

Nehru Institute of Technology

SELF ASSESSMENT REPORT(TIER - II) FOR Civil Engineering

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

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
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 Aeronauti	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 Informati	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 a	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.Phari	Thrissur
Nehru School of Managem	2005	MBA	Thrissur
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

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
Sanctioned Intake for Last Five Years for the Civil Engineering											
Academic Year					Sanctioned Intake						
2025-26					30						
2024-25					30						
2023-24					30						
2022-23					30						
2021-22					60						
2020-21					60						
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	2	5	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 and 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	63.64
5	FACULTY INFORMATION	100	86.68
6	FACULTY CONTRIBUTIONS	120	97.00
7	FACILITIES AND TECHNICAL SUPPORT	100	100.00
8	CONTINUOUS IMPROVEMENT	80	80.00
9	STUDENT SUPPORT AND GOVERNANCE	120	118.00
	Total	1000	906

Part B : Criteria Summary

1 OUTCOME-BASED CURRICULUM (120)

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)

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 be a center of learning in civil engineering education offering programs oriented with industry friendly curriculum meeting global standards to build ethical civil engineers embedded with research, entrepreneurship and excellence in academics to cater the needs of 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 establish a domain of valuable civil engineers with a pattern of discipline for the development of nation with ethical, environmental and economical concern.</td> </tr> <tr> <td>M2</td> <td>To produce civil engineers who will be able to induce knowledge based transformation of the society.</td> </tr> <tr> <td>M3</td> <td>To attain knowledge based society by imparting broad set of technical skills and attitude to meet the national standards.</td> </tr> <tr> <td>M4</td> <td>To provide technology based civil engineering services to meet the aspiration of the people and the industry.</td> </tr> </tbody> </table>	Mission No.	Mission Statements	M1	To establish a domain of valuable civil engineers with a pattern of discipline for the development of nation with ethical, environmental and economical concern.	M2	To produce civil engineers who will be able to induce knowledge based transformation of the society.	M3	To attain knowledge based society by imparting broad set of technical skills and attitude to meet the national standards.	M4	To provide technology based civil engineering services to meet the aspiration of the people and the industry.
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M2	To produce civil engineers who will be able to induce knowledge based transformation of the society.										
M3	To attain knowledge based society by imparting broad set of technical skills and attitude to meet the national standards.										
M4	To provide technology based civil engineering services to meet the aspiration of the people and the industry.										

1.1.2 State PEOs of the Program (5)

PEO No.	Program Educational Objectives Statements
PEO1	To prepare students for successful careers in Civil Engineering field that meets the needs of Indian and multinational companies.
PEO2	To develop the confidence and ability among students to synthesize data and technical concepts and thereby apply it in real world problems.
PEO3	To develop students to use modern techniques, skill and mathematical engineering tools for solving problems in Civil Engineering.
PEO4	To provide students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyse engineering problems and to prepare them for graduate studies.
PEO5	To promote students to work collaboratively on multi-disciplinary projects and make them engage in life-long learning process throughout their professional life.

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

The Vision and Mission of the Department of Civil Engineering and the Program Educational Objectives (PEOs) are formulated through a **systematic, participatory, and outcome-oriented process** in alignment with the institute's vision, societal needs, and the expectations of key stakeholders.

Stakeholder Involvement

The formulation process actively involves inputs from the following stakeholders:

- Faculty members of the Department of Civil Engineering
- Students and alumni
- Industry experts and employers
- Academic experts and professional bodies
- Parents and societal representatives

Stakeholder expectations related to **industry requirements, higher education, professional ethics, societal development, and global engineering practices** are collected through formal meetings, feedback mechanisms, and deliberations.

Alignment and Benchmarking

- The **Vision and Mission of the Department** are derived in alignment with the **Vision and Mission of the Institution**.
- National and global trends in civil engineering education, NBA/OBE guidelines, and industry demands are considered.
- Benchmarking is carried out with reputed institutions and professional standards to ensure relevance and competitiveness.

Formulation and Approval

- Based on stakeholder inputs and academic discussions, the Vision, Mission, and PEOs are drafted by the **Department Advisory Committee (DAC)** and faculty members.
- The drafted statements are reviewed for **clarity, relevance, attainability, and alignment with graduate attributes**.

Dissemination and Review

- The approved Vision, Mission, and PEOs are **widely disseminated** through the department website, display boards, curriculum documents, and student induction programs.
- Periodic reviews are conducted based on **stakeholder feedback, alumni progression, employer feedback, and attainment analysis**, and necessary revisions are made as part of the **Continuous Quality Improvement (CQI)** process.

This structured approach ensures that the Vision, Mission, and PEOs remain **relevant, dynamic, and aligned with Outcome-Based Education (OBE)**, industry expectations, and societal needs.

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

Table 1.1 List of Stakeholders

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

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

The Programme Educational Objectives (PEOs) of the programme are formulated in alignment with the **Vision and Mission of the Institute and the Department**, and in accordance with **NBA guidelines**. The formulation process incorporates inputs from key stakeholders through structured feedback mechanisms such as **course exit surveys, alumni surveys, employer feedback, and other stakeholder interactions**. These inputs are analyzed and used to prepare the draft PEOs, ensuring relevance to professional practice, higher education, and societal needs.

The drafted PEOs are reviewed and discussed in the **Department Advisory Committee (DAC)** for validation and approval. Subsequently, the approved PEOs are submitted to the **Principal** for final approval. The finalized PEOs are then **published and disseminated** to all stakeholders through the departmental website, student handbooks, notice boards, and other official communication channels.

1.1.4 Dissemination of Vision, Mission and PEOs (5)

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 – 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 Academic Calendar and Handbook 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:1.3.2). 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.), student induction programs, alumni meetings, and parent meetings.
- Ø The Head of the Department appraises the vision, mission, and PEOs of the department to the faculty members during department meetings.
- Ø Corporate Relations will help in circulating Vision and Mission of the Institute and Department to the Industry personnel during their interaction.



Figure 1.1 Process of Dissemination of the Department Vision and Mission & PEO

Various stakeholders benefitted and dissemination methods are shown in Table 1.2 and 1.3

Table 1.2 Stakeholders

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

Table 1.3 Methods of dissemination among stakeholders

S.No.	Dissemination Methods	Internal Stakeholders	External Stakeholders
1.	College Website: nitcbe.ac.in.com	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, Academic Calendar 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.	Internal Quality Assurance Cell (IQAC) Meetings	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, Faculty/Staff Induction Programme	Supporting Staff, Faculty	-
12.	Students' Orientation Programme	Students	Parents
13.	SocialMedia	Students, Faculty and Supporting Staff.	Parents, Alumni, Employer and Industry Personnel

Process:

The extent of awareness among stakeholders (The Principal, HoD, Faculty, Students, Alumni, Parents and Industry Personnel) is assessed during the various interaction programs arranged within the college premises.

Extent of awareness:

To measure the knowledge on Vision, Mission and PEOs of the Department, the following methods are utilized.

Methods:

- Extent of awareness is measured based on the interaction with internal and external stakeholders during the periodical meetings.
- The feedback from stakeholders is obtained and statistically analyzed.

Table 1.4 Scale of interpretation showing the extent of awareness

Response	Awareness	Acceptance
3	High Awareness	Greatly Accepted
2	Moderate Awareness	Accepted
1	Low Awareness	Need Improvement

Impact:

Based on the scale of interpretation, it is found that the stakeholders are highly aware of the Vision, Mission, and PEOs of the department.

Methods for improving awareness in cases of medium and low awareness:

- Ø More departmental activities are arranged to strengthen the knowledge of vision and Mission among the internal stakeholders.
- Ø Improved academic activities in line with vision and mission to increase the degree of awareness among internal stakeholders.
- Ø Frequency of the meetings with the external stakeholders is increased to emphasize the importance of vision and mission.

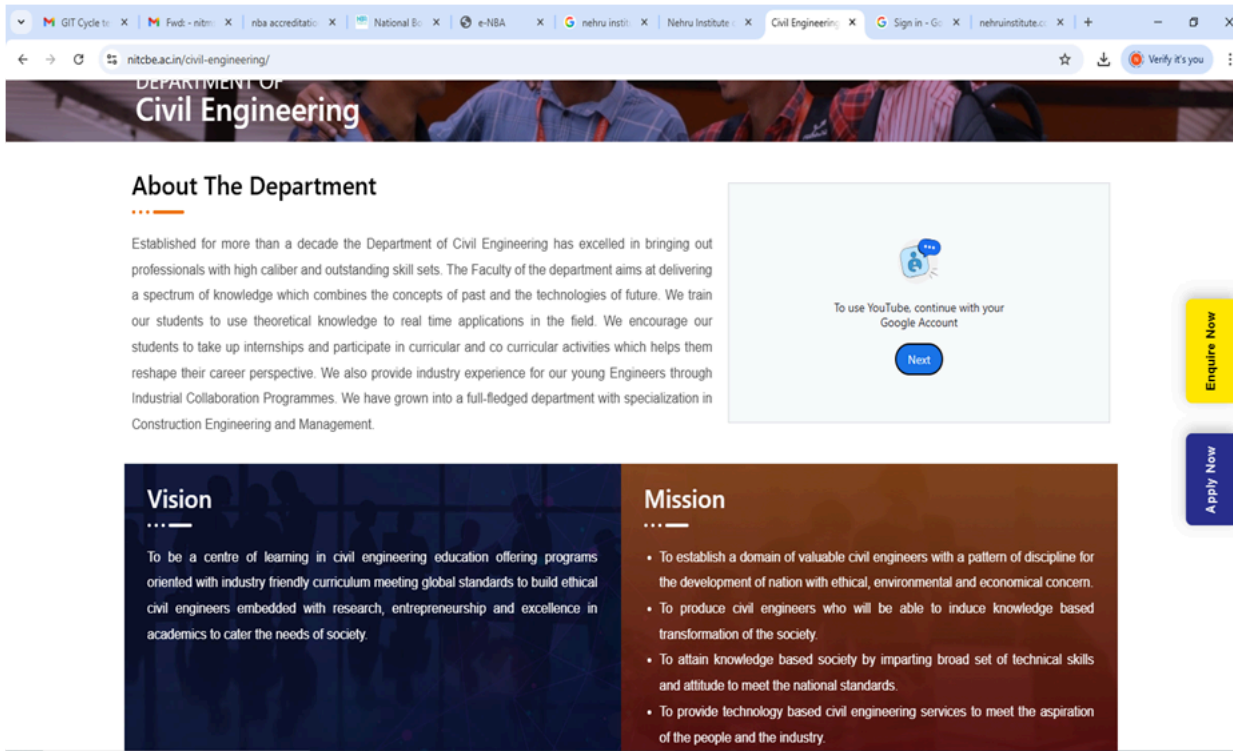


Figure 1.3 Dissemination of Vision and Mission in website



Figure 1.4 Dissemination of Vision and Mission in the Department



Figure 1.5- Dissemination of Vision & Mission in class room



Figure 1.6- Dissemination of Vision & Mission in laboratory

1.1.5 Mapping of PEOs with Mission (10)

PEO Statements	M1	M2	M3	M4
To prepare students for successful careers in Civil Engineering field that meets the needs of Indian and multinational companies.	3	2	3	3
To develop the confidence and ability among students to synthesize data and technical concepts and thereby apply it in real world problems.	2	3	2	3
To develop students to use modern techniques, skill and mathematical engineering tools for solving problems in Civil Engineering.	2	2	3	3
To provide students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyse engineering problems and to prepare them for graduate studies.	3	2	3	2
To promote students to work collaboratively on multi-disciplinary projects and make them engage in life-long learning process throughout their professional life.	2	3	2	2

TableNo.1.1.5.1: Mapping of PEOs with mission.

PEO Statements	M ₁	M ₂	M ₃	M ₄
PEO1: To prepare students for successful careers in Civil Engineering field that meets the needs of Indian and multinational companies.	2	2	3	3
PEO2: To develop the confidence and ability among students to synthesize data and technical concepts and thereby apply it in real world problems.	2	3	2	3
PEO3: To develop students to use modern techniques, skill and mathematical engineering tools for solving problems in Civil Engineering.	2	2	3	3
PEO4: To provide students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyse engineering problems and to prepare them for graduate studies.	3	2	3	2

PE05: To promote students to work collaboratively on multi-disciplinary projects and make them engage in life-long learning process throughout their professional life.	2	3	2	2
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Note: M1,M2...Mn are distinct elements of mission statement. Enter correlation levels as Low (1), Medium (2) and High (3). If there is no correlation, put "-"

Table 1.5. Justification for the mapping

Mission of the Department	M1	M2	M3	
Program Educational Objectives	To establish a domain of valuable civil engineers with a pattern of discipline for the development of nation with ethical, environmental and economical concern.	To produce civil engineers who will be able to induce knowledge based transformation of the society.	To attain knowledge based society by imparting broad set of technical skills and attitude to meet the national standards.	To provide technol services to meet th and the industry
PE01: To prepare students for successful careers in Civil Engineering field that meets the needs of Indian and multinational companies.	(3 – High): Emphasizes discipline, ethics, sustainability, and national development, which are essential professional qualities required for successful civil engineering careers.	(2 – Medium): Knowledge-based societal transformation supports employability, though the focus is more societal than industrial.	(3 – High): M3 directly aligns with industry readiness by imparting technical skills and attitudes to meet national standards.	(3 – High): Technology-based relevance strongly preparedness in b organizations.
PE02: To develop the confidence and ability among students to synthesize data and technical concepts and thereby apply it in real world problems.	(2 – Medium): Ethical and sustainable engineering practices moderately support real-world problem solving.	(3 – High): Strongly focuses on applying engineering knowledge for societal transformation, aligning well with real-world problem solving.	(2 – Medium): Technical skill development supports application of concepts, though indirectly.	(3 – High): Providing technol solutions directly e application skills.
PE03: To develop students to use modern techniques, skill and mathematical engineering tools for solving problems in Civil Engineering.	(2 – Medium): Ethical and sustainable considerations require the use of modern engineering tools in practice.	(2 – Medium): Knowledge-driven societal development partially depends on modern engineering techniques.	(3 – High): strongly emphasizes technical competence and modern tools aligned with national standards.	(3 – High): Technology-driven use of modern enç

