food processing.
5	Pugazhaoviyam S, Mukil K S	Millet Yogurt Mix (Pro Foods)	SDG 2: Zero Hunger	Creates a low-glycemic, probiotic yogurt alternative to boost immune health using climate-resilient millet malt.

• **Activity Based Learning**

Activity-based learning and hackathons promote experiential learning by engaging students in real-world problem solving aligned with Sustainable Development Goals (SDGs). Through teamwork, and innovation, students develop practical, sustainable solutions addressing challenges such as food security, health, climate action, and responsible production, fostering social responsibility and entrepreneurial skills.

Table 2.7.5: Details of Hackathon and Activity in the AY 2024 - 2025

S. No	Nature of Activity	Program/Event Name	Date	Relevant SDG & Justification
1	Hackathon	International Conference (ICIHES-2025) Hackathon, Avinashilingam University	26-27.02.2025	SDG 3 & 13: Addressing complex intersections of healthcare innovation and environmental sustainability.
2	Hackathon	Food Hackathon Challenge, CSIR-CFTRI, Mysore	27-28.02.2025	SDG 2 & 12: Engineering innovative solutions for food processing and sustainable production.
3	Workshop	Workshop on Food Packaging Techniques and Testing	09.10.2024	SDG 12: Focuses on engineering sustainable packaging solutions to reduce food waste and optimize resource consumption.
4	Seminar	World Food Day	16.10.2025	SDG 2: Promotes awareness and technical strategies to achieve "Zero Hunger" through improved food processing and storage.

5	Workshop	Consultancy Workshop for Women Entrepreneurs	20.02.2025	SDG 5 & 8: Supports gender equality and decent work by empowering women with technical consultancy for food-based startups.
6	Seminar	RAAST Students Chapter Inauguration	11.03.2025	SDG 9: Fosters industrial innovation and infrastructure through specialized technical student bodies in food engineering.
7	Competition	World Food Day - Flameless Healthy Cookery Competition	15.10.2024	SDG 3: Encourages nutritional awareness and innovative food preparation to promote "Good Health and Well-being".

• **Outcome for incorporating SDG**

The integration of activity-based learning, capstone projects, mini projects etc., enables students to solve complex engineering challenges with a strong focus on sustainability. Students have published conference proceedings for their capstone projects as outcome.

Table 2.7.6: Sample Conference Proceeding of Students

S. No	Authors	Title of Paper	Conference Details
1	Liberna B, Aravindswamy B, Vignesh G, Kesavaram S	Development of Antioxidant Enriched Black Rice Flour Choco Cookie	National Conference on Innovations in Science, Technology, Agriculture & Healthcare Application (ISBN: 978-93-341-0270-3)
2	Pugazhoviyan S, Srinithin M B, Mukil K S, Subash E	Cheminformatics - Biophysics Correlate to Identify Promising Lead Molecules from Pithecellobium Dulce Leaf Extract: A Promising Anti-Cancer and Anti-Cholesterol Target	National Conference on Innovations in Science, Technology, Agriculture & Healthcare Application (ISBN: 978-93-341-0270-3)

2.8 Steps Taken for Enhancing Industry Institute Partnerships (15)

2.8 Steps Taken for Enhancing Industry Institute Partnerships

Incorporating Industry-readiness and global technical competencies among students in the Department of Food Technology a robust framework for Industry-Institute Interaction has been intensively established. This synergy allows students to adapt to rapid technological advancements and understand the commercial landscape of the food sector. The department follows a structured procedure to facilitate this engagement:

- **Knowledge Dissemination through Expert Forums:** The department regularly invites technical experts from the food industry to participate in National and International Conferences and Seminars, providing students with exposure to current industrial trends and research.
- **Strategic Networking and Career Guidance:** Networking sessions are organized with HR professionals and talent acquisition leads from major food processing firms to bridge the gap between academic learning and corporate expectations.
- **Experiential Learning via Industry Visits:** Students are encouraged to participate in structured training programs and industrial visits to food processing plants, and cold chain facilities to understand large-scale operations.
- **Collaborative Consultation with Industry Stalwarts:** The department maintains active professional ties with many food industries like **PVR Foods, Moon Foods, Agri Amigos, Manjilas Foods to name a few**. These linkages bring senior technocrats and R&D experts into the classroom to discuss global food safety standards (ISO 22000, HACCP) and real-world supply chain challenges.
- **Technical Workshops on Emerging Technologies:** To ensure students are proficient in modern technological advancements, the department facilitates hands-on workshops in collaboration with specialized industrial partners and research institutes. Technical training is conducted on high-end analytical instrumentation for food quality analysis.
- **Continuous Quality Improvement through Professional Feedback:** Formal input is sought from industry experts to evaluate the syllabus as member of Board of Studies and other departmental events and workshops, ensuring they remain progressive and industry-relevant.

A. Industry -Academia Interaction – Department of Food Technology

In the era of globalization, the Indian food and engineering sectors have faced intensified competition, necessitating a stronger synergy between academia and industry. To maintain a competitive edge, industrial organizations increasingly look toward engineering institutes for innovative solutions to complex technical challenges. Simultaneously, it is imperative that students are exposed to emerging technologies and industrial workflows to ensure they are globally employable and ready for the demands of multinational corporations.

The Department of Food Technology addresses this need by bridging the gap between theoretical education and industrial practice through strategic collaborations. These initiatives significantly enhance the engineering curriculum, provide students with vital exposure to industrial environments, and improve the placement trajectory of graduating engineers.

The department prioritizes the integration of industrial standards into the academic curriculum to ensure students are "industry-ready" upon graduation. Our strategy for enhancing Industry-Institute Partnerships (IIP) focuses on three primary pillars:

- **Industry-Offered Short-Term Programs:** We collaborate with national and international bodies to provide specialized certifications that go beyond the standard university syllabus.
- **Partial Delivery of Courses:** Industry experts are invited to deliver modules within core engineering courses, providing students with insights into current industrial challenges and technological trends.
- **Industrial Support and Training:** Partnerships with organizations like FSSAI-FoSTaC allow students to gain professional-grade training in food safety, quality management, and regulatory compliance directly from government-certified trainers.

Table 2.8.1: Overall Data of Industry Institute Partnerships

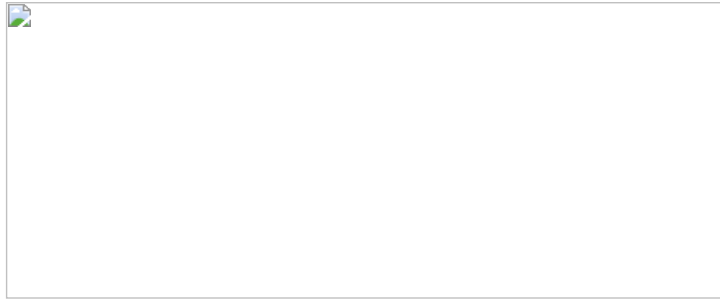
Nature of Activity	Program / Industry Partner	Key Industry Expert / Agency	Date / Duration
Professional Certification	FSSAI-FoSTaC Training (HACCP, ISO 22000)	FSSAI Government Trainers	Apr 24 – May 1, 2023
Hands-on Training	Bakery Product Development	Ms. Madhumitha (Bakers Foods)	June 6, 2022

Technical Competition	Poster Presentation (Food Safety Day)	Bakers Foods, Coimbatore	June 7, 2022
Certificate Program	Production of Dairy Products (U23VE502)	Dr. Vidhya R. Sridharan (Amway India)	15 Hours
Seminar	Entrepreneurship Avenues in Food Processing	Dr. Daniel Jebaraj (Agri Amigos)	March 11, 2025
Symposium	Alimento 2K23 (National Level)	Dr. K. Rathnam (Milky Mist CEO)	18.04.2023
Industrial Training	Extruded Product Manufacturing	Savorit Limited, Dindigul	Sep 2022
Industrial Visit	Milma Milk Chilling Plant	Milma, Palakkad	Feb 2023
Industrial Training	A1 Chip Manufacturing (Naan Mudalvan)	A1 Chips, Coimbatore	May 2023
Field Visit	Central Institute of Agriculture Engineering	ICAR-CIAE, Coimbatore	Sep 11, 2024
Industrial Visit	Codissia Ice Cream Tech Fair	Codissia, Coimbatore	Feb 4, 2025
Technical Competition	Flameless Healthy Cookery Competition	Mr. Arivazhagan (Double Horse)	Oct 15, 2024
Motivational Talk	My Story – Motivational Talk	Mr. Babu (Ayira Foods)	2024

ü To enhance Industry-Institute Partnerships and ensure alignment with national regulatory standards, the Department of Food Technology organized a four-day FSSAI-FoSTaC certification program for second-year students in early 2023. The curriculum, delivered by government-certified trainers, covered Basic Food Manufacturing, Catering safety, HACCP (Level 3), and ISO 22000 standards. This initiative successfully bridged the gap between academic theory and industrial compliance, equipping graduates with recognized credentials for Quality Assurance and Food Safety Management roles.



Fig 2.8.1 Food Safety and Training certification programme



ü

ü To enhance practical competency in commercial food production, the Department of Food Technology organized a Hands-on Training on Bakery Product Development on June 6, 2022, followed by a Poster Presentation Competition on June 7, 2022. Conducted in collaboration with Bakers Foods, Coimbatore, and led by QC Manager Ms. Madhumitha, these initiatives provided industry-specific knowledge on quality control, product formulation, and environmental safety. This partnership directly supported the attainment of professional competencies required by industrial stakeholders.



Fig 2.8.2: Hands-on Training on Bakery Product Development

ü As part of the initiative to strengthen industry-institute exposure, second-year B.Tech Food Technology students underwent a one-day industrial visit to the **Milma Milk Chilling Plant, Palakkad, Kerala**, in February 2023. This visit offered students a practical perspective on industrial-scale milk procurement and processing. Students observed the operation of bulk milk coolers (BMCs), plate heat exchangers, and the implementation of stringent quality control measures at the chilling center level. By interacting with plant supervisors, students gained an understanding of the logistical and technical challenges involved in maintaining the cold chain, which is essential for ensuring the safety and shelf-life of dairy products.



Fig 2.8.3 Visit to Milma Milk Chilling Plant

ü To enhance the technical proficiency of students in specialized processing sectors, the Department of Food Technology offered a 15-hour certificate program on **Hands-on Training on Production of Dairy Products** (Course Code: U23VE502). The program was delivered by **Dr. Vidhya R. Sridharan, Food Designer at Amway India P. Ltd, Chennai**. A total of 82 students enrolled and successfully completed the course, gaining practical expertise in dairy formulation and industrial processing. This partnership facilitated the partial delivery of the curriculum by an industry expert, ensuring that students were trained according to current multinational standards in food design and production.



Fig 2.8.4 : Hands-on Training on Production of Dairy Products

ü The Department of Food Technology organized a seminar titled **“Entrepreneurship Avenues in Food Processing”** on **March 11, 2025**, to bridge the gap between academic learning and industrial startup opportunities. The session was delivered by **Dr. Daniel Jebaraj from Agri Amigos, Theni**, who provided 162 students with critical insights into the commercial landscape of the food processing sector. This initiative serves as a key step in industry-institute partnership by exposing students to real-world business models, market demands, and the regulatory framework required to establish food-based ventures. By collaborating with an agency dedicated to agricultural and food entrepreneurship, the department ensures that students gain a practical understanding of the value chain and the economic potential of innovative food products.



Fig 2.8.5 : Seminar on Avenues in Food Processing

ü In celebration of **World Food Day**, the Department of Food Technology organized a **Flameless Healthy Cookery Competition** on October 15, 2024, to promote nutritional awareness and innovative food preparation among students. The event served as a significant industry-institute interaction, featuring **Mr. Arivazhagan, Quality Control (QC) Head at Double Horse – Manjilas Foods, Palakkad**, as the industry jury member. A total of 94 students participated, presenting creative culinary solutions that were evaluated based on industrial quality benchmarks, nutritional value, and food safety standards. This partnership allowed students to receive direct feedback from a senior quality professional in the food industry, bridging the gap between academic creativity and commercial food safety expectations.



Fig 2.8.6 : Flameless Healthy Cookery Competition

B. Industry Partnerships (MoUs)

We have signed formal agreements (Memorandums of Understanding) with several companies. these partnerships help both our students and faculty get a clearer picture of how theoretical ideas work in practice. Our MoUs focus on five main areas:

1. **Internships:** Providing students with real-world work experience during their studies.
2. **Project Work:** Allowing students to solve actual industry problems for their final year projects.
3. **Industrial Visits:** Organizing tours of factories and processing plants to see large-scale operations firsthand.
4. **Targeted Training:** Specialized coaching for students to bridge specific skill gaps.
5. **Value-Added Programs:** Offering extra certification courses that go above and beyond the standard university syllabus.

Table 2.8.2: Industry Partnerships (MoUs)

S. No.	Details of the Industry/ Institute for which the MoU is signed	Date of MoU
1.	PVR Foods Pvt. Ltd, Coimbatore	10.11.2025
2.	Moon Foods Pvt. Ltd, Tiruchengode	16.10.2025
3.	Agri Amigos, Theni	11.03.2025
4.	Angel Starch and Food Pvt Ltd, Erode	10.09.2024
5.	Ayyara Foods, Kunnathur	10.09.2024
6.	AR Foods, Coimbatore	10.09.2024
7.	Lofty Agrotech, Coimbatore	10.09.2024
8.	Machen Innovations Pvt Ltd, Coimbatore	17-09-2022
9.	Impresso 3D, Coimbatore	17-09-2022
10.	G. K. Agrotech Solutions, Bangalore	17-09-2022
11.	Marutham Meats	17-09-2022
12.	Intra MoU with Nehru Arts and Science College, Coimbatore	13-09-2022
13.	Ramaswamy Chinnammal Charitable Trust, Coimbatore	29-10-2021
14.	Veg Route Agri Tech Pvt. Ltd., Coimbatore	29-10-2021
15.	Aspire TRC Training Consulting LLP, Ernakulam	29-10-2021

Industrial Visits

The Department of Food Technology actively fosters industrial partnerships by organizing structured industrial visits and training sessions at leading food processing facilities. These initiatives are designed to provide second- and third-year students with a first-hand understanding of industrial-scale unit operations, quality control protocols, and R&D processes.

Table 2.8.3: Industrial Visit in the Academic Year 2022-2023

S. No	Year	Industry Partner	Date
1.	Second & Third Year	United India Foods, Savorit Limited, Dindigul	Sep 2022
2.	Second Year	Milma Milk Chilling Plant, Palakkad	Feb 2023

3.	Third Year	A1 Chip Manufacturing Unit	May 2023
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Fig 2.8.7: Industrial Visit

Table 2.8.4: One day Field Visit

S. No	Year	Number of Participants	Name of the industry	Date
1	IV Year	34	ICAR-CIAE Central Institute of Agriculture Engineering, Coimbatore	11.09.2024
2	II Year and III Year	87	Codissia Ice Cream Tech Fair	4.02.2025



Fig 2.8.8 : ICAR-CIAE Central Institute of Agriculture Engineering



Fig 2.8.9 : Codissia Ice Cream Tech Fair

Industry Internships

The department strengthens Industry-Institute Partnerships through structured collaborations with regulatory and industrial bodies. This includes partial course delivery by industry experts, such as Amway’s Food Designers, and short-term certification programs like FSSAI-FoSTaC. Students engage in industrial visits to plants like Milma and Savorit, alongside site-specific training under the Naan Mudalvan initiative. These steps ensure students gain practical expertise in industrial standards and quality control.

Table 2.8.5: Internship details of Students Batch 2022

S. No	NAME	REGISTER NUMBER	ORGANIZATION	Duration

1	ADITH HARIDAS	721022218006	Isham Group of Companies, Qatar	08-10-2025
			Milma Dairy, Kerala	03-01-24 to 23-10-24
2	MURALIDHARAN G	721022218030	Sri Krishna Sweets, Coimbatore	10-10-2025
			Teddy cakes N Creams, Coimbatore	23-10-24 to 06-11-24
3	RAJESHKUMAR G	721022218035	Sri Krishna Sweets, Coimbatore	10-10-2025
			Teddy cakes N Creams, Coimbatore	23-10-24 to 06-11-24
4	ARAVINTH K J	721022218011	Bio Blooms, Coimbatore	08-03-25 to 15- 05-25
			Teddy cakes N Creams, Coimbatore	23-10-24 to 06-11-24
			Sri Krishna Sweets, Coimbatore	10-10-2025
5	KISHORE KUMAR M S	721022218026	Sri Krishna Sweets, Coimbatore	10-10-2025
			Teddy cakes N Creams, Coimbatore	23-10-24 to 06-11-24
			Vocon Foods - Bingo chips Unit	
6	PACHAMUTHU A	721022218033	Sri Krishna Sweets, Coimbatore	10-10-2025
			Teddy cakes N Creams	23-10-24 to 06-11-24
7	SARANKUMAR V	721022218037	Bio Blooms, Coimbatore	08-03-25 to 15- 05-25
			Sri Krishna Sweets, Coimbatore	10-10-2025
			Ruby Food Products Pvt Ltd	17-10-24 to 31- 10-24
8	SUBASH CHANDRABOSE M	721022218044	Sri Krishna Sweets, Coimbatore	10-10-2025
			Amilma icecream, Rasipuram	07-10-24 to 21-10-24
9	Aadhithya S	721022218001	Hindustan Unilever Ltd	

10	GEORGE V	721022218017	Sri Krishna Sweets, Coimbatore	10-10-2025
			Vocon Foods - Bingo chips Unit, Avinashi	23-04-2025
			Ruby Food Products Pvt Ltd, Madurai	17-10-24 to 31-10-24
11	GIRI S	721022218018	Sri Krishna Sweets, Coimbatore	10-10-2025
			Amilma icecream, Rasipuram	07-10-24 to 21-10-24
12	KAVIYARASAN K	721022218024	Sri Krishna Sweets, Coimbatore	10-10-2025
			Amilma icecream, Rasipuram	07-10-24 to 21-10-24
13	RAJESH . R	721022218034	Vocon Foods - Bingo chips Unit, Avinashi	23-04-2025
			Ruby Food Products Pvt Ltd, Madurai	17-10-24 to 31-10-24
14	SIMBU G	721022218040	Sri Krishna Sweets, Coimbatore	10-10-2025
			Amilma icecream, Rasipuram	07-10-24 to 21-10-24
15	VINOTH V	721022218051	Hindustan Unilever Ltd, Cbe	10-10-2025
16	AARCHA S	721022218003	Manjilas Food Tech Pvt Ltd, Kerala	10-10-2025
			Elanadu Milk Pvt Ltd, Kerala	26-07-24 to 10-08-24
17	NAKASHATRAA SREE S R	721022218031	Nivi Foods Manufacturers And Suppliers, Cbe	3-11-25 TO 01-05-26
			Senthil parpain and food product pvt limited, Cbe	07-10-24 to 21-10-24
18	SOWNDARAYA VEERAMANI N	7210222218042	Senthil parpain and food product pvt limited, Cbe	07-10-24 to 21-10-24
19	SWATHI S K	721022218045	Senthil parpain and food product pvt limited, Cbe	07-10-24 to 21-10-24
			Elanadu Milk Pvt Ltd, Kerala	26-07-24 to 10-08-24
20	SAFRAN NUSRATH M	721022218036	Senthil parpain and food product pvt limited, Cbe	07-10-24 to 21-10-24
			Elanadu Milk Pvt Ltd, Kerala	26-07-24 to 10-08-24
21	DEEPA LAKSHMI A	7210222218016	Anil Foods, Dindugul	02-09-24 to 16-09-24

2 2	TRISHA A	7210222218046	Anil Foods, Dindugul	02-09-24 to 16-09-24
			G M natural zone, Dharmapuri	29-12-25 to 29-06-26
2 3	ANUSHIYA C	721022218009	Anil Foods, Dindugul	02-09-24 to 16-09-24
2 4	BHUVANESWARI R	721022218013	Anil Foods, Dindugul	02-09-24 to 16-09-24
2 5	SRI SAMRITHA N	721022218043	Anil Foods, Dindugul	02-09-24 to 16-09-24
2 6	KHAVYA S	721022218025	ITC ICML, Trichy	MARCH TO MAY 2025
			Ruby Food Products Pvt Ltd, Madurai	02-09-24 to 01-10-24
			Lulu Hypermarket, Coimbatore	10-11-2025
2 7	Aarathy N	721022218002	Top in town, Kerala	24-10-25 to 24-11-25
			Milma Dairy, Kerala	03-01-24 to 23-10-24
2 8	Alfino Vin John	721022218007	Lulu hypermarket, Kerala	31-10-2025
			Milma Dairy, Kerala	03-01-24 to 23-10-24
2 9	Haroon Raeez	721022218021	Lulu hypermarket, Kerala	31-10-2025
			Milma Dairy, Kerala	03-01-24 to 23-10-24
3 0	DEENADHAYALAN K D	721022218014	Sri Krishna Sweets	10-10-2025
			International Agricultural Processing Pvt Ltd, Dindugul	14-10-24 to 28-10-24
3 1	APARNA B MENON	721022218010	Lulu Mall, Kerala	30-10-2025
			Milma Dairy, Kerala	03-01-24 to 23-10-24
3 3	LIYANA N M	721022218027	Elanadu Milk Pvt Ltd, Kerala	26-07-24 to 10-08-24
3 4	MOHAMED YUSUFF H	721022218029	Amilma icecream, Rasipuram	07-10-24 to 21-10-24
			Sri Krishna Sweets, Coimbatore	10-10-2025
3 5	ABHISHEK V	721022218005	Anil Foods, Dindugul	02-09-24 to 16-09-24
3 6	GOKULA SAKTHIVEL K	721022218019	Anil Foods, Dindugul	02-09-24 to 16-09-24
3 7	JASNA J	721022218022	Ruby Food Products Pvt Ltd	02-09-24 to 01-10-24
3 8	S SOMNATH	721022218041	Amilma icecream, Rasipuram	07-10-24 to 21-10-24
3 9	M AMARNATH	721022218008	International Agricultural Processing Pvt Ltd	14-10-24 to 28-10-24

40	M GOWTHAM	721022218020	International Agricultural Processing Pvt Ltd	14-10-24 to 28-10-24
41	R VIGNESWARAN	721022218049	International Agricultural Processing Pvt Ltd	14-10-24 to 28-10-24

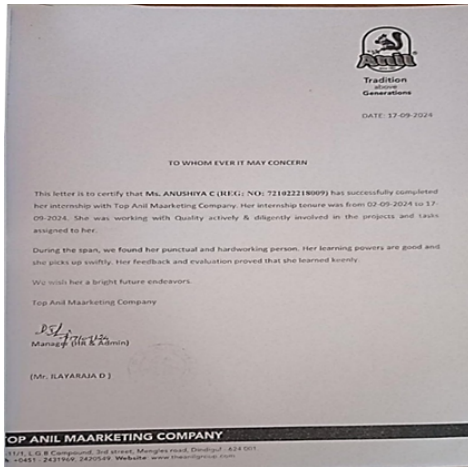


Fig 2.8.10 : Internship Certificate of Students

Visiting Faculties

The Department of Food Technology strengthens its curriculum by inviting Visiting Faculty from leading industries and emeritus professors from renowned agricultural universities. This initiative facilitates the delivery of specialized core subjects, providing students with a blend of academic rigor and industrial application. Experts from organizations like Agri Inputs Pvt. Ltd. and Moon Foods share practical insights into commercial production, quality control, and post-harvest management, ensuring that the graduates are technically proficient and industry-ready.

Table 2.8.6: Details of Visiting Faculty

Academic Year	Name of the Expert	Designation	Organization	Course Name	No. of Hours Handled
2024-25	Dr. M. Daniel Jebaraj	Managing Director	Agri Inputs Pvt. Ltd., Trichy	Post Harvest Technology	60 hrs
2023-24	Dr. L. Thangavel	Professor Emeritus	TNAU, Coimbatore	Food Processing & Preservation	60 hrs
2022-23	Dr. P. Sathya Murthy	Managing Director	Moon Foods, Tiruchode	Food Microbiology	60 hrs

3 OUTCOME-BASED ASSESSMENT (120)

Total Marks 120.00

3.1 Evaluation of Continuous Assessment: Assignments, Unit Tests, Mid-Term, etc. (10)

Process for internal semester question paper setting, evaluation and effective process implementation

The quality of Internal Question paper, Assignments and evaluation is ensured by following a definite process of question paper setting and strategy for evaluations.

In R2021, R2023 Continuous Internal Assessments are conducted for each subject per semester. Each of the tests consists of descriptive, quantitative and analytical question

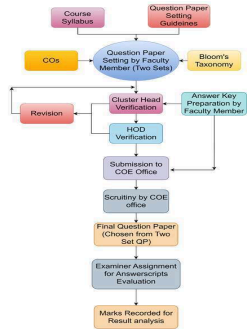


Fig. 3.1.1 Process for internal examination evaluation & assessment

Process to ensure questions from outcomes/learning levels perspective

- For each course, two sets of question papers are prepared based on course outcomes as specified in the syllabus by the subject handling faculty members.
- The question papers contain higher order thinking questions and questions of different Blooms taxonomy levels. (Remember, Understand, Apply Analysis etc.)
- The question papers are verified by the cluster head who is a subject expert and a senior Faculty member for ensuring the incorporation of above said standards and it is followed by the verification by the HOD and relevant corrections are made.
- Following HODs approval, the question paper sets are submitted to Controller of Examination (COE) office for further processing.
- The question papers undergo scrutiny by subject experts assigned by COE office and one set is chosen for examination, and the whole process is carried out confidentially.

COURSE PLAN			
Course code and title	FIM401 HEAT AND MASS TRANSFER IN FOOD PROCESSES	L	T
		P	C
		3	1
		0	4
Class	Third Year B. Tech. Food Technology	Semester	IV
Regulation	2021	Academic	2022-2023
Course prerequisites	Engineering Mathematics, Engineering Physics, Thermodynamics, and Fluid Mechanics		
Course objectives	The course aims to 1. To impart fundamental concepts of heat transfer mechanisms such as conduction, convection, and radiation relevant to food engineering systems. 2. To provide basic knowledge of mass transfer principles governing diffusion in food and biological materials. 3. To enable the application of governing heat and mass transfer laws to solve engineering problems in food processing. 4. To develop an understanding of heat transfer equipment such as heat exchangers used in the food industry.		
COURSE OUTCOMES			
At the end of the course, students can able to			
CO1	Understand the principles of steady and unsteady state heat conduction using Fourier's law to solve food processing problems. (PO1, PO2)		
CO2	Understand free and forced convection heat transfer phenomena and apply Newton's law of cooling in food systems. (PO1, PO2, PO3)		
CO3	Apply different types of heat exchangers for food industry applications. (PO1, PO2, PO3)		
CO4	Apply radiation heat transfer principles including black body concept and Stefan-Boltzmann law in thermal food processing. (PO1, PO2)		
CO5	Analyze and Apply mass transfer principles using Fick's law of diffusion in food and biological materials. (PO1, PO2, PO3)		

Fig. 3.1.2: Sample Course COs and Blooms Taxonomy levels

Table 3.1.1 Internal Assessment Question paper pattern

Regulation	Part A	Part B	Part C	Total
R2021	10*2=20 (No Choice)	5*13=65 (Either Or Type)	1*15=15 (Either Or Type)	100
R2023	10*1=10 (No Choice)	5*2=10 (No Choice)	10*3=30 (Either Or Type)	50

Cycle Test 1 & 2	Total = 35 Marks; Duration = 60 Minutes Part A: 5 X 1 = 5 Marks Part B: 5 X 2 = 10 Marks Part C: 2 X 10 = 20 Marks
Internal Test 1 & 2	Total = 50 Marks; Duration = 90 Minutes Part A: 10 X 1 = 10 Marks Part B: 5 X 2 = 10 Marks Part C: 3 X 10 = 30 Marks
Part A: <i>Multiple Choice Questions</i> # Part B: <i>Short Answers Questions</i> # Part C: <i>Long Answers Questions</i>	

Process to ensure questions from outcomes/learning level perspectives

Each question in internal test is mapped with COs of that particular course. Students who answered to the particular questions are taken into consideration and average of all students' marks is considered for calculating CO-PO attainments. The cluster head verifies the CO assigned for each question in the question paper and insist the faculty member to make corrections if any. Also, based on the revised Bloom's taxonomy level, the questions are set.

Table 3.1.2: Mapping of question paper verbs to Bloom's Taxonomy level

Action Verb used	Revised Blooms's Taxonomy Level
Identify	Understand(L1)
Show	Understand(L2)
Examine	Analyze(L4)
Write	Apply(L3)
Show	Apply(L3)
Sketch	Apply(L3)

Table 3.1.3 Distribution of Course Outcomes (R2021 & R2023)

Internal Assessment	Course Outcome				
	CO1	CO2	CO3	CO4	CO5
Continuous Internal Assessment - I	*	*	*		

Continuous Internal Assessment – II			*	*	*
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Internal Assessment	Course Outcome				
	CO1	CO2	CO3	CO4	CO5
Cycle Test - I	*				
Continuous Internal Assessment - I		*	*		
Cycle Test - II			*	*	
Continuous Internal Assessment – II				*	*

Table 3.1.4 Distribution of Course Outcomes for Continuous Internal Assessment – I (Regulation 2021)

Part-A										Part-B					Part-C	Total Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11a/ Q11b	Q12a/ Q12b	Q13a/ Q13b	Q14a/ Q14b	Q15a/ Q15b	Q16a/ Q16b	
CO1	CO1	CO1	CO1	CO2	CO2	CO2	CO2	CO3	CO3	CO1	CO1	CO2	CO2	CO3	CO1/CO	100
2	2	2	2	2	2	2	2	2	2	13	13	13	13	13	15	

Table 3.1.5 Distribution of Course Outcomes for Continuous Internal Assessment – II (Regulation 2021)

Part-A										Part-B					Part-C	Total Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11a/ Q11b	Q12a/ Q12b	Q13a/ Q13b	Q14a/ Q14b	Q15a/ Q15b	Q16a/ Q16b	
CO3	CO3	CO4	CO4	CO4	CO4	CO5	CO5	CO5	CO5	CO3	CO4	CO4	CO5	CO5	CO4/CO	100
2	2	2	2	2	2	2	2	2	2	13	13	13	13	13	15	

Table 3.1.6 Distribution of Course Outcomes for Cycle Test – I (Regulation 2023)

Part-A					Part-B					Part-C		Total Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11a/ Q11b	Q12a/ Q12b	
CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	35
1	1	1	1	1	2	2	2	2	2	10	10	

Table 3.1.7 Distribution of Course Outcomes for Continuous Internal Assessment – I (Regulation 2023)

Part-A										Part-B					Part-C			Total Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16a/ Q16b	Q17a/ Q17b	Q18a/ Q18b	
CO2	CO2	CO2	CO2	CO2	CO2	CO3	CO3	CO3	CO3	CO2	CO2	CO2	CO3	CO3	CO2	CO2	CO3	50
1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	10	10	10	

Table 3.1.8 Distribution of Course Outcomes for Cycle Test – II (Regulation 2023)

Part-A					Part-B					Part-C		Total Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11a/ Q11b	Q12a/ Q12b	
CO3	CO3	CO4	CO4	CO4	CO3	CO3	CO4	CO4	CO4	CO3	CO4	35
1	1	1	1	1	2	2	2	2	2	10	10	

Table 3.1.9 Distribution of Course Outcomes for Continuous Internal Assessment – II (Regulation 2023)

Part-A										Part-B					Part-C			Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16a/ Q16b	Q17a/ Q17b	Q18a/ Q18b	
CO4	CO4	CO4	CO4	CO5	CO5	CO5	CO5	CO5	CO5	CO4	CO4	CO5	CO5	CO5	CO4	CO5	CO5	50
1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	10	10	10	

The following figures show the CIA I question papers of FD3303 – Food Microbiology

**Figure 3.1.3: Sample Internal-I question paper for a course**

Assignments

The students assignments focused on enhancing their intellectual understanding, creativity, and social responsibility.