<p>PEO4: To provide students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyse engineering problems and to prepare them for graduate studies.</p>	<p>(3 – High): A strong academic foundation is essential for ethical, economical, and sustainable engineering practices.</p>	<p>(2 – Medium): Societal transformation requires sound engineering fundamentals, though indirectly.</p>	<p>(3 – High): M3 emphasizes broad technical knowledge aligned with strong academic foundations.</p>	<p>(2 – Medium): Engineering funda based services, bu</p>
<p>PEO5: To promote students to work collaboratively on multi-disciplinary projects and make them engage in life-long learning process throughout their professional life.</p>	<p>(2 – Medium): Discipline and ethical practice promote collaborative work culture.</p>	<p>(3 – High): Societal transformation requires teamwork and continuous learning.</p>	<p>(2 – Medium): Technical skill development encourages continuous upskilling.</p>	<p>(2 – Medium): Industry-oriented s and adaptation to</p>

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 (C)* (Total Hour:
			L	T	P	SL		
1	C101	Professional English I	90	0	0	0	90	
2	C102	Matrices and Calculus	90	30	0	0	120	
3	C103	Engineering Physics	90	0	0	0	90	
4	C104	Engineering Chemistry	90	0	0	0	90	
5	C105	Problem Solving and Python Programming	90	0	0	0	90	
6	C106	Hertiage of Tamils	30	0	0	0	30	
7	C107	Problem Solving And Python Programming Laboratory	0	0	60	0	60	
8	C108	Physics and Chemistry Laboratory	0	0	60	0	60	
9	C109	English Laboratory	0	0	30	0	30	
10	C110	Professional English II	60	0	0	0	60	
11	C111	Statistics and Numerical Methods	90	30	0	0	120	
12	C112	Physics for Civil Engineering	90	0	0	0	90	
13	C113	Basic Electrical, Electronics and Instrumentation Engineering	90	0	0	0	90	
14	C114	Engineering Graphics	60	0	60	0	120	
15	C115	Tamils and Technology	30	0	0	0	30	
16	C116	Engineering Practices Laboratory	0	0	60	0	60	
17	C117	Basic Electrical, Electronics and Instrumentation Engineering laboratory	0	0	60	0	60	
18	C118	Communication Laboratory	0	0	60	0	60	
19	C201	Transforms and Partial Differential Equations	90	30	0	0	120	
20	C202	Engineering Mechanics	90	0	0	0	90	
21	C203	Fluid Mechanics	90	0	0	0	90	

22	C204	Construction Materials and Technology	90	0	0	0	90
23	C205	Water Supply and Wastewater Engineering	120	0	0	0	120
24	C206	Surveying and Levelling	90	0	0	0	90
25	C207	Surveying and Levelling Laboratory	0	0	45	0	45
26	C208	Water and Wastewater Analysis Laboratory	0	0	45	0	45
27	C209	Professional development	0	0	30	0	30
28	C210	Applied Hydraulics Engineering	90	30	0	0	120
29	C211	Strength of Materials	90	0	0	0	90
30	C212	Concrete Technology	90	0	0	0	90
31	C213	Soil Mechanics	90	0	0	0	90
32	C214	Highway and Railway Engineering	90	0	0	0	90
33	C215	Environmental Sciences and Sustainability	60	0	0	0	60
34	C216	Hydraulic Engineering Laboratory	0	0	45	0	45
35	C217	Materials Testing Laboratory	0	0	60	0	60
36	C218	Soil Mechanics Laboratory	0	0	45	0	45
37	C301	Design of Reinforced Concrete Structural Elements	90	0	0	0	90
38	C302	Structural Analysis I	90	0	0	0	90
39	C303	Foundation Engineering	90	0	0	0	90
40	C304	Ground Improvement Technique	90	0	0	0	90
41	C305	Digitalized Construction Laboratory	90	0	0	0	90
42	C306	Airports and Harbors	90	0	0	0	90
43	C307	Disaster Risk Reduction and Management	0	0	0	0	0
44	C308	Highway Engineering Laboratory	0	0	60	0	60
45	C309	Survey Campus (2 Weeks)	0	0	0	30	30
46	C310	Design of Steel Structural Elements	90	0	0	0	90

47	C311	Structural Analysis II	90	0	0	0	90	
48	C312	Engineering Geology	90	0	0	0	90	
49	C313	Rehabilitation/Heritage Restoration	90	0	0	0	90	
50	C314	Advanced Construction Techniques	90	0	0	0	90	
51	C315	Environmental Health and Safety	90	0	0	0	90	
52	C316	IOT Concepts and Applications	90	0	0	0	90	
53	C317	Industrial Safety	0	0	0	0	0	
54	C318	Building Drawing and Detailing Laboratory	0	0	60	0	60	
55	C401	Estimation, Costing and Valuation Engineering	90	0	0	0	90	
56	C402	Hydrology and Water Resources Engineering	90	0	0	0	90	
57	C403	Human Values and Ethics	60	0	0	0	60	
58	C404	Total Quality Management	90	0	0	0	90	
59	C405	Project Report Writing	90	0	0	0	90	
60	C406	Renewable Energy Technologies	90	0	0	0	90	
61	C407	Artificial Intelligence and Machine Learning Fundamentals	90	0	0	0	90	
62	C408	Project Work/Internship	0	0	300	0	300	
		Total	3750	120	1080	30	4980	166.0

1.2.2 Components of Program Curriculum (5)

Course Components	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	15	750.00	25.00
Basic Engineering	11.5	570.00	19.00
Humanities and Social Scie	7	360.00	12.00
Program Core	39	1950.00	65.00
Program Electives	11	540.00	18.00
Open Electives	7	360.00	12.00
Project(s)	6	300.00	10.00
Internships/Seminars	3.5	30.00	1.00
Any other (Please specify)	15	120.00	4.00
Total number of Credits			166.00

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)

Nehru Institute of Technology is affiliated with **Anna University, Chennai**, and follows the curriculum prescribed by the University in compliance with **AICTE norms**. The curriculum is systematically structured to enhance student learning outcomes and to equip graduates with the knowledge and skills required to meet contemporary industry demands. Anna University undertakes periodic curriculum revision once every three years, incorporating inputs from affiliated institutions and consultations with academic experts, industry professionals, alumni, employers, parents, and other key stakeholders.

Accordingly, the programme follows **R17 Regulations** for students admitted in the 2020 batch, **R21 Regulations** for students admitted during 2021 and 2022, and **R23 Regulations** for the current admitted batch (2023) as well as the ongoing second-year batch (2024). **Table 2.1.1(a)** presents the details of the regulations followed by students across different academic years.

Table 2.1.1(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 2.1.1(b).

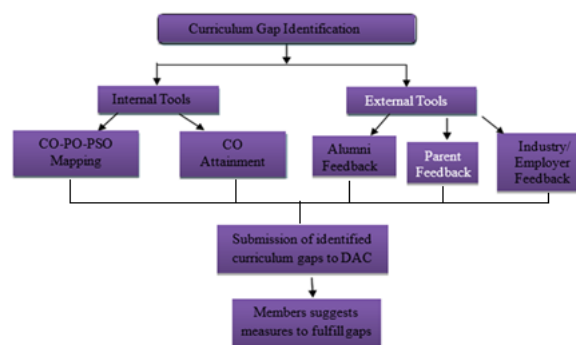


Figure 2.1.1 (b): Tools to identify curriculum gaps

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 curriculums classes are combined with labs and small projects to improve students problem-solving abilities and keep up with technological advancements.

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.

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 university's 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.

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

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

1.3.1 POs and PSOs (5)

PSO1	Knowledge of Civil Engineering discipline Demonstrate in-depth knowledge of Civil Engineering discipline, with an ability to evaluate, analyze and synthesize existing and new knowledge.
PSO2	Critical analysis of Civil Engineering problems and innovation Critically analyze complex Civil Engineering problems, apply independent judgment for synthesizing information and make innovative advances in a theoretical, practical, and policy context. 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	Conceptualization and evaluation of engineering solutions to Civil Engineering Issues Conceptualize and solve Civil Engineering problems, evaluate potential solutions and arrive at technically feasible, economically viable and environmentally sound solutions with due consideration of health, safety, and socio-cultural factors

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

PO Number	List of Courses
PO1	C102, C103, C104, C105, C106, C107, C110, C111, C112, C113, C114, C115, C201, C202, C203, C204, C205, C206, C207, C208, C210, C211, C212, C213, C214, C215, C216, C217, C218, C301, C302, C303, C304, C305, C306, C307, C308, C309, C310, C311, C312, C313, C314, C316, C318, C401, C402, C406, C407, C408
PO2	C102, C103, C104, C105, C106, C107, C110, C111, C112, C114, C115, C201, C202, C203, C204, C205, C206, C207, C208, C210, C211, C212, C213, C214, C215, C216, C217, C218, C301, C302, C303, C304, C305, C306, C307, C308, C309, C310, C311, C312, C313, C314, C315, C316, C317, C401, C402, C404, C406, C407, C408
PO3	C113, C114, C202, C203, C204, C205, C206, C207, C210, C211, C212, C213, C214, C301, C302, C303, C304, C306, C308, C309, C310, C311, C313, C314, C318, C401, C402, C408
PO4	C113, C114, C202, C203, C204, C205, C206, C207, C210, C211, C212, C213, C214, C301, C302, C303, C304, C306, C308, C309, C310, C311, C313, C314, C318, C401, C402, C408
PO5	C105, C106, C110, C112, C113, C114, C115, C206, C207, C210, C301, C302, C304, C305, C308, C309, C310, C311, C314, C316, C318, C407, C408
PO6	C114, C205, C209, C214, C215, C301, C303, C304, C306, C307, C310, C313, C315, C317, C402, C403, C406, C408
PO7	C104, C204, C205, C208, C212, C214, C215, C301, C303, C304, C306, C307, C312, C313, C314, C315, C317, C402, C406, C408
PO8	C209, C313, C315, C317, C403, C408
PO9	C101, C106, C107, C108, C114, C115, C116, C207, C208, C209, C216, C217, C218, C305, C308, C309, C318, C404, C405, C408
PO10	C101, C106, C107, C108, C114, C115, C116, C207, C208, C209, C216, C217, C218, C305, C308, C309, C318, C404, C405, C408
PO11	C209, C401, C404, C405, 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 :	C103	Semester :	1
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Course Outcome	Statements
C103.1	Understand the importance of mechanics.
C103.2	Express their knowledge in electromagnetic waves.
C103.3	Demonstrate a strong foundational knowledge in oscillations, optics and lasers.
C103.4	Explain the fundamental concepts and significance of quantum physics in modern technology.
C103.5	Apply quantum mechanical principles to analyze the formation of energy bands in solids and related phenomena.

Course Code :	C111	Semester :	2
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Course Outcome	Statements
C111.1	Apply the concept of testing of hypothesis for small and large samples in real life problems
C111.2	Apply the basic concepts of classifications of design of experiments in the field of agriculture
C111.3	Appreciate the numerical techniques of interpolation in various intervals and apply the numerical techniques of differentiation and integration for engineering problems
C111.4	Evaluate different types of fuels and recommend suitable fuels for specific engineering processes and applications.
C111.5	Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications.

Course Code :	C204	Semester :	3
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Course Outcome	Statements
C204.1	Identify the good quality brick, stone and blocks for construction
C204.2	Recognize the market forms of timber, steel, aluminum and applications of various composite materials.
C204.3	Identify the best construction and service practices such as thermal insulations and air conditioning of the building
C204.4	Select various equipments for construction works conditioning of building
C204.5	Apply construction planning and scheduling techniques to develop project timelines for building projects.

Course Code :	C212	Semester :	4
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Course Outcome	Statements
C212.1	Understand the requirements of cement, aggregates and water for concrete
C212.2	Select suitable admixtures for enhancing the properties of concrete

C212.3	Design concrete mixes as per IS method of mix design
C212.4	Determine the properties of concrete at fresh and hardened state.
C212.5	Know the importance of special concretes for specific requirements

Course Code :	C301	Semester :	5
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Course Outcome	Statements
C301.1	Apply working stress and limit state methods to design reinforced concrete rectangular beams.
C301.2	Analyze and design flanged beams for bending, shear, torsion, anchorage, and development length requirements.
C301.3	Design reinforced concrete slabs and staircases and prepare detailed reinforcement drawings as per codal provisions.
C301.4	Analyze and design short columns subjected to axial, uniaxial, and biaxial eccentric loading.
C301.5	Design wall footings, isolated footings, and combined rectangular footings based on soil and loading conditions.

Course Code :	C302	Semester :	5
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Course Outcome	Statements
C302.1	Analyze pin-jointed plane trusses and space frames to determine internal forces and support reactions.
C302.2	Apply the slope deflection method to analyze continuous beams and rigid frames.
C302.3	Apply the moment distribution method to analyze continuous beams and rigid frames with and without sway.
C302.4	Analyze indeterminate pin-jointed plane frames, continuous beams, and rigid frames using the matrix flexibility method.
C302.5	Apply the matrix stiffness method to analyze continuous beams, pin-jointed trusses, and rigid plane frames.

Course Code :	C311	Semester :	6
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Course Outcome	Statements
C311.1	Construct influence lines for statically determinate structures and determine critical stress resultants.
C311.2	Apply the Müller-Breslau principle to construct influence lines for statically indeterminate beams.
C311.3	Analyze three-hinged, two-hinged, and fixed arches to determine internal forces and support reactions.alyse three hinged, two hinged and fixed arches
C311.4	Analyze suspension bridges with stiffening girders to evaluate structural response under loading.
C311.5	Apply approximate methods to analyze multi-storey rigid frames under gravity and lateral (horizontal) loads.

Course Code :	C312	Semester :	6
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Course Outcome	Statements
C312.1	Knowing the internal structure of earth and its relation to earthquakes. Landforms created by various geological agents and their importance in civil engineering.
C312.2	Getting knowledge on various minerals and rocks that can be used as construction materials and road aggregates. In addition, testing the suitability of rocks for foundation purposes.
C312.3	Studying various geological structures and their impact in engineering constructions. Further, learning the geomechanical properties of rocks and their significance in engineering projects.
C312.4	Gaining knowledge on the role of geological mapping, remote sensing and geophysics for surface and subsurface investigations. In addition, students will also gain knowledge on borehole logging techniques and their application in engineering.
C312.5	Applying geological knowledge for designing and constructing major civil engineering structures, and also mitigating various geological hazards such as earthquakes, landslides and tsunamis.

Course Code :	C401	Semester :	7
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Course Outcome	Statements
C401.1	Analyze different types of construction contracts and select appropriate contract types for engineering projects.
C401.2	Prepare detailed specifications, technical reports, and tender documents in accordance with standard engineering practices.
C401.3	Perform rate analysis and prepare detailed cost estimates for buildings, canals, and road works.
C401.4	Estimate quantities of various building components using standard methods of measurement.
C401.5	Evaluate the valuation of buildings and land using appropriate valuation methods and principles.

Course Code :	C402	Semester :	7
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Course Outcome	Statements
C402.1	Analyze hydrological processes and evaluate their integrated behaviour within a catchment system.
C402.2	Apply hydrological principles to assess basin characteristics, estimate runoff, and develop hydrographs.
C402.3	ExplAnalyze hydrological extremes such as floods and droughts and propose suitable management strategies.ain the concept of hydrological extremes and its management strategies
C402.4	Apply reservoir storage principles to determine storage capacity and reservoir operation requirements.
C402.5	Analyze groundwater flow and apply groundwater management principles for sustainable utilization.

1.4.2 Course Articulation Matrix (15)

1 . course name : C2C103

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C103.1	Understand	3 ▾	3 ▾	3 ▾	2 ▾	1 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
C103.2	Express the	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
C103.3	Demonstral	3 ▾	3 ▾	2 ▾	2 ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	1 ▾
C103.4	Explain the	3 ▾	3 ▾	1 ▾	1 ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
C103.5	Apply quan	3 ▾	3 ▾	1 ▾	1 ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
Average		3.00	3.00	1.80	1.40	1.80	0.00	0.00	0.00	0.00	0.00	1.00

2 . course name : C2C111

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C111.1	Apply the o	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	- ▾	- ▾	2 ▾	- ▾	2 ▾	3 ▾
C111.2	Apply the b	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	- ▾	- ▾	2 ▾	- ▾	2 ▾	3 ▾
C111.3	Appreciate	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	- ▾	- ▾	2 ▾	- ▾	2 ▾	3 ▾
C111.4	Evaluate di	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	- ▾	- ▾	2 ▾	- ▾	2 ▾	3 ▾
C111.5	Solve the p	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	- ▾	- ▾	2 ▾	- ▾	2 ▾	3 ▾
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3 . course name : C2C204

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C204.1	Identify the	2 ▾	2 ▾	- ▾	3 ▾	2 ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	2 ▾
C204.2	Recognize	3 ▾	- ▾	- ▾	2 ▾	- ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	2 ▾
C204.3	Identify the	3 ▾	- ▾	- ▾	2 ▾	- ▾	3 ▾	- ▾	- ▾	- ▾	2 ▾	- ▾
C204.4	Select varic	2 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾	2 ▾	- ▾
C204.5	Apply const	2 ▾	3 ▾	2 ▾	3 ▾	2 ▾	- ▾	- ▾	2 ▾	- ▾	3 ▾	2 ▾
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4 . course name : C2C212

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C212.1	Understand	3 ▾	1 ▾	1 ▾	2 ▾	3 ▾	3 ▾	2 ▾	1 ▾	1 ▾	1 ▾	2 ▾
C212.2	Select suit:	3 ▾	1 ▾	1 ▾	1 ▾	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	1 ▾	2 ▾

C212.3	Design con	3 ▾	2 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	1 ▾	2 ▾
C212.4	Determine l	3 ▾	1 ▾	1 ▾	1 ▾	3 ▾	3 ▾	2 ▾	1 ▾	1 ▾	1 ▾	2 ▾
C212.5	Know the ir	3 ▾	1 ▾	1 ▾	1 ▾	3 ▾	3 ▾	2 ▾	1 ▾	1 ▾	2 ▾	2 ▾
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5 . course name : C3C301

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C301.1	Apply worki	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	2 ▾
C301.2	Analyze an	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	2 ▾
C301.3	Design rein	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	2 ▾
C301.4	Analyze an	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	2 ▾
C301.5	Design wall	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	2 ▾
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6 . course name : C3C302

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C302.1	Analyze pin	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	2 ▾
C302.2	Apply the s	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	1 ▾
C302.3	Apply the r	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	1 ▾
C302.4	Analyze inc	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	1 ▾
C302.5	Apply the r	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	1 ▾
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7 . course name : C3C311

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C311.1	Construct ir	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	2 ▾
C311.2	Apply the N	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	1 ▾
C311.3	Analyze thr	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	1 ▾
C311.4	Analyze su:	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	1 ▾
C311.5	Apply appr	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	3 ▾	2 ▾	1 ▾	1 ▾
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

8 . course name : C3C312

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C312.1	Knowing th	2 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	2 ▾	- ▾	2 ▾	- ▾	- ▾
C312.2	Getting kno	2 ▾	- ▾	- ▾	2 ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
C312.3	Studying ve	2 ▾	2 ▾	3 ▾	3 ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	- ▾
C312.4	Gaining kno	- ▾	2 ▾	- ▾	3 ▾	2 ▾	- ▾	2 ▾	2 ▾	2 ▾	2 ▾	2 ▾
C312.5	Applying ge	- ▾	3 ▾	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	2 ▾	2 ▾	2 ▾	2 ▾
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

9 . course name : C4C401

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C401.1	Analyze difi	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	2 ▾	3 ▾	2 ▾	3 ▾	3 ▾
C401.2	Prepare de	3 ▾	2 ▾	3 ▾	3 ▾	3 ▾	3 ▾	2 ▾	3 ▾	2 ▾	3 ▾	3 ▾
C401.3	Perform rat	3 ▾	1 ▾	2 ▾	3 ▾	3 ▾	2 ▾	2 ▾	3 ▾	2 ▾	2 ▾	3 ▾
C401.4	Estimate ql	3 ▾	1 ▾	1 ▾	3 ▾	3 ▾	2 ▾	2 ▾	3 ▾	2 ▾	2 ▾	3 ▾
C401.5	Evaluate th	3 ▾	2 ▾	2 ▾	3 ▾	3 ▾	2 ▾	2 ▾	3 ▾	2 ▾	2 ▾	3 ▾
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

10 . course name : C4C402

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C402.1	Analyze hy	2 ▾	2 ▾	- ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾	- ▾	2 ▾
C402.2	Apply hydr	2 ▾	3 ▾	2 ▾	2 ▾	2 ▾	2 ▾	- ▾	3 ▾	2 ▾	- ▾	2 ▾
C402.3	ExplAnalyz	2 ▾	2 ▾	2 ▾	1 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾	2 ▾	2 ▾
C402.4	Apply reser	2 ▾	2 ▾	1 ▾	1 ▾	3 ▾	2 ▾	2 ▾	2 ▾	2 ▾	- ▾	3 ▾
C402.5	Analyze grc	2 ▾	2 ▾	2 ▾	2 ▾	3 ▾	2 ▾	2 ▾	3 ▾	2 ▾	2 ▾	3 ▾
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

1 . Course Name : C2C103

Course	PSO1	PSO2	PSO3
C103.1	- ▾	- ▾	- ▾
C103.2	- ▾	- ▾	- ▾
C103.3	- ▾	- ▾	- ▾
C103.4	- ▾	- ▾	- ▾
C103.5	- ▾	- ▾	- ▾
Average	0.00	0.00	0.00

2 . Course Name : C2C111

Course	PSO1	PSO2	PSO3
C111.1	- ▾	- ▾	- ▾
C111.2	- ▾	- ▾	- ▾
C111.3	- ▾	- ▾	- ▾
C111.4	- ▾	- ▾	- ▾
C111.5	- ▾	- ▾	- ▾
Average	0.00	0.00	0.00

3 . Course Name : C2C204

Course	PSO1	PSO2	PSO3
C204.1	3 ▾	- ▾	- ▾
C204.2	3 ▾	- ▾	2 ▾
C204.3	3 ▾	- ▾	2 ▾
C204.4	3 ▾	3 ▾	- ▾
C204.5	3 ▾	3 ▾	3 ▾
Average	0.00	0.00	0.00

4 . Course Name : C2C212

Course	PSO1	PSO2	PSO3
C212.1	3 ▾	2 ▾	3 ▾
C212.2	3 ▾	2 ▾	3 ▾

C212.3	3	2	3
C212.4	3	2	3
C212.5	3	2	3
Average	0.00	0.00	0.00

5 . Course Name : C3C301

Course	PSO1	PSO2	PSO3
C301.1	3	3	3
C301.2	3	3	3
C301.3	3	3	3
C301.4	3	3	3
C301.5	3	3	3
Average	0.00	0.00	0.00

6 . Course Name : C3C302

Course	PSO1	PSO2	PSO3
C302.1	3	3	3
C302.2	3	3	3
C302.3	3	3	3
C302.4	3	3	3
C302.5	3	3	3
Average	0.00	0.00	0.00

7 . Course Name : C3C311

Course	PSO1	PSO2	PSO3
C311.1	3	3	3
C311.2	3	3	3
C311.3	3	3	3
C311.4	3	3	3
C311.5	3	3	3
Average	0.00	0.00	0.00

8 . Course Name : C3C312

Course	PSO1	PSO2	PSO3
C312.1	- ▾	- ▾	- ▾
C312.2	2 ▾	- ▾	- ▾
C312.3	- ▾	- ▾	2 ▾
C312.4	2 ▾	2 ▾	- ▾
C312.5	2 ▾	2 ▾	2 ▾
Average	0.00	0.00	0.00

9 . Course Name : C4C401

Course	PSO1	PSO2	PSO3
C401.1	3 ▾	3 ▾	3 ▾
C401.2	3 ▾	3 ▾	3 ▾
C401.3	3 ▾	3 ▾	3 ▾
C401.4	3 ▾	3 ▾	3 ▾
C401.5	3 ▾	3 ▾	3 ▾
Average	0.00	0.00	0.00

10 . Course Name : C4C402

Course	PSO1	PSO2	PSO3
C402.1	2 ▾	2 ▾	2 ▾
C402.2	2 ▾	2 ▾	2 ▾
C402.3	2 ▾	2 ▾	2 ▾
C402.4	2 ▾	2 ▾	2 ▾
C402.5	2 ▾	2 ▾	2 ▾
Average	0.00	0.00	0.00

1.5 Program Articulation Matrix (5)

Program Articulation Matrix

(10)

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C101	1.6	2.2	1.8	2.2	3	3	3	1.6	3	3	3
C102	3	3	1	1	0	0	0	2	0	2	3
C103	3	3	1.6	1.2	1.8	0	0	0	0	0	1
C104	2.8	1.3	1.6	1	1.5	1.8	0	0	0	0	1.5
C105	2	3	3	3	2	0	0	0	0	2	2
C106	0	0	0	0	0	0	0	0	0	2	0
C107	2	3	3	3	2	0	0	0	0	2	2
C108	3	2.4	2.6	1	1.4	1.8	0	0	0	0	1.3
C109	3	3	3	3	3	3	3	3	3	3	3
C110	3	3	3	3	3	3	3	2.2	3	3	3
C111	3	3	1	1	1	0	0	2	0	2	3
C112	3	1.75	2	2	1.4	0	0	0	0	0	0
C113	2	1	1	0	0	0	1	0	0	0	0
C114	3	1	2	0	2	0	0	0	3	0	2
C115	0	0	0	0	0	0	0	0	0	2	0
C116	3	2	0	0	1	1	1	0	0	0	2
C117	1.6	1.4	0.8	1.6	0	0	1.2	1.6	0	0	0
C118	2.4	2.8	3	3	3	3	3	3	3	3	3
C201	3	3	1	1	0	0	0	2	0	0	3
C202	3	2	3	1	2	0	0	0	0	0	2
C203	3	2	3	2	2	2	1	1	1	1	2
C204	2	2	1	2	1	2	0	1	0	2	2
C205	3	3	3	2	3	3	2	2	2	2	3
C206	3	2	3	2	3	2	2	2	0	2	2
C207	3	2	3	3	3	3	3	3	3	3	1
C208	2	2	2	2	2	2	3	2	2	2	3
C209	0	0	0	0	0	0	0	0	2	2	0
C210	3	3	2	3	2	2	1	2	1	1	3
C211	3	3	3	3	3	1	3	2	3	1	3
C212	3	1	2	2	3	3	2	1	1	1	2
C213	3	3	2	2	2	1	1	2	1	2	3