- Assignments are used as a tool for practice and its evaluation is totally based on internal assessment.
- A minimum of two assignments are given for each course, preferably one each before the commencement of internal tests and after the completion of the required portion of the syllabus
- Assignment standards are matched to course outcomes, which aids in the assessment of POs attainment levels.
- The course handling faculty of each course will assign questions from lower-order and higher-order thinking for assignments along with the last date of submission.
- Marks for assignments are based on the quality of the content and presentation.
- After evaluation, the marks secured for each question are mapped with their corresponding COs, POs, and PSOs. Marks are documented in the subject record, and the course-handling faculty will enter the assignment marks along with the CIA marks in the centralized exam management system.
- The sample assignment questions framed after covering the unit and their relevance to CO is shown below:

**Fig. 3.1.4 Framing of Assignment questions**

Evaluation of courses: -

In curriculum R2021 & R2023 we have different kind of courses such as Theory courses, Practical Courses and Theory cum Practical courses. The sample assessment procedure followed in R2021 & R2023 are as follows:

Table 3.1.10 Mark Distribution for Courses (R2021 & R2023)

Sl. No.	Category of Course	Continuous Assessments	End Semester Examination
1	Theory courses	40 Marks	60 Marks
2	Laboratory Courses	60 Marks	40 Marks
	Theory courses with Laboratory component / Theory courses with Project component / Laboratory Courses with Project component	50 Marks	50 Marks
4	Project Work (R2021)	40 Marks	60 Marks
	Project Work (R2023)	60 Marks	40 Marks

5	All other Employability Enhancement Courses	100Marks	-
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Table 3.1.11 Mark Distribution for Continuous Internal Assessment (R2021)

Continuous Internal Assessment I			Continuous Internal Assessment II			Total Internal Assessment (Mark)	Internal Mark
Assignment I	Written Exam I	Total (Mark)	Assignment II	Written Exam II	Total (Mark)		
40	60	100	40	60	100	200	40

Table 3.1.12 Mark Distribution for Continuous Internal Assessment (R2023)

Assessment I (100 marks)	Assignment/Seminar / Quiz (40 marks)	40 marks	100 marks	40 marks
	Written Test (60 marks)	Cycle Test 1 (20 marks) Internal test 1 (40 marks)		
Assessment II (100 marks)	Case Study / Mini Project / Simulation / Other Experiential Learning (40 marks)	40 marks	100 marks	
	Written Test (60 marks)	Cycle Test 2 (20 marks) Internal test 2 (40 marks)		
End Semester Exam		100 marks	60 marks	

Quality of evaluation

The evaluation quality is ensured by the course coordinator of each course by checking the evaluated answer sheets randomly. The samples of answer sheets are maintained in course file. The examiner is provided with a scheme of valuation for evaluating the answer scripts.

3.2 Evaluation of the Semester End Exam (SEE) Question Paper (10)

The process for setting end semester question paper is as follows:

- The End semester examination question papers are set by the panel of expert members from affiliated colleges, autonomous institutions or universities who are nominated by Controller of Examinations.
- The panel of examiners should have minimum five years of experience and they should have handled or must be currently handling the respective course.
- The scrutiny of question papers is done by the course expert at Controller of Examinations office.
- The scrutinizing procedure verifies the adherence to the syllabus, uniform distribution of marks, question paper pattern, mark split up for sub-division and course outcomes.
- After end semester examination, the course faculty prepares the scheme of valuation and answer key.
- A feedback on the question paper is received from the course coordinator and the students after the examination to assess its standard, difficulty level and syllabus coverage
- The answer scripts are evaluated through Central Valuation by Internal Examiners/External Examiners appointed by the COE.
- After the valuation is over, the result passing board meeting is held with university representative, Principal, Controller of Examiner and Head of the Department and then the results are published in the website.

Table 3.2.1 Distribution of Course Outcomes for Semester End Examination (Regulation 2021)

Part-A										Part-B					Part-C	Total Marks	
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11a/ Q11b	Q12a/ Q12b	Q13a/ Q13b	Q14a/ Q14b	Q15a/ Q15b	Q16a/ Q16b		
CO1	CO1	CO2	CO2	CO3	CO3	CO4	CO4	CO5	CO5	CO1	CO2	CO3	CO4	CO5	CO5	10	100
2	2	2	2	2	2	2	2	2	2	13	13	13	13	13	15		

Table 3.2.2 Distribution of Course Outcomes for Semester End Examination (Regulation 2023)

Part-A										Part -B										Part-C					Total Marks	
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q9	Q20	Q21a/ Q21b	Q22a/ Q22b	Q23a/ Q23b	Q24a/ Q24b	Q25a/ Q25b		
CO1	CO1	CO2	CO2	CO3	CO3	CO4	CO4	CO5	CO5	CO1	CO1	CO2	CO2	CO3	CO3	CO4	CO4	CO5	CO5	CO1	CO2	CO3	CO4	CO5	100	
1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	14	14	14	14	14		

A sample semester end question paper and feedback form is furnished below:

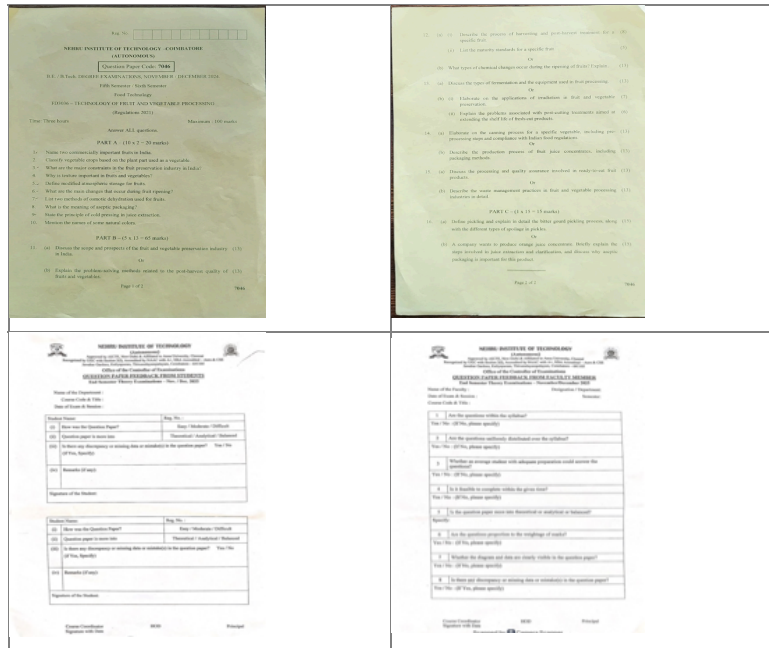


Fig.3.2.1 Sample End semester question paper and feed back form

3.3 Evaluation of Laboratory Work and Workshop (Continuous and SEE) (10)

Table 3.3.1 Laboratory Rubrics:

CRITERIA/ PARAMETERS	PERFORMANCE OF EVALUATION			
	EXCELLENT (9 -10)	GOOD (8-9)	AVERAGE (7- 8)	SATISFACTORY (≤ 7)
Aim	Able to know the proper aim of the experiment	Able to know the outline and not the exact aim	Not clear in aim and able to understand with the help	Not clear in aim and able to understand with the help and repetition
Principle And Procedure	Understands and explains clearly about the principle and procedure	Understands and explains the principle and procedure with doubt	Understands and explains about the principle and procedure with the help	Understands and explains about the principle and procedure with the help and repetition
Conduct of Experiment	Can do the experiment perfectly	Can do the experiment perfectly on repetition	Can do the experiment only with the help	Can do the experiment only when practically seen from others on repetition
Tabulation And Calculation	Well-versed in tabulations and calculations	Able to tabulate and calculate	Not clear in doing it independently	Able to do it with the assistance only
Result	Results are similar to the standard values	Results are approximately similar to the standard values	Results are in deviation to the standard values	Results are in error

The Practical courses maximum marks for Internal Assessment are 60. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records maintained. There shall be at least one test. The criteria for arriving at the Internal Assessment marks of 60 are as follows:

75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory

and 25 marks for the test. The total mark shall be reduced to 60 and rounded to the nearest integer. In practical subjects also, the exam carries 40 marks and the internal marks are 60. Out of the overall, the student has to score a minimum of 50 marks for a pass in the theory as well as in the practical subjects.

Table 3.3.2 Mark Distribution for Laboratory courses (R2021 & R2023):

Average Practical Class Performance Assessment	Model Exam	Total	Internal Mark
75 Marks	25 Marks	100 Marks	60 Marks

Table 3.3.3 Evaluation scheme for lab experiments

Nehru Institute of Technology, Coimbatore	
Department: Food Technology	
Branch /Sem	Batch:2021-2025
Name of the Lab :	

Marks details																
SI.N O	REGISTE R NO.	NAME OF THE STUDEN T	EXP -1	EXP -2	EXP -3	EXP -4	EXP -5	EXP -6	EXP -7	EXP -8	EXP -9	EXP -10	TOTAL(E XP 1-10)	AVG -75	MODE L EXAM (25)	INT MAR K (60)



Fig.3.2.2 Lab record sample page

3.4 Evaluation of Industrial Training/ Internship (Continuous and SEE) (10)

Evaluation of Industrial Training

The Industrial Training / Internship carries 100 marks and evaluated through internal assessment only. The students of Food Technology program are motivated to go for internship at various industries during the semester break. The institute supports students by sanctioning permission to visit industries and gain practical knowledge. The students undergo internship training for a minimum period of 15 days to a maximum of 30 days. A report on training undergone by the students as a team or as an individual is to be submitted after successful completion of their internship. The certificates (issued by the organization) submitted by the students shall be attached to the mark list sent by the Head of the Institution to the Controller of Examinations. The training helps them to think innovatively in solving real time problems and implement as working models.

Table 3.4.1 Internship rubrics:

Parameters	5	4	3	2	1
Organization/ Report format	Excellent	V.Good	Good	Satisfactory	Poor
1 Does the report contain all required parts? Do all figures, graphs, tables correctly drawn, numbered, contain titles/captions, and strongly support the text?	5	4	3	2	1
2 Does the report of an acceptable length considering the subject matter presented?	5	4	3	2	1
Contents					
3 Does the report contain a well written brief abstract. Does the student understand and clearly present in the report the type of the company business he worked for, and how the department he worked in contributes to the successful function of the whole company?	5	4	3	2	1
4 Does the student understand the main objective of his internship, and the relation of his job functions to other functions in the company.	5	4	3	2	1
5 Does the student describe his Internship experience with many details? Does the student make connections of how he has learned through his Internship experience?	5	4	3	2	1
6 Does the student identify areas in which he has made a significant contribution to the organization? Does the present material relevant to the task performed?	5	4	3	2	1

7 Does the student provide concise and complete conclusions followed from the report?	5	4	3	2	1
8. Are appropriate reference citations presented, and are industrial terms and jargon, when used, adequately explained?	5	4	3	2	1
Style/Mechanics					
9. Is the report very well written and free from grammar/spelling mistakes?	5	4	3	2	1
10. Are all sections in order, well-formatted, and readable? In addition, constructive comments regarding the value of the program will be considered.	5	4	3	2	1
Total Marks(Max 50)					

POs/PSOs addressed

Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations are given below.

Table 3.4.2 Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations batch 2020-2024

S.No.	Industry	PO Mapping	PSO Mapping
1.	ITC Limited	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
2.	VVV & Sons Edible Oil Pvt. Ltd	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
3.	RCT – Vadavalli	PO1, PO2, PO4, PO5, PO9, PO10, PO12	PSO1, PSO3
4.	Tamil Nadu Tea Plantation Corporation Limited (TANTEA)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
5.	Udhaiya Krishna Ghee – Pollachi	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10	PSO1, PSO2, PSO3
6.	Naga Foods Pvt Ltd	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
7.	Christy Fried Gram Industries – Namakkal	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
8.	Tamil Nadu Cooperative Milk Producers Federation Limited	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3

Table 3.4.3 Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations batch 2021-2025

S.No.	Internship Organization	PO Mapping	PSO Mapping
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1.	SKM Egg Products Export Limited	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
2.	Ivory Gull Candy, Salem	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
3.	CavinKare Pvt. Ltd.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
4.	RKG Ghee Company, Kangeyam	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10	PSO1, PSO2, PSO3
5.	Aavin	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
6.	Mondelēz International	PO1–PO12	PSO1, PSO2, PSO3
7.	Premier Agro Products Pvt. Ltd.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
8.	Camery Ice Cream	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
9.	Naga Limited	PO1–PO12	PSO1, PSO2, PSO3
10.	Fibro Foods Private Limited, Salem	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
11.	April 3rd Foods Pvt Ltd.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
12.	ITC Limited (ICML)	PO1–PO12	PSO1, PSO2, PSO3
13.	Kannan Devan Hills Plantations Company	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO12	PSO1, PSO2, PSO3
14.	Ruby Foods Pvt Ltd., Madurai	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3
15.	Christy Foods, Tiruchengode	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11	PSO1, PSO2, PSO3

Table 3.4.4 Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations batch 2022-2026

S.No	Name of the Industry		
1	Hindustan Foods, Coimbatore	PO1–PO12	PSO1-PSO3
2	Milma Dairy, Palakkad, Kerala	PO1–PO12	PSO1-PSO3
3	Manjilas Food Tech Pvt Ltd., Thrissur, Kerala	PO1–PO12	PSO1-PSO3

4	Anil Foods, Dindigul	PO1-PO12	PSO1-PSO3
5	International Agricultural Processing Pvt Ltd, Dindigul	PO1-PO12	PSO1-PSO3
6	Bioblooms Agro India Pvt Ltd., Coimbatore	PO1-PO12	PSO1-PSO3
7	Vocon Manufacturing Pvt. Ltd., Tiruppur	PO1-PO12	PSO1-PSO3
8	Jeevan Nutri Foods and Bakes, Coimbatore	PO1-PO12	PSO1-PSO3
9	Ruby Foods Pvt Ltd., Madurai	PO1-PO12	PSO1-PSO3
10	Amilma Ice Cream, Rasipuram	PO1-PO12	PSO1-PSO3
11	Aavin, Thanjavur	PO1-PO12	PSO1-PSO3
12	Teddy Cakes N Creams, Coimbatore	PO1-PO12	PSO1-PSO3
13	Elanadu Milk Pvt Ltd, Kerala	PO1-PO12	PSO1-PSO3
14	Tey Tea Factory Private Limited, Coimbatore	PO1-PO12	PSO1-PSO3
15	Senthil Parboiled and Food Product Pvt Ltd, Coimbatore	PO1-PO12	PSO1-PSO3

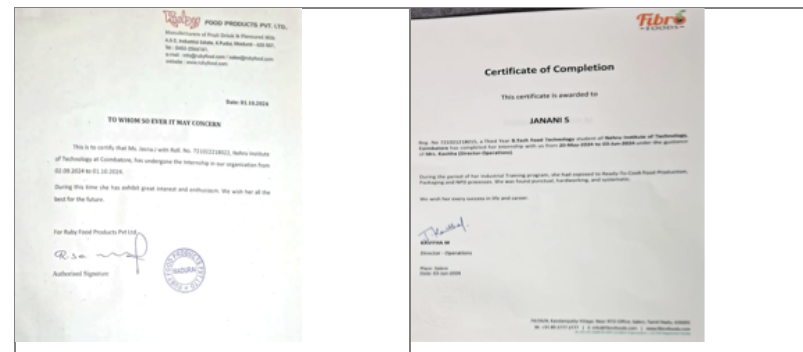


Fig.3.4.1. Internship certificate students

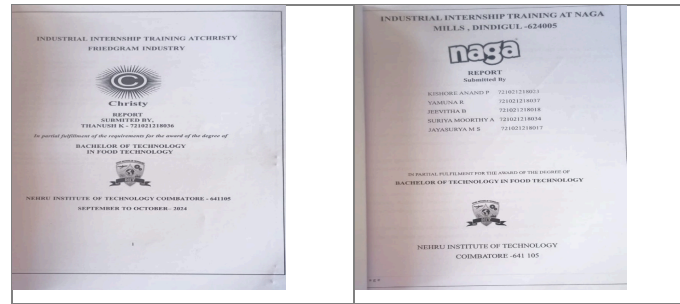


Fig.3.4.2 Internship Report

3.5 Evaluation of Projects (20)

Evaluation of projects

As a part of the curriculum, the students are required to work on a technical project and submit a report. It can be carried out as an individual project or a teamwork of (2/3/4) students. Student's projects are selected in line with Department Vision, Mission and Programme outcomes. The processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing the relevance of projects is explained in Fig 3.5.1.

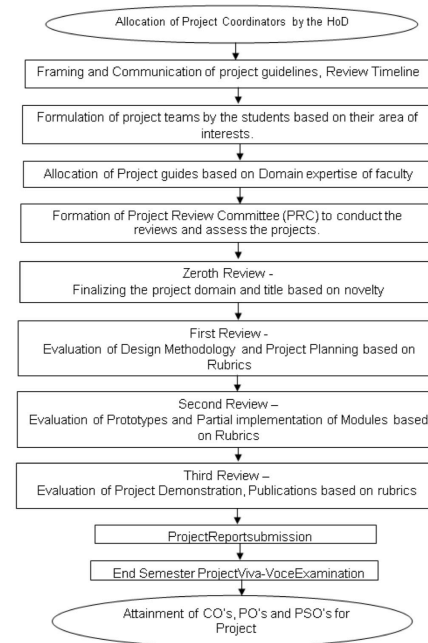


Fig. 3.5.1 Process for Identification of project works, guide allocation, monitoring and allocation

A. Identification of projects and allocation methodology to Faculty Members

Appointment of Project coordinators:

- Project coordinators are identified by Head of the Department to carry out the process of student project work.
- Project guidelines and Review schedule is prepared and communicated to the students well in advance.

Students Batch formation:

- Project coordinators instruct the students to form batches according to their area of interest with maximum of four students in each batch.
- Name of the students, batch wise along with domain interest is submitted to the project coordinators.

Project Guide allocation:

- Professional Competence of the faculty members is received from each faculty.
- Faculty wise Domain specialization is consolidated.
- Allocation of project will be done based on their domain specialization.
- Project coordinators along with Head of the Department appoint the project guides to the batches.

Initiatives:

- Students upon consultation with their allotted guide will explore ideas for selecting the project work in a particular domain or area of interest.
- Copies of previous year projects are placed in the Department library which encourages students to improve the previous works and also ensure no repetition of previous works.

B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs

Based upon the functional area of the projects, they are categorized as follows:

- Design and fabrication
- Product and Process Development
- Analysis and Quality Control
- Waste Management and Byproduct Utilization
- Solution to the real time industrial problems

After categorizing the projects, they will be mapped with POs and PSOs and the attainments are assessed based on the following:

- Depth in fundamentals
- Clarity in problem analysis
- Methodology adopted
- Modern tool usage
- Impact on societal needs as useful products/processes
- Future scope of the work
- Novelty of work
- Team work
- Presentation and documentation
- Cost effectiveness and project management
- Employability

Based on the area of study, the projects are classified into the following categories:

Table: 3.5.1 Types and relevance of the projects and their contribution towards attainment of POs and PSOs

Area of Study	Mapping with the POs	Mapping with the PSOs
Food Processing and Food Engineering	PO1 – PO12	PSO1 – PSO3
Beverage Processing	PO1 – PO12	PSO1 – PSO3
Drying Technology	PO1 – PO12	PSO1 – PSO3
Food Protein and Peptides	PO1 – PO12	PSO1 – PSO3
New Product Development	PO1 – PO12	PSO1 – PSO3

Waste and Byproduct Utilization	PO1 – PO12	PSO1 – PSO3
Relevance to the POs and PSOs: High		

Table: 3.5.2 Project Batch list (2021-2025) with POs and PSOs Mapping

Team (Student Names)	Project Title (Real-Life Case)	Stream	POs/PSOs Addressed
Janani S, Saravadarshini M, Karan Pandi S, Dhanush P	Development of fibre rich spicy stick	New Product Development	PO1 – PO12 PSO1 – PSO3
Gayathri K, Anantha Raman S, Rahim M V	Development of Mexican mint squash	Beverage Processing	PO1 – PO12 PSO1 – PSO3
Legha Shri K, Krithika S C, Thanush K	Development of plant-based protein beverage from Mucuna pruriens	Beverage Processing	PO1 – PO12 PSO1 – PSO3
Karthika S, Asha M, Dhanasekar P, Jeevitha B	Development of functional tisane powder	New Product Development	PO1 – PO12 PSO1 – PSO3
Aathithyan S, Javies L, Kishore Anand P, Yamuna R	Development of Biodegradable film using waste potato peels	Waste and Byproduct Utilization	PO1 – PO12 PSO1 – PSO3
Akash C, Madhumitha R, Dharnish Antony A, Keerthana M	AI based real time milk quality monitoring kit	Food Processing and Food Engineering	PO1 – PO12 PSO1 – PSO3
Lakshman S, Jayasurya M S, Abishek B, Surya Moorthy A	Citrus Peel-Incorporated Banana Sap-Based Fermented Beverage	Waste and Byproduct Utilization	PO1 – PO12 PSO1 – PSO3
Ragul G, Hairath T H, Fathima D, Fathima Sinsina P A	Orange peel incorporated jack fruit seed-based Whey Drink	Waste and Byproduct Utilization	PO1 – PO12 PSO1 – PSO3

Neelima Lovejith, Tamil Selvan S, Rineesha R, Ashwant B	Development of innovative sweet potato muffin	New Product Development	PO1 – PO12 PSO1 – PSO3
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C. Process for monitoring and evaluation

Monitoring the final year project work:

- The review schedule is prepared by the project coordinator in accordance with the department academic calendar and is approved by the HOD.
- The schedule is displayed on the notice board for student reference. Once the project has begun, the students should meet their respective supervisor in regular basis and explain their progress in the project work
- Student's progress will be recorded in project diary/project note which will be maintained by students.
- The project guides will evaluate the report submitted by the student and help them to proceed in their project work. Domain specific project reviews are conducted.
- Project viva voce is conducted by inviting experts from industry / academic field.

Project Work Evaluation

- To monitor the progress and evaluate the project, several reviews are conducted as given below:
- The evaluation is carried out at each review by the project evaluation committee.
- The student make presentation on the progress made by him / her before the committee.
- The assessments of individual and team performance are done by the respective guide during reviews.
- The evaluation is made based on the rubrics fixed for each review.
- Internal assessment mark of the project is awarded based on the evaluated scores obtained from reviews.
- End semester assessment mark is based on the evaluation in the final review (Viva-voce) by both internal and external examiners.

The faculty members encourage the students:

- To carry out in-house projects by utilizing the available facilities in the Department.
- To participate in project exhibitions by creating a platform to exhibit their innovations and works.
- To publish their work in journals/conferences

3.5.3. Project Rubric: Criteria - Content

Identifies and Summarizes the Problem or Question to be investigated			
Excellent	Good	Satisfactory	Unsatisfactory

Use prior knowledge to identify a problem / question to be studied and has a clearly stated objective. Breaks problem / question down into a series of steps that will lead to the stated objective to be addressed and identifies complexities in the problem / question.	Use prior knowledge to identify a problem / question to be studied and has a clearly stated objective. Breaks problem / question down into a series of smaller steps that will lead to the stated objective to be addressed and has not identified complexities in the problem / question.	Has identified an appropriate topic to be studied but lacks a clearly stated objective. Organized as a list of information about the topic rather than pointing towards an objective.	Problem / Question identified is too broad to provide a clear objective.
Review of Literature			
Excellent	Good	Satisfactory	Unsatisfactory
Provides a detailed and relevant literature review. Excellent variety of sources. There is clear correlation among the information and to the stated objectives under consideration. All information is exactly correct.	Use appropriate sources to discover what is already known about the problem / question but does not make a clear correlation between this information and the stated objectives to be investigated. Adequate variety of sources. Most information is exactly correct.	Use some appropriate sources to identify what is already known about the problem / question, but discussion omits important aspects of the problem / question identified.	Review of literature is seriously incomplete, inadequate variety of sources. Major issues are ignored or errors / inconsistencies.
Analysis / Synthesis			
Excellent	Good	Satisfactory	Unsatisfactory
Excellent discussion of details. Impressive depth of insight analysis.	Adequate discussion of details. Adequate depth of insight analysis.	Vague discussions of detail. Little insight analysis, which was provided, is conventional or underdeveloped.	Vague discussion of detail. Lack of insight analysis.
Designs , interventions and assessments			
Excellent	Good	Satisfactory	Unsatisfactory

<p>Designs sound and focused methodology to the study and using appropriate safety / ethical measures. Identifies relevant constraints.</p> <p>Data is collected carefully and with appropriate precision and adequate mathematical analysis.</p> <p>Considers possible criticisms of the action plan and address them.</p>	<p>Designs sound and focused methodology to the study and using appropriate safety / ethical measures. Identifies relevant constraints.</p> <p>Data is collected carefully and with appropriate precision and adequate mathematical analysis.</p> <p>Consideration of the consequences and limits of the method to be employed are incomplete.</p>	<p>Action is designed with appropriate methodology and safety / ethical measures, but the plan contains some obvious and remediable flaws.</p> <p>Data collection is insufficient for mathematical analysis or there is no consideration of a practical problem in implementation.</p>	<p>Action plan provided will not meet the objectives, does not address practical issues in implementation or use other inappropriate methodology.</p> <p>Does not recognize the limits or implications of the method to be employed.</p>
Analyses data in an appropriate manner			
Excellent	Good	Satisfactory	Unsatisfactory
<p>Analyses data Via graphs, statistics and qualitative analysis as appropriate. Identifies assumptions. Consider alternative interpretations of the data and if possible, carry out additional investigations supplemental analyses that will allow distinction between these interpretations.</p>	<p>Analyses data Via graphs, statistics and qualitative analysis as appropriate. Linkage between analyses and the project directives is underdeveloped.</p>	<p>Analysis of data is incomplete / inappropriate.</p> <p>A minimal effort is made to link between analyses and the project objectives.</p> <p>Does not identify assumptions made in the analysis or alternative interpretations.</p>	<p>Analysis of data is incomplete / inappropriate.</p> <p>Does not identify assumptions made in the analysis or alternative interpretations.</p>
Reflects on own work to assure that conclusions are justified			
Excellent	Good	Satisfactory	Unsatisfactory

Prepares an error analysis as appropriate. Analyze the process of intervention and or data gathering. Explains why alternative approaches to the intervention or alternative interpretations of the data were rejected.	Prepares an error analysis as appropriate. Analyze the process of intervention and or data gathering.	Prepares an error analysis as appropriate. But not considered possible criticisms of their work.	Lacks an error analysis. Has not considered alternative approaches to the interventions or alternative conclusions. Has not considered possible criticisms of the methodology used.
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Scope for Further studies

Excellent	Good	Satisfactory	Unsatisfactory
Identifies questions remaining unanswered. Proposes next logical steps for continued inquiry into this system. Identifies how the conclusions might apply to new or different situations.	Identifies questions remaining unanswered. Proposes next logical steps for continued inquiry into this system.	Has proposed some logical steps for further investigation, but this is clearly incomplete.	Has not considered implications of the current work for future investigations.

Project Rubric: Criteria – Group, Graphics and Visual Presentation

Time - Limit

Excellent	Good	Satisfactory	Unsatisfactory
Presentation is 25-30 minutes long.	Presentation is more than 3 minutes off time.	Presentation is less than 20 minutes long.	Presentation is less than 15 minutes OR more than 35 minutes.

Member Participation

Excellent	Good	Satisfactory	Unsatisfactory
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Listens to the efforts of others in the group. Respond openly and effectively to feedback from the audience.	Usually listen and support the efforts of others in the group. Listen with interest to feedback from the audience.	Often listens to share with and supports the efforts of others in the group but sometimes is not good team member.	Rarely listen and support the efforts of others in the group. Often is not a good team member.
Continuity of Participation			
Excellent	Good	Satisfactory	Unsatisfactory
Speaks clearly, distinctly and stays on topic all (100%) of the time.	Speaks clearly, distinctly and stays on topic all (99% - 90%) of the time.	Speaks clearly, distinctly most and stays on topic all (89% -75%) of the time.	Often mumbles or cannot be understood and it was hard to tell what the topic was.
Voice, Expression and Presentation			
Excellent	Good	Satisfactory	Unsatisfactory
Uses vocabulary appropriate for the audience. Extends audience vocabulary by defining words that might be new to most of the audience. Always (99-100% of time) speaks in complete sentences. Volume is loud enough to be heard by all audience members throughout the presentation.	Uses vocabulary appropriate for the audience. Includes 1-2 words that might be new to most of the audience, but does not define them. Mostly (80-98%) speaks in complete sentences. Volume is loud enough to be heard by all audience members at least 90% of the time.	Uses vocabulary appropriate for the audience. Does not include any vocabulary that might be new to the audience. Sometimes (70-80%) speaks in complete sentences. Volume is loud enough to be heard by all audience members at least 80% of the time.	Uses several (5 or more) words or phrases that are not understood by the audience. Rarely speaks in complete sentences. Volume often too soft to be heard by all audience members.
Strategies / Presentation Style			
Excellent	Good	Satisfactory	Unsatisfactory

Students use several effective strategies that show considerable work/creativity and which make the presentation better.	Students use a few effective strategies that shows considerable work/creativity and which make the presentation better.	Students use very few strategies to vary the presentation style.	The student straight from their notes without any activities, props, or other visual aids to enhance their presentation style.
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Table 3.5.4 Mark distribution for projects for R2021

Internal Assessment				End Semester Examinations				
Review I	Review II	Review III	Total Marks	Project Report		Viva-Voce Examination		Total Marks
10 Marks	15 Marks	15 Marks	40	Internal	External	Internal	External	60
				10	10	10	30	

Table 3.5.5 Mark distribution for projects for R2023

Continuous Assessment 60 Marks			End Semester Examination 40 Marks			
Review I	Review II	Review III	Project Report		Viva-Voce Examination	
20	20	20	Internal	External	External	Supervisor
			10	10	10	10

3.6 Evidence of Addressing Sustainable Development Goals (SDG) (10)

Student work carried out to meet sustainable development goals:

The Food Technology curriculum is strongly aligned with the Sustainable Development Goals (SDGs) and supports PO7 – Environment and Sustainability through several core and elective courses. Subjects such as Environmental Sciences and Sustainability create awareness of sustainable development, climate change, and environmental protection, directly contributing to SDGs 12, 13, and 15. Core courses including Food Processing and Preservation, Post Harvest Engineering, Refrigeration and Cold Chain Management, and Food Process Engineering address SDG 2 (Zero Hunger) and SDG 12 (Responsible Consumption and Production) by focusing on food security, reduction of post-harvest losses, energy-efficient processing, and minimization of food waste. Courses like Heat and Mass Transfer in Food Processes and Food Plant Equipment Design emphasize efficient energy and resource utilization, aligning with SDGs 7, 9, and 12. Electives such as Packaging Design and Sustainable Development, By-Products Management, and Innovative Packaging of Fruits and Vegetables promote eco-friendly packaging, waste valorization, and circular economy concepts, contributing significantly to SDG 12 and SDG 13. Further, subjects related to nutrition, food safety, and quality such as Functional Foods and Nutraceuticals, Food Safety Management Systems, and HACCP support SDG 3 (Good Health and Well-being) by ensuring safe, nutritious, and sustainable food systems. Overall, the Food Technology programme integrates sustainability principles across processing, packaging, safety, and resource management, thereby contributing meaningfully to national and global sustainable development goals.

Capstone Projects

Capstone projects are final-year research work addressing real food technology problems. They integrate technical knowledge, sustainability, quality control, and innovation to prepare students for professional careers or higher studies.

Table 3.6.1 Detail of Capstone Project of the students AY 2023 - 2024

S.No	Students Name	Project Title	Relevant SDG	Justification
1	Kousiga A, Safeeq Rahman K, Keerthana B, Pasupathi P	Development of Nutritive Sour Gummies Containing Gooseberry and Roselle	SDG 3: Good Health & Well-being	Focuses on formulating confectionery with natural Vitamin C and antioxidants to replace synthetic additives.
2	Sivasankari B, Navin Kumar H V, Mohamad Rafique K, Anand K	Development and Formulation of Gluten Free Cookies Using Palmyra Sprouts	SDG 2: Zero Hunger & SDG 3	Addresses celiac disease and nutritional security by utilizing underutilized local Palmyra sprouts in gluten-free baking.
3	Maha Lakshmi G, Indhu S, Jeevitha S	Development and Optimization of Ready to Drink Herbal Juice with Triphala Extract	SDG 3: Good Health & Well-being	Optimizes the extraction and stabilization of traditional Ayurvedic compounds for modern functional beverages.
4	Saran M, Vishva R, Deepika A, Shabeeb P	Development of Millet Milk Infused Low Calorie Banana Blossom Milk Cake	SDG 12: Responsible Consumption & Production	Promotes circular economy by incorporating banana blossom (agro-waste) into a low-calorie, plant-based dairy alternative.
5	Melvin K Roy, Sinasira B, Mohammad Farsil A, Thanveer Shahin P K	Study on Individual Quick Freezing	SDG 9: Industry, Innovation & Infrastructure	Investigates advanced preservation techniques to reduce post-harvest losses and improve industrial food logistics.
6	Liberna B, Aravindswamy B, Vignesh G, Kesavaram S	Development of Antioxidant Enriched Black Rice Flour Choco Cookie	SDG 3: Good Health & Well-being	Utilizes specialty grains (Black Rice) rich in anthocyanins to design functional snack foods.
7	Pugazhoviyan S, Srinithin M B, Mukil K S, Subash E	Cheminformatics - Biophysics Correlate to Identify Lead Molecules from Pithecellobium Dulce	SDG 3: Good Health & Well-being	Employs computational "Modern Tools" to identify anti-cancer molecules, bridging the gap between biotechnology and food engineering.