C214	2	3	3	2	3	2	3	2	1	3	3
C215	2.8	1.5	1	1	2.2	2.4	0	0	0	0	1.8
C216	3	3	2	3	2	2	1	2	1	1	2
C217	3	3	2	3	2	2	1	3	1	1	2
C218	1	2	3	3	1	1	1	3	1	1	3
C301	3	3	3	3	3	1	1	3	2	1	2
C302	3	3	3	3	3	1	1	3	2	1	1
C303	2	3	3	3	2	1	1	1	1	2	3
C304	2	3	3	2	3	2	1	2	1	1	3
C305	2	2	3	2	3	3	2	3	2	3	3
C306	3	3	3	2	3	2	3	2	0	1	2
C307	3	3	3	3	0	2	2	0	0	2	0
C308	3	1	3	2	1	1	1	3	3	1	3
C309	3	3	2	3	3	2	2	2	2	2	3
C310	2	2	3	2	2	2	2	2	1	2	2
C311	3	3	3	3	3	1	1	3	2	1	1
C312	2	2	3	3	2	1	2	2	2	2	2
C313	3	2	3	0	0	1	1	1	0	0	1
C314	2	3	3	3	2	2	1	1	1	2	1
C315	2	2	2	2	3	2	1	3	2	3	2
C316	2	2.4	2.2	2.6	3	0	0	0	0	2	2.6
C317	3	3	3	2	3	2	2	3	2	1	3
C318	3	2	0	2	3	0	2	3	2	0	2
C401	3	2	3	3	3	2	2	3	2	2	3
C402	2	2	1	2	2	2	1	2	2	1	2
C403	2	0	0	0	0	2.2	3	0	0	0	2
C404	2.5	3	0	3	3	2	3	0	0	3	2.5
C405	2.4	2.2	2.4	2.2	2.6	2.4	2.2	2.6	3	2.6	3
C406	2.2	1.6	2	1	1.6	3	1.2	1.2	1	1.4	3
C407	2.6	2	2.6	2.8	3	2	0	0	0	0	3
C408	3	2	2	2	3	2	2	2	2	2	3

Course Code	PSO1	PSO2	PSO3
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C101	0	0	0
C102	0	0	0
C103	0	0	0
C104	0	0	0
C105	3	3	0
C106	0	0	0
C107	3	3	0
C108	0	0	0
C109	0	0	0
C110	0	0	0
C111	0	0	0
C112	0	0	0
C113	0	0	0
C114	2	2	0
C115	0	0	0
C116	2	1	1
C117	0	0	0
C118	0	0	0
C201	0	0	0
C202	3	1	2
C203	3	3	3
C204	3	2	3
C205	3	2	2
C206	3	3	3
C207	3	3	3
C208	2	2	2
C209	1	2	0
C210	3	2	3
C211	3	3	3
C212	3	2	3
C213	2	2	3
C214	3	3	2

C215	0	0	0
C216	3	2	1
C217	3	2	2
C218	2	2	3
C301	3	3	3
C302	3	3	3
C303	2	3	3
C304	3	3	3
C305	2	2	3
C306	3	3	3
C307	2	0	1
C308	3	3	2
C309	3	3	3
C310	2	2	3
C311	3	3	3
C312	2	2	2
C313	1	1	2
C314	3	3	3
C315	3	3	2
C316	2	2	2
C317	3	3	3
C318	3	2	2
C401	3	3	3
C402	2	2	3
C403	2	2	3
C404	2	3	0
C405	0	0	0
C406	2	1	2
C407	2	3	3
C408	3	3	3

2 OUTCOME-BASED TEACHING LEARNING (120)

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

(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.)

Nehru Institute of Technology, Kaliapuram, Coimbatore, is affiliated with Anna University, Chennai, and approved by AICTE, New Delhi. The institution strictly follows the curriculum prescribed by the affiliating university and ensures its effective implementation through a well-defined academic framework aligned with Outcome-Based Education (OBE). The institution emphasizes systematic curriculum planning, effective delivery, continuous monitoring, and Continuous Quality Improvement (CQI) to accomplish the stated Program Educational Objectives (PEOs), Program Outcomes (POs), and Course Outcomes (COs).

The **Department of Civil Engineering** adopts a student-centric teaching–learning approach with strong emphasis on experiential learning, problem-based learning, participative teaching methods, and constructivist practices. The teaching–learning process is systematically planned and executed through classroom instruction, laboratory sessions, field visits, surveys, design projects, and industry-relevant case studies to ensure effective knowledge dissemination and skill development. Continuous assessment, feedback mechanisms, and performance analysis are employed to monitor student progress. A structured mechanism is in place for continuous improvement of the teaching–learning process through academic audits, course outcome attainment analysis, stakeholder feedback, and corrective actions, thereby ensuring alignment with OBE principles and industry requirements.

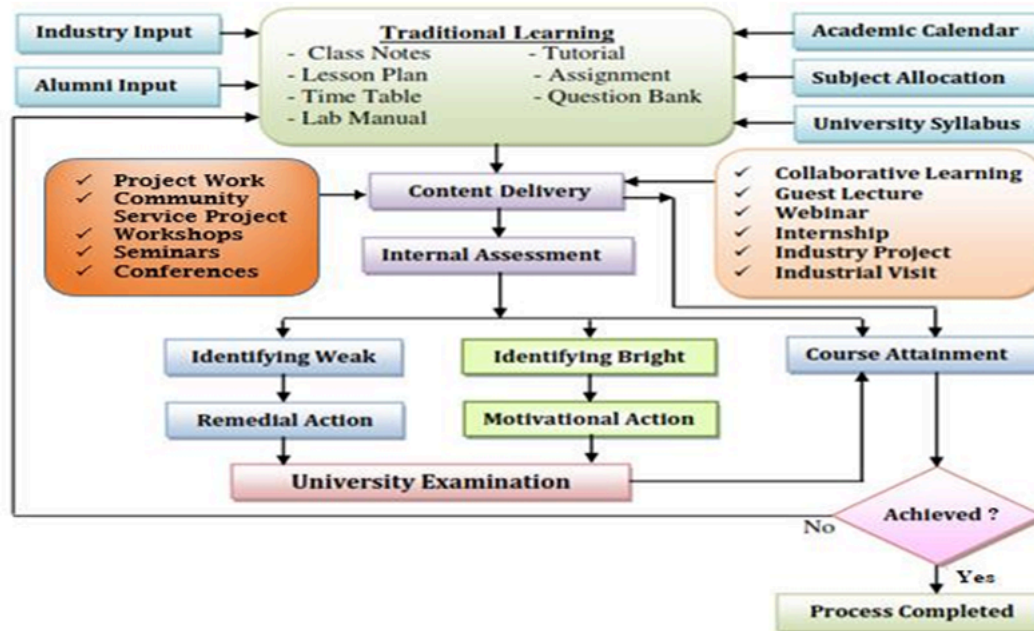


Fig. 2.1.1 Systematic approach followed to improve Teaching–Learning effectiveness

Adherence to Academic Calendar

The **Academic Council**, chaired by the Principal, functions as the apex academic authority of the institution and is responsible for the formulation, approval, and monitoring of the institutional **Academic Calendar** in accordance with the academic schedule and regulations prescribed by the affiliating university. The approved Academic Calendar is prepared through systematic deliberations and is communicated to all stakeholders of the **Department of Civil Engineering**, including faculty members, students, and supporting administrative units, well before the commencement of each semester to facilitate effective academic planning and smooth execution of teaching–learning activities. Following the conferment of autonomous status, the **Department of Civil Engineering** continues to strictly adhere to the approved Academic Calendar, while building upon the well-established academic practices followed during the period of affiliation with Anna University. The autonomy granted enables flexibility in curriculum enrichment, adoption of innovative teaching–learning methodologies, assessment reforms, and industry-integrated activities, without compromising the structured and disciplined academic framework of the institution.



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Academic Calendar for UG- Academic Year 2024 - 2025
ODD Semester - For IV Year (VII Sem)

Sl.No	Day	Date	Description	Sl.No	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	Wed	17.07.2024	Muharram	36	Mon	19.08.2024	(24)
4	Thu	18.07.2024	(1)	37	Tue	20.08.2024	(25)
5	Fri	19.07.2024	(2)	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	(3)	41	Sat	24.08.2024	(29)
9	Tue	23.07.2024	(4)	42	Sun	25.08.2024	Holiday
10	Wed	24.07.2024	(5)	43	Mon	26.08.2024	Krishna Jayanthi
11	Thu	25.07.2024	(6)	44	Tue	27.08.2024	(30)
12	Fri	26.07.2024	(7)	45	Wed	28.08.2024	(31)
13	Sat	27.07.2024	(8)	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	(9)	48	Sat	31.08.2024	Internal Test - I
16	Tue	30.07.2024	(10)	49	Sun	01.09.2024	Holiday
17	Wed	31.07.2024	(11)	50	Mon	02.09.2024	Internal Test - I
18	Thu	01.08.2024	(12)	51	Tue	03.09.2024	Internal Test - I
19	Fri	02.08.2024	(13)	52	Wed	04.09.2024	Internal Test - I
20	Sat	03.08.2024	(14)	53	Thu	05.09.2024	Internal Test - I
21	Sun	04.08.2024	Holiday	54	Fri	06.09.2024	Internal Test - I
22	Mon	05.08.2024	(15)	55	Sat	07.09.2024	Vinayakar Chathurthi
23	Tue	06.08.2024	(16)	56	Sun	08.09.2024	Holiday
24	Wed	07.08.2024	(17)	57	Mon	09.09.2024	(33)
25	Thu	08.08.2024	(18)	58	Tue	10.09.2024	(34)
26	Fri	09.08.2024	(19)	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	(20)	62	Sat	14.09.2024	Onam Holidays
30	Tue	13.08.2024	(21)	63	Sun	15.09.2024	Holiday
31	Wed	14.08.2024	(22)	64	Mon	16.09.2024	Milad-un-nabi
32	Thu	15.08.2024	Independence Day	65	Tue	17.09.2024	(38)
33	Fri	16.08.2024	(23)	66	Wed	18.09.2024	(39)



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Sl.No	Day	Date	Description	Sl.No	Day	Date	Description
67	Thu	19.09.2024	(40)	101	Wed	23.10.2024	(64)
68	Fri	20.09.2024	(41)	102	Thu	24.10.2024	(65)
69	Sat	21.09.2024	Third Saturday	103	Fri	25.10.2024	(66)
70	Sun	22.09.2024	Holiday	104	Sat	26.10.2024	(67)
71	Mon	23.09.2024	(42)	105	Sun	27.10.2024	Holiday
72	Tue	24.09.2024	(43)	106	Mon	28.10.2024	(68)
73	Wed	25.09.2024	(44)	107	Tue	29.10.2024	(69)
74	Thu	26.09.2024	(45)	108	Wed	30.10.2024	(70)
75	Fri	27.09.2024	(46)	109	Thu	31.10.2024	Diwali Holidays
76	Sat	28.09.2024	(47)	110	Fri	01.11.2024	
77	Sun	29.09.2024	Holiday	111	Sat	02.11.2024	
78	Mon	30.09.2024	(48)	112	Sun	03.11.2024	Holiday
79	Tue	01.10.2024	(49)	113	Mon	04.11.2024	(71)
80	Wed	02.10.2024	Gandhi Jayanthi	114	Tue	05.11.2024	Internal Test – II
81	Thu	03.10.2024	(50)	115	Wed	06.11.2024	Internal Test – II
82	Fri	04.10.2024	(51)	116	Thu	07.11.2024	Internal Test – II
83	Sat	05.10.2024	(52)	117	Fri	08.11.2024	Internal Test – II
84	Sun	06.10.2024	Holiday	118	Sat	09.11.2024	Internal Test – II
85	Mon	07.10.2024	(53)	119	Sun	10.11.2024	Holiday
86	Tue	08.10.2024	(54)	120	Mon	11.11.2024	Internal Test – II
87	Wed	09.10.2024	(55)	121	Tue	12.11.2024	Internal Test – II
88	Thu	10.10.2024	(56)	122	Wed	13.11.2024	(72)
89	Fri	11.10.2024	Ayutha Pooja	123	Thu	14.11.2024	(73)
90	Sat	12.10.2024	Vijaya Dasami	124	Fri	15.11.2024	(74)
91	Sun	13.10.2024	Holiday	125	Sat	16.11.2024	(75)
92	Mon	14.10.2024	(57)	126	Sun	17.11.2024	Holiday
93	Tue	15.10.2024	(58)	127	Mon	18.11.2024	Model lab exam (76)
94	Wed	16.10.2024	(59)	128	Tue	19.11.2024	Model lab exam (77)
95	Thu	17.10.2024	(60)	129	Wed	20.11.2024	Model lab exam (78)
96	Fri	18.10.2024	(61)	130	Thu	21.11.2024	Model lab exam (79)
97	Sat	19.10.2024	Third Saturday	131	Fri	22.11.2024	Last Working Day (80)
98	Sun	20.10.2024	Holiday	All The Best			
99	Mon	21.10.2024	(62)				
100	Tue	22.10.2024	(63)				
Commencement of End Semester Exams – 02.12.2024							


Principal

Fig. 2.1.2 Academic calendar for odd semester – academic year 2024-2025

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28	Wed	22.01.2025		60	Sun	23.02.2025	Holiday
29	Thu	23.01.2025		61	Mon	24.02.2025	Cycle Test - 1 / Class Assessment - 1
30	Fri	24.01.2025		62	Tue	25.02.2025	Cycle Test - 1 / Class Assessment - 1
31	Sat	25.01.2025		63	Wed	26.02.2025	Cycle Test - 1 / Class Assessment - 1
32	Sun	26.01.2025	Republic Day	64	Thu	27.02.2025	
65	Fri	28.02.2025		100	Fri	04.04.2025	
66	Sat	01.03.2025	Seminar/Training on "Advanced technologies in field intercultural opertaions"	101	Sat	05.04.2025	Vaibhav 2025
67	Sun	02.03.2025	Holiday	102	Sun	06.04.2025	Holiday
68	Mon	03.03.2025	Class Committee Meeting - 1	103	Mon	07.04.2025	
69	Tue	04.03.2025		104	Tue	08.04.2025	
70	Wed	05.03.2025		105	Wed	09.04.2025	Western Ghats Association Membership -student chapter
71	Thu	06.03.2025		106	Thu	10.04.2025	Mahaveer Jayanthi
72	Fri	07.03.2025	ISAE Membership -student chapter	107	Fri	11.04.2025	Talk on "Better perspectives in higher education"
73	Sat	08.03.2025	Second Saturday	108	Sat	12.04.2025	Second Saturday
74	Sun	09.03.2025	Holiday	109	Sun	13.04.2025	Holiday
75	Mon	10.03.2025		110	Mon	14.04.2025	Tamil New Year / Vishu
76	Tue	11.03.2025		111	Tue	15.04.2025	Feedback Meeting - 2
77	Wed	12.03.2025		112	Wed	16.04.2025	
78	Thu	13.03.2025	Convergence 2025	113	Thu	17.04.2025	Visit to CIAE regional centre
79	Fri	14.03.2025	Convergence 2025	114	Fri	18.04.2025	Good Friday
80	Sat	15.03.2025	Third Saturday	115	Sat	19.04.2025	Third Saturday
81	Sun	16.03.2025	Holiday	116	Sun	20.04.2024	Holiday
82	Mon	17.03.2025		117	Mon	21.04.2025	Demonstration of Thermochemical conversion technologies
83	Tue	18.03.2025	Internal Assessment - 1	118	Tue	22.04.2025	
84	Wed	19.03.2025	Internal Assessment - 1	119	Wed	23.04.2025	
85	Thu	20.03.2025	Internal Assessment - 1	120	Thu	24.04.2025	