Innovation and Entrepreneurship Development through New Gen IEDC

The department actively fosters a culture of innovation and entrepreneurship among students through the **New Gen IEDC** (Innovation and Entrepreneurship Development Centre). This initiative encourages students to transition from job seekers to job creators by providing a platform to transform their creative ideas into commercially viable prototypes and startups.

Table 3.6.2 : Details of New Gen IEDC

S. NO	Team Members	Project Title & Company	SDG	Justification & Impact
	Mahalakshmi G, Liberna B, Kousiga A, Sivasankari B	Nutritious Healthy Bar (MUSA FOODS)	SDG 12: Responsible Consumption and Production	Implements "waste to wealth" by fortifying millet-based bars with raw banana peel powder to supplement dietary calcium and fiber.
	Saran M, Keerthana B, Vignesh G	Multifloral Tea (Vierdo Foods)	SDG 3: Good Health and Well-being	Utilizes edible flowers and herbs (Hibiscus, Butterfly pea) to produce antioxidant-rich tea that manages blood pressure and boosts brain health.
	Melvin K Roy, Sinasira B, Thanveer Shahin P K	Bija Treat Cookies (Bija Cookies)	SDG 12: Responsible Consumption and Production	Formulates healthy snacks using nutrient-dense banana flour instead of refined flour (maida), incorporating fruit and vegetable seed waste.
	Janani S, Karthika S, Sarvadarshini M, Legha Shri K	Nutritive Jelly with Fibre Enrichment (Yummy Circle)	SDG 3: Good Health and Well-being	Converts banana pseudo stem biowaste and green pea extract into protein-rich convenience food, reducing global carbon prints in food processing.
	Pugazhaoviyam S, Mukil K S	Millet Yogurt Mix (Pro Foods)	SDG 2: Zero Hunger	Creates a low-glycemic, probiotic yogurt alternative to boost immune health using climate-resilient millet malt.

Activity Based Learning

Activity-based learning and hackathons promote experiential learning by engaging students in real-world problem solving aligned with Sustainable Development Goals (SDGs). Through teamwork, and innovation, students develop practical, sustainable solutions addressing challenges such as food security, health, climate action, and responsible production, fostering social responsibility and entrepreneurial skills.

Table 3.6.3 Details of Hackathon and Activity in the AY 2024 - 2025

S. No	Nature of Activity	Program/Event Name	Date	Relevant SDG & Justification
1	Hackathon	International Conference (ICIHES-2025) Hackathon, Avinashilingam University	26-27.02.2025	SDG 3 & 13: Addressing complex intersections of healthcare innovation and environmental sustainability.
2	Hackathon	Food Hackathon Challenge, CSIR-CFTRI, Mysore	27-28.02.2025	SDG 2 & 12: Engineering innovative solutions for food processing and sustainable production.
3	Workshop	Workshop on Food Packaging Techniques and Testing	09.10.2024	SDG 12: Focuses on engineering sustainable packaging solutions to reduce food waste and optimize resource consumption.
4	Seminar	World Food Day	16.10.2025	SDG 2: Promotes awareness and technical strategies to achieve "Zero Hunger" through improved food processing and storage.
5	Workshop	Consultancy Workshop for Women Entrepreneurs	20.02.2025	SDG 5 & 8: Supports gender equality and decent work by empowering women with technical consultancy for food-based startups.
6	Seminar	RAAST Students Chapter Inauguration	11.03.2025	SDG 9: Fosters industrial innovation and infrastructure through specialized technical student bodies in food engineering.
7	Competition	World Food Day - Flameless Healthy Cookery Competition	15.10.2024	SDG 3: Encourages nutritional awareness and innovative food preparation to promote "Good Health and Well-being".

Outcome for incorporating SDG

The integration of activity-based learning, capstone projects, mini projects etc., enables students to solve complex engineering challenges with a strong focus on sustainability. Students have published conference proceedings for their capstone projects as outcome.



Students participation in various events emphasizing SDGs

3.7 Attainment of Course Outcomes (25)

3.7.1. Describe the Assessment Tools and Processes Used to Gather the Data for the Evaluation of Course Outcome (5)

Institute Marks : 5.00

Assessment Process Details: -

Course Outcomes (COs):

The step by step process for assessing course outcomes are:

Step 1: The senior faculty member from the department analyses each course outcome and identifies the different abilities specified in the outcome and the blooms taxonomy level defined for each ability.

Step 2: The faculty in-charge of the course, defines the capstone model as assessment criteria and fixes their targets, with the guidance of the course coordinator.

Step 3: The senior faculty member from the department collects the qualitative and quantitative data and analyzes the collected data. If the assessed data meets the performance targets which are specified in step 2, the outcome is attained. Otherwise, consider Step 4.

Step 4: The senior faculty member from the department recommends content delivery methods / technical components/ course outcomes / curriculum improvements as needed.

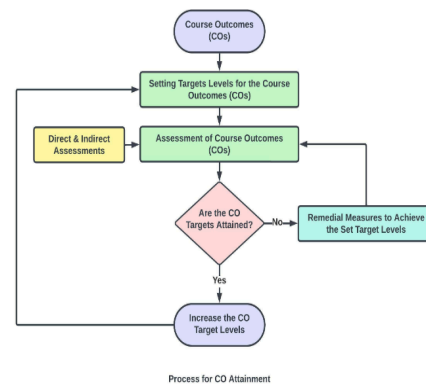


Fig.3.7.1 CO Assessment Process

Attainment of COs is measured from the performance of students in cumulative internal tests, technical/ lab components and from the course marks of the students in semester end examination.

Course Outcomes and Course Articulation Matrix are formulated for each course. Course Outcomes Attainment is processed through 2 steps as

- Direct Assessment
- Indirect Assessment

Direct Assessments

1. Internal Assessment Marks
2. End Semester University Examination Results

Indirect Assessments

1. Course exit survey

Table 3.7.1 Evaluation of Internal Assessment

Sl. No.	Category of Course	Continuous Assessments	End Semester Examination
1	Theory courses	40 Marks	60 Marks
2	Laboratory Courses	60 Marks	40 Marks
3	Theory courses with Laboratory component / Theory courses with Project component / Laboratory Courses with Project component	50 Marks	50 Marks
4	Project Work	60 Marks	40 Marks
5	All other Employability Enhancement Courses	100Marks	-

Internal Assessment Test:

Internal Assessment Tests (two) are conducted to assess the course outcomes at the micro level thereby attaining the programme outcomes.

Assessment Period: - After every internal test

Documentation: - The Internal Assessment Test marks are analyzed and documented in the department and also communicated to the parents along with the percentage of attendance.

Evaluation of External Assessment Feedback on subjects

Assessment Tool: Students will assess the class room delivery on various parameters

Assessment Period: Every Semester

Documentation: The HoD/Senior faculty/Senior Class Advisor will collect the feedback at the end of the semester and are analyzed. The results are documented in the department.

3.7.2 Record the Attainment of Course Outcomes of all Courses with Respect to Set Attainment Levels (20)

Institute Marks : 20.00

CO Attainment

List of Assessment Process

Course Outcomes (CO) are narrower statements that describe what the students are expected to know and are able to do at the end of each course. These relate to the skills, knowledge and behaviour that students acquire in their progress through the course. In outcome based education (OBE) CO attainment is evaluated by direct and indirect assessment tools which is listed below:

Direct assessment	Indirect assessment
<ul style="list-style-type: none"> · Continuous internal assessments · Midsemester examinations · Assignments · Seminars · Mini project · Project · Laboratories · End semester examination 	<ul style="list-style-type: none"> · Course exit survey

Direct Assessment Tools

Course Assessment and Evaluation Method	Process
Continuous Internal Assessment (CIA)	In addition to the end semester exams, continuous internal assessment are held to meet the designated CO's. Internal examinations are scheduled and carried out on a regular basis. The questions on the test have COs assigned to them.
End Semester Examination (ESE)	All courses have a semester final exam at the end of the each semester. The exam questions cover the whole course curriculum. The relevant CO's are mapped with the questions.
Assignments	There are a minimum of two assignments given for each course, ideally one before the start of the internal exams. Both theoretical and analytical components are covered in the questions, which are designed to address lower and higher order thinking according to blooms taxonomy. The quality of the material and presentation determines how well an assignment is graded.

Seminar and Technical Presentation	The purpose of the seminar is to provide students with a deeper understanding of their course material and to give them the opportunity to interact with real-world examples of practical issues. In essence, it serves as a forum for conversations, inquiries and disagreements. Additionally, it helps students communication abilities.
Project	In the eighth semester, project work is completed. The relevant ESE will host the report evaluation and viva voce. A single student may receive project work, as well as a group of upto four students.
Lab courses	Students performance in lab courses is assessed using a specific set of standards that yields more information than a single grade or mark. These standards often known as rubrics, serves as a grading tool for students lab work. Students receive timely feedback to help them develop their skills.

Indirect Assessment Tool

Evaluation Methods	Process
Course exit survey	<ul style="list-style-type: none"> · The indirect CO attainment is calculated from the course exit survey received from students at the end of the semester. · The feedback form on a scale of 1 to 3 is provided to students to rate the course content and the faculty member compiles the feedback and average rating.

Target level is fixed based on the previous attainment of the courses. Target is stated in terms of percentage of students getting more than the set percentage of marks. Attainment is measured in terms of actual percentage of students getting set percentage of marks. Attainment Levels for internal as well as external assessment tools are defined as;

Internal Examination:	
Attainment Level 1 (AT1):	50% students scoring the set attainment level 50 in the internal examination.
Attainment Level 2 (AT2):	60% students scoring the set attainment level 50 in the internal examination.
Attainment Level 3 (AT3):	70% students scoring the set attainment level 50 in the internal examination
External Examination:	
Attainment Level 1 (AT1):	50% students scoring the set attainment level of B Grade in the final examination.

Attainment Level 2 (AT2):	60% students scoring the set attainment level of B Grade in the final examination.
Attainment Level 3 (AT3):	70% students scoring the set attainment level of B Grade in the final examination.

The overall CO attainment is calculated by considering the 80% weightage of direct assessment and 20% weightage of the indirect survey. The above procedure of computing overall CO attainment is repeated for each course from the first year to the final year in an academic year (including opted electives, project work and technical seminars) in order to enable computation of PO and PSO attainment levels. The process of CO assessment is shown in figure 3.7.2.1

A. Valuation of CO Attainment by Internal Assessment Tool

Consider a sample subject with five COs.

Table 3.7.2 Evaluation Scheme for CO attainment

Assessment Tool	IA1	IA2	Internal Attainment (40%)	External Attainment (60%)
COs Mapped	CO1/CO2/CO3	CO3/CO4/CO5	CO1 to CO5	CO1 to CO5
Attainment Level	AT1/AT2/AT3	AT1/AT2/AT3	AT1/AT2/AT3	AT1/AT2/AT3
Direct CO-Average Attainment			$(AT1/AT2/AT3)*40/100$	$(AT1/AT2/AT3)*60/100$

Table 3.7.3 Sample CO Attainment (%) from Micro Analysis

COs	CO Attainment (%)	Internal Test I	Internal Test II
CO1		91.9	
CO2		91.7	
CO3			90.5
CO4			92.0
CO5			95.7

Table 3.7.4 CO attainment

COs	CO Attainment (%)	Internal Test I	Internal Test II	Internal Exam	University Exam
CO1	91.9	3		3	3
CO2	91.7	3		3	
CO3	90.5	3	3	3	
CO4	92.0		3	3	
CO5	95.7		3	3	
Internal /University Attainment level				3	3

Weightage	40%	60%
CO Attainment for the course	1.20	1.80
Final Direct CO attainment for the course	3	

CO Attainment = Direct Assessment (Internal 40%+ External 60%)

Table 3.7.5 Course Outcome of all courses (2021-2025 Batch)

Course Code	Courses Contributing to the Program Outcome	Direct Assessment Method		
		Attainment of Course Outcome through Internal Assessment	Attainment of Course Outcome through End Semester Examination	Attainment of Course outcome through Direct Method (100%)
C101	Professional English I	1.2	1.8	3
C102	Matrices and Calculus	1.2	0.6	1.8
C103	Engineering Physics	1.2	0	1.2
C104	Engineering Chemistry	1.2	0	1.2
C105	Problem Solving and Python Programming	1.2	1.2	2.4
C106	Heritage of Tamil	1.2	1.8	3
C107	Problem Solving and Python Programming Laboratory	1.2	1.8	3
C108	Physics and Chemistry Laboratory	1.2	1.8	3
C109	English Laboratory	1.2	1.8	3
C110	Professional English II	1.2	1.8	3
C111	Statistics and Numerical Methods	1.2	0.6	1.8
C112	Physics of Materials	1.2	1.2	3
C113	Basic Electrical, Electronics and Instrumentation Engineering	1.2	0.6	1.8
C114	Engineering Graphics	1.2	1.8	3
C115	Tamils and Technology	1.2	1.8	3
C116	Engineering Practices Laboratory	1.2	1.8	3

C117	Basic Electrical, Electronics and Instrumentation Engineering laboratory	1.2	1.8	3
C118	Communication Laboratory	1.2	1.8	3
C201	Transforms and Partial Differential Equations	1.2	0.6	1.8
C202	Fluid Mechanics and Mechanical Operations	1.2	0	1.2
C203	Food Chemistry	1.2	1.8	3
C204	Food Microbiology	1.2	0.6	1.8
C205	Food Process Calculations	1.2	0	1.2
C206	Post Harvest Engineering	1.2	1.8	3
C207	Food Chemistry Laboratory	1.2	1.8	3
C208	Food microbiology laboratory	1.2	1.8	3
C209	Professional development	1.2	0	1.2
C210	Probability and Operations Research	1.2	0	1.2
C211	Biochemistry and Nutrition	1.2	1.8	3
C212	Environmental sciences and sustainability	1.2	1.8	3
C213	Food Additives and Flavours	1.2	1.8	3
C214	Heat and Mass Transfer in Food Processes	1.2	1.8	3
C215	Principles of Thermodynamics	1.2	1.2	2.4
C216	Biochemistry and nutrition laboratory	1.2	1.8	3
C217	Unit Operations Laboratory	1.2	1.8	3
C301	Food Processing and Preservation	1.2	1.8	3
C302	Food Analysis	1.2	1.8	3
C303	Processing of Tea	1.2	1.2	2.4
C304	Meat and Poultry Processing	1.2	1.8	3
C305	Innovative Packaging of Dairy Products	1.2	1.8	3
C306	Disaster Risk Reduction and Management	1.2	1.8	3

C307	Food Processing and Preservation Laboratory	1.2	1.8	3
C308	Food Analysis Laboratory	1.2	1.8	3
C309	Industrial Training / Internship I	1.2	1.8	3
C310	Food Process Engineering	1.2	1.8	3
C311	IOT Concepts and Applications	1.2	1.8	3
C312	Preservation Technology of Eggs, Meat, Poultry and Seafood	1.2	1.8	3
C313	Processing of Cereals, Oil Seeds and Pulses	1.2	1.8	3
C314	Food Fermentation Technology	1.2	1.8	3
C315	Technology of Fruit and Vegetable Processing	1.2	1.8	3
C316	Industrial safety	1.2	1.8	3
C317	Food Process Engineering Lab	1.2	1.8	3
C401	Refrigeration and Cold Chain Management	1.2	1.8	3
C402	Food Plant Equipment Design	1.2	1.8	3
C403	Human Values and Ethics	1.2	1.8	3
C404	Total quality management	1.2	1.8	3
C405	Basics of microbial technology	1.2	1.8	3
C406	Artificial Intelligence and Machine learning fundamentals	1.2	1.8	3
C407	Industrial Training / Internship II	1.2	1.8	3
C408	Project work/ Internship	1.2	1.8	3

Describe the assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes

Assessment tools for POs and PSOs are categorized into two methods, namely direct and indirect assessment methods. The process of POs and PSOs attainment is shown in Figure below:



Pictorial Representation for POs and PSOs attainment through direct and indirect method

Direct and Indirect Assessment Tools

Direct assessment tools indicate the knowledge and skills of the students based on their performance in seminars, assignments and examinations etc. through questions mapped with specific COs of the course. As COs are mapped with the POs and PSOs, the direct assessment tools used for COs can also be used for assessing POs and PSOs.

Indirect assessment tools such as graduate exit survey, alumni feedback, employer feedback, parents feedback.

Sl.No.	PO and PSOs Assessment	Assessment Tools
1	Direct POs and PSOs Attainment	<ul style="list-style-type: none"> · Continuous Internal Assessments · End Semester Examinations · Assignments · Tutorials · Projects · Lab Courses · Course Exit Survey
2	Indirect POs and PSOs Attainment	<ul style="list-style-type: none"> · Graduate Exit survey · Alumni survey · Employer survey

Table No.: PO and PSO attainment value using assessment tools

The Food Technology Program Outcome / Programme Specific Outcome is analysed based on a predefined performance indicator and assessment process.

Type of Assessment	Assessment Tool	Description	Assessment Period	Documentation and Maintenance

Direct Assessment	End Semester Examinations	End semester examinations are conducted at the end of the semester by the affiliated university for assessing attainment of the course outcomes thereby attaining program outcomes.	Every Semester	The End semester examination marks were analyzed and documented in the department and communicated to the parents
	Internal Assessment Test	Internal Assessment Tests are conducted to assess the course outcomes at the micro level thereby attaining the program outcomes.	Every Month	The Internal Assessment Test marks were analyzed and documented in the department and also communicated to the parents along with the percentage of attendance
	Course exit survey	•The indirect CO attainment is calculated from the course exit survey received from students at the end of the semester.	End of the semester	•The feedback form on a scale of 1 to 3 is provided to students to rate the course content and the faculty member compiles the feedback and average rating.

Indirect Assessment	Graduate Exit survey	Students assess their attainment of program outcomes at the end of final year	End of the Final Year	The HOD/Senior faculty will collect the survey on the last day of the final year. The survey answers are analyzed and documented in the department
	Alumni survey	Feedback questionnaire relevant to the POs and PSOs are asked in the Feedback form after the completion of the program	During Convocation	It is collected from the placed students at different industries in order to identify and fulfill the gaps regarding the skills required for companies to meet current trends etc. from their experiences.
	Employer survey	Feedback questionnaire relevant to the POs and PSOs are asked to the employer through the Feedback form about the students while they undergo the Internship / Inplant training / working after graduation.	Completion of the Program	It is collected by the while framing the curriculum and syllabus in order to understand the industry needs and take necessary actions to fulfill the company's requirement.

Sample calculation for PO/PSO attainment is described in following steps:

Step – 1

CO Attainment and CO – PO/PSO mapping is defined for course by correlation level low to high (1 to 3)

Table: CO – PO/PSO correlation

Course code	Course Attainment	Program outcomes												Program Specific outcome		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
DIRECT METHOD																

C310.1	3	3	3	3	3	3	-	-	-	-	-	-	2	3	3	3
C310.2	3	3	3	2	2	3	-	-	-	-	-	-	2	3	3	3
C310.3	3	3	3	2	3	3	-	-	-	-	-	-	2	3	3	2
C310.4	3	3	3	3	2	3	-	-	-	-	-	-	3	3	3	2
C310.5	3	3	2	3	3	3	-	-	-	-	-	-	3	3	2	2

Step – 2

Direct PO/PSO attainment is calculated using following formula:

PO/PSO attainment = (Level of Mapping of CO with PO/PSO X CO attainment Level) / 3

Course code	Program outcomes												Program Specific outcome			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	
C310.1	3	3	3	3	3	-	-	-	-	-	-	-	2	3	3	3
C310.2	3	3	2	2	3	-	-	-	-	-	-	-	2	3	3	3
C310.3	3	3	2	3	3	-	-	-	-	-	-	-	2	3	3	2
C310.4	3	3	3	2	3	-	-	-	-	-	-	-	3	3	3	2
C310.5	3	2	3	3	3	-	-	-	-	-	-	-	3	3	2	2
Average	3	2.8	2.6	2.6	3	-	-	-	-	-	-	-	2.4	3	2.8	2.4

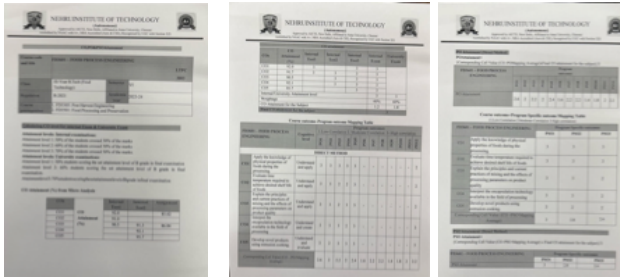


Fig CO, PO and PSO Attainment Sample (Direct Method)

PO/PSO Attainment Level by Indirect Assessment Tool

For indirect PO/PSO attainment 20% weightage is given.

Indirect Assessment Method

Student Exit Survey: Students assess their attainment of program outcomes at the end of final year. The course survey can also be collected through online platform. The following questions are asked to collect the responses from the students.

Assessment of Program Outcomes:

During my studies in the Food Technology program at NIT, I have learned and acquired many skills that will allow me to be able to:

1. Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Table 3.8.3 Graduate Exit Survey PO Assessment

S.No	Assessment	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
1.	Strongly Agree	4	2	9	2	1	4	10	6	1	12	15	12
2.	Agree	20	7	17	4	1	8	12	14	5	12	14	10
3.	Neutral	12	25	8	28	32	22	12	14	28	10	9	12
4.	Disagree	0	0	0	0	0	0	0	0	0	0	0	0
5.	Strongly Disagree	0	0	0	0	0	0	0	0	0	0	0	0

Table 3.8.4 Graduate Exit Survey PSO Assessment

S.No	Assessment	PSO1	PSO2	PSO3
1.	Strongly Agree	5	2	5
2.	Agree	13	2	13
3.	Neutral	16	30	16
4.	Disagree	0	0	0
5.	Strongly Disagree	0	0	0

3.8 Attainment of Program Outcomes and Program Specific Outcomes (25)

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	PO1	PO2	PO3	PO4	PO5	PO6	1.4	2.3	2.6	0.9	PO11	2.3
C102	2.1	2.1	2.1	0.7	PO5	PO6	PO7	PO8	0.7	PO10	PO11	0.7
C103	1.7	1.1	0.6	PO4	0.6	PO6	PO7	PO8	PO9	0.7	PO11	0.6
C104	1.6	1.3	0.8	PO4	0.5	PO6	1.2	PO8	1.1	PO10	PO11	1.1
C105	1.5	1.5	1.5	PO4	1.5	PO6	PO7	PO8	PO9	PO10	PO11	1.5
C106	PO1	PO2	PO3	PO4	PO5	PO6	2.6	2.6	PO9	1.7	PO11	2.6
C107	1.7	1.7	1.7	0.8	2.5	PO6	PO7	2.5	2.5	2.5	2.5	2.5
C108	2.5	2.0	1.3	1.5	1.7	PO6	1.3	0.8	0.8	PO10	0.8	1.0
C109	1.7	2.6	2.6	2.6	1.7	PO6	2.6	2.6	2.6	2.6	2.6	2.6
C110	PO1	PO2	PO3	PO4	PO5	PO6	1.5	2.3	2.6	1.4	PO11	2.6
C111	2.0	2.0	2.0	2.0	PO5	PO6	PO7	PO8	0.7	PO10	PO11	0.7
C112	2.7	1.6	1.8	PO4	1.1	1.4	0.9	PO8	PO9	PO10	PO11	0.9
C113	1.6	1.1	1.0	0.8	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.7
C114	2.5	2.5	2.5	2.5	2.5	PO6	2.5	PO8	1.7	PO10	0.8	PO12
C115	PO1	PO2	PO3	PO4	PO5	PO6	2.5	2.5	PO9	1.7	PO11	2.5
C116	2.8	0.9	1.8	PO4	0.9	PO6	1.8	PO8	PO9	PO10	PO11	PO12
C117	2.6	0.9	1.7	PO4	0.9	PO6	1.7	PO8	PO9	PO10	PO11	PO12
C118	2.6	1.7	2.2	1.4	0.9	1.4	PO7	PO8	2.0	PO10	1.7	2.0
C201	1.7	1.8	1.6	1.2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202	1.5	1.4	1.4	1.3	1.1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203	2.6	2.3	1.9	PO4	2.6	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C204	1.8	1.9	1.5	1.4	1.9	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C205	1.4	1.4	1.4	1.2	1.3	PO6	PO7	PO8	PO9	PO10	0.7	1.1
C206	2.7	2.3	2.7	2.2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.2
C207	2.6	2.3	2.4	1.7	2.6	PO6	PO7	PO8	2.6	PO10	PO11	PO12
C208	2.7	2.3	2.3	PO4	2.7	PO6	PO7	PO8	2.7	PO10	PO11	PO12
C209	1.6	1.4	1.7	1.6	1.8	PO6	PO7	PO8	1.2	1.4	PO11	1.2
C210	1.5	1.5	1.4	1.6	1.6	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C211	2.4	2.2	2.0	1.7	2.4	PO6	PO7	PO8	2.6	PO10	PO11	2.2

C212	2.3	2.1	2.4	PO4	2.6	2.6	2.6	PO8	PO9	PO10	PO11	PO12
C213	2.5	2.1	2.1	1.8	1.8	PO6	PO7	PO8	PO9	PO10	PO11	2.3
C214	2.3	2.3	2.2	2.3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.0
C215	2.1	1.8	2.1	1.8	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C216	2.4	2.0	2.2	2.1	2.6	PO6	0.9	PO8	PO9	PO10	1.0	2.2
C217	2.3	2.3	2.2	2.3	1.7	PO6	PO7	PO8	2.5	PO10	PO11	PO12
C301	2.6	2.4	2.6	2.0	2.6	PO6	PO7	PO8	PO9	PO10	PO11	2.6
C302	2.4	2.3	2.6	2.6	2.6	PO6	PO7	PO8	PO9	PO10	2.6	2.3
C303	2.1	1.8	1.8	2.0	2.1	PO6	PO7	PO8	PO9	PO10	PO11	1.8
C304	2.3	2.1	2.5	2.3	2.5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C305	2.3	2.2	2.3	2.5	2.3	PO6	2.7	PO8	PO9	PO10	PO11	2.2
C306	1.9	1.9	1.7	2.2	2.6	2.6	1.7	PO8	PO9	PO10	1.0	2.2
C307	1.9	2.4	2.6	2.4	2.6	PO6	PO7	PO8	PO9	1.6	1.7	2.6
C308	2.4	1.7	2.6	2.6	2.6	2.6	PO7	PO8	PO9	PO10	2.6	2.3
C309	2.4	2.8	2.8	2.8	2.8	PO6	1.8	2.8	2.8	1.8	2.8	1.8
C310	2.7	2.5	2.3	2.3	2.7	PO6	PO7	PO8	PO9	PO10	PO11	2.1
C311	1.7	2.0	1.8	2.2	2.5	PO6	PO7	PO8	PO9	PO10	1.7	2.2
C312	2.3	2.0	2.0	2.1	2.3	PO6	1.3	PO8	PO9	PO10	1.7	2.1
C313	2.5	2.3	2.3	2.3	2.3	PO6	2.7	PO8	PO9	PO10	1.8	2.2
C314	2.3	2.0	1.8	2.0	2.3	PO6	PO7	PO8	PO9	PO10	PO11	1.7
C315	2.3	2.3	2.3	2.1	2.1	PO6	2.7	PO8	PO9	PO10	PO11	2.3
C316	2.3	2.6	2.6	2.4	2.1	1.7	1.7	1.7	1.7	1.7	1.7	2.6
C317	2.6	2.4	2.6	2.2	2.0	PO6	1.5	PO8	PO9	PO10	1.9	2.2
C401	2.3	2.0	2.3	2.0	2.2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402	2.3	2.3	2.2	2.2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.0
C403	1.7	PO2	PO3	PO4	PO5	1.8	1.7	2.5	PO9	PO10	PO11	1.7
C404	2.3	2.1	PO3	2.2	1.7	1.7	PO7	PO8	1.7	PO10	PO11	1.8
C405	2.4	1.7	2.4	2.1	PO5	PO6	0.9	PO8	PO9	PO10	PO11	1.7
C406	2.2	1.7	2.2	2.3	2.5	PO6	1.7	PO8	PO9	PO10	PO11	2.5
C407	2.4	2.8	2.8	2.8	2.8	1.8	1.8	1.8	1.8	1.8	2.8	1.8
C408	2.8	2.8	2.8	2.8	2.8	1.8	1.8	1.8	1.8	1.8	2.8	1.8

PO Attainment Indirect

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Graduate exit	2.1	1.7	2.0	1.6	1.5	1.8	2.2	2.2	1.8	2.0	2.2	2.2
Alumni survey	2.2	1.5	1.6	1.9	1.3	2.2	2.0	2.1	2.2	2.2	2.3	2.1
Employer survey	2.1	1.6	1.5	1.6	1.7	2.0	1.8	2.0	1.9	2.1	1.8	1.7

PO Attainment Level

Note: The Institution can fix the weightage of the indirect attainment maximum up to 20%.

Define the Weightage for Indirect Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.20	1.99	2.06	2.00	2.05	1.94	1.83	2.18	1.94	1.66	1.85	1.91
Indirect Attainment	2.13	1.6	1.7	1.7	1.5	2.0	2.0	2.1	1.97	2.1	2.1	2.0
Overall Attainment	2.19	1.91	1.99	1.94	1.94	1.95	1.86	2.16	1.95	1.75	1.9	1.93

PSO Attainment

Course	PSO1	PSO2	PSO3
C101	0.9	PSO2	PSO3
C102	PSO1	2.1	PSO3
C103	1.1	1.7	0.6
C104	1.1	1.6	0.5
C105	0.8	2.3	2.3
C106	PSO1	PSO2	PSO3
C107	0.8	1.7	PSO3
C108	0.8	1.7	0.8
C109	0.9	PSO2	PSO3
C110	PSO1	PSO2	PSO3
C111	1.3	2.0	1.3
C112	1.8	1.8	0.9
C113	1.4	0.7	PSO3
C114	PSO1	PSO2	PSO3
C115	PSO1	PSO2	PSO3

C116	0.9	PSO2	PSO3
C117	1.7	1.7	PSO3
C118	PSO1	PSO2	PSO3
C201	PSO1	PSO2	PSO3
C202	1.2	1.2	1.2
C203	2.6	2.1	2.3
C204	2.1	1.8	1.8
C205	1.1	1.3	1.2
C206	2.5	2.3	2.3
C207	2.6	1.9	2.1
C208	2.7	2.3	2.3
C209	1.2	1.2	1.2
C210	PSO1	PSO2	PSO3
C211	2.6	2.2	1.9
C212	1.7	1.7	1.7
C213	2.5	2.3	2.1
C214	2.2	2.0	2.0
C215	1.6	1.8	1.8
C216	1.9	2.0	2.2
C217	2.2	2.0	2.2
C301	2.6	2.2	2.2
C302	2.3	2.3	2.3
C303	2.1	2.3	2.3
C304	2.5	2.3	2.3
C305	2.5	2.7	2.7
C306	1.7	1.7	1.7
C307	2.6	2.6	2.6
C308	2.3	2.3	2.1
C309	2.8	2.8	2.8
C310	2.7	2.5	2.1
C311	1.8	2.0	2.0
C312	2.3	2.2	2.3

C313	2.7	2.7	2.5
C314	2.5	2.3	2.2
C315	2.5	2.7	2.5
C316	2.1	2.6	2.6
C317	2.6	2.8	2.8
C401	2.2	2.5	2.2
C402	2.5	2.3	2.2
C403	1.7	1.7	2.5
C404	1.7	2.0	2.0
C405	1.7	2.4	2.3
C406	1.7	2.5	2.5
C407	2.8	2.8	2.8
C408	2.8	2.8	2.8

PSO Attainment Indirect

Survey	PSO1	PSO2	PSO3
Graduate exit survey	2.0	1.2	2.0
Alumni survey	1.9	1.3	2.0
Employer survey	2.1	1.4	2.0

PSO Attainment Level

Course	PSO1	PSO2	PSO3
Direct Attainment	1.96	2.11	2.04
InDirect Attainment	2.0	1.3	2.0
Overall Attainment	1.97	1.95	2.03

4 STUDENTS' PERFORMANCE (120)

Total Marks 79.58

Table No. 4A: Admission details for the program excluding those admitted through multiple entry and exit points.