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86	Fri	21.03.2025	Internal Assessment - 1	121	Fri	25.04.2025	Sports Day 2025
87	Sat	22.03.2025	Internal Assessment - 1	122	Sat	26.04.2025	Annual Day 2025
88	Sun	23.03.2025	Holiday	123	Sun	27.04.2025	Holiday
89	Mon	24.03.2025	Internal Assessment - 1	124	Mon	28.04.2025	
90	Tue	25.03.2025	Internal Assessment - 1	125	Tue	29.04.2025	
91	Wed	26.03.2025	Internal Assessment - 1	126	Wed	30.04.2025	
92	Thu	27.03.2025	ICNGTS 2025	127	Thu	01.05.2025	May Day
93	Fri	28.03.2025	ICNGTS 2025	128	Fri	02.05.2025	
94	Sat	29.03.2025	ICNGTS 2025	129	Sat	03.05.2025	Class Committee Meeting - 2
95	Sun	30.03.2025	Holiday	130	Sun	04.05.2025	Sunday
96	Mon	31.03.2025	Ramzan	131	Mon	05.05.2025	
97	Tue	01.04.2025		132	Tue	06.05.2025	
98	Wed	02.04.2025		133	Wed	07.05.2025	
99	Thu	03.04.2025		134	Thu	08.05.2025	
135	Fri	09.05.2025	Hands on training "Adjustments and maintenance of Farm implements"	172	Sun	15.06.2025	Sunday
136	Sat	10.05.2025	Second Saturday	173	Mon	16.06.2025	
137	Sun	11.05.2025	Sunday	174	Tue	17.06.2025	
138	Mon	12.05.2025	Internal Assessment - 2	175	Wed	18.06.2025	
139	Tue	13.05.2025	Internal Assessment - 2	176	Thu	19.06.2025	
140	Wed	14.05.2025	Internal Assessment - 2	177	Fri	20.06.2025	
141	Thu	15.05.2025	Internal Assessment - 2	178	Sat	21.06.2025	Third Saturday
142	Fri	16.05.2025	Internal Assessment - 2	179	Sun	22.06.2025	Sunday
143	Sat	17.05.2025	Third Saturday	180	Mon	23.06.2025	
144	Sun	18.05.2025	Sunday	181	Tue	24.06.2025	
145	Mon	19.05.2025	Internal Assessment - 2	182	Wed	25.06.2025	
146	Tue	20.05.2025	Internal Assessment - 2	183	Thu	26.06.2025	
147	Wed	21.05.2025	Course End Survey	184	Fri	27.06.2025	
148	Thu	22.05.2025	Course End Survey	185	Sat	28.06.2025	Summer Break for Internship
149	Fri	23.05.2025	Last Working Day/Submission of Attendance & Internal Marks Report-2	186	Sun	29.06.2025	Sunday

Fig. 2.1.3 Academic calendar for even semester – academic year 2024-2025

B. Use of Various Instructional Methods and Pedagogical Initiatives

The **Department of Civil Engineering** encourages the adoption of diverse instructional and pedagogical strategies to enhance the effectiveness of curriculum delivery and to facilitate the attainment of Course Outcomes (COs) and Program Outcomes (POs). The implementation of multiple teaching–learning methods strengthens students' self-directed learning abilities, practical competence, and holistic professional development in the domain of civil engineering.

The **lecture method** is systematically employed to ensure clarity and strong conceptual understanding of core theoretical principles in subjects such as **Engineering Mechanics, Strength of Materials, Structural Analysis, Fluid Mechanics, Geotechnical Engineering, Transportation Engineering, Environmental Engineering, and Design of RCC and Steel Structures**. To complement classroom instruction, **project-based learning, laboratory-based instruction, and demonstration-oriented teaching** are adopted to promote experiential learning, professional skills, and awareness of current industry practices, standards, codes, and socio-economic and sustainability considerations relevant to civil engineering.

Activity-based learning approaches, including problem-based learning, case studies, design exercises, field surveys, and model development, encourage independent learning, critical thinking, and problem-solving skills. These approaches enable students to apply engineering concepts to real-world scenarios such as **structural design problems, traffic and transportation studies, water supply and drainage planning, soil investigation, and sustainable construction practices**, thereby enhancing overall learning outcomes.

Academic planning for the Civil Engineering programme is initiated well in advance of the commencement of each semester. Course allocation is finalized at least one month prior to the start of the semester, based on faculty expertise, specialization, and experience in relevant civil engineering domains. Following course assignment, faculty members prepare comprehensive **course files**, including detailed course outlines, lesson plans, assignments, tutorials, quizzes, laboratory manuals, learning resources, and assessment tools aligned with the defined Course Outcomes (COs).

Lesson plans incorporating **course objectives, COs, teaching strategies, and assessment methods** are prepared prior to the start of the semester and are reviewed and approved by the **Program Coordinator and the Head of the Department (Civil Engineering)**. These lesson plans are communicated to students at the beginning of the semester to ensure transparency and clarity in course delivery. Teaching progress, laboratory work, field activities, and syllabus coverage are systematically documented in academic files and are periodically monitored by the Head of the Department to ensure adherence to the planned academic schedule.

Continuous quality enhancement of the teaching–learning process is ensured through **structured academic audits** conducted at both departmental and institutional levels. Departmental academic audits, coordinated by Program and Course Coordinators, are carried out before and during each semester to review academic preparedness, course delivery, and assessment practices. The **Internal Quality Assurance Cell (IQAC)** provides pedagogical guidelines and evaluates their effective implementation through pre-semester and post-semester audits, ensuring consistency, effectiveness, and Continuous Quality Improvement (CQI) in instructional practices.

The **Department of Civil Engineering** systematically implements these instructional and pedagogical methodologies to enhance student engagement, technical competency, industry readiness, and overall outcome attainment in alignment with **NBA quality benchmarks**. The instructional methods adopted by the faculty members are categorized and briefly outlined below.

A. Lecture Methods

1. Lecture cum demonstration method
2. Tutorial oriented problem practice
3. laboratory based experimental learning
4. Field visit and survey based method
5. Case study based instruction
6. Project based learning (Mini and Major)
7. Design oriented learning using codes and standards
8. Industry integrated learning : Guest lecture/Internships
9. Software learning (CAAD)
10. Google classroom
11. Online self learning (NPTEL)

B. Experiential Learning Methods

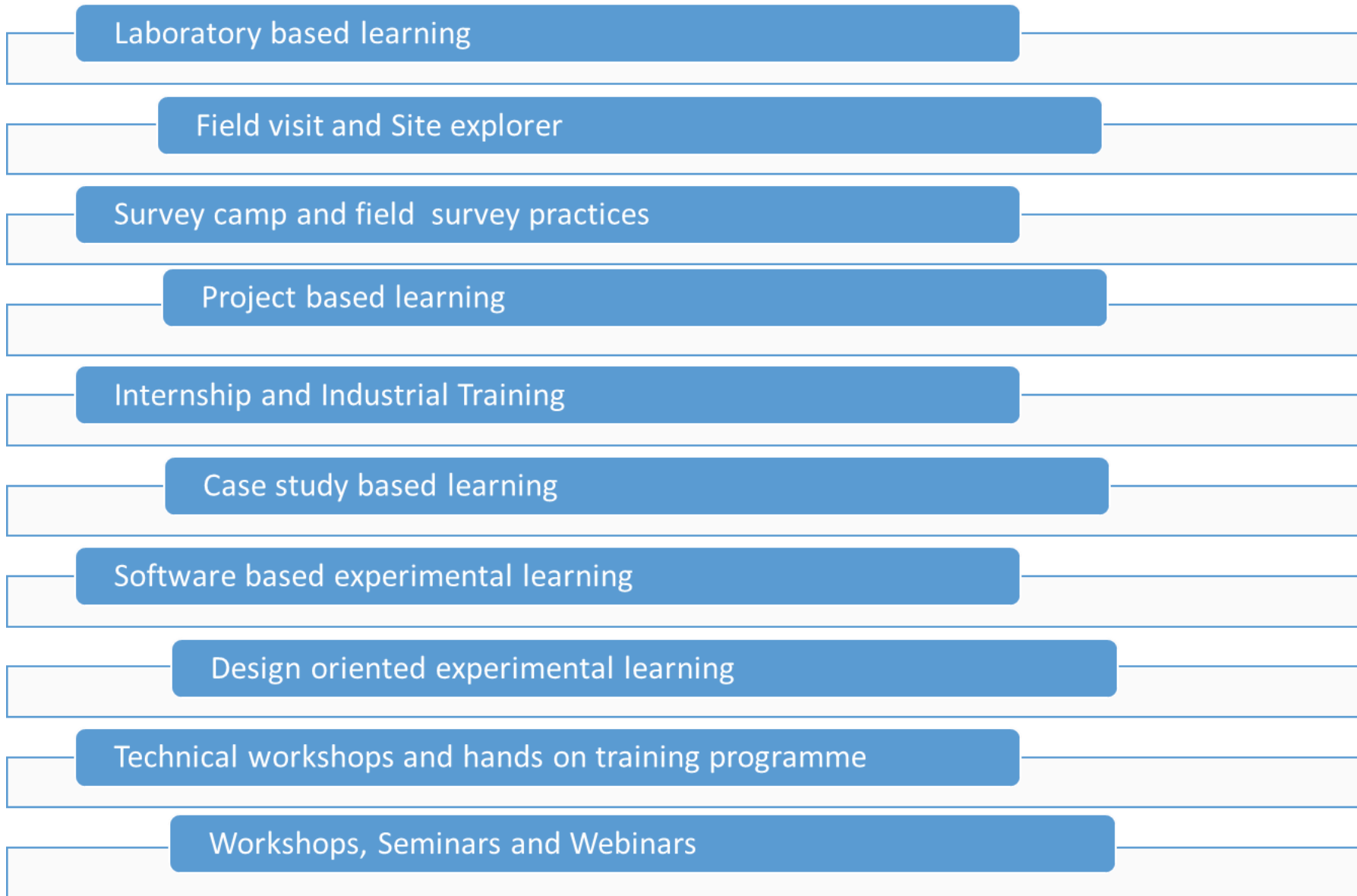


Fig. 2.1.5 List of Experiential Learning Methods

C. Project-Based Learning Methods

1. Mini project	2. Major Project
<ul style="list-style-type: none"> • Structural design of residential or commercial buildings • Design of water supply and sewerage systems • Pavement design and traffic impact analysis 	<ul style="list-style-type: none"> • RCC beam, slab, and footing design as per IS codes • Steel structure design and detailing

Fig. 2.1.5 List of Project-Based Learning Methods

1. Lecture cum demonstration method

The **Lecture-cum-Demonstration method** is an effective teaching–learning approach adopted by the Department of Civil Engineering to integrate theoretical instruction with practical illustration. In this method, classroom lectures are complemented by live demonstrations, models, experiments, software simulations, or visual aids to enhance conceptual clarity and application-oriented understanding. During lectures, faculty members explain fundamental concepts, principles, and procedures using chalk-and-talk and ICT tools. This is followed by **demonstrations** that allow students to observe the practical application of the concepts discussed, thereby strengthening comprehension and retention.

· Strength of Materials

Lecture: Explanation of stress–strain behavior and elastic properties.

Demonstration: Demonstration of tensile testing using laboratory specimens or video demonstrations of Universal Testing Machines (UTM).

· Concrete Technology

Lecture: Concepts of mix design, workability, and curing.

Demonstration: Live demonstration of slump test and concrete batching in the laboratory.

· Surveying

Lecture: Principles of leveling and angle measurement.

Demonstration: Demonstration of leveling instruments, total station, and field

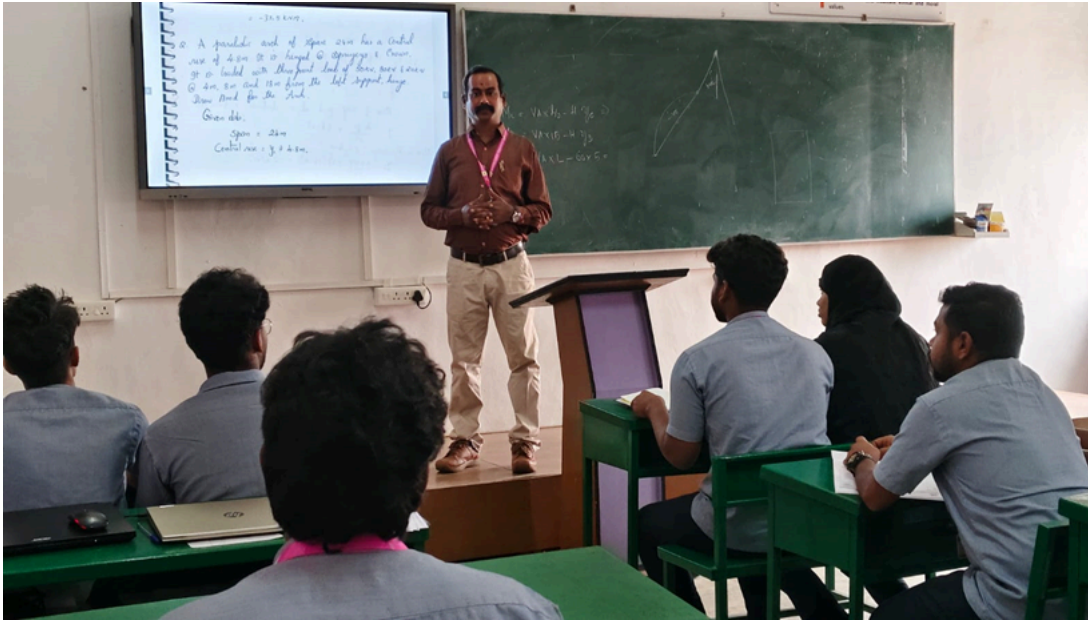


Fig. 2.1.6 Classroom teaching through chalk-and-talk mode of instruction

Course: STRUCTURAL ANALYSIS-II, Course handled by: Dr.M.Vadivel,ASP/CIVIL

2. Tutorial oriented problem practice

Tutorial-oriented problem practice is a structured teaching–learning method adopted by the Department of Civil Engineering to reinforce theoretical concepts through systematic numerical problem solving and analytical exercises. This method enables students to apply classroom knowledge, improve logical reasoning, and develop confidence in handling design- and analysis-oriented problems relevant to civil engineering practice.