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)	2020-21 (CAYm5)	2019-20 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	60	60	60	0
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	52	41	44	48	36	27	0
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	0	1	0	0	1	0
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	1	0

Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	52	41	45	48	36	29	0
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Table No. 4B: Admission details for the program through multiple entry and exit points.

	Item (No. of students admitted/exited through multiple entry and exit points) in the respective batch	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (LYG)	2020-21 (LYGm1)	2019-20 (LYGm2)
N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N5=N52+N53+N54	N5=N52+N53+N54	0	0	0	0	0	0	0
N61=No. of students exits after 1st year via multiple entry and exit points in same batch	N61=No. of students exits after 1st year via multiple entry and exit points in same batch	0	1	5	0	2	0	0
N62=No. of students exit after 2nd year via multiple entry and exit points	N62=No. of students exit after 2nd year via multiple entry and exit points	0	0	0	0	0	2	0
N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	0	0	0	2	0	0	0
N6=N61+N62+N63	N6=N61+N62+N63	0	1	5	2	2	2	0

Table No. 4C: No. of students graduated within the stipulated period of the program.

Year of entry	Total no. of students (N1 + N2 + N3+ N4 + N5 - N6 as defined above)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2025-26 (CAY)	52				
2024-25 (CAYm1)	40	40			
2023-24 (CAYm2)	40	40	40		
2022-23 (CAYm3)	46	46	46	46	
2021-22 (LYG)	34	34	34	34	25
2020-21 (LYGm1)	27	27	27	27	20
2019-20 (LYGm2)	0	0	0	0	0

4.1 Enrolment Ratio (20)

Institute Marks : 14.00

[Get Details from Table 4.1](#)**Table No.4.1.1: Student enrolment ratio in the 1st year.**

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2025-26 (CAY)	60	52	0	86.67
2024-25 (CAYm1)	60	41	0	68.33
2023-24 (CAYm2)	60	44	0	73.33

Average [(ER1 + ER2 + ER3) / 3] = 76.11 \cong 14.00

Assessment : 14.00

4.2 Success Rate of the Students in the Stipulated Period of the Program (15)

Table No.4.2.1: The success rate in the stipulated period of a program.

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	60.00	61.00	0.00
B=No. of students who graduated from the program in the stipulated course duration	25.00	20.00	0.00
Success Rate (SR)= (B/A) * 100	41.67	32.79	0.00

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 37.23

SR Points : 5.58

Note *: If the value of A in Table No. 4.2.1 is less than the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2), then the value of A in Table No. 4.2.1 should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2).

4.3 Academic Performance of the First-Year Students of the Program (10)

Institute Marks : 4.78

Table No.4.3.1: Academic Performance of the First-Year Students of the Program.

Academic Performance	CAYm1(2024-25)	CAYm2(2023-24)	CAYm3 (2022-23)
Mean of CGPA or mean percentage of all successful students(X)	7.39	7.64	7.92
Y=Total no. of successful students	28.00	29.00	21.00
Z=Total no. of students appeared in the examination	40.00	40.00	46.00
API [X*(Y/Z)]	5.17	5.54	3.62

Average API[(AP1+AP2+AP3)/3] : 4.78

Assessment = Average API : 4.78

4.4 Academic Performance of the Second Year Students of the Program (10)

Table No.4.4.1: Academic Performance of the Second Year Students of the Program.

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	7.92	7.92	7.62
Y=Total no. of successful students	40.00	46.00	34.00
Z=Total no. of students appeared in the examination	41.00	46.00	34.00
API [X * (Y/Z)]	7.73	7.92	7.62

Average API [(AP1 + AP2 + AP3)/3] : 7.76

Assessment [AverageAPI] : 7.76

4.5 Academic Performance of the Third Year Students of the Program (10)

Institute Marks : 8.06

Table No.4.5.1: Academic Performance of the Third Year Students of the Program

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	7.89	7.91	8.39
Y=Total no. of successful students	46.00	34.00	27.00
Z=Total no. of students appeared in the examination	46.00	34.00	27.00
API [X*(Y/Z)]:	7.89	7.91	8.39

Average API [(AP1 + AP2 + AP3)/3] : 8.06

Assessment [1.5 * AverageAPI] : 8.06

4.6 Placement, Higher Studies and Entrepreneurship (30)

Table No. 4.6.1: Placement, higher studies, and entrepreneurship details.

Item	LYG (2021-22)	LYGm1(2020-21)	LYGm2(2019-20)
FS*=Total no. of final year students	60.00	61.00	0.00
X=No. of students placed	31.00	22.00	0.00
Y=No. of students admitted to higher studies	3.00	0.00	0.00
Z= No. of students taking up entrepreneurship	0.00	2.00	0.00
Placement Index(P) = $((X + Y + Z)/FS) * 100$:	56.67	39.34	0.00

Average Placement Index = $(P_1 + P_2 + P_3)/3$: 48.00

Placement Index Points: 14.40

4.7 Professional Activities (25)

4.7.1 Professional Societies/ Bodies, Chapters, Clubs, and Professional Engineering Events Organized (5)

Institute Marks : 5.00

Table No. 4.7.1.1: List of active professional societies/bodies/chapters/clubs.

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs
1	Western Ghat Researchers Association of Agricultural Science and Technology Student Chapter
2	Indian Dairy Association - Students membership
3	Nehru Association of Food Technologists -NAFT
4	Food Innovators Club

Table No. 4.7.1.2: List of events/programs organized.

(CAYm1) 2024-25

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Nehru Association of Food Technologists -NAFT	Indian Dairy Association Students Chapter Inauguration	national	30/08/2024
2	Nehru Association of Food Technologists -NAFT	rally	national	22/10/2024
3	Nehru Association of Food Technologists -NAFT	Ideathon	national	30/08/2024
4	Western Ghat Researchers Association of Agricultural Science and Technology Student Chapter	Entrepreneurship Opportunities in Food Processing	national	11/03/2025
5	Western Ghat Researchers Association of Agricultural Science and Technology Student Chapter	RAAST Students Chapter Inauguration	national	11/03/2025

(CAYm2) 2023-24

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Nehru Association of Food Technologists -NAFT	drawing competition	national	07/11/2023
2	Nehru Association of Food Technologists -NAFT	seminar	national	08/11/2023
3	Nehru Association of Food Technologists -NAFT	webinar	national	16/10/2023
4	Nehru Association of Food Technologists -NAFT	talk series	national	30/04/2024

(CAYm3) 2022-23

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Centre of Food Processing and Agro Tech - Food Technology and Agricultural Engineering event	Guest Lecture using external resource person, Millet Recipe and Poster Competition	National	21/10/2022
2	NSS	Tree plantation awareness to public	National	08/10/2022
3	NSS	An awareness on energy conservation	National	27/03/2023
4	NSS	Awareness on global warming	National	24/04/2023

4.7.2 Student's Participations in Professional Events (10)

Institute Marks : 10.00

Table No. 4.7.2.1: List of students participated in professional events.**(CAYm1) 2024-25**

S.No	Name of the Student	Name of the Event	State /State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	M.Ajayraj	Poster Presentation	National	17/02/2025	First prize
2	S.V.Sivabalan	Technical Quiz	National	17/02/2025	First prize
3	M.Sruthika	Technical Quiz	National	17/02/2025	Second prize
4	Muralidharan G	Paper Presentation	National	25/02/2025	First prize
5	Rajeshkumar G	Paper Presentation	National	25/02/2025	First prize
6	Pachamuthu A	Paper Presentation	National	25/02/2025	First prize
7	Swathi S K	Paper Presentation	National	25/02/2025	First prize

(CAYm2) 2023-24

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Gayathri K	Paper Presentation	National	17/11/2023	Second Prize
2	Lakshman S	Paper Presentation	National	17/11/2023	Second Prize
3	Neelima Lovejith	Paper Presentation	National	17/11/2023	Second Prize
4	Lakshman S	Paper Presentation	National	03/04/2024	First Prize
5	Gayathri K	Paper Presentation	National	30/04/2023	Second Prize
6	Lakshman S	Paper Presentation	National	30/04/2023	Second Prize
7	Rahini M V	Paper Presentation	National	30/04/2023	Second Prize
8	Anantharaman S	Paper Presentation	National	30/04/2023	Second Prize
9	Gayathri K	Oral presentation	National	17/04/2023	Best Oral presentation award
10	Lakshman S	Oral presentation	National	17/04/2023	Best Oral presentation award
11	Sarankumar V	Food safety Quiz NIFTEM-T	National	08/06/2024	Second Prize
12	Vaishnavi G	Food safety Quiz NIFTEM-T	National	08/06/2024	Second Prize
13	George	Video making on food safety NIFTEM-T	National	08/06/2024	Third prize
14	Abishek	Video making on food safety NIFTEM-T	National	08/06/2024	Third prize
15	Rajesh	Video making on food safety NIFTEM-T	National	08/06/2024	Third prize
16	Javies	Video making on food safety NIFTEM-T	National	08/06/2024	Third prize
17	Trisha	Collage making/ drawing on food saftey NIFTEM-T	National	08/06/2024	Second Prize
18	Nakshatra Sree	Collage making/ drawing on food saftey NIFTEM-T	National	08/06/2024	Second Prize
19	S Janani	Poster Presentation	National	08/06/2024	First prize
20	M Sarvadarshini	Poster Presentation	National	08/06/2024	First prize
21	S Janani	Paper Presentation	International	17/04/2024	-
22	S Janani	Paper Presentation	International	25/04/2024	-
23	S Janani	Poster Presentation	National	26/04/2024	First prize

(CAYm3) 2022-23

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Deepika	Aggnite 3.0 a-IDEA competition	National	17/03/2023	Third place
2	Indhu	National millet summit-2023(NIFTEM-T)	National	06/05/2023	-
3	Kousiga A	Participated in National Webinar by CEFF	National	09/06/2022	-
4	Kousiga A	Participated in Regulatory Webinar	National	06/05/2022	-
5	Mahalakshmi	Idea competition in National Level Symposium	National	21/02/2023	First place
6	Mahalakshmi	Hands on training programme-Microbial technioques in food industries	National	16/02/2023	-
7	Mahalakshmi	World food day 2022	National	21/10/2022	Best co-curricular student
8	Pugazh Oviyan	Hands on training programme on "Advanced Analytical Instrumentation Techniques (GC/MS-FID, UHPLC, FTIR) for Food Research and Development" NIFTEM-T	National	10/02/2023	-
9	Pugazh Oviyan	Future food entrepreneurship challenge- ADROIT 2023-Anand Agricultural university-Gujarat	National	17/10/2023	-

4.7.3 Publication of Journals, Magazines, Newsletters, etc. in the Department (5)

Institute Marks : 5.00

Table No. 4.7.3.1: List of students involved in publication of journals, magazines, and newsletters, etc. in the Department.

(CAYm1) 2024-25

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	Food Technology Magazine 2025	Dr J Premkumar	Sivabalan S V, Aswini Angel N	5	6	Both
2	Food Technology Newsletter 2025	Dr J Premkumar	Ajay Raj M, Murukanantham M	5	2	Both

(CAYm2) 2023-24

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	Food Technology Magazine 2024	Ms Jikky Jayakumar	Khavya s, Trisha A	5	6	Both
2	Food Technology Newsletter 2024	Ms Jikky Jayakumar	Jayasurya M S, Jeevitha B	5	2	Both

(CAYm3) 2022-23

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	Food Technology Magazine 2023	Mrs V Sindhuja	Neelima Lovejith, Tamilselvan S	5	6	Both
2	Food Technology Newsletter 2023	Mrs V Sindhuja	Tamilselvan S, Neelima Lovejith	5	2	Both

4.7.4 Student Publications (5)

Institute Marks : 5.00

**Table No. 4.7.4.1: List of student publications.
(CAYm1) 2024-25**

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Lakshman S	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
2	Suriyamoorthy A	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
3	Jaysurya M S	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
4	Abhishek B	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
5	Hairath T H	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
6	Ragul G	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
7	Fathima D	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
8	Fathima Sinsina P A	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
9	Janani S	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
10	Saravadarshini M	8	Vaishnavi Publications	International Conference on "New-Gen Technologies for Sustainable Development	0	0	-
11	Karan Pandi S	7	Vaishnavi Publications	International Web Conference on Food and Nutrition Security for Sustainable Public Health	0	0	978-93-80769-99-8
12	Gayathri K	7	Vaishnavi Publications	International Web Conference on Food and Nutrition Security for Sustainable Public Health	0	0	978-93-80769-99-8
13	Anantha Raman S	7	Vaishnavi Publications	International Web Conference on Food and Nutrition Security for Sustainable Public Health	0	0	978-93-80769-99-8
14	Rahim M V	7	Vaishnavi Publications	International Web Conference on Food and Nutrition Security for Sustainable Public Health	0	0	978-93-80769-99-8
15	Legha Shri K	7	Vaishnavi Publications	International Web Conference on Food and Nutrition Security for Sustainable Public Health	0	0	978-93-80769-99-8
16	Krithika S C	7	Vaishnavi Publications	International Web Conference on Food and Nutrition Security for Sustainable Public Health	0	0	978-93-80769-99-8
17	Thanush K	7	Vaishnavi Publications	International Web Conference on Food and Nutrition Security for Sustainable Public Health	0	0	978-93-80769-99-8
18	Karthika S	7	Vaishnavi Publications	International Web Conference on Food and Nutrition Security for Sustainable Public Health	0	0	978-93-80769-99-8
19	Madhumitha R	7	Thannambikkai Publication	Role of Emerging Technologies In Food Processing Towards Global Food Security	0	0	978-93-88570-04-6

20	Keerthana M	7	Thannambikkai Publication	Role of Emerging Technologies In Food Processing Towards Global Food Security	0	0	978-93-88570-04-6
21	Hairath T H	7	Thannambikkai Publication	Role of Emerging Technologies In Food Processing Towards Global Food Security	0	0	978-93-88570-04-6
22	Fathima D	7	Thannambikkai Publication	Role of Emerging Technologies In Food Processing Towards Global Food Security	0	0	978-93-88570-04-6
23	Fathima Sinsina P A	7	Thannambikkai Publication	Role of Emerging Technologies In Food Processing Towards Global Food Security	0	0	978-93-88570-04-6
24	Neelima Lovejith	7	Thannambikkai Publication	Role of Emerging Technologies In Food Processing Towards Global Food Security	0	0	978-93-88570-04-6
25	Tamil Selvan S	7	Thannambikkai Publication	Role of Emerging Technologies In Food Processing Towards Global Food Security	0	0	978-93-88570-04-6
26	Rineesha R	7	Thannambikkai Publication	Role of Emerging Technologies In Food Processing Towards Global Food Security	0	0	978-93-88570-04-6
27	Ashwant B	7	Thannambikkai Publication	Role of Emerging Technologies In Food Processing Towards Global Food Security	0	0	978-93-88570-04-6

(CAYm2) 2023-24

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Aarathy N	4	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	6	-
2	Adith Haridas	4	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	6	-
3	Aparna B Menon	4	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	6	-
4	Jasna J	4	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	6	-
5	Khavya S	4	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	6	-
6	Saran M	8	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	6	-
7	Deepika A	8	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	6	-
8	Viswa R	8	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	6	-
9	Shabeeb P	8	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	6	-
10	Gayathri K	6	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	5	-
11	Lakshman S	6	Science Press (Kexue Chubanshe), Beijing, China	Journal of Systems Engineering and Electronics	34	5	-
12	Gayathri K	6	The American College, Madurai, India	DBT- SPONSORED INTERNATIONAL CONFERENCE ON NUTRI-OMICS IN BIOTECHNOLOGICAL INNOVATIONS - ICNBI24	0	0	-
13	Lakshman S	6	The American College, Madurai, India	DBT- SPONSORED INTERNATIONAL CONFERENCE ON NUTRI-OMICS IN BIOTECHNOLOGICAL INNOVATIONS - ICNBI24	0	0	-
14	Anantha Raman. S	6	The American College, Madurai, India	DBT- SPONSORED INTERNATIONAL CONFERENCE ON NUTRI-OMICS IN BIOTECHNOLOGICAL INNOVATIONS - ICNBI24	0	0	-
15	Rahini M.V	6	The American College, Madurai, India	DBT- SPONSORED INTERNATIONAL CONFERENCE ON NUTRI-OMICS IN BIOTECHNOLOGICAL INNOVATIONS - ICNBI24	0	0	-
16	Sivasankari B	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	0	0	978-93-84234-05-8
17	Navin Kumar H V	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	0	0	978-93-84234-05-8
18	Anand K	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	0	0	978-93-84234-05-8
19	Kousiga A	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	0	0	978-93-84234-05-8

20	Safeeq Rahman K	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	<input type="text" value="0"/>	0	978-93-84234-05-8
21	Keerthana B	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	<input type="text" value="0"/>	0	978-93-84234-05-8
22	Pasupathi P	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	<input type="text" value="0"/>	0	978-93-84234-05-8
23	Maha Lakshmi G	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	<input type="text" value="0"/>	0	978-93-84234-05-8
24	Indhu S	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	<input type="text" value="0"/>	0	978-93-84234-05-8
25	Jeevitha S	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	<input type="text" value="0"/>	0	978-93-84234-05-8
26	Melvin K Roy	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	<input type="text" value="0"/>	0	978-93-84234-05-8
27	Sinasira B	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	<input type="text" value="0"/>	0	978-93-84234-05-8
28	Mohammad Farsil A	8	Laser Park Publishing House	Role of IoT in Food Processing and Agricultural Sector	<input type="text" value="0"/>	0	978-93-84234-05-8

(CAYm3) 2022-23

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Aathithyan S	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
2	Fathima Dileef	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
3	Gayathri K	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
4	Karthika S	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
5	Abishek B	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
6	Dhanush P	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
7	Janani S	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
8	Keerthana M	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
9	Akash C	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
10	Dharnish Antony A	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
11	Hairath T H	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
12	Jayasurya M S	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
13	Anantha Raman S	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
14	Fathima Sinsina P A	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
15	Jeevitha B	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
16	Karan Pandi Sekar	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
17	Asha M	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
18	Ashwanth B	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
19	Dhanasekar	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8

20	Javies L	3	Thannambikkai Publication	Proceedings of National Seminar on The Role of Food Processing in Nutrition Security	0	0	978-93-84234-05-8
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5 FACULTY INFORMATION (100)

Total Marks 68.44

Sr.No	Name of the Faculty	PAN No.	APAAR faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr. P. HEMA PRABHA	AYUPS8777J	NA	Ph.D	KARUNYA UNIVERSITY	FOOD PROCESSING AND ENGINEERING	28/08/2024	1.3	Professor	Professor	28/08/2024	Regular	Yes		Yes
2	Dr.J.DEEPA	BFNPD8988R	NA	Ph.D	TAMILNADU AGRICULTURAL UNIVERSITY	AGRICULTURAL PROCESSING AND FOOD ENGINEERING	06/06/2025	0.6	Associate Professor	Associate Professor	06/06/2025	Regular	Yes		No
3	Dr.P.ABHINASH	HIMPP7933J	NA	Ph.D	NATIONAL DAIRY RESEARCH INSTITUTE	DAIRY PROCESSING AND ENGINEERING	07/03/2023	2.6	Assistant Professor	Assistant Professor		Regular	No	22/09/2025	No
4	Dr.J.PREM KUMAR	BHYTJ0871Q	NA	Ph.D	KARUNYA UNIVERSITY	FOOD PROCESSING AND ENGINEERING	13/05/2024	1.7	Assistant Professor	Assistant Professor		Regular	Yes		No
5	Dr.JIKKY JAYAKUMAR	BBCPJ9940G	NA	Ph.D	TAMILNADU AGRICULTURAL UNIVERSITY	AGRICULTURAL PROCESSING AND FOOD ENGINEERING	05/07/2023	2.5	Assistant Professor	Assistant Professor		Regular	Yes		No
6	P.DANIEL PAUL	BLJPD5326H	NA	M.Tech	TAMILNADU AGRICULTURAL UNIVERSITY	AGRICULTURAL ENGINEERING (FOOD PROCESSING AND MARKETING)	03/07/2023	2.5	Assistant Professor	Assistant Professor		Regular	Yes		No
7	L.VEERAPANDI	BPPPV3947G	NA	M.Tech	ANNA UNIVERSITY	FOOD TECHNOLOGY	03/07/2023	2.2	Assistant Professor	Assistant Professor		Regular	No	30/09/2025	No
8	V.C. ANITHA KRISHNAN	ATRPV5841N	NA	M.Tech	TAMILNADU AGRICULTURAL UNIVERSITY	FOOD PROCESS ENGINEERING	01/08/2025	0.4	Assistant Professor	Assistant Professor		Regular	Yes		No
9	K.KEERTHANA	KNOPK3568N	NA	M.Tech	AVINASHILINGAM UNIVERSITY	FOOD TECHNOLOGY	04/11/2024	1.1	Assistant Professor	Assistant Professor		Regular	Yes		No
10	N.ARCHANA DAS	DBYPN6904A	NA	M.Tech	ACHARYA N G RANGA AGRICULTURAL UNIVERSITY	PROCESSING AND FOOD ENGINEERING	14/07/2025	0.4	Assistant Professor	Assistant Professor		Regular	Yes		No

11	C.K.FELVIN GIFTY	AFXPF6175R	NA	M.Tech	ANNAMALAI UNIVERSITY	FOOD PROCESSING TECHNOLOGY	14/07/2025	0.4	Assistant Professor	Assistant Professor		Regular	Yes		No
12	J.SUGANYA	IFRPS0940P	NA	Ph.D	UNIVERSITY OF NEW SOUTH WALES	FOOD SCIENCE AND TECHNOLOGY	13/07/2022	2.2	Assistant Professor	Assistant Professor		Regular	No	12/09/2024	No
13	V.SHINDUJA	BIVPV4928G	NA	M.Tech	ANNA UNIVERSITY	FOOD TECHNOLOGY	15/03/2021	4.2	Assistant Professor	Assistant Professor		Regular	No	31/05/2025	No
14	R.RASHMITHA	CHIPR4341A	NA	M.Tech	ANNA UNIVERSITY	FOOD TECHNOLOGY	11/09/2023	1.8	Assistant Professor	Assistant Professor		Regular	No	31/05/2025	No
15	Dr.D.LAVANYA	AIQPL2822D	NA	Ph.D	TAMILNADU AGRICULTURAL UNIVERSITY	FOOD PROCESS ENGINEERING	02/08/2021	2.9	Assistant Professor	Assistant Professor		Regular	No	31/05/2024	No
16	P.ABIRAMI	CJCPP7423D	NA	M.Tech	TAMILNADU AGRICULTURAL UNIVERSITY	FOOD PROCESS ENGINEERING	09/04/2021	4.1	Assistant Professor	Assistant Professor		Regular	No	31/05/2025	No
17	Dr.SHRIKRISHNA NISHANI	CIQPN5989K	NA	Ph.D	INDIAN AGRICULTURAL RESEARCH INSTITUTE	POSTHARVEST TECHNOLOGY	01/06/2022	2	Assistant Professor	Assistant Professor		Regular	No	31/05/2024	No
18	K.SAVITHA SANGAMI	NAMPS7726E	NA	M.Tech	ANNAMALAI UNIVERSITY	FOOD PROCESSING TECHNOLOGY	17/12/2025	0	Assistant Professor	Assistant Professor		Regular	Yes		No

5.1 Student-Faculty Ratio (SFR) (30)

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):

UG1=1st UG program

UGn=nth UG program

B= No. of Students in UG 2nd year (ST)

C= No. of Students in UG 3rd year (ST)

D= No. of Students in UG 4th year (ST)

No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):

PG1=1st PG program.

PGm=mth PG program

A= No. of Students in PG 1st year

B= No. of Students in PG 2nd year

Student Faculty Ratio (**SFR**) = S/F

S= No. of students of all programs in the Department including all students of allied departments/clusters.

No. of students (ST)=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)

Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.

F=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

UG

No. of UG(Engineering) programs in Department including allied departments/clusters(UGn):

Food Technology						
Year of Study	CAY		CAYm1		CAYm2	
	(2025-26)		(2024-25)		(2023-24)	
	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students
2nd Year	60	0	60	1	60	0
3rd Year	60	1	60	0	60	0
4th Year	60	0	60	0	60	1
Sub-Total	180	1	180	1	180	1
Total	181		181		181	
Grand Total	<input type="text" value="181"/>		<input type="text" value="181"/>		<input type="text" value="181"/>	

PG

No. of PG Programs in the Department

Grand Total	<input type="text"/>	<input type="text"/>	<input type="text"/>
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SFR

No. of UG Programs in the Department

No. of PG Programs in the Department

Food Technology

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	60	61	60
UG1.C	61	60	60
UG1.D	60	60	61
UG1: Food Technology	181	181	181
DS=Total no. of students in all UG and PG programs in the Department	181	181	181
AS=Total no. of students of all UG and PG programs in allied departments	0	0	0
S=Total no. of students in the Department (DS) and allied departments (AS)	S1= 181	S2= 181	S3= 181
DF=Total no. of faculty members in the Department	9	9	9
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1= 9	F2= 9	F3= 9
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 20.11	SFR2= 20.11	SFR3= 20.11
Average SFR for 3 years	SFR= 20.11		

Average SFR for three assessment years : 20.11

Assessment SFR : 18

5.2 Faculty Qualification (25)

Institute Marks : 16.11

Year	X	Y	RF	$FQ = 2.5 \times [(10X + 4Y) / RF]$
2025-26(CAY)	4	5	9.00	16.67
2024-25(CAYm1)	3	6	9.00	15.00
2023-24(CAYm2)	4	5	9.00	16.67

Average Assessment : 16.11

5.3 Faculty Cadre Proportion (25)

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2025-26)	1.00	1.00	2.00	1.00	6.00	7.00
CAYm1(2024-25)	1.00	1.00	2.00	0.00	6.00	8.00
CAYm2(2023-24)	1.00	0.00	2.00	0.00	6.00	9.00
Average Numbers	1.00	0.67	2.00	0.33	6.00	8.00

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 20.00

5.4 Visiting/Adjunct/Emeritus Faculty etc. (10)

Institute Marks : 10.00

Table No. 5.4.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

(CAYm1) 2024-25

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr.M.Daniel Jebaraj	Managing Director	Agri Amigos P.Ltd, Theni	Post Harvest Technology	60.00

(CAYm2) 2023-24

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr.K.Thangavel	Professor Emeritus	TamilNadu Agricultural University,Coimbatoree	Food Processing and Preservation	60.00

(CAYm3) 2022-23

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr.P.Sathiya Moorthy	Managing Director	Moon Foods, Tiruchengode	Food Microbiology Laboratory	60.00

5.5 Faculty Retention (10)

Description	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section 5.1 of SAR; (RF=S/20).	9	9	6
AF=The no. of available faculty members in the Department including allied Departments	9	9	0
A= The no. of faculty members at the current institute with less than 1 year of experience (A in AF)	0	0	3
B= The no. of faculty members at the current institute with more than 1 year and less than 2 years of experience (B in AF)	3	1	1
C= The no. of faculty members at the current institute with more than 2 years and less than 3 years of experience (C in AF)	4	6	2
D= The no. of faculty members at the current institute with more than 3 years and less than 4 years of experience (D in AF)	0	0	0
E= The no. of faculty members at the current institute with more than 4 years of experience (E in AF)	2	2	0
FR= $((A*0) + (B*1) + (C*2) + (D*3) + (E*4)) / RF$ *2.50 (points limited to 10)	5	6	2

Average : 4.33

Assessment Marks : 4.33

6 FACULTY CONTRIBUTIONS (120)

Total Marks 103.00

6.1 Professional Development Activities (60)

6.1.1 Memberships in Profession Societies at National/International Levels (5)

Institute Marks : 5.00

Table No. 6.1.1.1: List of faculty members and their memberships.

S.No	Name of the Faculty	Name of the Professional Society /Body at National and International Level	Name of the Grade/ Level/Position
1	Dr. P. Hema Prabha	Western Ghat Researcher Association of Agricultural Sciences and Technology -RAAST	Life member –& President of student chapter
2	Dr. J. Premkumar	Western Ghat Researcher Association of Agricultural Sciences and Technology -RAAST	Annual Member: RAAST/ANM/TN/2025/017
3	Dr. J. Premkumar	Institution of Engineers (India)	Corporate Membership M-1780446
4	Mr. P. Daniel Paul	Western Ghat Researcher Association of Agricultural Sciences and Technology -RAAST	Annual Member: RAAST/ANM/TN/2025/014
5	Ms. K. Keerthana	Western Ghat Researcher Association of Agricultural Sciences and Technology -RAAST	Annual Member: RAAST/ANM/TN/2025/015
6	Ms. N. Archana Das	Western Ghat Researcher Association of Agricultural Sciences and Technology -RAAST	Annual Member: RAAST/ANM/TN/2025/016
7	Dr. Jikky Jayakumar	AFST(I) - Association of Food Scientists & Technologists (India)	Life Member: AFST/LM/9-2018/ZON/2465
8	Dr. P.Abhinash	AFST(I) - Association of Food Scientists & Technologists (India)	Life Member: AFST/LM/2024/TRC/214
9	Dr. P.Abhinash	Indian Dairy Engineers Association	Life Member: IDEA/LM/2020/08
10	Dr. Jikky Jayakumar	The Indian Society of Agricultural Engineers	Life Member: -LM-12431
11	Dr. J. Deepa	Institution of Engineers (India)	Corporate Membership M-1778042
12	Dr. J. Deepa	Indian Society of Agricultural Engineering	Life Member: LM11885
13	Dr. J. Deepa	Madras Agricultural Students Union	Life Member: LM00568
14	Dr. J. Deepa	Agricultural Scientific Tamil Society (SciTSA)	Life Member: LM0256
15	Dr. J. Deepa	International Association of Engineers	Member: 263765
16	Dr. Shrikrishna Nishani	Indian Society of Agricultural Engineers	Life Member: LM-12098)
17	Mrs. P. Abirami	International Association of Engineers	Member: 227176
18	Mrs. P. Abirami	Indian Society of Agricultural Engineers	Member: M-181183
19	Dr. Suganya	AFST(I) - Association of Food Scientists & Technologists (India)	3/R159/18/CHEN/REN22

6.1.2 Faculty as Resource Persons or Participants in STTPs/FDPs (15)

Institute Marks : 5.00

6.1.2.1 Faculty as Resource Persons in STTPs/FDPs (5)

**Table No. 6.1.2.1: List of faculty members as resource person in STTP/FDP events.
(CAYm1) 2024-25**

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr.P.Hema Prabha	DST Sponsored Women Entrepreneurship Development Program	10.02.2025	Coimbatore	Avinashilingam University
2	Dr.P.Hema Prabha	Chief Guest and Technical Talk at National Seminar	14.03.2025	Komarapalayam, Namakkal	Department of Food Technology, Excel Engineering College
3	Dr.P.Hema Prabha	Technical Chair at Two Days International Conference	13.02.2025	Coimbatore	Department of Bio Technology Anna University
4	Dr.P.Hema Prabha	Chair person and Technical Talk at International Conference	10.01.2025	Sulur, Coimbatore	Department of Agricultural Engineering RVS Technical Campus
5	Dr.P.Hema Prabha	Chief Guest and Technical Talk at Skill Development Program	07.11.2024	Coimbatore	Karpagam Academy of Higher Education
6	Dr.P.Hema Prabha	Expert for mock NBA Audit	06.05.2025	Coimbatore	Kumaraguru College of Engineering
7	Dr.P.Hema Prabha	Member of Board of Studies	10.04.2025	Coimbatore	Kalaingar Karunanidhi Institute of Technology
8	Mr. P. Daniel Paul	FDP on Entrepreneurship in Food Processing	17.02.2025	Coimbatore	Nehru Institute of Technology, Coimbatore
9	Dr. J. Premkumar	FDP on Entrepreneurship in Food Processing	18.02.2025	Coimbatore	Nehru Institute of Technology
10	Dr. Jikky Jayakumar	FDP on Entrepreneurship in Food Processing	19.02.2025	Coimbatore	Nehru Institute of Technology
11	Dr. P. Abhinash	FDP on Entrepreneurship in Food Processing	20.02.2025	Coimbatore	Nehru Institute of Technology
12	Mrs. V. Sindhuja	FDP on Entrepreneurship in Food Processing	21.02.2025	Coimbatore	Nehru Institute of Technology
13	Dr. J. Premkumar	FDP on Advances in analytical techniques and instrumentation	18.12.2024	Coimbatore	Hindusthan College of Engineering and Technology
14	Dr. Jikky Jayakumr	FDP on Technology enabled teaching and learning in food science	24.04.2025	Coimbatore	Royal College of Nursing

(CAYm2) 2023-24

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr. Jikky Jayakumar	FDP on Farm to Fork Enhancing Food Quality through Post-Harvest Handling	18/05/2024	Coimbatore	Department of Food Technology, Hindusthan College of Engineering and Technology
2	Dr. P.Abhinash	Expert speaker for webinar on Emerging Trends in Food Processing Technology"	22/05/2024	Gujarat	Department of Dairy & Food Technology, Parul Institute of Technology, Parul University.
3	Dr. Jikky Jayakumar	FDP on advance in sensory analysis and food quality testing in food industry	20/12/2023	Coimbatore	Department of Food Technology, Nehru Institute of Technology, Coimbatore
4	Ms. V. Shindhuja	FDP on advance in sensory analysis and food quality testing in food industry	21/12/2023	Coimbatore	Department of Food Technology, Nehru Institute of Technology, Coimbatore
5	Mr. P. Daniel Paul	FDP on recent trends in food processing and preservation technologies	22/05/2024	Coimbatore	Department of Food Technology, Nehru Institute of Technology, Coimbatore
6	Dr. Shrikrishna Nishani	FDP on recent trends in food processing and preservation technologies	23/05/2024	Coimbatore	Department of Food Technology, Nehru Institute of Technology, Coimbatore

(CAYm3) 2022-23

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr. J. Suganya	FDP on Modern Dairy Technology Innovations and Prospects	20/12/2022	Coimbatore	Department of Food Technology, Nehru Institute of Technology
2	Ms. V. Shinduja	FDP on Modern Dairy Technology Innovations and Prospects	21/12/2022	Coimbatore	Department of Food Technology, Nehru Institute of Technology
3	Ms. P. Abirami	Five days FDP on Modern Trends in Food Packaging Systems	18/05/2023	Coimbatore	Department of Food Technology, Nehru Institute of Technology
4	Dr. Shrikrishna Nishani	Five days FDP on Modern Trends in Food Packaging Systems	16/05/2023	Coimbatore	Department of Food Technology, Nehru Institute of Technology
5	Dr. D. Lavanya	Five days FDP on Modern Trends in Food Packaging Systems	17/05/2023	Coimbatore	Department of Food Technology, Nehru Institute of Technology
6	Mrs. V. Shinduja	SPOC in smart India Hackathon 2022	25/08/2022	Coimbatore	MoE, IIC

6.1.2.2 Faculty Members' Participation in STTPs/FDPs (10)

Institute Marks : 10.00

Name of the faculty	Max 5 Per Faculty		
	2024-25(CAYm1)	2023-24(CAYm2)	2022-23(CAYm3)
Dr. P. Hema Prabha	5.00	0.00	0.00
Dr. J. Premkumar	5.00	0.00	0.00
Dr. P. Abhinash	5.00	5.00	2.00
Dr. Jikky Jayakumar	5.00	5.00	0.00
Mrs. V. Sindhuja	5.00	5.00	5.00
Mr. P. Daniel Paul	5.00	5.00	0.00
Ms. R. Rashmitha	5.00	5.00	0.00
Mr. L. Veerapandi	5.00	5.00	0.00
Ms. K. Keerthana	5.00	0.00	0.00
Ms. P. Abirami	5.00	5.00	5.00
Dr. J. Suganya	0.00	5.00	5.00
Dr. D. Lavanya	0.00	5.00	5.00
Dr. Shrikrishna Nishani	0.00	5.00	5.00
Sum	50.00	50.00	27.00
RDF = Number of faculty required to comply with the 20:1 student - faculty ratio in the Department alone, as per section 5.1 of SAR(RDF= DS / 20).	9.05	9.05	9.05
Assessment Points (AP)= 2 * (Sum/(0.5* RDF)) (Points limited to 5 for each assessment year)	10.00	10.00	10.00

Average assessment over 3 years: 10.00

6.1.3 Faculty Certification of MOOCs through SWAYAM, etc. (10)

Institute Marks : 10.00

Table No. 6.1.4.1: List of faculty members obtained certification of MOOCs for the past 3 years.

S.No	Name of the Faculty	Name of Course Passed	Course Offered by (agency)	Grade obtained if any
1	Dr. J. Premkumar	Food Science and Technology	NPTEL, Swayam	63%
2	Dr. P. Abhinash	Modern Food Packaging Technologies: Regulatory Aspects and Global Trends	NPTEL, Swayam	82%
3	Ms. K. Keerthana	Novel Technologies for Food Processing and Shelf-life Extension	NPTEL, Swayam	57%
4	Dr. Jikky Jayakumar	Food Science and Technology	NPTEL, Swayam	72%
5	Mr. P. Daniel Paul	Modern Food Packaging Technologies: Regulatory Aspects and Global Trends	NPTEL, Swayam	84%
6	Dr. Suganya Jeyaprakash	Post Harvest Operations and Processing of Fruits, Vegetables, Spices and Plantation Crop Products	NPTEL, Swayam	72%
7	Dr. J. Premkumar	Transformation of the Global Food System	University of Copenhagen, Coursera	-
8	Dr. J. Premkumar	Biochemical Principles of Energy Metabolism	Korea Advanced Institute of Science and Technology, Coursera	-
9	Dr. J. Premkumar	Dairy Production and Management	Pennstate College of Agricultural Sciences, Coursera	-
10	Dr. P. Hema Prabha	Dairy Production and Management	Pennstate College of Agricultural Sciences, Coursera	-
11	Dr. P. Hema Prabha	Risk to Crop Production in Agriculture	University of Illinois, Urbana-Champaign, Coursera	-
12	Dr. Jikky Jayakumar	Introduction to Sensory Science	University of California, Davis, Coursera	-
13	Dr. Jikky Jayakumar	Transformation of the Global Food System	University of Copenhagen, Coursera	-
14	Dr. P. Abhinash	Introduction to Sensory Science	University of California, Davis, Coursera	-
15	Dr. P. Abhinash	Transformation of the Global Food System	University of Copenhagen, Coursera	-
16	Mr. P. Daniel Paul	Food and Beverage Management	Universita Bocconi, Coursera	-
17	Mr. P. Daniel Paul	Sustainable Food Systems	University of Illinois, Urbana-Champaign, Coursera	-
18	Mr. P. Daniel Paul	Weight Management: Beyond Balancing Calories	Emory University, Coursera	-
19	Mr. P. Daniel Paul	The Sustainable Development Goals Global, Transdisciplinary Vision for the Future	University of Copenhagen, Coursera	-
20	Mr. L. Veerapandi	Effective Problem Solving and Decision Making	University of California, Irvine, Coursera	-
21	Mr. L. Veerapandi	Transformation of Global Food System	University of Copenhagen, Coursera	-
22	Ms. R. Rashmitha	Introduction to Sensory Science	University of California, Davis, Coursera	-
23	Ms. R. Rashmitha	Transformation of Global Food System	University of Copenhagen, Coursera	-
24	Ms. K. Keerthana	Food and Beverage Management	Universita Bocconi, Coursera	-
25	Ms. K. Keerthana	Dairy Production and Management	Pennstate College of Agricultural Sciences, Coursera	-
26	Dr. Suganya Jeyaprakash	Basic Food Manufacturing & Covid, Basic Food Catering & Covidc, HACCP (Level 3) and ISO 22000	FSSAI-FoSTaC, GoI.	-
27	Mr. L. Veerapandi	Artificial Intelligence and Machine Learning Approaches for Drug and Vaccine Design in Cancer	MSME	-

6.1.4 FDP/STTP Organized by the Department (10)

Institute Marks : 10.00

Table No. 6.1.5.1: List of FDPs/STPs organized by Department for the past 3 years.

(CAYm1) 2024-25

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	FDP on Entrepreneurship in Food Processing	17/02/2025	5 days	Dr Rymela Mathen EDC Coordinator Avinashilingam University Coimbatore	30
2	Leveraging Digital Library Resources for Enhanced Teaching and Research online FDP	26/05/25	5 days	Dr Sarangapani Librarian Head BU	382

(CAYm2) 2023-24

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	FDP on Advances in Sensory Analysis and Food Quality Testing in Food Industry	18/12/2023	5 days	Dr V Thirupathi Dean AECRI Kumulur	34
2	FDP on Recent Trends in Food Processing and Preservation Technologies	20/05/2024	5 days	Mr. Prabhu Gandhi Kumar, TABPS Snacks and Beverages, Coimbatore	32

(CAYm3) 2022-23

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Hands on Training on Bakery Product Development	06/06/2023	6 hours	Dr A Swarnalatha Associate Professor Department of Food Science and Nutrition NASC	60
2	Poster Presentation Competition on World Environmental Day / World Food Safety Day	07/06/2023	4 hours	Dr Karthik Pothiyappan Professor Department of Food Technology KAHE	150
3	FDP on Modern Dairy Technology Innovations and Prospects	19/12/2022	5 days	Dr N Karpoora Sundarapandiyan College of Food and Dairy Technology TANUVAS	35
4	Five days FDP on Modern Trends in Food Packaging Systems	15/05/2023	5 days	Dr A Arul Mozhi Associate Professor and Head Department of Printing and Packaging Technology, ADU	40

6.1.5 Faculty Support in Student Innovative Projects (10)

Institute Marks : 10.00

**Table No. 6.1.6.1: List of faculty members involved in student innovative projects.
(CAYm1) 2024-25**

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr. P. Hema Prabha	Food Hackathon Challenge	27/02/2025	CSIR-CFTRI, Mysore.	-
2	Dr. P. Hema Prabha	International Conference -ICIHES-2025, Hackathon	26/02/2025	Avinashilingam University, Coimbatore.	-
3	Mr. P. Daniel Paul	Poster Presentation	17/02/2025	Karpagam Academy of Higher Education	-
4	Mr. P. Daniel Paul	National Level Technical Symposium - Korshn-24	25/10/2024	Hindusthan College of Engineering and Technology, Coimbatore	-
5	Dr. J. Premkumar	National Conference on Innovations in Science, Technology, Agriculture and Health care Applications	23/08/2024	Nehru Institute of Engineering and Technology	-
6	Dr J Premkumar	International conference on New-gen technologies for sustainable development	27/03/2025	Nehru Institute of Technology	-
7	Mr. P. Daniel Paul	International conference on New-gen technologies for sustainable development	27/03/2025	Nehru Institute of Technology	-
8	Dr. P. Hema Prabha	International conference on New-gen technologies for sustainable development	27/03/2025	Nehru Institute of Technology	-
9	Dr. JIkky Jayakumar	International conference on New-gen technologies for sustainable development	27/03/2025	Nehru Institute of Technology	-
10	Dr. P Abhinash	International conference on New-gen technologies for sustainable development	27/03/2025	Nehru Institute of Technology	-
11	Dr. JIkky Jayakumar	National Conference on Innovations in Science, Technology, Agriculture and Health care Applications	23/08/2024	Nehru Institute of Engineering and Technology	-
12	Dr. P. Abhinash	National Conference on Innovations in Science, Technology, Agriculture and Health care Applications	23/08/2024	Nehru Institute of Engineering and Technology	-
13	Mr. L. Veerapandi	National Conference on Innovations in Science, Technology, Agriculture and Health care Applications	23/08/2024	Nehru Institute of Engineering and Technology	-
14	Ms. R. Rashmitha	National Conference on Innovations in Science, Technology, Agriculture and Health care Applications	23/08/2024	Nehru Institute of Engineering and Technology	-
15	Mrs. V. Shinduja	National Conference on Innovations in Science, Technology, Agriculture and Health care Applications	23/08/2024	Nehru Institute of Engineering and Technology	-
16	Mrs. V. Shinduja	Niral Thiruvizha Hackathon	12/12/2024	TNSDC	https://naanmudhalvan.tn.gov.in/niralthiruvizha/

(CAYm2) 2023-24

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr. P. Abhinash	National Level Technical Symposium ESCULENT23	17/11/2023	Hindusthan College of Engineering and Technology, Coimbatore	-
2	Mr. L. Veerapandi	National Level Technical Symposium	03/04/2024	JCT College of Engineering and Technology, Coimbatore	-
3	Mr. L. Veerapandi	National Conference on Innovations in Food Processing Unveiling the Health Potential	30/04/2023	Avinashilingam University, Coimbatore	-
4	Dr. P. Abhinash	International Conference on Recent Trends in Translational Biotechnology - ICRTTB24	26/04/2023	Sethu Institute of Technology, Madurai	-
5	Mr. P. Daniel Paul	International Conference on Emerging Trends in Future Engineering-24	25/04/2024	Dhanalakshmi Srinivasan College of Engineering, Coimbatore	-
6	Dr. P. Abhinash	International Conference on NUTRI-OMICS in Biotechnological Innovations	12/03/2024	American College, Madurai	-
7	Mrs. V. Shinduja	Project Presentation	26/07/2023	NGI-TBI	-
8	Mrs. P. Abirami	Project Presentation	26/07/2023	NGI-TBI	-

(CAYm3) 2022-23

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr. J. Suganya	Eureka Idea Competition	05/02/2023	E-Cell IIT, Bombay	-
2	Dr Shrikrishna Nishani	Aggnite 3.0 Idea Competition	17/03/2023	NAARM-TBI, Hyderabad	-
3	Ms. P. Abirami	National Level Symposium - Idea competition	17/03/2023	Karpagam Academy of Higher Education, Coimbatore	-
4	Ms. P. Abirami	Project Presentation	23/09/2022	NGI-TBI	-
5	Dr. J. Suganya	Project Presentation	23/09/2022	NGI-TBI	-

6.1.6 Faculty Internship/Training/Collaboration with Industry (10)

Institute Marks : 10.00

Table No. 6.1.7.1: Faculty internship/training/collaboration details.

S.No	Name of the Faculty	Name of the Internship/ Training/ Collaboration	Name of the Company & Place	Duration	Outcomes of Internship/ Training/ Collaboration
1	Dr. P. Hema Prabha	MoU Collaboration	PVR Foods Pvt Ltd, Coimbatore	11 months	Seminar
2	Dr. P. Hema Prabha	MoU Collaboration	Moon Foods Pvt Ltd, Coimbatore	11 months	Workshop
3	Dr. P. Hema Prabha	MoU Collaboration	Agri Amigos, Theni	11 months	Workshop
4	Dr. J. Premkumar	MoU Collaboration	Angel Starch and Food Pvt Ltd, Erode	11 months	Guest Lecture
5	Dr. P. Abhinash	MoU Collaboration	Ayyara Foods, Kunnathur	11 months	Industrial Visit
6	Dr. Jikky Jayakumar	MoU Collaboration	AR Foods, Coimbatore	11 months	Seminar
7	Mrs. V. Sindhuja	MoU Collaboration	Lofty Agrotech, Coimbatore	11 months	Seminar
8	Dr. J. Suganya	MoU Collaboration	Machen Innovations Pvt Ltd, Coimbatore	1 year	Guest Lecture
9	Dr. D. Lavanya	MoU Collaboration	Impresso 3D, Coimbatore	1 year	Workshop
10	Dr Shrikrishna Nishani	MoU Collaboration	G.K. Agrotech Solutions, Bengaluru	1 year	Workshop
11	Ms. P. Abirami	MoU Collaboration	Marutham Meats, Coimbatore	1 year	Seminar
12	Dr. P. Abhinash	Training	Ayyara Foods, Kunnathur	15-days	FDP
13	Dr Jikky Jayakumar	Training	AR Foods, Coimbatore	5-days	FDP
14	Ms.P. Abirami	Training	Marutham Meats, Coimbatore	10-days	FDP
15	Mrs. V. Shinduja	Training	Machen Innovations Pvt Ltd, Coimbatore	6-days	FDP

6.2 Research and Development Activities (60)

Total Marks 15.00

6.2.1 Academic Research (15)

Institute Marks : 15.00

Table No. 6.2.1.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	2	6	1
2	No. of peer reviewed conference papers published	16	11	10
3	No. of books/book chapters published	3	3	1

6.2.2 Development Activities (10)

Institute Marks : 10.00

Patents Published

Year	Name of the faculty	Title	Filed date	Published date	IP Registration number
CAYm1 (2024-25)	Dr. J. Premkumar	Modular solar bioconversion unit for underused vegetables	15/05/2025	30/05/2025	202541047069
	Dr. P. Hema Prabha	Mathematical modelling for optimizing smart food packaging in urban logistics	04/02/2025	14/02/2025	202541001199 A
	Dr. P. Hema Prabha and Dr. J. Premkumar	Autonomous crop monitoring using unmanned aerial vehicle	24/01/2025	31/01/2025	202541005678 A
CAYm2 (2023-24)	Mr. L. Veerapandi	Novel process for the production of hypolipidemic bioactive compound	10/11/2023	06/06/2025	202341076900

Products developed by faculty members**CAYm1(2024-25)**

Faculty Name	Product developed
Mr. Daniel Paul P	Development of fibre rich spicy stick
Ms. K. Keerthana	Development of Mexican mint squash
Dr. J. Prem Kumar	Development of plant-based protein beverage from Mucuna pruriens
Mr. L. Veerapandi	Development of functional tisane powder
Dr. Jikky Jayakumar	Development of Biodegradable film using waste potato peels
Dr. P. Hema Prabha	AI based real time milk quality monitoring kit
Dr. P. Abhinash	Citrus Peel-Incorporated Banana Sap-Based Fermented Beverage

Dr. P. Abhinash	Orange peel incorporated jack fruit seed-based Whey Drink
Dr. Jikky Jayakumar	Development and quality evaluation of innovative sweet potato muffin: A nutrient rich high fiber delight

CAYm2 (2023-24)

Faculty Name	Product developed
Mr.Daniel Paul P	Development of Nutritive Sour Gummies Containing Gooseberry and Roselle
Dr.Jikky Jayakumar	Development and Formulation of Gluten Free Cookies Using Palmyra Sprouts
Mrs.Sindhuja V	Development and Optimization of Ready to Drink Herbal Juice with Triphala Extract
Dr.Abhinash P	Development of Millet Milk Infused Low Calorie Banana Blossom Milk Cake
Ms.Rashmitha R	Development of Antioxidant Enriched Black Rice Flour Choco Cookie

CAYm3 (2022-23)

Faculty Name	Product developed
Ms. P. Abirami	Multifloral tea
Dr. J. Suganya	Development of natural jelly with protein and dietary fiber enriched

2024-25 (CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Mrs V Shinduja		Food Technology	BANAFIB - Edible Cutlery From Agricultural Bio-waste	AICTE MIC	2024-25	2.00
Mrs V Shinduja		Food Technology	Development of sustainable edible / biodegradable packaging film from marine waste	TNSDC	2024-25	0.10
						Amount received (Rs.):2.10

2023-24 (CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Mrs Shinduja Vetrivelan		Food Technology	Development of Indian Herbal Drink with Betel leaf	Ministry of Agriculture RKVY RAFTAAR	1 Year	5.00
Ms. P .Abirami	Ms Vaishnavi G	Food Technology	Basil based biscuit, chips, halwa and papad	NSTEDB-DST	1 Year	2.50
Mrs Shinduja V	Mr Hariprasath B	Food Technology	Agrotherapist	NSTEDB-DST	1 Year	2.50
Mr L Veerapandi	Mr Pugazhoviyan S	Food Technology	Millet Yogurt Mix	NSTEDB-DST	1 Year	2.50
						Amount received (Rs.):12.50

2022-23 (CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Ms. P. Abirami	Mr. M. Saran	Food Technology	Multifloral Tea	NSTEDB-DST	1 year	2.50
Dr. J. Suganya	Ms. S.Janani	Food Technology	Development of natural jelly with protein and dietary fiber enriched	NSTEDB-DST	1 year	2.50
						Amount received (Rs.):5.00

Total Amount (Lacs) Received for the Past 3 Years: 19.60

Note*:

- Only sponsored research projects will be considered. Infrastructure-based projects will not be considered here.

6.2.4 Consultancy Work (15)

Institute Marks : 1

2024-25 (CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. P. Hema Prabha	-	Food Technology	Development of herb based products	Agri Amigos, Theni	1 year	0.30
Dr J Premkumar	-	Food Technology	Development of instant premix	Moon Foods, Tiruchengode	1 year	0.26
Mr P Daniel Paul	-	Food Technology	Development of fruit powders	TABP Snacks and beverages pvt ltd, Coimbatore	1 year	0.30
Ms K. Keerthana	-	Food Technology	Natural cosmetics	Jayra Cosmetics, Coimbatore	1 year	0.25
Dr. P. Abhinash	-	Food Technology	Development of Flavored milk	Ayyara Foods, Kunnathur	1 year	0.17
Ms. K. Keerthana	-	Food Technology	Redwine gel	Hash Herbs, Coimbatore	1 year	0.10
						Amount received (Rs.):1.38

2023-24 (CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Ms. P. Abirami	-	Food Technology	RTS beverage	NGI, Coimbatore	1 year	0.52
Dr Jikky Jayakumar	-	Food Technology	Development of fruit chips	A1 Chips, Coimbatore	1 year	0.25
Ms. R. Rashmitha	-	Food Technology	Development of blended masala	Amirdham Foods, Chennai	1 year	0.25
Dr D Lavanya	-	Food Technology	Development of pickles	Angalamman Foods, Pollachi	1 year	0.10
Dr. Jikky Jayakumar	-	Food Technology	Development of dehydrated vegetable products	A1 chips, Coimbatore	1 year	0.25
						Amount received (Rs.):1.37

2022-23 (CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Ms. P. Abirami		Food Technology	RTS beverage	NGI, Coimbatore	1 year	0.30
Mrs. V. Shinduja	-	Food Technology	Millet Product Development	PVR Foods, Coimbatore	1 year	0.25
						Amount received (Rs.):0.55

Total amount (Lacs) received for the past 3 years: 3.30

Note*:

- Only consultancy projects will be considered. Infrastructure-based projects will not be considered here.

6.2.5 Institution Seed Money or Internal Research Grant to its Faculty for Research Work(5)

6.2.5 A Amount received (3)

Institute Marks :

2024-25 (CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project

2023-24 (CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project

2022-23 (CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project

Total amount (Lacs) received for the past 3 years :

6.2.5 B Amount utilized (2)

Institute Marks :

7 FACILITIES AND TECHNICAL SUPPORT (100)

Total Marks 100.00

7.1 Adequate and well equipped laboratories, and technical manpower (40)

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Food Packagin	30	1. Wall Thickn	3 hours	Mr Subramanit	Technical Assis	Diploma (Mech
2	Food Analysis	30	1. Soxhlet App:	3 hours	Mrs T Uma De'	Technical Assis	MSc (Plant Bio
3	Food Chemistr	30	1. Soxhlet App:	3 hours	Mrs T Uma De'	Technical Assis	MSc (Plant Bio
4	Food Processir	30	1. Tray Dryer, 2	3 hours	Mr C Shanmug	Technical Assis	Diploma (Mech
5	Food Microbiol	30	1. Autoclave, 2	3 hours	Mr Ragul	Technical Assis	Diploma (Mech
6	Dairy Technolo	30	1. Gerber Cent	3 hours	Mr Ragul	Technical Assis	Diploma (Mech
7	Unit Operation:	30	1. Hammer Mil	3 hours	Mr C Shanmug	Technical Assis	Diploma (Mech
8	Baking and Co	30	1.OTG Oven 2	3 hours	Mrs T Uma De'	Technical Assis	MSc (Plant Bio
9	Fruits and Vegr	30	1 Pulper 2 Dice	3 hours	Mr Ragul	Technical Assis	Diploma (Mech
10	Post Harvest E	30	1 Grain Moistu	3 hours	Mr Subramanit	Technical Assis	Diploma (Mech

7.2 Additional Facilities Created for Improving the Quality of Learning Experience in Laboratories (20)

Institute Marks : 20.00

Sr. No	Name of the Facility	Details	Purpose for creating facility	Utilization	Relevance to POs/PSOs
1	Food Product Development Centre	Formulation and development of food products	To develop innovative food products	(Greater than 25%) 13 hours	PO1, PO2, PO3, PO4, PO5, PO7, PO11
2	Food Product Testing Centre	Evaluation and testing of food products	Food testing and sensory evaluation of food products	(Greater than 25%) 13 hours	PO1, PO2, PO4, PO5, PO6, PO8, PO10
3	Fruits and Vegetable Processing Unit	Formulation and development of fruit and vegetable products	To manufacture fruit and vegetable based shelf stable and ready to eat products	(Greater than 25%) 13 hours	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO11
4	Bakery Unit	Formulation and development of bakery products	To manufacture ready to eat bakery products	(Greater than 25%) 13 hours	PO1, PO2, PO3, PO4, PO5, PO6, PO11

7.3 Maintenance of laboratories and overall ambiance (10)

Laboratories: Maintenance and Overall Ambiance

The laboratory technical assistants routinely inspect, verify, and maintain the availability and condition of all equipment and consumables to ensure experiments run without interruption at the commencement of every semester. Any instruments that are faulty or not functioning properly are regularly. Equipment calibration is performed at regular intervals through authorized agencies.

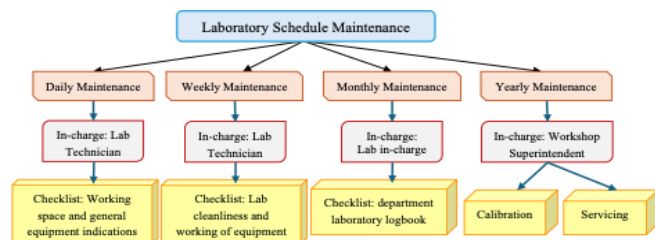


Figure 7.1: Flowchart for the laboratory maintenance schedule

All laboratories are provided with white boards, and additional lab hours are arranged for students whenever there is a need. The laboratories in the department are adequate to meet the curriculum requirements and are supported by qualified technical staff. Each laboratory is overseen by designated faculty members and is consistently maintained in proper working condition. Students are permitted to use the project laboratory as required, and project activities are carried out under the supervision of project guides with support from lab technical assistants. The department ensures that essential consumables and equipment are available to carry out project-related experiments and analyses. The project laboratory is equipped with an adequate number of computers with internet connectivity and is backed by an uninterrupted power supply (UPS) to ensure continuous operation. Other laboratories provide sufficient working space for conducting experiments, project work, hands-on training, and workshops, and they are well-ventilated and properly illuminated. Equipment calibration, servicing, and routine cleaning are performed at regular intervals to ensure safety, accuracy, and reliable performance.



a) Students Performing Experiment in Food Analysis Lab

b) Student Performing Experiment in Food Microbiology Lab

Figure 7.2: Students performing experiments in laboratory

The overall ambience of the laboratories is well maintained, with all labs being properly furnished and equipped with the necessary instruments to conduct every experiment prescribed in the syllabus. To support effective teaching and clear explanation of experimental concepts, the laboratories are provided with charts, and class boards. They also offer a comfortable working environment with good ventilation, adequate lighting through tube lights, and fan arrangements. In addition, uninterrupted power supply facilities are available in all laboratories.

Table 7.1 : Maintenance Schedule

S.No	Scheduled Period	Maintenance work undertaken
1.	Daily	<ul style="list-style-type: none"> · Cleaning the working space and laboratory floor. · Verifying the count of furniture and arranging the same. · Checking the quantity and number of consumables and equipment. · Checking the power supply and trial run of equipment · Switching the power ON/OFF while entering and exiting the premises. · Cleaning the space, furniture and floor.

2.	Weekly	<ul style="list-style-type: none"> · Verifying the quantity of consumables and glassware. · Checking the condition of power supply board and fuse. · Checking the working condition of equipment for any refills or replacements. · Checking the count of tools and accessories of the equipment. · Sanitation of the working area and equipment.
3.	Monthly	<ul style="list-style-type: none"> · Verifying the working condition of the equipment. · Verifying the quantity and number of consumables and equipment as per the requirement.
4.	Semester	<ul style="list-style-type: none"> · Checking the performance and working condition of equipment for servicing. · Servicing the equipment which were identified and repairing. · Preparation of list for consumables and equipment for the upcoming semester. · First Aid kit: Verifying the availability and expiry dates of the medicines/medical accessories in the medical kit.
5.	Annually	<ul style="list-style-type: none"> · Calibration of gauges and equipment. · Servicing the equipment which were identified and repairing. · Verifying the conditions of fire extinguishers and refilling. · Status of the First Aid kit: Verifying the availability and expiry dates of the medicines/medical accessories in the medical kit and replacement of medical supplies.

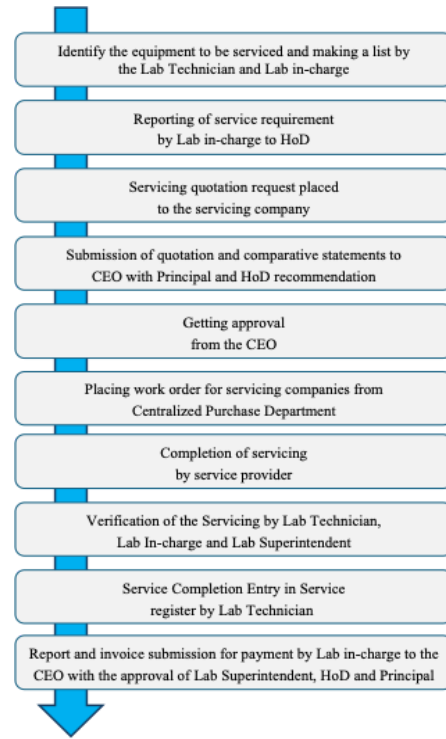


Figure 7.3: Procedure for equipment servicing and maintenance (flow process)

7.4 Safety measures in laboratories (10)

Sr. No	Laboratory Name	Safety Measures
1	Food Packaging and Testing Laboratory	1. First aid box 2. Fire extinguisher 3. Hand gloves 4. Safety instruction Board 5. MCB/ELCB 6. Earthing 7. Technical Assistant
2	Food Analysis Laboratory	1. First aid box 2. Hand gloves 3. Safety goggles 4. Mask 5. Safety instruction Board 6. MCB/ELCB 7. Earthing 8. Technical Assistant
3	Food Chemistry Laboratory	1. First aid box 2. Hand gloves 3. Safety goggles 4. Mask 5. Safety instruction Board 6. MCB/ELCB 7. Earthing 8. Technical Assistant
4	Food Processing & Preservation Laboratory	1. First aid box 2. Fire extinguisher 3. Hand gloves 4. Safety instruction Board 5. MCB/ELCB 6. Earthing 7. Technical Assistant
5	Food Microbiology Laboratory	1. First aid box 2. Hand gloves 3. Safety goggles 4. Mask 5. Safety instruction Board 6. MCB/ELCB 7. Earthing 8. Technical Assistant
6	Dairy Technology Laboratory	1. First aid box 2. Hand gloves 3. Safety goggles 4. Mask 5. Safety instruction Board 6. MCB/ELCB 7. Earthing 8. Technical Assistant
7	Unit Operations Laboratory	1. First aid box 2. Hand gloves 3. Safety instruction Board 4. MCB/ELCB 5. Earthing 6. Technical Assistant
8	Baking and Confectionary Technology Lab	1. First aid box 2. Hand gloves 3. Safety instruction Board 4. MCB/ELCB 5. Earthing 6. Technical Assistant
9	Fruits and Vegetables Processing Technology	1. First aid box 2. Hand gloves 3. Safety instruction Board 4. MCB/ELCB 5. Earthing 6. Technical Assistant
10	Post-Harvest Engineering Laboratory (Maintained by Agricultural Engineering)	1. First aid box 2. Fire extinguisher 3. Hand gloves 4. Safety instruction Board 5. MCB/ELCB 6. Earthing 7. Technical Assistant

11	Laboratories (General Safety Measures)	<ol style="list-style-type: none">1. Students need to wear lab coat and closed-toe shoes.2. Power lines, switches, and knobs are off-limits to students.3. Students are not allowed to operate the equipment without the knowledge of instructor.4. Students need to maintain a clean and organized laboratory.5. Use of cell phones are prohibited.6. Girls are instructed to tie their long hair back especially when working near machinery.7. Jewels and Watches are likely to cause accidents and hence it is to be avoided.
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7.5 Project laboratory/research laboratory /centre of excellence (20)

Project Laboratory

The Department of Food Technology encourages students to develop innovative food products and supports project-based learning through the effective utilization of the Project Laboratory. Final-year project work is carried out in the areas of Food Chemistry, Food Engineering, Food Processing, Food Product Development, and Food Product Testing, enabling students to apply core concepts learned in the curriculum to practical problem solving. The Project Laboratory is dedicated to facilitating these academic projects by providing access to the required equipment and resources for conducting experiments, evaluation, and basic analysis. The final-year projects are executed under the guidance of faculty members with the support of technical staff, and they make use of the key equipment available in the laboratory, as listed in the relevant equipment table.