Tutorial sessions are conducted in addition to regular lectures and are carefully planned as part of the course delivery. During these sessions, faculty members solve representative problems step-by-step, explain underlying assumptions, highlight common mistakes, and encourage student participation through guided practice and discussion.

· Engineering Mechanics

Students practice equilibrium and force system problems to understand free-body diagrams and structural stability.

Example: Analysis of trusses using method of joints.

· Strength of Materials

Numerical problems are solved to strengthen understanding of stress, strain, bending, and torsion concepts.

Example: Calculation of bending stress and deflection in beams.

· Structural Analysis

Tutorial sessions focus on analytical methods for indeterminate and determinate structures.

Example: Determination of reactions and internal forces using slope-deflection or moment distribution methods.



Fig. 2.1.7 Tutorial oriented problem practice

Course: strength of materials Course Handled by: Prof.P.Siddharthan/ AP-CIVIL

3. Laboratory based experimental learning

Laboratory-based experimental learning is a core teaching–learning methodology adopted by the Department of Civil Engineering to strengthen the practical understanding of theoretical concepts through hands-on experimentation and observation. This method enables students to develop technical skills, familiarize themselves with standard testing procedures, and interpret experimental results in alignment with professional engineering practices.



Fig. 2.1.7 Laboratory based experimental learning

4. Field visit and survey-based learning

Field visit and survey-based learning is an experiential teaching–learning method adopted by the Department of Civil Field visit and survey based learning engineering to provide real-time exposure to engineering practices, construction techniques, and infrastructure systems. This approach enables students to observe, analyze, and understand the practical application of theoretical concepts in real-world environments.

Field visits and survey activities are systematically planned as part of the academic curriculum and are conducted under faculty supervision. Students actively engage in observation, data collection, measurement, and documentation, thereby enhancing their practical skills, professional awareness, and understanding of site-specific challenges.



Fig. 2.1.8 Field visit

5. Case study-based instruction is an effective student-centric teaching–learning methodology adopted by the Department of Civil Engineering to enhance analytical thinking, problem-solving ability, and decision-making skills. This method involves the detailed study and analysis of real-life civil engineering projects, failures, and practical scenarios, enabling students to connect theoretical concepts with professional practice.

In this approach, faculty members present real or simulated engineering cases related to design, construction, operation, or failure of civil engineering systems. Students analyze the given problem, identify causes and constraints, apply relevant engineering principles, and propose feasible technical solutions. This promotes active learning, critical thinking, and collaborative discussion.



Fig. 2.1.8 case study on land slide mitigation

6. Project-Based Learning (PBL)

A key student-centric pedagogical approach adopted by the Department of Civil Engineering to enable students to apply theoretical knowledge to real-world engineering problems. Through mini and major projects, students develop technical competence, design skills, teamwork, communication abilities, and professional ethics in alignment with Outcome-Based Education (OBE).

Mini Projects

Mini projects are introduced at appropriate stages of the curriculum to strengthen understanding of course-specific concepts and promote hands-on learning. These projects are generally of short duration and are carried out individually or in small groups under faculty guidance.

Major Projects

Major projects are undertaken by final-year students and involve comprehensive planning, design, analysis, and documentation of complex civil engineering problems.



Fig. 2.1.9 Project based experimental learning



Fig. 2.1.10 Laboratory based experimental learning

7. Design-oriented learning using codes and standards is an essential pedagogical approach adopted by the Department of Civil Engineering to develop students' ability to design safe, economical, and sustainable civil engineering systems in accordance with nationally and internationally accepted engineering standards. This approach enables students to translate theoretical concepts into practical designs while adhering to professional, ethical, and safety requirements.



Fig. 2.1.11 Designing and code practices

8. INDUSTRY INTEGRATED LEARNING GUEST LECTURE/ INTERNSHIPS

Industry-integrated learning is a key pedagogical initiative adopted by the Department of Civil Engineering to bridge the gap between academic learning and professional engineering practice. Through structured **guest lectures and internships**, students gain exposure to current industry practices, emerging technologies, professional standards, and workplace expectations, thereby enhancing employability and industry readiness.



Fig. 2.1.12 Guest lecture on recent trends in civil Engineering

9. Software learning through Computer Aided Analysis and Design (CAAD)

- **Software learning through Computer Aided Analysis and Design (CAAD)** is an essential instructional method adopted by the Department of Civil Engineering to enhance students' analytical, design, and visualization skills using industry-relevant software tools. This approach enables students to model, analyze, and design civil engineering systems efficiently while aligning with professional practices and industry standards.
- Through CAAD-based learning, students gain hands-on experience in applying theoretical concepts using software tools, thereby improving accuracy, efficiency, and practical understanding of complex engineering problems. Faculty members provide structured training, demonstrations, and guided practice sessions to ensure effective software utilization.



Fig. 2.1.13 CAD Practices in laboratory

10. Google classroom

Google Classroom is used as an ICT-enabled teaching–learning platform by the Department of Civil Engineering to support effective course delivery, communication, assessment, and documentation. It complements traditional classroom instruction by providing a digital learning environment that promotes continuous engagement, self-directed learning, and timely feedback. Faculty members create course-specific Google Classroom spaces for each subject, where learning materials and academic activities are systematically organized and shared with students. This platform ensures seamless interaction between faculty and students beyond classroom hours.

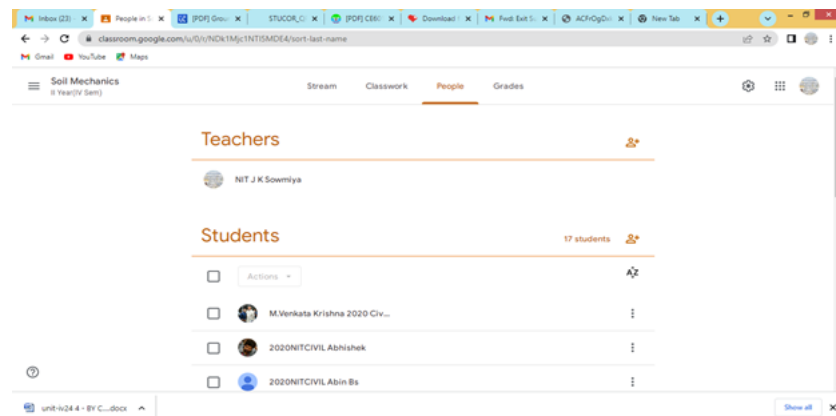


Fig. 2.1.14 Google class room usage

11. Online NPTEL

Online NPTEL (National Programme on Technology Enhanced Learning) courses as a supplementary learning platform to enhance students' conceptual understanding, self-learning ability, and exposure to advanced and emerging areas of civil engineering. NPTEL courses, developed by IITs and IISc, support Outcome-Based Education (OBE) by strengthening core knowledge and professional competencies.



Fig. 2.1.15. NPTEL students' certificates: Course: Foundation engineering

B. EXPERIMENTAL LEARNING METHOD

1. Laboratory-Based Learning

Laboratory sessions are conducted in a structured manner in accordance with the prescribed curriculum and are aligned with the defined Course Outcomes (COs). Students perform experiments individually or in small groups under faculty supervision, promoting experiential learning, observation skills, and technical competence. Students handle laboratory instruments, testing machines, and measurement devices to develop practical skills.

2. Field Visit and Site Explorer Learning is an experiential teaching–learning approach adopted by the Department of Civil Engineering to provide students with real-time exposure to construction practices, infrastructure systems, and professional engineering environments. This method enables students to observe, analyze, and relate theoretical concepts to actual field conditions, thereby enhancing practical understanding and professional competence.

Field visits are systematically planned as part of the curriculum and are conducted under faculty supervision, following predefined learning objectives aligned with Course Outcomes (COs) and Program Outcomes (POs).

3. Survey camp and field survey practices

Survey Camp and Field Survey Practices form a vital experiential learning component in the Department of Civil Engineering, aimed at providing students with hands-on training in land surveying, mapping, and data collection techniques used in real-world civil engineering projects. This practice enables students to apply theoretical principles of surveying to actual field conditions, thereby strengthening technical competence and professional readiness.

Survey camps are organized as part of the curriculum under faculty supervision, with clearly defined learning objectives aligned with Course Outcomes (COs) and Program Outcomes (POs).

5. Project based learning

Project-Based Learning (PBL) is a student-centric pedagogical approach adopted by the Department of Civil Engineering to promote experiential learning, problem-solving ability, and application of engineering knowledge to real-world civil engineering challenges. Through project-based learning, students actively engage in planning, designing, analyzing, and implementing solutions, thereby enhancing technical competence and professional skills.

6. Internship and Industrial training

Internship and Industrial Training are integral components of the teaching–learning process in the Department of Civil Engineering, designed to provide students with practical exposure to real-world engineering practices, industry standards, and professional work environments. This experiential learning approach bridges the gap between academic knowledge and industry requirements, enhancing students' technical competence, employability, and professional ethics.

Internships and industrial training programs are systematically planned and facilitated in collaboration with construction firms, consultancy organizations, government departments, and infrastructure agencies, in alignment with the curriculum and Outcome-Based Education.

6. Case study-Based learning

Case Study-Based Learning is an effective student-centric pedagogical approach adopted by the Department of Civil Engineering to enhance analytical thinking, decision-making ability, and application of engineering principles to real-life civil engineering problems. This method enables students to critically examine actual engineering projects, failures, and best practices, thereby bridging the gap between theoretical knowledge and professional practice.

7. Software based experimental learning

Software-Based Experimental Learning is an advanced pedagogical approach adopted by the Department of Civil Engineering to enhance students' analytical, design, and problem-solving skills through the use of industry-standard engineering software. This method enables students to simulate, analyze, and validate civil engineering problems in a virtual environment, complementing traditional laboratory and classroom learning.

8. Design oriented experimental learning

Design-Oriented Experimental Learning is a practice-based pedagogical approach adopted by the Department of Civil Engineering to integrate experimental observations with engineering design principles, relevant codes, and professional standards. This method enables students to use experimental data and material behavior to design safe, economical, and sustainable civil engineering components and systems.

This learning approach bridges laboratory experimentation, analytical calculations, and code-based design, thereby strengthening students' technical competence

9. Technical workshops and hands on training programs

Technical Workshops and Hands-On Training Programs are organized by the Department of Civil Engineering to enhance students' practical skills, technical competency, and exposure to emerging technologies and industry practices. These programs complement the regular curriculum by providing experiential learning opportunities that focus on application-oriented knowledge and professional skill development.

10. Workshops, seminar and webinars

Workshops, Seminars, and Webinars are regularly organized by the Department of Civil Engineering to enhance students' academic knowledge, technical skills, and professional awareness beyond the prescribed curriculum. These activities provide platforms for interaction with industry experts, academicians, and researchers, thereby enriching the teaching–learning process and promoting continuous professional development.

C. Project based learning

project-Based Learning (Mini Project) is a student-centric pedagogical approach adopted by the Department of Civil Engineering to provide early exposure to real-world engineering problems and practical application of theoretical concepts. Mini projects are introduced at intermediate stages of the program to strengthen analytical skills, teamwork, creativity, and problem-solving ability in alignment with Outcome-Based Education (OBE).

Mini projects enable students to work on small-scale, well-defined civil engineering problems under faculty guidance, thereby preparing them for major projects and professional practice.

C .Strategies to support weak and encourage advanced learners

The academic performance of students is regularly monitored by class advisors and tutors. Class committee meetings, peer group meetings, and tutor–ward interactions are conducted each semester to review students' academic progress. The department has a well-defined process of monitoring, guiding and assisting slow learners.

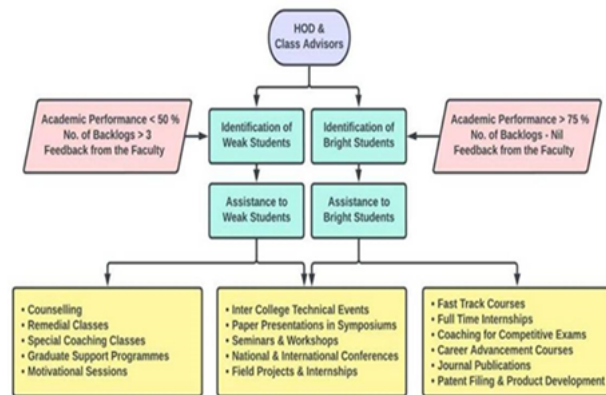


Fig. 2.1.29 Flow process to support weak and encourage advanced learners

1. Support System for Slow Learners

- The result analysis is performed after the Continuous Internal Assessment (CIA) test and the slow learners are identified by the Department Quality Assurance Committee.
- Slow learners are identified based on the marks obtained (less than 50%).
- Class advisors and tutors conduct counselling sessions to also identify students' difficulties and suggest improvement measures.
- Remedial classes are conducted after regular class hours to support slow learners.
- Special coaching classes are organized before internal and end-semester examinations for doubt clarification and revision.
- Question banks, lecture notes, handouts, and smart learning materials are provided to improve examination performance.
- Frequent class tests are conducted to monitor progress and enhance academic performance.
- Additional support is given during collaborative learning, laboratory sessions, and project work.
- Students are encouraged to participate in seminars, workshops, and presentations to improve confidence and learning skills.