Table: List of equipment in project laboratory

S. No.	Equipment Name
1	Deep Freezer
2	Ostwald Viscometer
3	Hardness Tester
4	Vacuum Packaging Machine
5	Handheld Colour Meter
6	Colour Comparator
7	Magnetic Stirrer
8	Handheld pH Meter
9	Analytical Balance
10	Refrigerator
11	Hot Air Oven

Table 7.3: Outcomes / Usage of the equipment in project laboratory (2020-2024 Batch)

S.No.	Student Names	Project Title	Equipment Used
1	Kousiga A, Safeeq Rahman K, Keerthana B, Pasupathi P	Development of Nutritive Sour Gummies Containing Gooseberry and Roselle	Analytical Balance, Handheld pH Meter, Magnetic Stirrer, Hardness Tester, Handheld Colour Meter, Refrigerator, Deep Freezer, Vacuum Packaging Machine
2	Sivasankari B, Navin Kumar H V, Mohamad Rafique K, Anand K	Development and Formulation of Gluten Free Cookies Using Palmyra Sprouts	Analytical Balance, Hot Air Oven, Hardness Tester, Colour Comparator, Refrigerator, Vacuum Packaging Machine
3	Maha Lakshmi G, Indhu S, Jeevitha S	Development and Optimization of Ready to Drink Herbal Juice with Triphala Extract	Analytical Balance, Magnetic Stirrer, Ostwald Viscometer, Handheld pH Meter, Colour Comparator, Refrigerator, Deep Freezer
4	Saran M, Vishva R, Deepika A, Shabeeb P	Development of Millet Milk Infused Low Calorie Banana Blossom Milk Cake	Analytical Balance, Magnetic Stirrer, Handheld pH Meter, Hot Air Oven, Hardness Tester, Handheld Colour Meter, Refrigerator, Deep Freezer
6	Liberna B, Aravindswamy B, Vignesh G, Kesavaram S	Development of Antioxidant Enriched Black Rice Flour Choco Cookie	Analytical Balance, Hot Air Oven, Hardness Tester, Handheld Colour Meter, Colour Comparator, Refrigerator, Vacuum Packaging Machine

Table 7.4: Outcomes / Usage of the equipment in project laboratory (2021-2025 Batch)

S.No.	Student Names	Project Title	Equipment Used
1	Janani S, Saravadarshini M, Karan Pandi S, Dhanush P	Development of fibre rich spicy stick	Analytical Balance, Hot Air Oven, Hardness Tester, Handheld Colour Meter, Vacuum Packaging Machine
2	Gayathri K, Anantha Raman S, Rahim M V	Development of Mexican mint squash	Analytical Balance, Magnetic Stirrer, Ostwald Viscometer, Handheld pH Meter, Colour Comparator, Refrigerator, Deep Freezer
3	Legha Shri K, Krithika S C, Thanush K	Development of plant-based protein beverage from Mucuna pruriens (velvet bean)	Analytical Balance, Magnetic Stirrer, Handheld pH Meter, Colour Comparator, Refrigerator, Deep Freezer
4	Karthika S, Asha M, Dhanasekar P, Jeevitha B	Development of functional tisane powder	Analytical Balance, Hot Air Oven, Handheld Colour Meter, Refrigerator, Vacuum Packaging Machine
5	Aathithyan S, Javies L, Kishore Anand P, Yamuna R	Development of Biodegradable film using waste potato peels	Analytical Balance, Hot Air Oven, Handheld Colour Meter, Refrigerator
6	Akash C, Madhumitha R, Dharnish Antony A, Keerthana M	AI based real time milk quality monitoring kit	Analytical Balance, Handheld pH Meter, Refrigerator
7	Lakshman S, Jayasurya M S, Abishek B, Surya Moorthy A	Development of Citrus Peel-Incorporated Banana Sap-Based Fermented Beverage	Analytical Balance, Magnetic Stirrer, Ostwald Viscometer, Handheld pH Meter, Colour Comparator, Refrigerator, Deep Freezer
8	Ragul G, Hairath T H, Fathima D, Fathima Sinsina P A	To develop orange peel incorporated jack fruit seed-based Whey Drink	Analytical Balance, Magnetic Stirrer, Handheld pH Meter, Colour Comparator, Refrigerator, Deep Freezer
9	Neelima Lovejith, Tamil Selvan S, Rineesha R, Ashwant B	Development and quality evaluation of innovative sweet potato muffin	Analytical Balance, Hot Air Oven, Hardness Tester, Handheld Colour Meter, Refrigerator

8 CONTINUOUS IMPROVEMENT (80)

Total Marks 80.00

8.1 Actions taken based on the results of evaluation of each of the COs, POs & PSOs (40)

8.1.1 Actions Taken Based on the Results of Evaluation of the COs Attainment (20)

Action Taken for Course Outcome :

S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken
1	MA3151- Matrices and Calculus	3	1.8	Students faced difficulty in understanding and applying matrix operations and calculus concepts, especially in solving higher-order and application-based problems.	<p>1. More practice problems and step-by-step solving methods were given and discussed in class.</p> <p>2. Application-based examples and model question papers were provided to improve confidence.</p>
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken
2	PH3151- Engineering Physics	3	1.2	Many students had difficulty in understanding and applying concepts in optics, electromagnetic waves, and quantum physics, especially in numerical and application-based problems.	<p>1. Important topics were re-explained using diagrams, simulations, and simple examples.</p> <p>2. Short concept-based tests and revision classes were arranged to strengthen basic understanding.</p>
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken

3	CY3151- Engineering Chemistry	3	1.2	Limited understanding of water quality analysis, nanotechnology, phase rule, fuels, and energy resources affected the ability to apply these concepts in real engineering and industrial situations.	1. Important topics were re-taught using practical examples, charts, and simplified notes. 2. Case studies and application-based problems related to water treatment, fuels, and energy resources were discussed in class.
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken
4	GE3151- Problem Solving and Python Programming	3	1.2	Insufficient practice in algorithm design, Python coding, use of loops, functions, data structures, and file handling reduced students' confidence in solving programming problems.	1. Basic concepts were re-explained using simple examples and live coding demonstrations. 2. Regular programming assignments and debugging sessions were given to improve logical thinking and coding skills.
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken

5	MA 3251- Statistics and Numerical Methods	3	1.8	Difficulty in understanding hypothesis testing, design of experiments, numerical methods, and differential equations affected the ability to apply these concepts in real-life and engineering problems.	<p>1. Key topics were re-explained using step-by-step methods and solved examples.</p> <p>2. More practice problems and application-based questions were given and discussed in class.</p> <p>3. Revision classes and doubt-clearing sessions were conducted to strengthen problem-solving skills.</p>
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken
6	BE 3252- Basic Electrical, Electronics and Instrumentation Engineering	3	1.8	Inadequate understanding of electric circuits, domestic wiring, electrical machines, electronic devices, and sensors affected students' ability to analyze systems and solve numerical and application-based problems.	<p>1. Fundamental concepts were re-explained using circuit diagrams, practical demonstrations, and simple examples.</p> <p>2. Industrial and real-life applications of sensors and instruments were discussed to improve practical understanding.</p>
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken

7	MA 3351- Transforms and Partial Differential Equations	3	1.8	Difficulty in understanding Fourier series, transforms, and partial differential equations affected students' ability to solve standard equations and relate mathematical methods to physical and engineering problems.	1.Complex topics were re-taught using step-by-step derivations and simplified examples. 2.More practice problems on Fourier series, PDEs, and transforms were given and discussed in class.
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken
8	FD 3301- Fluid Mechanics and Mechanical Operations	3	1.2	Lack of clarity in fluid properties, flow measurement, pump systems, and separation processes affected the understanding of practical operations and numerical problem-solving.	1.Problem-solving sessions and numerical practice were conducted on fluid flow and pump performance. 2.Laboratory demonstrations and case studies were used to improve understanding of separation and size reduction processes.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken

9	FD 3303- Food Microbiology	3	1.8	Insufficient understanding of microbial classification, food spoilage, preservation methods, fermentation processes, and food safety concepts affected the ability to analyze and control microbial growth in foods.	1. Key topics were explained using charts, images, and real food-related examples. 2. Case studies on food spoilage, fermentation, and foodborne illnesses were discussed to improve application skills.
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken
10	FD 3304- Food Process Calculations	3	1.2	Weak understanding of units, humidity calculations, material and energy balances, and enthalpy concepts affected accuracy in solving numerical and process-related problems.	1. Fundamental concepts were re-explained using simple examples and step-by-step numerical methods. 2. More practice problems on material balance, energy balance, and humidity calculations were given and discussed in class.
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken

11	GE 3361- Professional development	3	1.2	Inadequate hands-on experience in using MS Word, Excel, and PowerPoint tools resulted in poor document formatting, inefficient data handling, and low- quality academic presentations.	1. Practical training sessions were conducted to demonstrate document preparation, data analysis, and presentation design. 2. Classroom activities and assignments were given to practice Word, Excel, and PowerPoint applications.
S No	Course Code & Name	Maximum Attainme nt Level	Attained Level	Identified Gap	Action Taken
12	MA 3401- Probability and Operations Research	3	1.2	Identified Gap Difficulty in understanding random variables, probability concepts, and optimization techniques such as linear, transportation, assignment, and non- linear programming affected analytical and decision-making skills.	1. Problem-solving strategies were explained using flowcharts and solved illustrations. 2. Weekly assessment tests were organized to monitor progress and improve performance.
S No	Course Code & Name	Maximum Attainme nt Level	Attained Level	Identified Gap	Action Taken

13	FD3404- Principles of Thermodyna mics	3	2.4	Lack of clear understanding of thermodynamic laws, cycles, and property calculations made it difficult to analyze energy systems and solve numerical problems related to engines, boilers, and refrigeration systems	1. Numerical problem-solving sessions were conducted on cycles, property tables, and refrigeration systems. 2. Demonstrations and real-life case studies related to power plants and cooling systems were discussed in class.
S No	Course Code & Name	Maximum Attainment Level	Attained Level	Identified Gap	Action Taken
14	FD3060- Processing of Tea	3	2.4	Students had difficulty in understanding the processing steps, fermentation chemistry, and industrial practices involved in different types of tea production.	1. Processing steps were explained using flow diagrams, videos, and real factory-based examples. 2. Case studies and assignments on different types of tea processing were given to improve practical knowledge.

8.1.2 Actions Taken Based on the Results of Evaluation of the POs/PSOs Attainment (20)

Institute Marks : 20.00

Actions taken based on the results of evaluation of each of the COs, POs & PSOs

The department takes continuous efforts towards academic excellence of students through the attainment of POs and PSOs. It challenges itself to reach new heights in all aspects that are related to teaching and learning.

POs & PSOs Attainment Levels and Actions for improvement

The following Table shows the details of POs and PSOs target level, attainment level for the batch 2021-2025. The action taken to attain the POs in which the targets are not achieved will be improved and monitored in the subsequent year.

Table 8.1.2.1 POs Attainment level and Actions for improvement - (Batch 2021-2025)

POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialisation for the solution of complex engineering problems.				
PO1	2.18	2.19	Target Attained	Attainment achieved still we need to improve.
Action 1: Assignments based on real-life applications are given to enhance their fundamental knowledge.				
Action 2: Video lectures have been used to explain the concepts for better understanding.				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO2: Problem analysis: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.				
PO2	1.97	1.91	Target Not Attained	<ul style="list-style-type: none"> · Students are not able to analyze the problem · Matrices and Calculus need more attention
Action 1: Additional classes are being conducted to introduce fundamental concepts in Food Technology.				
Action 2: Organized workshops and seminars on problem analysis and research methodology.				
Action 3: Faculty members offered mentoring and remedial classes for slow learners.				
Action 4: Motivated students to participate in technical competitions, hackathons, and research projects.				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.				
PO3	2.02	1.98	Target Not Attained	Students are not able to relate the real-life problem

<p>Action 1: Introduced product development and process design projects focusing on food safety, quality, and sustainability.</p> <p>Action 2: Included case studies on environmentally friendly packaging and waste management in food industries.</p> <p>Action 3: Arranged industry visits and expert lectures on safe and sustainable food system design.</p> <p>Action 4: Encouraged innovation through student participation in food product exhibitions and start-up activities.</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
<p>PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.</p>				
PO4	1.97	1.95	Target Not Attained	Analytical and interpretation skills of the students need to be improved
<p>Action 1: Students were trained to plan experiments systematically, including selection of variables, materials, and methods, under faculty guidance.</p> <p>Action 2: Practical sessions were strengthened to improve skills in handling instruments, samples, and testing procedures.</p> <p>Action 3: Students were encouraged to undertake mini-projects and research-based assignments to enhance investigative skills. Guidance was provided on interpreting results, comparing findings with literature, and drawing valid conclusions.</p> <p>Action 4: Workshops and seminars were organized on research methodology, documentation, and report preparation.</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
<p>PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex engineering activities, with an understanding of the limitations.</p>				
PO5	1.99	1.93	Target Not Attained	Lack of knowledge about current tools
<p>Action 1: Students were motivated to take "Smart sensors and its applications" as an open elective course to enrich their knowledge</p> <p>Action 2: Students are encouraged to enroll in online certificate courses offered by platforms such as NPTEL, MOOCs, and Coursera to enhance technical and digital skills.</p> <p>Action 3: Students were guided to understand the advantages and limitations of modern tools before applying them.</p> <p>Action 4: Demonstration and hands-on experience with digital tools and laboratory equipment were provided.</p> <p>Action 5: Students are motivated to register for webinars/seminars conducted by third-party agencies regarding modern tool usage</p>				

POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.				
PO6	1.79	1.95	Target Attained	<ul style="list-style-type: none"> · Innovation and emerging trends in engineering and science having impact on society and environment. · Lack of communication and interpersonal skills
<p>Action 1: Case studies on food safety issues, food adulteration, and public health risks were discussed to improve practical understanding.</p> <p>Action 2: Students were made aware of their responsibilities towards society, public health, and food safety through regular classroom discussions.</p> <p>Action 3: Students are encouraged to actively participate in extension activities like NSS/YRC/RRC</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for, sustainable development.				
PO7	1.7	1.86	Target Attained	Efforts are made for the students aware about the environment.
<p>Action 1: Outreach programmes are conducted to make the students to observe the environment and take responsibility in environmental stability and general safety.</p> <p>Action 2: Case studies on sustainable food production, packaging, and pollution control were discussed in class.</p> <p>Action 3: Students participated in the packaging workshop and gained hands-on experience in designing packaging materials from waste</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.				
PO8	2.01	2.16	Target Attained	More number of activities are carried out to create awareness on professional ethics and social responsibilities

<p>Action 1: Professional Ethics is discussed in courses such as Professional Communication and Human Values, to make the students responsible citizens of our society.</p> <p>Action 2: Activities like guest lectures and alumni interactions are organised to inculcate ethical values and a sense of responsibility in students</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
<p>PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.</p>				
PO9	1.86	1.90	Target Attained	Attainment achieved still we need to improve.
<p>Action 1: Students are being encouraged to work individually and in a group through project works, paper presentations, mini projects, and technical paper presentations.</p> <p>Action 2: Group discussions, seminars, and presentations were organized to develop communication and leadership abilities.</p> <p>Action 3: Idea pitching events were conducted for the students in a team to build confidence</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
<p>PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions</p>				
PO10	1.6	1.8	Target Attained	It is observed that there is scope of improvement in design, documentation and presentation.
<p>Action 1: Classroom activities such as seminars, poster presentations, and technical talks were organized to improve public speaking skills.</p> <p>Action 2: Guidance is provided in writing for Project, Industrial Training and Technical seminar reports.</p> <p>Action 3: Snap talk sessions were included in their daily classroom activities to develop their communication skills</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
<p>PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments</p>				

PO11	1.72	1.9	Target Attained	More attention needed to be given on engineering economics and financial analysis.
<p>Action 1: Training was given on basic financial planning, cost analysis, and resource allocation for project work.</p> <p>Action 2: Periodic project review meetings were conducted to monitor progress and solve implementation issues.</p> <p>Action 3: Students were encouraged to do the cost analysis for their mini projects or project work to learn financial management</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.				
PO12	1.83	1.92	Target Attained	<ul style="list-style-type: none"> · More focus needs to be given on importance of independent and life-long learning. · Students face challenges in identifying real life problem.
<p>Action 1: Students were motivated to register for GRE/TOEFL/GATE and other competitive examinations.</p> <p>Action 2: Students are encouraged to publish research papers in various national and international journals/conferences.</p> <p>Action 3: Students were motivated to participate in food product exhibitions and start-up activities</p>				

PSOs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PSO 1: The capability to comprehend, analyze, and devise innovative methods for advancing food processes and products using foundational principles from mathematics, science, and engineering.				
PSO 1	1.89	1.97	Target Attained	Still need to develop deep learning and innovation capability
<p>Action 1: Problem-solving sessions and tutorial classes were conducted to strengthen analytical and logical thinking skills.</p> <p>Action 2: Students were encouraged to develop innovative food products and improve existing processes through mini-projects.</p>				
PSOs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PSO 2: To acquire interdisciplinary skills in addressing challenges within the food industry, employing modern tools and techniques to promote an ethical and sustainable society.				

PSO 2	2.06	1.94	Target Not Attained	Target was not attained due to limited interdisciplinary integration and inadequate exposure to modern tools and sustainable practices in real-world applications
<p>Action 1: Students were motivated to apply eco-friendly methods and waste reduction techniques in projects and practical work.</p> <p>Action 2: Students were encouraged to work on interdisciplinary projects involving food technology, engineering, management, and environmental studies.</p> <p>Action 3: Workshops and seminars were conducted on sustainable development and responsible industrial practices.</p>				
PSOs	TARGET LEVEL	ATTAINMENT LEVEL	O BSERVATIONS	ACTION TAKEN
<p>PSO 3: The ability to excel as a team player with strong leadership and communication skills, effectively managing projects in multidisciplinary environments and adapting to technological advancements.</p>				
PSO 3	1.97	2.03	Target Attained	More opportunities for structured team-based projects, leadership roles, and multidisciplinary collaboration within the curriculum should be provided.
<p>Action 1: Students were encouraged to participate in team-based projects and group activities to strengthen cooperation and coordination skills.</p> <p>Action 2: Regular presentations, group discussions, and viva sessions were conducted to improve communication abilities.</p>				

8.2 Academic Audit and actions taken thereof during the period of Assessment (15)

Academic Audit

Nehru Institute of Technology regularly conducts academic audits in a systematic and scientific manner by referring to the standards set by accreditation agencies such as National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA). The audit process is coordinated by the Internal Quality Assurance Cell (IQAC), which focuses on important areas like student performance, curriculum improvement, student feedback, research activities, and extension work. IQAC members conduct the audit and submit their report to the Head of the Department and the Principal. The observations are discussed in departmental meetings, and suitable actions are taken based on the report to continuously improve the academic quality and overall performance of the department.

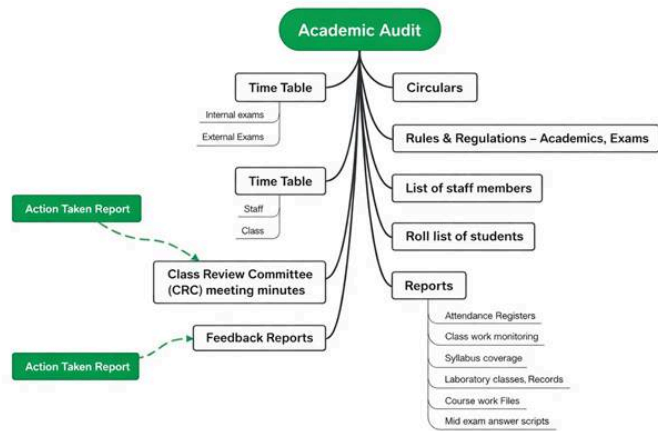


Fig 8.1 Academic Audit Process



NEHRU INSTITUTE OF TECHNOLOGY

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COIMBATORE - 641105



Academic Year : 2022-2023 Date : 23/03/2023

Department : Dept. of Food Technology Semester: Odd

Part A

Curriculum Transaction

Sl. No	Items	Verification (Yes/No)	Remarks
1.	Academic Advisory committee	Yes	Completed
2.	Teaching methods & teaching Aids (ICT Tool Usage)	Yes	Completed
3.	E-learning modules		
4.	Time Table, Master Time Table	Yes	Completed
5.	Class Committee Meeting	Yes	Completed
6.	Internal assessment Test, Internal Mark File	Yes	Completed
7.	Lab Manual	Yes	Completed
8.	Lab Record	Yes	Completed
9.	Course File with Attainment of COs, POs & PSOs		
10.	No of Value Added Program/ Certificate Program conducted	Yes	Completed
11.	Project work UG/PG	-NA-	Not Applicable
12.	Student support-Remedial coaching	No	Not Available
13.	Parents meeting-evaluation of student's progress	No	Not Available
14.	Feedback from students	No	Not Available
15.	Action Taken on the Feedback	No	Not Available
16.	iCampuz update	Yes	
17.	Naan Mudhalvan Documents	Yes	
18.	Best Practices - Cooperative Learning	Yes	Completed
19.	Department Staff Meeting & Minutes	Yes	Completed

[Academic Audit]

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Part B



Profile of students

Sl. No	Items	Verification (Yes/No)	Remarks
1.	Sanctioned Strength	Yes	60
2.	Actual Strength	Yes	63
3.	Mentor Allocation Ratio	Yes	1:13
4.	Mentor Mentee File	Yes	Completed
5.	Industrial Visit	Yes	Completed
6.	Internship/Implant Training	Yes	Completed
7.	No of Students involvement in Co curricular and Extracurricular Activities	Yes	
8.	No of Achievements & Awards	Yes	05
9.	NPTEL File	No	Not Available

Part C

Faculty Profile

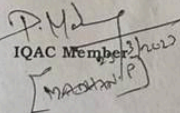
Sl. No	Items	Verification (Yes/No)	Remarks
1.	Seminar/Workshops/Conference/FDP Attended	Yes	FDP - 09
2.	No of Publications - No of Books - No of Patent Published -	Yes	09 02
3.	Acted as Resource Person	No	Not Available
4.	Fund Generated	No	Not Available
5.	No of NewGen IEDC Projects	Yes	03

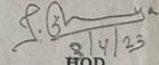

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Part D

Department Infrastructure & Activities			
Sl.No	Items	Verification (Yes/No)	Remarks
1.	No of Classrooms	Yes	02
2.	No of Laboratories	Yes	# 11
3.	No of Department Library books, Issue Register	Yes	Books : 20
4.	No of Entrepreneurship & IPR Awareness Program Conducted	No	Not Available
5.	No of Guest Lectures/Seminar /Workshops/Conference Conducted	Yes	Guest lecture : 01 Workshop : 01
6.	No of Collaborations	Yes	8
7.	No of Consultancy	No	Not Available
8.	Magazine / Newsletter	No	Not Available
9.	Placement	No	Not Applicable

Declaration: We hereby declare that all the above documents have been verified and found to be true to the best of our knowledge.


 IQAC Member
 [Signature]


 8/4/23
 HOD

[Academic Audit]
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Fig 8.2 Academic Audit Report – Sample Copy:


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DEPARTMENT OF FOOD TECHNOLOGY

ACADEMIC YEAR 2022-2023

ACTION TAKEN REPORT FOR INTERNAL AUDIT

Date:20/02/2024

S.No	Item	Remark	Action Taken
1.	Academic Advisory Committee	Completed	
2.	Teaching Methods & ICT Usage	Completed	
3.	E-learning Modules	Not Available (E-learning content was not systematically prepared and stored.)	E-content modules were prepared and uploaded
4.	Time Table / Master Time Table	Completed	
5.	Class Committee Meeting	Completed	
6.	Internal Assessment & Mark File	Completed	
7.	Lab Manual	Completed	
8.	Lab Record	Completed	
9.	Course File (COs, POs, PSOs)	Some of the Course Files are Not Updated	Course files were updated with CO-PO-PSO mapping and attainment analysis.
10.	Value Added / Certificate Programs	Completed	
11.	Project Work UG/PG	Not Applicable	
12.	Student Support – Remedial Coaching	Not Available (Remedial class documentation was insufficient.)	Remedial classes were conducted, and attendance and performance records were maintained.
13.	Parents Meeting – Student Progress	Not Available (Parents' meeting records were not properly documented)	Parent meetings were conducted, and minutes and attendance were documented.
14.	Feedback from Students	Not Available (The feedback system was irregular and not documented.)	Student feedback was collected, analyzed, and documented systematically.
15.	Action Taken on Feedback	Not Available (Feedback analysis and follow-up actions were missing.)	Improvement measures were implemented, and action taken reports were prepared.


NEHRU GROUP OF INSTITUTIONS
 TAMILNADU & KERALA
 ISO 14001:2004 CERTIFIED INSTITUTIONS

 Campus: "Jawahar Gardens", Kallapuram, Coimbatore – 641 105 Ph: 0422- 2666655
 E-mail: nigrprincipal@nehrucolleges.com Website: https://nehruinstitute.com
 Corporate Office: 451-D, Palakkad Main Road, Kuniamuthur, Coimbatore – 641 008
 Phone: 0422- 2206148



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16	iCampuz Update	Student academic data was not regularly updated.	Attendance, marks, and activity details were updated in the iCampuz system.
17	Naan Mudhalvan Documents	-	
18	Best Practices – Cooperative Learning	Completed	
19	Department Staff Meeting & Minutes	Completed	
20	Industrial Visit	Completed	
21	Internship / Implant Training	Completed	
22	Co/Extra-curricular Activities	Student participation records were not consolidated.	The Co/Extra-curricular Activities file has been updated
23	NPTEL File	Not Available	The NPTEL file was created, and certificates were collected.
24	Acted as Resource Person	Not Available	Acted as Resource Person for FDP
25	Fund Generated	Not Available	Funded Research Project Generated
26	Entrepreneurship & IPR Program	Not Available	IPR and entrepreneurship programs were organized
27	Consultancy	Not Available	Consultancy Generated
28	Magazine / Newsletter	Not Available	Magazines and Newsletters were published
29	Placement	Not Applicable	Placement File Updated


IQAC MEMBER


HOD



Campus: "Jawahar Gardens", Kallapuram, Coimbatore – 641 105 Ph: 0422- 2666655
E-mail: nitprincipal@nehrucolleges.com Website: https://nehruinstitute.com
Corporate Office: 451-D, Palakkad Main Road, Kuniamuthur, Coimbatore – 641 008
Phone: 0422- 2206148

Fig 8.3 Academic Audit Action Taken Report – Sample Copy:

8.3 Improvement in Faculty Qualification/Contribution (15)

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
No. of faculty members with Ph.D. degree	4.00	4.00	3.00
No. of publications in peer reviewed journals	2.00	6.00	1.00
No. of publications in conferences	16.00	11.00	10.00

8.4 Improvement in Academic Performance (10)

Institute Marks : 15.00

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
Academic Performance Index (API) of the First-Year Students in the Program (Refer to section 4.3)	5.17	5.54	3.62
Academic Performance Index (API) of the Second-Year Students in the Program (Refer to section 4.4)	7.80	8.02	7.00
Academic Performance Index (API) of the Third-Year Students in the Program (Refer to section 4.5)	7.69	7.80	8.00

9 STUDENT SUPPORT AND GOVERNANCE (120)

Total Marks 118.00

9.1 First Year Student-Faculty Ratio (FYSFR) (5)

Please provide First year faculty information considering load

Name of the faculty member	PAN No.	Qualification	From Engineering Courses	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
Dr.K.Parimala	AWJPP8878J	Ph.D	No	22/01/2016	Solid State Chemistry	Professor	01/06/2020	Yes	Regular	
Dr.M.Kumares	AJLPK9312K	Ph.D	No	18/06/2012	Environmental Science	Professor	05/08/2021	Yes	Regular	
Dr.P.Selvakum	ANUPP5897K	Ph.D	No	27/09/2019	Phytochemistry	Associate Professor	14/06/2023	Yes	Regular	
Dr.Sarithamol	ICFPS3482B	Ph.D	No	31/08/2019	Medicinal Chemistry	Assistant Professor	23/06/2025	Yes	Regular	
Dr.T.Jayapraka	ATEPJ4690C	Ph.D	No	10/04/2017	Crystal Growth	Professor	31/05/2021	Yes	Regular	
Dr.K.Janani	ARSPJ8210G	Ph.D	No	09/10/2020	Luminescent materials	Associate Professor	11/07/2022	Yes	Regular	
Dr.G.Satheesh	DUQPS9070B	Ph.D	No	15/07/2021	Crystal Growth	Assistant Professor	17/08/2022	Yes	Regular	
Dr.A.Shobana	BUEPS1924G	Ph.D	No	31/03/2017	Graph Theory	Professor	13/06/2025	Yes	Regular	
Dr.N.Vithya	ARFPV4415J	Ph.D	No	28/04/2017	Topology	Professor	15/11/2021	Yes	Regular	
Dr B Lavanya	AHCPL2111Q	Ph.D	No	01/07/2024	Queueing Theory	Assistant Professor	01/08/2024	Yes	Regular	
Mrs.S.Amali Tr	AUSPA1784D	M.Phil	No	13/08/2007	Functional Analysis	Assistant Professor	01/03/2021	Yes	Regular	
Mrs.M.Gowrim	CPNPM6091R	M.Phil	No	22/03/2022	Mathematics	Assistant Professor	17/03/2021	Yes	Regular	
Mrs.M.S.Uman	AEXPU4203N	M.Phil	No	15/07/2010	Graph Theory	Assistant Professor	26/12/2022	Yes	Regular	
Ms.J.Princy	CFPPP2054F	M.Phil	No	12/09/2015	Topology	Assistant Professor	24/07/2023	Yes	Regular	
Dr.C.Alice Evar	ABUPE8056H	Ph.D	No	26/04/2013	Comparitive literature	Professor	11/08/2023	Yes	Regular	
Dr.Attrait Dovin	DHTPA6504A	Ph.D	No	29/12/2025	English Language Teaching	Assistant Professor	11/06/2025	Yes	Regular	
Dr.S.Jaffer Bas	AUSPJ7812K	Ph.D	No	23/02/2024	Contemporary Indian Literature	Assistant Professor	17/09/2025	No	Regular	28/01/2026
Mr.A.Prabhaka	CGMPP7022B	M.Phil	No	23/01/2023	Classical Literature	Assistant Professor	09/08/2023	Yes	Regular	

Mr.V.Satheesw	BSYPS6042M	M.E.	Yes	26/05/2008	Industrial Engineering	Assistant Professor	19/08/2009	Yes	Regular	
Mr.A.Balthilak	AQVPB6305Q	M.E.	Yes	16/04/2007	Mechanical Engineering	Assistant Professor	20/06/2016	Yes	Regular	
Mrs.N.Tamilara	AQBPT8345C	M.E.	Yes	19/12/2015	Wireless Communication	Assistant Professor	25/09/2023	Yes	Regular	
Dr. N Mohamm	BWTPR4623L	Ph.D	Yes	20/02/2025	Mechanical Engineering	Assistant Professor	23/05/2011	Yes	Regular	
Mr.S.Raja	AWSPR1119D	M.E.	Yes	17/06/2013	ECE	Assistant Professor	20/04/2022	No	Regular	31/05/2024
Dr.T.Saranya	EUUPS1998M	Ph.D	No	10/08/2012	English Language Teaching	Assistant Professor	07/07/2021	No	Regular	21/03/2024
Dr R.Vidya Kris	BVJPR9639B	Ph.D	No	24/08/2023	Queer Theory and Fiction	Assistant Professor	20/03/2024	No	Regular	08/01/2025
Mrs.J.Brindha I	DGDPB5904A	M.Phil	No	18/10/2018	Indian Writing in English	Assistant Professor	24/09/2020	No	Regular	25/06/2025
Ms.M.Ilakkiya	AEHPI4340G	M.Phil	No	18/12/2019	Indian Writing in English	Assistant Professor	13/11/2024	No	Regular	30/08/2025
Dr T.Anupriyan	BORPA0263B	Ph.D	No	24/08/2023	Plasma physics	Assistant Professor	12/06/2024	No	Regular	19/06/2025
Mrs.B.Justeen	AUZPJ3945Q	M.Phil	No	14/11/2017	Inorganic chemistry	Assistant Professor	28/08/2024	No	Regular	02/04/2025
Dr.M.S.Irfan Al	AAHPI4031N	Ph.D	Yes	05/03/2009	Networking	Professor	16/08/2023	No	Regular	31/01/2025
Dr.V.Lakshmin	ACQPL5989F	Ph.D	Yes	11/11/2013	Applied Electronics	Professor	05/01/2026	Yes	Regular	
Mr.R.Jayakum	AXNPJ1340C	M.E.	Yes	14/12/2015	Power Electronics	Assistant Professor	02/06/2025	Yes	Regular	
Mr.S.Sukumar	DYRPS6197E	M.E.	Yes	30/05/2008	Geoinformatics	Assistant Professor	26/08/2010	Yes	Regular	

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage=((NS1*0.8) + (NS2*0.2))/RF
2023-24(CAYm2)	360	18	14	6	69
2024-25(CAYm1)	480	24	16	5	58
2025-26(CAY)	540	27	17	6	55
Average Percentage					60.40

9.2 Mentoring system (5)

Institute Marks : 5.00

Mentoring System Yes

- Type of Mentoring Total Development
- Number of faculty mentors 09
- Number of students per mentor 18
- Frequency of meeting 1 / Student / Week

Reporting the details of Mentoring System:

Each and every member of the staff is given an average of 12 students. The Class Advisor will be introduced to the students on the day of registration for the first semester. Additionally, "Student Blue Records" will be made available to the student at that time. They must complete the record with their personal details. The Class Advisor completely fills out and then updates the Student Blue Record at the start of each semester.

.Frequency of meeting:

Twice a month, mentor-mentee meetings are held to discuss the mentees attendance record and internal marks average. The Mentor keeps track of all the personal data, academic standing, information about any industry trainings, and scholarships earned. The Mentor will be taking action and counsel the students accordingly. In order to inform their parents of the students performance, if necessary, information will be recorded and their parents will be called. The Mentors held regular meeting to hear their grievances.

Professional Guidance

In addition to lecturing in the classroom, the faculty members provide advice to the students. The placement section provides advice from outside subject-matter specialists.

Career Advancement

Students receive training in topics like aptitude, group discussions, etc. in the placement section. Additionally, they are planning interviews both on and off-campus.

Course work

The faculty members who are in charge of the courses answer any queries that the students have on the material covered in tutorials. After assessments are administered, they answer any questions that may have been unclear, including those for upcoming university exams.

Laboratory classes

Faculty members handled each laboratory session to ensure that the students are safe while conducting their experiments. PPT presentations provided to the students at the beginning of the semester outlining the experiments and necessary safety measures. The laboratory records are evaluated after completion of the experiments from time to time.

Development of students

The college strives to promote each students overall growth. In addition to academics, workshops and seminars are organized to develop technical knowledge, teamwork, and leadership abilities.

Efficacy of the system

The mentoring system practiced in the college is very effective considering the above parameters. The participation of the students in academic activities is increased.

9.3 Feedback Analysis (10)

9.3.1 Feedback on Teaching and Learning Process and Corrective Measures Taken, if any (10)

Institute Marks : 10.00

Feedback collected for all courses : Yes

Specify the feedback analysis process

Students are given a feedback form that includes sections for teaching effectiveness (which is weighted 40%), teacher maturity (which is weighted 30%), and the remaining 30% for the teachers integrity, honesty, and fairness. The final faculty rating is determined by calculating the average of each feedback category. The concerned teachers will be informed of the overall faculty member evaluations based on student comments for each class. In order to improve their teaching and other skills, faculty members might identify their areas of strength and weakness.

Basis of reward / corrective measures, if any

With each faculty member, the department HOD discusses the feedback. The Faculty with unsatisfactory feedback or advised and supported with valuable suggestions. Faculty who were managing a new subject for the first time and had poor pass percentage were counseled. The oral feedback from both the professors and a group of students is thought to enhance the subjects overall instruction starting in the next academic year.

Number of corrective actions taken in the last three years

At the end of each semester, for every subject, a feedback form is gathered from every student. The class advisor review the feedback form before the department HOD reviews it. The teachers instructional skills are evaluated, compiled, and reported to them. Teachers can learn about their strengths and weaknesses and improve their teaching.

IQAC has framed a structured feedback mechanism for analyzing the effectiveness of the teaching learning process

A standard feedback questionnaire about faculty handling each subject is collected from all the students at the end of each semester.

Collected feedback is scrutinized by the senior tutors according to 3 categories such as teaching effectiveness (TE), Maturity level (ML) and Integrity (I) of the faculty member. Each question in the questionnaire is belonging to one of the 3 categories

The feedback system collects the following information about the faculty from the students through

the questionnaire:

Teaching Effectiveness (TE):

Classroom Delivery, whether by reading or interactive communication (use of analogies, examples, observation from surroundings, etc.) Use of Training aids like models, charts, video, animated computer graphics, presentations, effective board work, etc., Involvement in internal assessment (whether casual or routine or involved marking, with corrective remarks) Level of Preparedness (whether adequately prepared for class)

Maturity Level (ML)

Ease of Maintenance of order (without threats or punishments) Temperament (Calmness, patience, irritability etc.,) Intellectual Stature (commands respect of students by intellectual and maturity level)

Integrity (I):

Integrity (honesty, impartial, fairness) The teaching faculty will be evaluated with respect to their academic ability, attitude towards the students and disciplining the students. This feedback system helps the teaching faculty to improve their weaknesses and grow more in their strengths with respect to teaching skills. The Head of the Department discusses about the feedback with the individual faculty. The faculty handling some new subject for the first time, getting low pass percentage, were counseled. Thus the feedback questionnaire performs a comprehensive analysis of the Teaching faculty

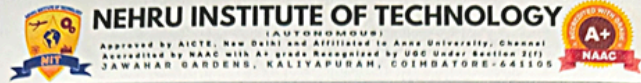
9.3.2 Feedback on Academic Facilities (10)

Institute Marks : 10.00

A standard procedure for feedback on facilities is taken up in the department as per the following steps:

Students opinions about the departments amenities, such as the classroom setup, library, labs, canteen, playground, and internet access, are gathered. Following meetings with management, the input is examined and the required remedial actions are put into place.

Feedback collection process	Description
Feedback collected on all facilities provided by the department..	Yes
Feedback collection process	Manual/Online
Frequency of feedback collection	Once in an academic year
Metrics used for calculation	5-Excellent 4-very good 3-Good 2-Average 1-Poor
Purpose of comments	For improving the quality of facilities



Students Feedback on Infrastructure & Facilities


Facilities Feedback Analysis for AY 2024–25

1. It is observed that **more than 71% of the respondents** expressed satisfaction (Excellent / Very Good / Good) with the **classroom infrastructure**, including smart boards, LCD projectors, audio systems, and overall ambience.
2. Nearly **71.2% of the students** opined that the **laboratory facilities** are adequate and well maintained for effective practical learning.
3. About **67.5% of the students** felt that the **campus cleanliness and ambience** are satisfactory, reflecting regular maintenance and hygiene practices.
4. **67.5% of the students** expressed satisfaction with the **library facilities**, including reading rooms, digital resources, and availability of reference materials.
5. Approximately **70.5% of the students** are satisfied with the **sports, cultural, and extracurricular facilities** provided by the institution.
6. Nearly **68.8% of the respondents** opined that **parking and security services** are properly managed and adequate.
7. About **70.3% of the students** expressed satisfaction with **monitoring, counselling, grievance redressal mechanisms**, and support related to admissions and examinations.
8. Around **62.5% of the students** reported satisfaction with the **training, placement, and internship support**, indicating scope for further enhancement.
9. It is observed that **more than 67.7% of the respondents** have a positive **overall impression** of the infrastructure and facilities provided by the institution.
10. **Approximately 45.5% of the students** expressed satisfaction with the **canteen facilities and availability of drinking water**, indicating a need for improvement in this area.

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**Action Taken Report (ATR) on
 Students Feedback – AY 2024–25**

S. No	Feedback / Observation	Action Taken
1	Need for improved classroom ambience and smart facilities	Periodic maintenance of smart boards, projectors, and audio systems carried out; classrooms repainted and seating arrangements optimized
2	Laboratory upgradation required in some departments	Procurement of additional lab equipment initiated; calibration and annual maintenance schedules strengthened
3	Campus cleanliness to be further improved	Housekeeping manpower increased; daily monitoring checklist implemented
4	Library resources to be expanded	Additional textbooks, e-journals, and digital resources subscribed; extended library hours during examinations
5	Sports and extracurricular facilities enhancement	New sports equipment procured; increased inter-college participation and cultural events
6	Parking congestion and security monitoring	Improved parking demarcation; CCTV coverage enhanced and security staff rotation optimized
7	Counselling and grievance redressal awareness	Regular mentoring sessions conducted; grievance redressal mechanism displayed prominently and communicated to students
8	Training, placement, and internship support to be strengthened	MoUs signed with industries; additional skill-based training programs and internship drives organized
9	Overall infrastructure satisfaction	Periodic review meetings conducted to address infrastructure gaps
10	Canteen facilities and drinking water availability	Vendor instructions issued; RO plant maintenance scheduled; quality audits and student committee monitoring introduced


Principal

9.4 Training and Placement Support (10)

Nehru Corporate Placements and Industry Relations (NCP&IR)

To create synergy and co-operation between education, training, employment and community sectors, the institute has a dedicated Nehru Corporate Placement and Industry Relations (NCP&IR) under the supervision of a Training Head and Placement Director with a dynamic team of faculty members.

This cell is assisted by Overall Placement Coordinators, Faculty coordinators and student representatives from all the departments. The primary responsibility of NCP&IR is to provide guidance and all the assistance for the students in order to achieve their career goals.

The NCP&IR takes right steps in identifying the demands of the current industry and prepares our students towards this need. Adequate emphasis is given for soft skill development complementing the regular academic programmes.

Aptitude tests and group discussions are conducted at regular intervals to enable the students to improve their performance in competitive exams.

Soft Skills

Soft skills are necessary for students to be successful in their careers. Soft skills are personality attributes that make meaningful interaction with others possible. Soft skills are vital for students to increase employability skills and acquire a dream job because most firms provide teamwork. They play an important role in the overall development of students' identities, which helps them to achieve their career goals. This enables students to build self-assured personalities and mature outlooks that enable them to perform well in various situations.

Language & Communication skills

The importance of communication is intrinsically tied to the engineering world's characteristics. Engineers must be able to communicate effectively and clearly with a wide range of people, including clients, vendors, consumers, authorities, and other industry colleagues. Knowing a foreign language is advantageous for people who work in a foreign place, whether in a foreign country or with consumers all over the world. Engineers with strong communication skills can express their ideas confidently in meetings, presentations, and reports.

Life skills

Adolescent life skill management is essential in today's world. People who have life skills are better able to deal with the demands and issues of everyday life. It assists a person in becoming a "balanced adult" who makes a meaningful contribution to society. Life skills are employed in various situations, including human interactions, learning about rights and responsibilities, and health issues such as drug abuse, suicide prevention, and other mental health issues. Furthermore, this skill enables students to take proactive measures to protect themselves and promote health and positive social interactions in a range of contexts, such as the environment, education, consumer education, peace education, and social-cultural issues.

ICT Skills

Employers from a range of industries compete for ICT-skilled college graduates. Computing science can assist students to learn more complex skills and information. It also expands one's understanding of technology and how to use it. Students learn coding and programming abilities as well as academic knowledge in areas like computer science and web development. Work experience is regularly incorporated into ICT courses to assist students in developing practical skills and forming important industry connections.

CENTER FOR INDUSTRIAL RELATIONS AND CAREER ASSURANCE

Objective: To facilitate seamless interactions between industries, alumni, and students, fostering meaningful career opportunities, skill development, and mutually beneficial relationships, thereby enhancing the employability and career prospects of graduates. **Vision:** To establish CIRCA as a premier placement cell, renowned for its excellence in bridging the gap between academia and industry, empowering students to achieve their career aspirations, and contributing to the growth of the corporate world. CIRCA aims to become a benchmark for placement cells in the region.

Mission: CIRCA is committed to:

- Providing comprehensive career guidance, training, and placement opportunities to students.
- Building and maintaining strong relationships with industries, alumni, and recruitment partners.
- Developing and enhancing students' employability skills through workshops, training programs, and mentorship initiatives.
- Ensuring a significant increase in placement statistics year-over-year.
- Fostering a culture of entrepreneurship, innovation, and lifelong learning.

Activities Implemented: Communication and Collaboration

- Dissemination of placement details on classroom boards and within CIRCA.
- Student placement coordinators from each department with a WhatsApp group for efficient communication.
- Parents' community on WhatsApp for placement updates and progress.

Industry Partnerships

- 45 Memoranda of Understanding (MoUs) signed with esteemed organizations for industry collaboration, encompassing internships, industrial visits, and projects under the "One Faculty, One Industry" initiative.
- Faculty members identified 92 companies for placement purposes, leveraging their professional networks.

Training and Development

- Free IELTS coaching in collaboration with Smartlife Foundation, Dubai, enhancing students' language proficiency.
- Daily afternoon technical training sessions for final-year students, focusing on group discussions, placement sessions, interview preparation, and mock interviews tailored to company expectations.

New Initiatives: Infrastructure and Awareness Placement wall in every department adjacent to the notice board, showcasing placement statistics and success stories.

Enhanced Training Training programs for banking and competitive exams, equipping students with specialized skills.

Student-Led Initiatives Selection of five students from each class to identify companies for internship opportunities, fostering student-driven initiatives.

9.5 Start-up and Entrepreneurship Activities (5)

The Institution has established a comprehensive and outcome-driven **innovation, incubation and start-up ecosystem** to encourage students towards innovation, entrepreneurship and venture creation. This ecosystem is systematically supported through dedicated **innovation hubs, structured programs, incubation facilities and strategic collaborations**.

Innovation Hubs and Institutional Framework

The following **Innovation Hubs and Cells** are actively functioning to support ideation, incubation and start-ups:

- **NIT – New Gen IEDC**
- **NIT – Start-up Cell**
- **NIT – Institution Innovation Council (IIC)**
- **NIT – Entrepreneurship Development (ED) Cell**
- **NIT – IPR Cell**
- **MSME Incubation Centre**

The **Institution Innovation Council (IIC)** has achieved a **4-Star Rating** with a score of **94.61**, reflecting effective planning, execution and impact of innovation activities.

Initiatives and Programs

More than **1,300 students** have been trained through structured innovation and entrepreneurship initiatives. The Institution has conducted **70+ innovation programs**, generating **150+ innovation proposals**. Initiatives such as **One Faculty One Innovation, Student Innovation Council with trained IIC Ambassadors**, and **integration of IIC Hours in the curriculum** ensure sustained student engagement.

Students actively participated in national-level innovation platforms such as **Smart India Hackathon (42 teams)** and **MSME Hackathon (51 teams)**. Flagship programs including **Round Table Meet 2.0, Innovative Product Expo, Women Entrepreneurship Programs**, and **Venture Journey 1.0** enabled mentoring, validation and product development, with **300+ students** showcasing innovative products.

Incubation, Facilities and Start-up Outcomes

The **incubation pipeline** is strengthened through institutional and external incubation support. As per the **Innovation Ecosystem Performance Report 2025–26**:

- **21 student teams** are currently under **pre-incubation at NGI TBI**
- **22 innovation and entrepreneurship programs** were conducted (including **36-hour Hackathon and Wadhvani Panel sessions**)
- **6 student-led companies** have been **incorporated**, and **5 start-ups** have applied for **DPIIT recognition**
- **6 students** were recognized among the **Top 100 Startup Leaders by StartupTN**

The Institution also achieved **national-level recognition**, with **1 product shortlisted as Finalist in AICTE Productisation Fellowship** and **1 product qualifying Stage-II of Viswakarma Awards**.

Collaborations and Sustainability

Strategic collaborations with **DRDO Life Science Centre, iTNT Hub, CED Anna University, and Agri Business Incubator** provide mentoring, research support and incubation infrastructure. Faculty consultancy and FDPs in emerging areas generated approximately **₹67,450**, contributing to the sustainability of the innovation ecosystem.

Effectiveness and Impact

The effectiveness of the start-up and entrepreneurship initiatives is demonstrated through:

- Structured innovation-to-incubation pipeline
- National recognitions and rankings
- Conversion of student ideas into incorporated companies
- High student participation and leadership development
- Sustained **100+ self-driven innovation activities**

List of Beneficiaries

Category	Beneficiaries
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Students Trained	1,300+
Innovation Proposals	150+
Innovation Programs Conducted	70+
Hackathon Teams	42 (SIH), 51 (MSME)
Students Showcasing Products	300+
Student IIC Ambassadors	20
Teams under Pre-Incubation	21
Companies Incorporated	6
DPIIT Applications	5
Students in Top 100 Startup Leaders	6
Targeted Start-ups (Venture Journey 1.0)	15

9.6 Governance and Transparency (25)

Nature of Governance

Top management executes its responsibilities by entrusting the Principal with the responsibilities of implementing policies, nurturing stakeholder relationships, recruiting faculty to appropriate posts, improving infrastructure, providing welfare schemes, and introducing new courses, etc.,

The Principal, in cooperation with Management, is responsible for ensuring that the suitable environment is established for students and faculty's intellectual pursuits, communication with regulatory agencies, research facilitation, synergy with stakeholders, team spirit, and academic goals. Departments, Committees, Centers, Cells and clubs carry out the functions that have been assigned to them.

The HoDs, in collaboration with faculty members, are in charge of the Departments overall operation. Faculty members are responsible for ensuring successful curricular transactions and students overall development

The following councils were formed with various stakeholders as members to continually improve the quality and standard of education in the Institution.

1. Governing Council

2. Academic Council

Governing Council

Composition of Governing Council: The Chairman of the Nehru Group of Institution is the Chairman of the Governing Council. The Council consists of 3 members from the Nehru College of Educational and Charitable Trust, two Experts from Industries, one Academician from outside of the Institution, Nominee from Anna University, and Faculty of the Institution at Professor Level, Head of the Institution plays Member Secretary role and special invitees as per AICTE norms. Nehru Institute of Technologys Governing Council meets regularly to examine progress and future development opportunities, which are necessary for maintaining excellent educational standards. The Governing Council meets once in a year and advises the Institution on a variety of issues. The Governing Council evaluates the input provided by the Head of the Institution and offers an improvement plan for Institutional development.


CONSTITUTION OF GOVERNING COUNCIL – 2025-26

SI.No	Category	Position	Name
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1	Representatives of the Management	Chair Person	Adv.Dr.P. Krishnadas Chairman and Managing Trustee Nehru College of Educational and Charitable Trust, Coimbatore.
2		Member	Dr.P.Krishna Kumar CEO & Secretary Nehru College of Educational and Charitable Trust Coimbatore
3		Member	Dr. P. Thulasi Member Nehru College of Educational and Charitable Trust Coimbatore
4		Member	Dr. Chaithanya Krishnakumar Correspondent Nehru International School, Coimbatore
5		Member	Dr. H. N. Nagaraja Executive Director (Academics & Administration) Nehru Group of Institutions
6	Teachers of the College	Member	Dr.S.Pathur Nisha Professor in Computer Science and Engineering Nehru Institute of Technology, Coimbatore
7		Member	Dr. P. Hema Prabha Professor in Food Technology Nehru Institute of Technology, Coimbatore
8		Member	Dr. N Mohammed Raffic Deputy Controller of Examinations Nehru Institute of Technology, Coimbatore
9	Administrative staff of the College	Member	Mrs. J.Sindhiya Human Resources Manager Nehru Group of Institutions, Coimbatore

10		Member	Dr.V.Ramachandran Former Director, National Institute of Technology, Nagaland Former Vice Chancellor, Anna University, Tiruchirappalli
11	Educationist or Industrialist	Member	Mr. Mohammed Sohail Head - Talent Acquisition and Global Operations Zoho Corporation PVT Ltd
12	State Government Nominee	Member	Dr. T. Sekar Professor (CAS), Mechanical Engineering Government College of Technology, Coimbatore
13	University Nominee	Member	Dr.M.Santhi Professor, Electronics and Communication Engineering, Government College of Technology, Coimbatore
14	Principal of the College	Member Secretary	Dr.M.Sivaraja Principal, Nehru Institute of Technology, Coimbatore

GOVERNING COUNCIL - AGENDA



**NEHRU INSTITUTE
OF TECHNOLOGY**
AN AUTONOMOUS INSTITUTION
COIMBATORE, KARNATAKA


Governing Body Meeting

Agenda

Date: 12.01.2024 Time: 10.00 am to 1.00 pm


Venue: Board Room, Nehru Institute of Technology, Kaliapuram, Coimbatore.

S.No	Agenda
1	Review on the action plan of Governing Council & IQAC (2023-24)
2	Approval of resolutions and regulations passed in Academic Council and Board of Studies meeting
3	Progress of the Institution and Achievements (Faculty, Student Achievements and Awards)
4	Start of New UG Course in emerging area
5	Approval of Annual Quality Assurance Report (AQR)
6	Approval of Faculty and Non-teaching staff recruitment, promotion and performance appraisal procedure.
7	Institutional Development Plan (IDP) of the Institution.
8	Placement Training and Career Assurance
9	Industry Institute Connect
10	Research, Innovation & Incubation
11	Approval of Income and Expenditure statement for the year 2023-2024
12	Annual Budget for the FY 2024 - 2025
13	Review of Strategic Plan/Road Map and valuable suggestions of Members
14	Any other items with the permission of the chair



Principal

Member Secretary



**NEHRU GROUP
OF INSTITUTIONS**
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 E-mail: principal@nehrutechcoim.ac.in Website: <https://nehruinstitute.com>
 Corporate Office: 451-D, Palakkad Main Road, Kanasanur, Coimbatore - 641 008
 Phone: 0422- 2206448

GOVERNING COUNCIL - MOM



Dr. Sivaraja M Member Secretary welcomed the governing council members to the governing council meeting held on 12.01.2024

Agenda wise discussion in the meeting is as follows:

Subject 1	Note on Review on the action plan of Governing Council & IQAC (2023-24)
Resolution 1	The minutes of the last meeting were reviewed and action taken is approved - for Information
Subject 2	Note on Approval of resolutions and regulations passed in Academic Council and Board of Studies meeting
Resolution 2	The principal presented the resolutions and regulations passed in Academic Council and Board of Studies meeting The members of the Governing Council reviewed and approved.
Subject 3	Note on Progress of the Institution and Achievements
Resolution 3	a) The Member Secretary shared the status of Progress of the Institution and Achievements to GC Members. b) The Governing Council Members insisted and suggested to get 12 (B) status for the institution - Action Principal
Subject 4	Note on Start of New UG Course in emerging area
Resolution 4	The Member Secretary informed and discussed with the GC members about the approval of new courses, Artificial Intelligence & Machine learning, Cyber security for the academic year 2024-25
Subject 5	Note on Approval of Annual Quality Assurance Report (AQAR)
Resolution 5	The council reviewed the AQAR report submitted by the IQAC Director and approved
Subject 6	Note on Approval of Faculty and Non-teaching staff recruitment, promotion and performance appraisal procedure.
Resolution 6	Discussed and approved as per AICTE Norms, HR Manual -Service and Promotion Rules Nehru Institute of Technology
Subject 7	Note on Institutional Development Plan (IDP) of the Institution
Resolution 7	The Principal presented Short Term Goals, Mid Term Goals, Long Term Goals



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Phone: 0422- 2206148



	<p>a) Discussion on long-term development strategies</p> <p>b) IDP framework as per UGC guidelines was reviewed and approved for execution</p>
Subject 8	Note on Placement Training and Career Assurance
Resolution 8	<p>a) Discussed technical skills, coding skills, and writing skills to improve placement</p> <p>b) Strategies to enhance student employability and career growth</p> <p>c) Placement training programs were approved for continuation and expansion</p> <p>The committee members suggested strategies to improve the placement status of students in the forthcoming years - Action Principal & NCIPIR Director</p>
Subject 9	Note on Industry Institute Connect
Resolution 9	<p>a) Enhancing collaboration with industries for academic and research purposes</p> <p>b) Industry partnerships and MoUs were reviewed and suggestions were made for further improvement</p> <p>The member Secretary of Governing Council member Dr. M. Sivaraja Principal - NIT proposed a plan of signing an MOU with 50 industries under the concept of "Faculty - Industry Connect" to improve the institute industry linkage and for the student's betterment. The members of Governing council appreciated and welcomed the proposal</p>
Subject 10	Note on Research, Innovation & Incubation
Resolution 10	<p>a) Promoting research culture and innovation</p> <p>b) Strategies for strengthening research and incubation were discussed and approved</p> <p>c) Dr. P. Krishnakumar CEO & Secretary, NCI appreciated for Grants Received (2023-2024) from various funding agency</p> <p>TNSDC & Naan Mudhalvan - Niral Thiruvizha, NewGen IEDC, Ministry of Agriculture (RKVY-RAFTAAR), Balakamalam Environmental fund, MOE's Innovation Cell, TNSCST, DST - Startup TN</p> <p>The Governing Council Members insisted to improve the publication in Scopus/SCI/ Web of Science, UGC Care, Seminar Grants , Research funding from agencies - Action Principal</p>
Subject 11	Note on Approval of Income and Expenditure statement for the year 2023-2024



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 Email: ntiprincipal@nitcoimbatore.com Website: https://nitcoimbatore.com
 Corporate Office: 451-D, Palakkad Main Road, Kuzhambathur, Coimbatore - 641 808
 Phone: 0422-2286148



Resolution 11	The Principal presented the income and expenditure statement of the Institution and approved by Governing Council members
Subject 12	Note on Annual Budget for the FY 2024 - 2025
Resolution 12	The Principal presented the annual budget of the Institution. The Governing body discussed the requirements in the departments for UG & PG Programme. The budget is approved by Governing Council members
Subject 13	Note on Review of Strategic Plan/Road Map and valuable suggestions of Members
Resolution 13	<p>a) Long-term institutional strategic planning</p> <p>b) Members provided valuable insights, and the roadmap was adjusted accordingly</p>
Subject 14	Any other items with the permission of the chair
Resolution 14	No major additional items; minor operational concerns were noted

Vote of Thanks

The meeting concluded with the vote of thanks proposed by the Dr. M. S. Irfan Ahamed Professor in Science & Humanities to all the external and internal members for sparing their valuable time and participating in the Governing body meeting. Nehru Institute of Technology, Coimbatore

GOVERNING COUNCIL - ATR

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 DEPARTMENT, GOVT. OF TAMIL NADU, CHENNAI


Action Taken Report for Governing Council 2024-25

Venue: Board Room, NIT
 Members Present: Principal, All HODs, Centre Heads, Senior Faculty Members
 Agenda: Review of Action Taken for GC 2024-2025

S. No	Agenda/Resolution	Action Taken/Status
1	Review and approval of action plan (GC IQAC 2023-24)	Minutes of the last meeting were reviewed; actions from previous year were found satisfactory and noted for information.
2	Approval of Academic Council/Board of Studies resolutions & regulations	All academic council and BoS resolutions and regulations were reviewed and ratified by the GC; implemented as approved.
3	Progress of Institution & Achievements	Status report on achievements shared; suggested application for 12B status is being initiated by the Principal.
4	New UG Courses approval	Introduction of new UG courses in Artificial Intelligence, Machine Learning, and Cybersecurity for 2024-25 was approved; course development in progress.
5	AQAR Approval	Annual Quality Assurance Report (AQAR) reviewed and approved; submitted to IQAC.
6	Faculty & staff recruitment, promotion, appraisal procedure	Recruitment and appraisal policies aligned with AICTE norms and institutional HR manual were approved and implemented.
7	Institutional Development Plan (IDP)	Short, mid, and long-term goals presented and approved; IDP execution as per framework is underway.
8	Placement Training & Career Assurance	Training strategies to enhance technical, coding, and communication skills were approved. Expansion in placement programs underway.
9	Industry-Institute Connect	Plan to sign MoU with 50 industries was welcomed. Process initiated for implementing Faculty-Industry Connect.

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 DEPARTMENT, GOVT. OF TAMIL NADU, CHENNAI


10	Research, Innovation, Incubation	Strategies to strengthen research and incubation approved. Focus set on increasing publications in indexed journals and applying for more grants.
11	Income & Expenditure statement 2023-24	Statement reviewed and approved; financial operations in compliance.
12	Annual Budget 2024-25	Departmental requirements considered; budget for FY 2024-25 approved and allocated.
13	Strategic Plan/Roadmap Review	Long-term plan reviewed; suggestions integrated into updated roadmap.
14	Any other items	Minor operational concerns noted; no major additional items.


Principal
 Member Secretary

Academic Council

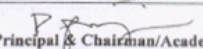
The Academic Council will be responsible for the colleges academic issues, including academic staff, students, and co-curricular activities. The Academic Council is in charge of defining and implementing the Institutions best practices.