Table 2.1.2 Identification and actions for slow learners

Identification and actions for weak students	
Identification guidelines	Actions
Below average performance in academics	<ul style="list-style-type: none"> Remedial classes are arranged for students with poor academic performance. Faculty members regularly interact with students and their parents to support improvement.
Irregularity in attending classes / lack of attendance	<ul style="list-style-type: none"> Course instructors inform students about their attendance status before each CIA Class advisor communicates with parents regarding students' irregular attendance
Personal and behavioural problems	<ul style="list-style-type: none"> Class tutors counsel students during tutor-ward meeting hours. If needed, further counselling is provided at the department level with the Head of the Department.
Impact observed for weak students	
<ul style="list-style-type: none"> Slow learners 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 	

2.2 Quality of Student Capstone Project (25)

2.2. Quality of Student Capstone Project (25)

The quality of the civil engineering capstone/major project is assessed based on multiple factors, including but not limited to: **environmental impact, sustainability, safety, ethics, cost-effectiveness, project type** (application, structural product, research study, review, design, etc.), and adherence to **relevant civil engineering standards and codes** (e.g., IS, ASTM, ACI, IRC). 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.

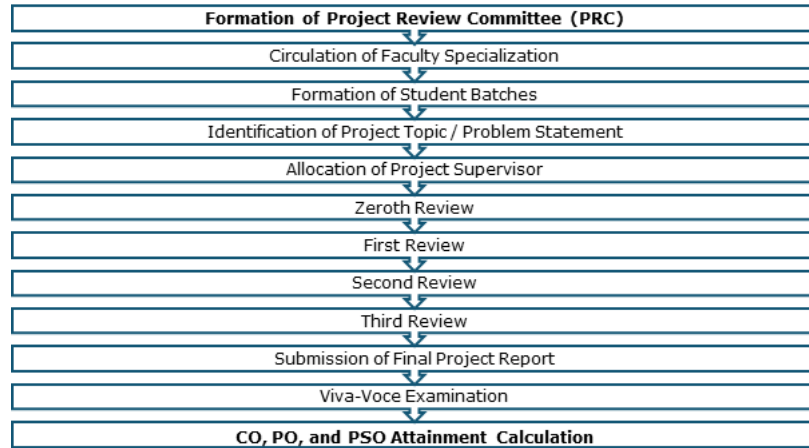


Fig.2.2.1. Process for identifying projects and allocation methodology to faculty members

Project Identification, Monitoring & Evaluation Process

- **Project identification and selection** – considering societal relevance, technical feasibility, and alignment with civil engineering specialization areas (structural, geotechnical, transportation, water resources, environmental, construction management).
- **Project allotment** – based on student interest, faculty expertise, and available resources.
- **Continuous monitoring** – including progress reviews, milestone checks, and technical guidance by supervisors.
- **Evaluation and demonstration** – assessment through design calculations, simulations, models, working prototypes (e.g., structural models, hydraulic setups, environmental remediation prototypes), and final presentation.
- **Design or construction processes** followed (e.g., structural analysis, material testing, hydraulic modeling, surveying techniques).
- **Standards and codes adhered to** (e.g., IS 456 for concrete structures, IRC codes for roads, BIS standards for materials).
- **Performance indicators** demonstrating project relevance, functionality, and innovation.



Fig. 2.2.1 Circular to faculty members

Team No.	Reg. No.	Student Name	Topic	SIGNATURE OF THE HoD/CIVIL
1	210210006 210210009	Utkarsh Gadhane Shantanu S	Red clay soil based structural health monitoring system for smart infrastructure management	[Signature]
2	210210007	Sanjiv Kumar	Analysis and design of G+2 Residential building	[Signature]
3	210210003	Mansi S	Design multi-story planning (and) for smart software	[Signature]
4	210210004	Rudransh A.S	Planning and analysis of 10 storey building	[Signature]
5	210210008	Shruti PV	Load and resistance of steel beam using GFRP	[Signature]
6	210210002	Shraddha S	CFD of air flow velocity through smart road side city lighting system	[Signature]
7	210210005	Kanishk K		[Signature]
8	210210001 210210002	Vijaykumar S Gagan Gadhane M	Use of plastic waste in flexibility parameters	[Signature]

Fig. 2.2.2 List of Batches and Guides

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 By product 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	Seismic analysis of buildings	PO1- PO12	PSO1 -PSO3
2	Fibre-reinforced concrete	PO1- PO12	PSO1 -PSO3
3	Soil stabilization techniques	PO1- PO12	PSO1 -PSO3
4	Ground improvement methods	PO1- PO12	PSO1 -PSO3
5	Project scheduling using Primavera/MS Project	PO1- PO12	PSO1 -PSO3
6	Expansive soil treatment	PO1- PO12	PSO1 -PSO3

Relevance to the POs and PSOs: High

Table 2.2.1 POs and PSOs Addressed through the projects (2020-2024 Batch)

Sl.N o.	Name of the student	Title of the Project	Area of Specialization	Type of Project	Project classification	Relevance to PO/PSO	
						PO	PSO
1	Gokul Krishnan shamnas	Real time IOT based structural health monitoring system for smart infrastructure management	IOT	IOT applications in civil engineering	Application	PO1-p012	PSO1-PSO3
2	Hari mukesh Kumar	Analysis and design of Residential building ground floor+ first floor	Structure	Design Based project	Application	PO1-p012	PSO1-PSO3
3	Manoj	Design of multi-storey planning used for V-ray software	Structure	Design Based project	Application	PO1-p012	PSO1-PSO3
4	Rudreshwar KS	Planning designing and analysing of an apartment building	Structure	Industry based project	Application	PO1-p012	PSO1-PSO3
5	Shakir TV	Inundation modelling of river basin using GIS	Software based project	Industry Project	Application	PO1-p012	PSO1-PSO3
6	Sharafudheen .S Suryaprakash C	Civil Infrastructure Resilience through smart land slide early warning system	Geo technical	Case study based project	Application	PO1-p012	PSO1-PSO3

7	Vengatesan Goplakrishnan	Use of plastic waste in flexibility pavements	Sustainable materials	Experimental based project	Application	PO1-p012	PSO1-PSO3
8	Thamizhrasan S	Experimental investigation of concrete using natural fibre	structure	Experimental b based project	Application	PO1-p012	PSO1-PSO3
9	Dalvin Varghse	Planning designing and estimation of panchayat building construction	Structure	Industry based project	Application	PO1-p012	PSO1-PSO3
10	Vishal	Estimation analysis and design of community hall	Structure	Industry based project	Application	PO1-p012	PSO1-PSO3

C. Process for Monitoring and Evaluation

Project Planning and Identification

- Identification of project ideas (structural, environmental, water resources, transportation, construction management, geotechnical, etc.).
- Evaluation of feasibility considering resources, budget, safety, and environmental impact.
- Approval from project supervisors and departmental committee.

Project Allotment

- Faculty assign projects considering student competencies and learning objectives.
- Distribution of responsibilities and milestones

Continuous Monitoring

- Weekly/bi-weekly progress reviews with faculty supervisors.
- Technical guidance for design, modeling, or experimental setup (e.g., concrete mix design, structural analysis, hydraulic models).
- Monitoring resource utilization, budget, and safety compliance.
- Documentation of all activities and modifications.

Evaluation of Work

- Verification of **calculations, drawings, designs, or simulations**.
- Inspection of **physical models or prototypes** (e.g., bridge models, water treatment setups, pavement samples).
- Performance evaluation against **design criteria and codes** (e.g., IS, IRC, ASTM, ACI).
- Safety, environmental, and cost assessment.
-

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.

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Coimbatore - 641105

Department: Civil Engineering
Title of Project: *Use of Plastic waste of flexibility pavements*
Name of Guide: *S. Bindha / S. Sekhar* Date: *19.02.25*
Academic year: 2024-25
Batch: 2021

S No	Name of students	Present / Absent	Attendance					Viva	Total	Category	Review Ranking		Signature of students	Remarks/ Suggestions
			10	20	20	20	20				Need	Adequate		
1	VENKATESAN S	P	10	25	17	19	19	90	Team Participation Availability of the Resources Attention by guide	-	-	<i>[Signature]</i>		

Name of the Committee Members

Dr. M. Aravind	<i>[Signature]</i>
Dr. M. Aravind Thangaraj	<i>[Signature]</i>
Dr. M. Vaidyan	<i>[Signature]</i>
Dr. S. S. Kumar	<i>[Signature]</i>
Dr. J. Anand	<i>[Signature]</i>
Dr. J. Anand	<i>[Signature]</i>
Dr. M. Aravind	<i>[Signature]</i>

Project Guide: *[Signature]* Project Co Ordinator: *[Signature]* HOQ/Civil: *[Signature]*

Fig. 2.2.3 Monitoring and Evaluation- First Review

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Accredited by NAAC with A+, Recognized by UGC with Section 2(f)
Coimbatore - 641105
Project Review- 2024-25

Department : Civil Engineering
Title of Project : *Plastic waste to Potability Research*
Name of Guide : *Mr. S. Subramaniam*
Date : *15/05-25*
Academic year 2024-25
Batch : 2021

S No	Name of students	Present / Absent	Attendance					Type	Test	Category	Review Ranking		Signature of students	Remarks/ Suggestions
			10	20	30	20	20				100	Need		
1	ADARSH K. SURESH K	P	10	25	15	10	10	75	Team Participation			<i>[Signature]</i>		

Plastic waste to Potability Research

Project Review- 2024-25

Name of the Committee Members		Signature
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>

Project Guide: *[Signature]* Project Co Ordinator: *[Signature]* HOD/Civil: *[Signature]*

Fig. 2.2.4 Monitoring and Evaluation- Second Review

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Accredited by NAAC with A+, Recognized by UGC with Section 2(f)
Coimbatore - 641105
Project Review- 2024-25

Department : Civil Engineering
Title of Project : *Handmade Detection and Early warning system*
Name of Guide : *Dr. M. Suresh Kumar*
Date : *21.05.25*
Academic year 2024-25
Batch : 2021

S No	Name of students	Present / Absent	Attendance					Type	Test	Category	Review Ranking		Signature of students	Remarks/ Suggestions
			10	20	30	20	20				100	Need		
1	NIKIL K. SURESH K	P	10	25	20	16	15	25	Team Participation			<i>[Signature]</i>		

Handmade Detection and Early warning system

Project Review- 2024-25

Name of the Committee Members		Signature
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>

Project Guide: *[Signature]* Project Co Ordinator: *[Signature]* HOD/Civil: *[Signature]*

Fig. 2.2.5 Monitoring and Evaluation- third Review

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(f)
Coimbatore - 641105
Project Review- 2024-25

S No	Name of students	Present / Absent	Attendance					Type	Test	Category	Review Ranking		Signature of students	Remarks/ Suggestions
			10	20	30	20	20				100	Need		
1	ADARSH K. SURESH K	P	10	25	15	10	10	75	Team Participation			<i>[Signature]</i>		

Project Review- 2024-25

Name of the Committee Members		Signature
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>
Dr. M. Srinivas		<i>[Signature]</i>

Project Guide: *[Signature]* Project Co Ordinator: *[Signature]* HOD/Civil: *[Signature]*

Fig. 2.2.6 Continuous Evaluation Score Card

D. Process to Assess Individual and Team Performance



- The Project Coordination 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.

E. Quality of completed projects/ working prototypes

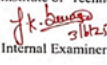

- In order to ensure the quality of the projects, the project review committee along with the project coordinator and supervisors conducts internal reviews at frequent intervals.
- The students are advised to present the work completed so far before the committee. Deficiencies, corrections, and suggestions 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.

ANNA UNIVERSITY 600 025
BONAFIDE CERTIFICATE

Certified that this report titled "PLANNING ANALYSIS and DESIGN OF G+2 RESIDENTIAL BUILDING" is the bonafide work of HARI MUGESH KUMAR (Reg No :721021103007) who carried out the work under my supervision. Certified further That to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

<p>SIGNATURE  Dr. M. Samuel Thanaraj Head of the Department Department of Civil Engineering Nehru Institute of Technology Coimbatore 641 105</p>	<p>SIGNATURE  Mrs. JK Sowmiya Assistant Professor Project Supervisor Department of Civil Engineering Nehru Institute of Technology Coimbatore 641 105</p>
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Submitted for the project viva examination held on 3.6.25 at
Nehru Institute of Technology ,Coimbatore.