CONSTITUTION OF ACADEMIC COUNCIL

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CONSTITUTION OF ACADEMIC COUNCIL – 2024-25		
SLNo	Position	Name
1	Chairman	Dr. M. Sivaraja Principal Nehru Institute of Technology Coimbatore
2	Heads of the Departments	Dr. T. Manikandan Head of the Department Department of Aeronautical Engineering
		Dr. R. Bharthikanna Head of the Department Department of Agricultural Engineering
		Prof. M. Vadivel Head of the Department Department of Civil Engineering
		Dr. P. Shanthakumar Head of the Department Department of Computer Science and Engineering
		Prof. Daniel Paul Head of the Department Department of Food Technology
		Dr. D. Karthikeswaran Head of the Department Department of Information Technology
3	Senior Faculty members	Dr. M. Kumaresan Head of the Department Department of Science and Humanities
		Dr. S. Naganandini Head of the Department Department of Management Studies
		Dr. T. Jayaprakash Professor in Physics Department of Science & Humanities
		Dr. N. Vidhya Associate Professor in Mathematics Department of Science and Humanities
		Prof. Gulja S Nair Assistant Professor (Senior Grade) Department of Agricultural Engineering
		Prof. A. Balthilak Assistant Professor (Senior Grade) Department of General Engineering

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4	Academic Expert	Dr. Gangolu Appa Rao Professor of Civil Engineering, Indian Institute of Technology Madras
		Dr. Kannan Lakshminarayan Professor of Practice, Department of Engineering Design, Indian Institute of Technology Madras
		Dr. KP. Sudheer Head, RAFTAAR, Agri Business Incubator, Kerala Agricultural University College of Agriculture, Vellanikkara, Thrissur, Kerala
5	Industrial Expert	Dr. K. Rathnam CEO at Milky Mist Dairy Coimbatore
		Dr. Jangovan Ramasamy President, AgriInfotech Inc, India & USA, Coimbatore
		Mr. Bijoy Sivan Managing Director, Rently Software Development Pvt., Ltd, Coimbatore
6	University Nominees	Mr. Vignesh Paramasivam Campus Recruitment Lead (Tamilnadu & Puduchery) Tata Consultancy Services, Chennai
		Dr. N. Arul Anand Professor Department of Computer Science and Engineering PSG College of Technology Peelamedu, Coimbatore-641004
		Dr. A. Kunthavai Professor Department of Computer Science and Engineering Coimbatore Institute of Technology Coimbatore-641004
7	Controller of Examination	Dr. K. Rathnakannan Professor Department of Electrical and Electronics Engineering Anna University, Chennai - 600025
8	Member Secretary	Dr. A. Sivasamy Professor & Controller of Examinations
		Dr. V. Saravanan, Associate Professor in Aeronautical Engineering & Head / Academic Affairs


Principal & Chairman/Academic Council


CBE - 641 105
Coimbatore

NEHRU GROUP OF INSTITUTIONS
Corporate Office: "Jawahar Gardens", Kallapuram, Coimbatore - 641 105 Ph: 0422- 2666655
E-mail: nlprincipals@nehrucolleges.com Website: <https://nehruinstitute.com>
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Phone: 0422- 2206148

Grievance & Redressal Cell

S. No	Role	Name & Designation
1	Chair Person	Dr. M. Sivaraja, Principal

2	Vice Chair Person	Dr. S. Pathur Nisha, Dean / IQAC
3	Member	Dr. V. Saravanan, Associate Professor / AERO
4	Member	Dr. K. Senthil Kumar, Professor / AGRI
5	Member	Dr. G. Bhuvaneswari, Professor / MBA
6	Member	Dr. R. Kiruthika, Professor / AGRI
7	Member	Dr. C. Alice Evangaline Jebaselvi, Professor / S&H
8	Member	Mrs. P. Kalpana, Office Assistant
9	Student Member	Mr. M. Jayaram, AERO – III Year

Anti-Ragging Committee*(Establishment of Anti-Ragging Committee)*

S. No	Role	Name & Designation
1	Chair Person	Dr. M. Sivaraja, Principal
2	Vice Chair Person	Dr. S. Pathur Nisha, Dean / IQAC
3	Member	Dr. V. Saravanan, Associate Professor / AERO
4	Member	Dr. K. Senthil Kumar, Professor / AGRI
5	Member	Dr. Samuel Thanaraj, Associate Professor / CIVIL

6	Member	Dr. Beaulah David, Associate Professor / CSE
7	Member	Dr. P. Sampath, Professor / CSE – Cyber Security
8	Member	Dr. S. Jothi Lakshmi, Associate Professor / CSE – AIML
9	Member	Dr. Hema Prabha, Professor / FOOD
10	Member	Dr. K. Parimala Gandhi, Professor / S&H
11	Member	Dr. T. Jayaprakash, Professor / S&H
12	Member	Dr. S. Shantha Kumar, Professor / IT
13	Member	Dr. G. Bhuvaneswari, Professor / MBA
14	Member	Mr. S. Senthil Kumar, Physical Director
15	Parent Member	Mr. Mutharasan
16	Student Member	Mr. Saravanan, II Year CSE
17	Parent Member	Mr. George William
18	Student Member	Mr. G. Sherwin Jayadurai, III Year AERO
19	Parent Member	Mr. M. Thirumalai Samy
20	Student Member	Ms. Divyadharshini T, IV Year IT

Online Grievance Redressal Mechanism

Establishment of Online Grievance Redressal Mechanism)

Stakeholder	Mode
Faculty Grievance Link	https://forms.gle/VTMFE6JrheYPHZT7 (https://forms.gle/VTMFE6JrheYPHZT7)
Student Grievance Link	https://forms.gle/q1PQXKRvfuiosp658 (https://forms.gle/q1PQXKRvfuiosp658)
Official Email ID	grievancesnit@nehrucolleges.com

Grievance Redressal Committee & University Ombudsman

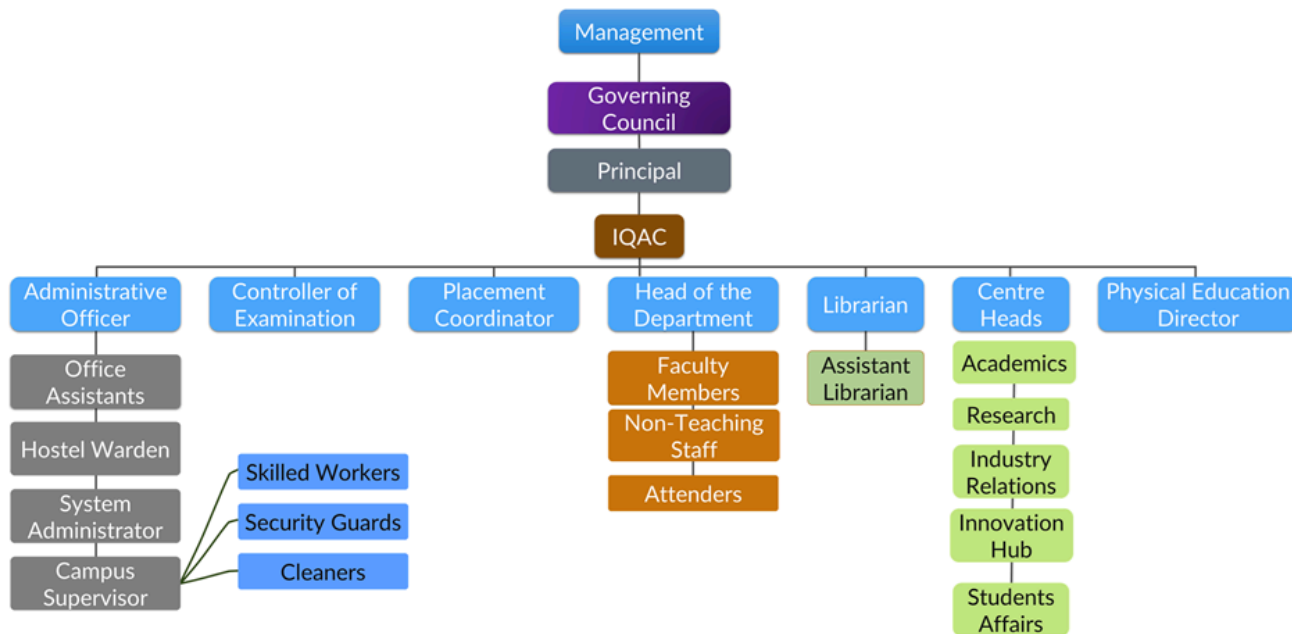
Particulars	Details
Institutional Grievance Redressal Committee	Constituted and functioning
University Ombudsman	As per University norms and regulations

Internal Complaints Committee (ICC)*Establishment of Internal Committee*

S. No	Name & Designation	Role	Email ID
1	Dr. S. Pathur Nisha, Dean / IQAC	Chair Person	nitdeanscis@nehrucolleges.com
2	Dr. N. Vithya, Associate Professor / S&H	Member	nitdrmvithya@nehrucolleges.com

3	Dr. N. Mohammed Rafiq, Assistant Professor (S.G) / Mech	Member	nitmohammedraffic@nehrucolleges.com
4	Mr. V. Satheeswaran, Assistant Professor (S.G) / ECE	Member	nitsatheeswaran@nehrucolleges.com
5	Mr. A. Prabakaran, Assistant Professor / S&H	Member	nitprabakaran.a@nehrucolleges.com
6	Ms. P. Praveena, Counsellor, T.M. Palayam Panchayat, Coimbatore	External Expert	—

Organization Structure



Internal Quality Assurance Cell (IQAC)

- To develop a system for conscious, consistent, and catalytic action to improve the academic and administrative performance of the institution.
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.

Some of the functions expected of the IQAC are:

- Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution

- Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process
- Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes
- Dissemination of information on various quality parameters of higher education
- Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles
- Documentation of the various programmes/activities leading to quality improvement
- Acting as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of best practices
- Development and maintenance of institutional database through MIS for the purpose of maintaining/enhancing the institutional quality
- Development of Quality Culture in the institution

Website Link - Service rules, procedures, recruitment and promotional policies

<https://www.nitcbe.ac.in/wp-content/uploads/2023/11/6.2.2-HR-Policy.pdf>

List of Welfare measures for faculty Community

Medical Leave

Casual Leave

Compensatory Leave

Permission

Internal On-Duty

On Duty for faculty outreach

Annual/Vacation Leave

Sponsorship for attending Seminars/Conference/ Workshop/FDP

Incentive to the faculty for Article/Book/Patent Publications

NIT In-House Awards

Provident Fund

Employee State Insurance

Fee Concession for children of Staff in Nehru Group of Institutions

Staff Quarters & Hostel facilities

Yoga Centre

Gym Facility

Medical Camp

PK Das Hospital Discount Card

Transport Facility

Staff get together Programme

Separate Cabin with Wifi Facility

NOBLE Outbound Training programme

Faculty Connect Club

Faculty Recreation Programme

Free COVID Vaccination

Farwell Function for Relieving Staff

Canteen Facility

Exclusive Space for Car & Two-Wheeler parking

Indoor & Outdoor Sports Activities

Health Center

Employee Death Benefit

List of Welfare measures for Non teaching staff

Medical Leave

Casual Leave

Compensatory Leave (CCL)

Permission
Internal On-Duty
Annual/Vacation Leave
NIT In-House Awards
Provident Fund
Employee State Insurance
Fee Concession for children of Staff in Nehru Group of Institutions
Hostel facilities
Yoga Centre
Gym Facility
Medical Camp
TA/DA for Drivers
PK Das Hospital Discount Card
Transport Facility
Staff get together Programme
NOBLE Outbound Training programme
Free COVID Vaccination
Farwell Function for Relieving Staff
Canteen facility
Exclusive Space for Car & Two-Wheeler parking
Indoor & Outdoor Sports Activities
Health Center
Employee Death Benefit

9.6.2 Transparency (5)

Institute Marks : 5.00

Yes. The following steps are taken to ensure accurate information dissemination to all the stake holders.

- a. The Institution ensures to publish their Vision, Mission and various Quality policy rules, achievements, Mandatory Disclosure as per AICTE etc., in the website.
- b. Policy information, list of members of committees, and upcoming events, are available in the website link: <https://www.nitcbe.ac.in>
- c. The Student details such as intake, admission Procedure and details of Teaching and Non-Teaching staffs also published in the website

Sl.No	Policy	Link
1	HR Policy	https://www.nitcbe.ac.in/wp-content/uploads/2023/11/6.2.2-HR-Policy.pdf
2	Governing Council	https://www.nitcbe.ac.in/governing-council/
2	Academic Council	https://www.nitcbe.ac.in/academic-council/
4	Delegation of financial powers	https://www.nehruinstitute.com/wp-content/uploads/2022/04/6.1.2-Delegation-of-Financial-Power.pdf
5	Grievance and Redressal Cell	https://www.nehruinstitute.com/wp-content/uploads/2022/05/2.Grievance-Redressal-Cell.pdf
6	Prevention of Sexual Harassment	https://www.nitcbe.ac.in/prevention-of-sexual-harassment-cell/
7	Anti Ragging Committee	https://www.nitcbe.ac.in/anti-ragging-committee-2/
8	Vision, Mission and Quality Policy	https://www.nehruinstitute.com/about-nit/
9	Admission Procedures	https://www.nitcbe.ac.in/admission-procedures/
10	Research Policy	https://www.nehruinstitute.com/wp-content/uploads/2022/04/6.3.2-Research-Policy.pdf
11	Waste Management Policy	https://www.nehruinstitute.com/wp-content/uploads/2022/04/Waste-Management-Policy.pdf
12	Environment Policy	https://www.nehruinstitute.com/wp-content/uploads/2022/04/Environment-Policy.pdf
13	Water Conservation Policy	https://www.nehruinstitute.com/wp-content/uploads/2022/04/Water-Conservation-Policy.pdf
14	Green Campus Policy	https://www.nehruinstitute.com/wp-content/uploads/2022/04/Green-Campus-Policy.pdf
15	Differently Abled Policy	https://www.nehruinstitute.com/wp-content/uploads/2022/04/Differently-Abled-Policy.pdf

16	Code of Conduct	https://www.nehruinstitute.com/wp-content/uploads/2022/04/Policy-Document-Code-of-conduct.pdf
17	Mandatory Disclosure	https://www.nitcbe.ac.in/wp-content/uploads/2025/08/AICTE-NIT-Mandatory-Disclosure-25-26-.pdf
18	SDG Framework	https://www.nehruinstitute.com/wp-content/uploads/2025/06/SDG-Plan-and-Framework-NIT.pdf
19	Mental Health Policy	http://www.nitcbe.ac.in/wp-content/uploads/2025/11/Mental-Health-Policy.pdf

9.7 Budget Allocation, Utilization, and Public Accounting at Institute Level (12)

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY : (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2024-2025

Total Income 180780844				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
121410991	0	0	59369853	151307045	1669	90657.31

Table 2 - CFYm1 2023-2024

Total Income 150224676				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
101128793	0	0	49095883	121517045	1316	92338.18

Table 3 - CFYm2 2022-2023

Total Income 124323374				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
77669950	0	0	46653424	104251210	1071	97340.07

Table 4 - CFYm3 2021-2022

Total Income 81433208				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
58048215	0	0	23384993	78900000	806	97890.82

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Infrastructure Built-Up	3000000	0	0	0	3600000	3571752	0	0
Library	1000000	805722	750000	804768	650000	657253	380000	305000
Laboratory equipment	4842000	3512890	4745000	17000	900000	866343	5700000	5777293
Teaching and non-teaching sta	8150000	8133825	6500000	6333825	5000000	5089848	3550000	3520000
Outreach Programs	10000	8950	10000	10525	0	0	0	0
R&D	700000	523654	600000	644754	0	0	0	0
Training, Placement and Indust	1100000	1085450	1150000	1148050	1100000	1173138	3800000	3600000
SDGs	50000	39425	60000	65675	0	0	0	0
Entrepreneurship	225000	215850	200000	225890	0	0	0	0
Others, specify	0	0	0	0	0	0	0	
Total	92427000	87530194	72515000	76587365	56250000	57166969	45380000	44882293

9.8 Program Specific Budget Allocation, Utilization (8)

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY: (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2024-2025

Total Budget 1750000		Actual expenditure (till...): 595894		Total No. Of Students 126
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
2000000	1750000	595894	204442	4729.32

Table 2 :: CFYm1 2023-2024

Total Budget 711000		Actual expenditure (till...): 590549		Total No. Of Students 120
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
1000000	711000	590549	283289	4921.24

Table 3 :: CFYm2 2022-2023

Total Budget 660000		Actual expenditure (till...): 599243		Total No. Of Students 107
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
850000	660000	599243	231074	5600.40

Table 4 :: CFYm3 2021-2022

Total Budget 2138500		Actual expenditure (till...): 1929613		Total No. Of Students 63
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
2500000	2138500	1929613	215168	30628.78

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Laboratory equipment	1350000	391452	233000	307260	400000	368169	1830000	1714445
Software	0	0	0	0	0	0	0	0
SDGs	10000	7886	20000	16628	0	0	0	0
Support for faculty developmen	50000	11200	100000	68908	100000	94070	88500	59460

R & D	100000	40000	50000	17000	0	0	0	0
Industrial Training, Industry exp	75000	32860	75000	35620	40000	28732	20000	10400
Miscellaneous Expenses*	165000	112496	233000	145133	120000	108272	200000	145308
Total	1750000	595894	711000	590549	660000	599243	2138500	1929613

9.9 Quality of Learning Resources (Hard/Soft) (5)

1. Learning Resources (Print & Digital)

Print Collection

The Central Library houses a large physical collection of books, including textbooks, reference works, technical books, and general reading materials, organized by subject and classification.

Books cover Engineering, Technology, Sciences, Humanities, Social Sciences and Management, supporting undergraduate, postgraduate, and research study requirements.

Journals and Periodicals

The library subscribes to a wide range of print journals and magazines, providing access to current research publications, industry trends, and foundational academic topics.

Electronic Resources (E-Resources)

The Central Library offers extensive digital resources accessible both on-campus and remotely:

E-Books

Access to 10,000++ electronic book titles from major publishers such as Springer, Taylor & Francis, Wiley, Pearson, Elsevier, Cambridge University Press, Oxford, PHI, and others.

E-Journals & Databases

Subscriptions include thousands of journals and databases across disciplines. Resource categories cover ACM Digital Library, IEEE Xplore, ScienceDirect, Web of Science, Scopus, JSTOR, SIAM, Sage Journals, ASCE/ASME/ACS journals, and many more.

These digital journals help students stay current with global research developments.

Digital Repositories

The library provides access to institutional repositories like Shodhganga (theses and dissertations), DSpace archives, and research collections, enabling students to consult research theses and scholarly output.

2. Accessibility of Resources

Online Public Access Catalog (OPAC)

Students can search and locate books, e-books, journals, and other resources via the online catalog.

Remote Access

Students, faculty, and registered users can access IP-based digital resources both on and off campus using credentials (INFED or library login system). This means e-journals, e-books, and databases are accessible from outside the campus network.

Library Hours

The library generally operates on regular working days with defined opening and closing times. Study rooms and digital access often remain available beyond regular hours or even 24/7 for digital collections (depending on local policy).

Library Sections & Support

Dedicated sections include reference & reading rooms, journal sections, technical support desks, issue/return counters, and digital library support to effectively help students locate materials.

3. Support For Students' Self-Learning

The department library has a sizable selection of books, project reports, and mini project reports. The central library has a digital collection that students can use for several disciplines. Central library is automated with koha software package which is an integrated multi – user Library Management Software that supports all in–house operation in the library.

Two mark questions, lecture notes; assignments are available for various subjects in both I Campuz (ERP Software) and Google Classroom. Computer laboratories and libraries both have access to the Internet. Students have access to the internet to enhance their self-learning.

Training & Workshops

Libraries frequently organize workshops, training sessions, and orientation programs on library usage, e-resource access, research skills, citation practices, and digital tools. These activities support students in becoming independent learners and researchers.

9.10 E-Governance (5)

Institute Marks : 5.00

E-Governance Initiative: iCampuz

The Institution implements an advanced web-based campus management system called **iCampuz**, accessible at <https://app.icampuz.in/ngi> (https://app.icampuz.in/ngi?utm_source=chatgpt.com) and through the NGI iCampuz mobile app. This system serves as the core digital platform for strengthening academic and administrative processes.

iCampuz provides an integrated digital environment for managing academic activities and stakeholder interactions. Students and parents can view **personal profiles, attendance details, fee records and examination results** through the portal or the mobile application. Faculty members access their profiles, record and modify student attendance, and update marks. Management can monitor **admission statistics and institutional data analytics** from a centralized dashboard.

The platform includes features for **academics management**, such as attendance tracking, timetable, syllabus, batch performance reports, faculty profile and circulars. It also supports **communication tools**, including messages, notifications and feedback mechanisms. This digital infrastructure enables a transparent, efficient and real-time academic ecosystem, reducing dependency on paper and manual processes. By leveraging iCampuz as a campus-wide e-governance tool, the Institution enhances accessibility of academic resources, improves data accuracy, and facilitates timely decision-making across departments

Sustainable Practices in Academic and Learning Management

To promote sustainability, the Institution adopts paperless academic processes, including online submission of assignments, digital study materials, e-content, and online feedback mechanisms. Learning resources are provided through e-libraries, online journals, digital repositories and virtual classrooms, encouraging self-learning and blended learning practices.

Campus-Wide Computing Resources

The Institution has established robust campus-wide computing resources to support academic, administrative and professional activities of students and faculty. A total of 513 computers are available for academic and administrative purposes across computer laboratories, departments and offices.

The campus is enabled with high-speed internet connectivity of 800 Mbps, comprising 300 Mbps from BSNL and 500 Mbps from Skylink, ensuring uninterrupted access to online learning platforms, digital resources and institutional applications. The Institution maintains a Wi-Fi enabled campus with 42 access points, facilitating seamless access to e-resources, e-journals and online academic services for students and staff.

Academic and administrative operations are supported through an in-house ERP software (iCampuz), which enables digital management of attendance, assessments, academic records, communication and reporting. The campus is further equipped with 13 interactive panels, 20 smart boards and 24 projectors, enhancing technology-enabled teaching and learning practices.

To ensure reliability and continuity of digital services, the Institution provides power backup through 100 kVA and 50 kVA UPS systems, supporting uninterrupted functioning of computing infrastructure. These comprehensive computing resources ensure accessibility, availability and effective utilization of ICT facilities across the campus.

9.11 Initiatives and Implementation of Sustainable Development Goals (SDGs) (10)

About SDG

The Sustainable Development Goals (SDGs) are a set of 17 interconnected global goals adopted by the United Nations in 2015, aimed at ending poverty, protecting the planet, and ensuring prosperity for all by 2030. They serve as a comprehensive blueprint for achieving global sustainability through economic, social, and environmental progress. Here's a summary of the goals and their broader impact:



SDG Framework and Plan/Policy

Sl.No.	Description	View Document
1	SDG Framework and Plan/Policy	https://www.nehruinstitute.com/wp-content/uploads/2025/06/SDG-Plan-and-Framework-NIT.pdf (https://www.nehruinstitute.com/wp-content/uploads/2025/06/SDG-Plan-and-Framework-NIT.pdf)

Overall Impact on Global Sustainability

The SDGs collectively address the multifaceted aspects of sustainability by integrating economic growth, social inclusion, and environmental protection. Their implementation drives global policies that emphasize reducing inequalities, transitioning to clean energy, fostering innovation, and promoting resilient infrastructure. By aligning efforts toward these goals, nations work toward a balanced and sustainable world where resources are managed responsibly, human rights are upheld, and long-term prosperity is prioritized.

THE Impact Rankings – Sustainable Development Goal

Our commitment to the United Nations' Sustainable Development Goals

Sl.No.	Rankings	View Document
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1	National Sustainability Impact Institutions Ranking (NSIIR)	https://www.nitcbe.ac.in/wp-content/uploads/2024/02/SDG-Ranking-2023.pdf (https://www.nitcbe.ac.in/wp-content/uploads/2024/02/SDG-Ranking-2023.pdf)
2	Sustainable Institutions of India Green Rankings	https://www.nitcbe.ac.in/wp-content/uploads/2024/02/Green-Ranking.pdf (https://www.nitcbe.ac.in/wp-content/uploads/2024/02/Green-Ranking.pdf)

The 17 Sustainable Development Goals (SDGs) are a set of goals that aim to transform the world. They were adopted by all United Nations Member States in 2015 as part of the 2030 Agenda for Sustainable Development.

Sl.No.	Description	View Document
1	SDG 17 Goals Report 2024-2025	https://www.nehruinstitute.com/wp-content/uploads/2025/06/SDG-2024-25.pdf (https://www.nehruinstitute.com/wp-content/uploads/2025/06/SDG-2024-25.pdf)

Designing a Course with the SDGs

It is the goal of Nehru Institute of Technology to generate graduates who are dedicated, knowledgeable, and capable of changing their communities, organizations, and the globe. In pursuit of this goal, the Institute is broadening its curriculum in sustainability to guarantee that every student is prepared to promote sustainability and the Sustainable Development Goals (SDGs) of the UN in their chosen fields.



9.12 Innovative Educational Initiatives and Implementation (5)

Institute Marks : 5.00

Nehru Institute of Technology (Autonomous), Coimbatore, has implemented a range of **innovative educational initiatives** to strengthen the teaching–learning process, promote research and innovation culture, and prepare students for industry and societal needs.

1. Innovation & Entrepreneurship Promotion

The institute has established institutional mechanisms such as the **Institution's Innovation Council (IIC)** to nurture creativity among students and faculty. Through IIC activities, students participate in innovation challenges, idea showcase events, and entrepreneurship-related programs, fostering an entrepreneurial mindset.

2. Research and Innovation Hubs

Under the **Centre for Research and Innovation (CRI)**, multiple research centres and innovation hubs are available that encourage students and faculty to engage in R&D projects, prototype development, and collaborative innovation activities. These hubs provide mentorship and platform for interdisciplinary innovation.

3. National Education Policy (NEP) Aligned Practices

The institute implements educational strategies in line with the **National Education Policy (NEP)**, aimed at introducing flexible learning, interdisciplinary learning, and outcomes-based approaches to make the curriculum more responsive and holistic for students.

4. Curriculum Delivery with Innovative Pedagogy

Faculty members adopt modern and student-centric teaching methods as part of curricular planning and implementation. Use of activity-based learning, collaborative learning, ICT tools, project work, seminars, and experiential teaching is encouraged to improve effectiveness in learning.

5. Professional Development and Industry Exposure

The institute promotes continuous learning and professional growth by encouraging participation in professional bodies such as ISTE (Indian Society for Technical Education), which helps students and faculty stay updated with current technology trends, industry practices, and ethical standards.

9.13 Faculty Performance Appraisal and Development System (FPADS) (10)

The institution has a well-defined and documented Faculty Performance Appraisal and Development System (FPADS) in place. Faculty performance is assessed annually using a structured Performance Appraisal for Teaching Staff through an Academic Performance Indicator (API) format.

Components of the Appraisal System

The FPADS evaluates faculty performance under two major categories:

- 1. Academic Contribution (Teaching–Learning and Evaluation)*
- 2. Research and Development Contributions*

Each category has clearly defined parameters, maximum marks, and minimum qualifying marks to ensure objective and uniform assessment.

Teaching–Learning and Academic Performance Evaluation

Faculty academic performance is evaluated based on measurable indicators such as:

- Subjects taught and percentage of student results*
- Number of theory classes conducted with student attendance*
- Teaching workload per week*
- Preparation and submission of lesson plans and course files*
- Conduct of internal assessments and assignments*
- Mentoring meetings conducted*
- Quizzes and group discussions organized*
- Seminars, workshops, symposiums attended or conducted*
- Industrial visits or case studies conducted*
- Student feedback on teaching effectiveness*

Student feedback is graded as Outstanding, Excellent, Very Good, Good, or Satisfactory and is included as a key performance parameter.

Research, Professional Development and Extension Activities

The appraisal system also assesses faculty involvement in:

- Publications in national and international journals and conferences*
- Books, book chapters, and research articles*
- Funded projects and consultancy activities*
- Guidance of UG/PG/Ph.D. projects*
- Participation in Faculty Development Programmes (FDPs)*
- Development of e-content*
- Membership in professional and research bodies*
- Awards and recognitions received*

This component motivates faculty to engage in research, innovation, and continuous professional development.

Review, Verification and Approval Mechanism

Completed appraisal forms, along with supporting documents, are verified by the Head of the Department. The Head of the Department provides remarks on:

- Qualification and experience*

- *Conduct and character*
- *Contribution to the institution*
- *Overall performance*


The appraisal is further reviewed by the Head of the Institution / Competent Authority, who gives final recommendations regarding performance grading and eligibility for increment.

Developmental Focus of FPADS

FPADS functions not only as an evaluation tool but also as a faculty development mechanism. Based on appraisal outcomes and recommendations, faculty members are encouraged to:

- *Attend FDPs and training programmes*
- *Improve research output*
- *Enhance teaching methodologies*
- *Develop e-content and innovative practices*

Constructive feedback supports continuous improvement and professional growth.



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PERFORMANCE APPRAISAL FOR TEACHING STAFF
ACADEMIC YEAR : 2024 - 2025
ACADEMIC PERFORMANCE INDICATOR (API) FORM

Date: _____

1	Name of the Faculty	
2	Department / Programme	
3	Name of the Institute	
4	Designation	
5	Date of Joining @ NGI	
6	Date of Birth & Age	
7	Educational Qualification	
8	Total No. of years of Experience	Teaching
		Industry
		Research
9	No. of years of experience at NGI	
10	Additional Responsibility	

SIGNATURE OF THE FACULTY

ACADEMIC PERFORMANCE INDICATOR
 Category I: Academic Contribution (Marks to be evaluated by the Panel Members)
 Min : 125 marks to be scored

Note : Supporting Documents to be attached for verification

	Percentage of Results	Total marks scored
1. Subjects Taught (Max Marks : 40 5 Marks / Subject / Semester and 5 Marks for > 60% result / subject)		
a)		
b)		
c)		
d)		
e)		
2. No. of theory classes conducted out of total classes allotted and Percentage of Students Attended (Max Marks: 20 - 5 Marks / subject for more than 80% of classes taken and more than 75% students attendance)	Students attendance in percentage	Total marks scored
a)		
b)		
c)		
d)		
e)		
3. No. of Seminars / Workshops / Symposium / conducted or attended		5 marks for each (20)
4. No. of Industrial Visit / Case study conducted		5 marks for each (10)
5. Teaching workload per week in hours (Asst. Prof: 20 Hrs. / week, Assoc. Prof.: 16 Hrs. / Week, Prof.: 12 hrs. / week)		Max marks : 10
6. Whether Lesson Plans / Course Works is prepared & submitted (Yes / No)		Max marks : 10
7. No. of internal assessment test conducted / Assignments Given		2 marks each (10)
8. No. of mentorship meetings conducted		2 marks each(10)
9. No. of quiz / Group discussion conducted		2 marks each(10)
10. No. of National / International conference conducted / attended		International: 10 marks / event National : 5 marks/event (20)
11. Students Feedback about Teacher : OS : Outstanding, Ex : Excellent VG: Very Good, G: Good, B/S : Bad/Satisfactory		OS: 10, Ex: 08 VG: 06, G : 04 B/S:0
12. No. of UG / PG / Ph.D projects guided in last 3 years		5 marks for UG 10 marks for PG 20 marks for Ph.D
13. Whether the candidate has developed any E-content? (Yes/No)		10 marks /content Max : 20
14. Awards received		10 marks/award Max: 20
15. No. of FDP attended in the current year		10 marks/FDP Max : 20

Category II : Research & Development Contributions

Min : 50 marks to be scored

1.	No. of International / National paper published in journals	20 marks / International journal 10 marks / national journal	
2.	No. of International / National paper published in conference	10 marks / International Conf. 5 marks / national Conf.	
3.	No of Books / Book Chapter / Article . Published	30 marks / Book 10 marks / Book Chapter 5 marks / Article	
4.	No. of Projects undertaken & grant received	10 Lakhs & Above : 20 marks >5 Lakhs : 10 marks <5 lakhs : 2 marks	
5.	No. of Consultancy undertaken & amount generated	>10 Lakhs : 20 marks <10 Lakhs : 10 marks <5 Lakhs : 2 marks	
6.	No. of Start-ups incubated under your guidance	20 marks/start-up	
7.	No. of Ph.D awarded	20 marks/Ph.D awarded	
8.	No. of Patent Published/granted	50 marks :Granted 20 marks :Published	
9.	No. of Projects granted by External agency/NGO/Philanthropist	5 marks/project	
10.	Membership of any research organization / professional body	10 marks : International 5 marks : National	

SIGNATURE OF THE FACULTY

REMARKS / RECOMMENDATION BY THE HEAD OF THE DEPARTMENT

1.	Whether the candidate is qualified and experienced	Yes / No
2.	Whether the candidate is having good conduct/character	Yes / No
3.	Whether the candidate is an asset to the Institution	Yes / No
4.	Whether his/her increment can be released	Yes / No
5.	Overall Feedback about the candidate (Outstanding / Excellent / Very Good / Satisfactory / Need Improvement)	

REMARKS / RECOMMENDATION BY THE HEAD OF INSTITUTION / COMPETENT AUTHORITY

HEAD OF INSTITUTION / COMPETENT AUTHORITY

OVERALL EVALUATION (BY THE PANEL MEMBERS)

Academic Contribution : marks

Research & Development Contribution : marks

Total : marks

EXECUTIVE DIRECTOR CEO & SECRETARY

9.14 Outreach Activities (5)

EXTENSION AND OUTREACHED PROGRAMMES 2024-2025					
S.no	Name of the activity	Organising unit/ agency/ collaborating agency	Name of the scheme	Year of the activity	Number of students participated in such activities
1	Digital crop Survey	Rotitigoundanur, Collaboration with Village administration office, madukari	NSS	2024-2025	88
2	Road safety awareness programme	Coimbatore City traffic police	NSS	2024-2025	54
3	Marathon Rally	V.O.C park,Coimbatore-641008	NSS	2024-2025	194
4	Drug awareness Program	Sri Ramakrishna college of arts & science	NSS	2024-2025	66
5	An awareness campaign on Wearing Helmet	UYIR CLUB at Town Hall,Coimbatore	NSS	2024-2025	47
6	An awareness programme on Energy Conservation	Kaliyapuram,Coimbatore	NSS	2024-2025	32
7	Making a Greener planet	Rottigoundanur	NSS	2024-2025	56
8	Obey Traffic Rules	Coimbatore city police ,Perur junction,Coimbatore	NSS	2024-2025	40
9	Digital Survey camp on trees	Valukal,Coimbatore	NSS	2024-2025	90
10	Eye check camp for public	Aravind eye hospital,Coimbatore	NSS/YRC	2024-2025	42
11	Say No to Single-Use Plastics	Kumitipathi village Coimbatore	NSS	2024-2025	62
12	Road safety awareness Rally	RTO office , coimbatore	YRC	2024-2025	28
13	Tree plantation	Valukal ,Coimbatore	NSS	2023-2024	36
14	Importance of consumer rights for public	kaliyapuram village,Coimbatore	NSS	2023-2024	47

Annexure I
(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

- PO1: Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.
- PO2: Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)
- PO3: Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)
- PO4: Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).
- PO5: Engineering Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)
- PO6: The Engineer and The World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).
- PO7: Ethics:** Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)
- PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.
- PO9: Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences
- PO10: Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.
- PO11: Life-Long Learning:** Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

(B) PROGRAM SPECIFIC OUTCOME (PSOs)
Program should specify 2-4 program specific outcomes.

PSO1	Professional Skill: The capability to comprehend, analyze, and devise innovative methods for advancing food processes and products using foundational principles from mathematics, science, and engineering.
PSO2	Problem solving skill: To acquire interdisciplinary skills in addressing challenges within the food industry, employing modern tools and techniques to promote an ethical and sustainable society.
PSO3	Career and Entrepreneurship: The ability to excel as a team player with strong leadership and communication skills, effectively managing projects in multidisciplinary environments and adapting to technological advancements.

Declaration

The head of the institution needs to make a declaration as per the format given -

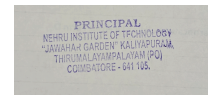
- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute

Name : Dr.M.SIVARAJA

Designation : PRINCIPAL

Signature :

**Seal of The Institution :****Place :** Coimbatore**Date :** 16-02-2026 10:14:35