<p> Internal Examiner</p>	<p> External Examiner</p>
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2

Fig. 2.2.7 Final Year Project Report



Fig. 2.2.8. Students Presenting Project final viva-voce

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

The supervisor 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.	Gokul Krishnan	Real time IOT based structural health monitoring system for smart infrastructure management	International Conference on "New-Gen Technologies for Sustainable Development" March 27-29, 2025, Coimbatore
2.	Manoj	Design of multi-storey planning used for V-ray software	International Conference on "New-Gen Technologies for Sustainable Development" March 27-29, 2025, Coimbatore
3.	Thamizhrasan S	Experimental investigation of concrete using natural fibre	International Conference on "New-Gen Technologies for Sustainable Development" March 27-29, 2025, Coimbatore
4.	shamnas	Real time IOT based structural health monitoring system for smart infrastructure management	International Conference on "New-Gen Technologies for Sustainable Development" March 27-29, 2025, Coimbatore



Fig 2.2.13 Certificate of Students Gokulkrishnan attend ICNGTS at NGI – TBI 2024

Paper ID: T4009

REAL-TIME IOT- BASED STRUCTURAL HEALTH MONITORING SYSTEM FOR
SMART INFRASTRUCTURE MANAGEMENT

GokulKrishnan¹, Shannas.S²

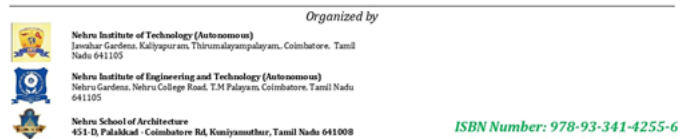
^{1,2}UG Students, Nehru Institute of Technology, Coimbatore

Email: gokulkrishnan4112@gmail.com, sakkeershannas@gmail.com

ABSTRACT

The increasing need for sustainable and resilient infrastructure necessitates the development of advanced monitoring systems. This paper presents an IoT-based Structural Health Monitoring (SHM) system designed to detect potential issues in real-time, ensuring proactive maintenance and extending the lifespan of structures. The proposed system integrates various sensors to monitor: Crack detection using computer vision and machine learning algorithms, Strain and deformation through fiber optic sensors and strain gauges, Vibration and acceleration using accelerometers and gyroscopes, Corrosion and concrete degradation via electro chemical sensors and electrical resistivity tomography, Load monitoring with strain gauges and load cells. Additionally, environmental factors such as temperature and humidity are monitored using thermo couples and hygrometers to assess their impact on structural integrity. The system utilizes wireless communication protocols (e.g., Wi-Fi, Lo Ra WAN) and cloud-based data analytics to provide real-time insights and alerts. Machine learning algorithms are employed to analyze data, detect patterns, and predict potential failures. This research aims to contribute to the development of smart infrastructure management, enhancing the safety, efficiency, and sustainability of civil engineering projects.

Keywords: Real-time Monitoring, Crack Detection, Strain and Deformation, Vibration and Acceleration, Temperature and Humidity Monitoring, Civil Engineering, Sustainable Infrastructure.



9

Fig 2.2.14 Paper published by 2020 -2024 batch students. Grades of projects


1. Grades of projects in the final examination

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". A sample grade sheet for a student project is provided below:




NEHRU INSTITUTE OF TECHNOLOGY

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COIMBATORE - 641 105, TAMILNADU, INDIA



GRADE SHEET

SL. No. **A 001178** Folio No.: **NTT0004436**

NAME OF THE CANDIDATE GOKUL KRISHNAN		REGISTER No. 721021103006		
DATE OF BIRTH 31-DEC-2002	GENDER MALE	MONTH & YEAR OF EXAMINATION APR - 2025		
DATE OF PUBLICATION 12-08-2025	UMIS No. 9993725438	REGULATIONS 2021 (CBCS)		


PROGRAMME & BRANCH
B.E. Civil Engineering

SEM. No.	COURSE CODE	COURSE TITLE	CREDITS	LETTER GRADE	GRADE POINT	RESULT
8	CE3811	Project Work / Internship	10	O	10	PASS
<<< End of Statement >>>						

The Induction Programme (IP3151) for Semester 1 has been completed

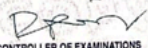
Semester	I	II	III	IV	V	VI	VII	VIII	
Credits Registered	21.0	22.0	24.0	25.0	23.0	22.0	17.0	10.0	
Credits Earned	21.0	22.0	24.0	25.0	23.0	22.0	17.0	10.0	
Grade Points Earned	56.0	60.0	73.0	90.0	77.0	70.0	54.0	10.00	
Grade Point Average (GPA)	7.86	8.27	7.69	8.80	8.39	8.64	9.00	10.00	
Cumulative Credits Earned	164.0		Cumulative Grade Point Average (CGPA)		8.46		Percentage of Marks		84.60

SEM. No. - Semester Number RA - Reappearance is required W - Withdrawal AB - Absent Medium of Instruction : ENGLISH



Date : 29-10-2025
This Statement is issued without any correction.

SIGNATURE OF THE CANDIDATE



CONTROLLER OF EXAMINATIONS

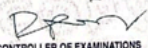


Fig. 2.2.15 Grade Sheet of Student

2.3 Internship/Industrial Training (10)

2.3 Internship/Industrial Training (10) (Describe process, duration, POs/PSOs addressed.)

The civil engineering industry is continuously evolving due to rapid urbanization, technological advancements, climate change concerns, and the growing demand for sustainable infrastructure. Global events such as the COVID-19 pandemic have influenced industry priorities, emphasizing resilient infrastructure, smart cities, digital construction management, and health-focused building design. These changes have shifted focus toward areas such as sustainable construction practices, green built advanced construction materials, Building Information Modeling (BIM), automation in construction, artificial intelligence in project management, smart infrastructure systems, disaster-resilient structures, and environmentally responsible urban planning. In pace with these advancements, the Department of Civil Engineering actively encourages and facilitates student participation in industrial training, internships, site visits, and in-plant training programs. Industrial training is mandatorily integrated into the curriculum to ensure that students gain practical exposure beyond theoretical classroom learning.

- Gain hands-on experience in construction site management and execution
- Understand real-time project planning, scheduling, and quality control
- Learn about structural design practices and safety standards
- Develop knowledge of modern construction equipment and technologies
- Observe sustainable construction methods and environmental compliance practices
- Enhance problem-solving skills by addressing on-site challenges
- Improve professional communication and teamwork abilities

Table 2.3.1 Details of Industrial and Field Visits

S.No.	Date of Visit	Place of visit	Objective of visit	Number of students
1.	3.8.2023	Bore hole test kavundapalyam	Investigate subsoil conditions Bore holes are drilled to study soil strata, collect samples, and determine engineering properties required for foundation design.	35
2.	8.8.2023	Pothanur railway station	A railway station is a designated place on a railway line where trains stop to allow passenger boarding/alighting and goods handling.	28
3.	20.3.2023	Moolamattom Hydro power	The powerhouse is constructed inside a tunnel within a hill to utilize high hydraulic head efficiently.	24
4.	11.9.2023	Padmashree constructions	Provide temporary working platforms for workers Scaffolding is a temporary structure used to give workers safe access to higher levels during construction.	36
5.	4.9.2023	Siruvani Dam	Reservoirs ensure dependable drinking water availability during dry periods and help urban planning and growth.	37
6.	11.4.2023	Malabar cement factory	Cement strength and quality influence concrete compressive strength , durability, and structural performance.	27
7.	27.8.2024	Nehru arts and science college	It involves planning, designing, executing, and maintaining structures using suitable materials, methods, and technology.	21
8.	30.8.2024	Teemage industry	The Teemage Industry refers to the sector that produces, supplies, and lays bituminous (tar or asphalt) materials for road construction, pavements, and other civil infrastructure. It covers manufacturing of bitumen, asphalt mixes, and road-laying operations.	28
9.	17.11.2025	Aadani Cements	Cement is the key binding ingredient in concrete — the most widely used material in civil engineering. Concrete made with cement forms the backbone of structures	34

10.	30.8.2024	Ultra tech ready mix concrete	Ready Mix Concrete (RMC) is concrete manufactured in a central batching plant according to a specific mix design and delivered to the construction site ready to be placed. UltraTech RMC is a product of UltraTech Cement, one of India's largest cement companies, providing high-quality concrete for various civil engineering projects.	22
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Fig. 2.3.1. Industrial visit to Malabar cements



Fig.2.3.2 Industrial visit to padmashree constructions



Fig. 2.3.3 Industrial visit Ultra tech

1. Internship Initiative

Students of the Civil Engineering program are encouraged to undertake internships/industrial training in construction companies, consultancy firms, government departments, infrastructure projects, and allied industries during the summer break after IV and VI semesters. The department facilitates this process by issuing official permission letters and coordinating with industries for necessary approvals.

3. The internship/industrial training is carried out for a **minimum period of 15 days and a maximum of 30 days**. As per the curriculum (Regulation 2021 – R21), **one credit is awarded for 15 days of training and two credits for 30 days of training**.

SEMESTER VIII/VII*								
S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1.	CE3811	Project Work/Internship	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

*If students undergo internship in Semester VII, then the courses offered during semester VII will be offered during semester VIII

TOTAL CREDITS: 166

a)Fig. 2.3.4.(a and b) Internship in curriculum

1. Internship Process

1. Orientation and Notification:

Students are informed about the mandatory internship requirement during the IV and VI semesters. An orientation session is conducted to explain objectives, duration, credit allocation, evaluation procedure, and expected outcomes.

2. Identification of Organization:

Students identify suitable organizations such as construction companies, structural consultancy firms, government departments (PWD, Irrigation, Municipal Corporation, Railways), infrastructure projects, testing laboratories, or other allied civil engineering recommendations where necessary.

3. Approval and Permission:

Students submit the internship details to the department for approval. The institute issues official permission letters to the concerned organization. Internship confirmation from the industry is obtained before commencement.

4. Monitoring and Documentation:

Students maintain a daily logbook or training diary certified by the industry supervisor. Faculty coordinators monitor the internship progress to ensure meaningful learning.

5. Report Submission:

Upon completion, students submit a comprehensive internship report covering:

- Company profile
- Work undertaken
- Technical skills acquired
- Practical exposure
- Learning outcomes

6. Evaluation:

The internship is evaluated through a seminar presentation and viva-voce examination conducted by faculty members. Assessment is based on report quality, presentation performance, technical understanding, and industry feedback.

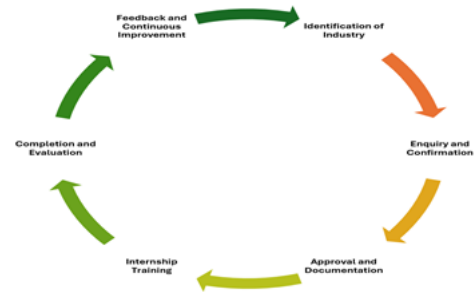


Fig.2.3.5. Internship process

Table 2.3.2 Details of students Internship batch 2021- 2025 and 2022-2026

S.No.	Name of the student
1.	AJITH VISHWA K
2.	ALWIN BIJU
3.	ANBUSELVAN R
4.	ATHUL R
5.	DEEPAK S
6.	HALITH J
7.	JAGANATHAN P
8.	PARTHASARATHI S
9.	SREEJITH C G
10.	SURYA M
11.	THARUNRAJ K

12.	THENAMUDHAN J
13.	ANANDHAN N
14.	GOWTHAM D
15.	KATHIR VEL K
16.	AMMAAR AL AABHEEDHEEN H
17.	MOHAMED SUHAIL M
18.	NAJITH REHEMAN
19.	NANDAGOPAL T
20.	PANEER SELVAM R
21.	RAJA K
22.	RAJWA J
23.	SACHIN VP
24.	SANTHOSH D
25.	VASIKARAN K
26.	VIGNESH BOOPATHI S
27.	GOKUL KRISHNAN (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadacztyqazprcesegrdxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcincjqsidgtkshmcqmeiwecrfirfopezcmprxcqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgртеjqcgucltnsknnx&studid=20214005)
28.	HARI MUGESH KUMAR (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadacztyqazprcesegrdxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcincjqsidgtkshmcqmeiwecrfirfopezcmprxcqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgртеjqcgucltnsknnx&studid=20214338)

29.	MANOJ S (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczczyqazprcesegrdgxleicrvzyudqaiivsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrtejqcgucltnsknnx&studid=20211874)
30.	RUDRESHWAR KS (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczczyqazprcesegrdgxleicrvzyudqaiivsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrtejqcgucltnsknnx&studid=20211286)
31.	SHAKIR TV (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczczyqazprcesegrdgxleicrvzyudqaiivsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrtejqcgucltnsknnx&studid=20214175)
32.	SHAMNAS S (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczczyqazprcesegrdgxleicrvzyudqaiivsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrtejqcgucltnsknnx&studid=20211946)
33.	SHARAFHUDEEN S
34.	SURYAPRAKASH C (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczczyqazprcesegrdgxleicrvzyudqaiivsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrtejqcgucltnsknnx&studid=20212036)
35.	VENGATESAN A (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczczyqazprcesegrdgxleicrvzyudqaiivsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrtejqcgucltnsknnx&studid=20212149)
36.	VIGNESHWARAN S (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczczyqazprcesegrdgxleicrvzyudqaiivsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrtejqcgucltnsknnx&studid=20211650)

Table 2.3.2 Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations – Students of 2021–2025 & 2022–2026

S.No.	Internship Organization	Mapped POs	Mapped PSOs	Justification
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1.	PALANIAPPA CONSTRUCTIONS	PO1, PO2, PO5, PO7	PSO1, PSO2, PSO3	Palaniappa Constructions involves application of fundamental engineering principles such as structural analysis, construction materials, soil mechanics, and environmental engineering. Students apply mathematical and scientific knowledge to solve real-time construction problems like load calculations, material selection, and structural stability.
2.	MARIA CONSTRUCTIONS	PO1, PO4, PO5, PO7	PSO1, PSO2	Maria Constructions provides practical exposure to core civil engineering domains such as structural engineering, geotechnical engineering, construction materials, environmental engineering, and transportation engineering. Students apply theoretical knowledge to real-time activities such as foundation works, concrete technology, structural execution, and quality testing at construction sites.
3.	PALANIAPPA CONSTRUCTIONS	PO1, PO3, PO5	PSO1, PSO3	Palaniappa Constructions involves application of fundamental engineering principles such as structural analysis, construction materials, soil mechanics, and environmental engineering. Students apply mathematical and scientific knowledge to solve real-time construction problems like load calculations, material selection, and structural stability.
4.	DEV DESIGN	PO1, PO2, PO5	PSO1, PSO2, PSO3	Planning, Design, and Execution of Civil Engineering Projects The organization focuses on design preparation, drafting, estimation, detailing, and project coordination. Students gain exposure to preparation of structural drawings, cost estimation, and compliance with design codes, enabling them to understand the complete design-to-execution process.

5.	SRI SAI KANISHKA BUILDERS	PO1, PO2, PO5, PO7	PSO1, PSO2, PSO3	<p>Application of Core Civil Engineering Concepts</p> <p>SRI SAI KANISHKA BUILDERS provides practical exposure to core civil engineering areas such as building construction, concrete technology, structural execution, foundation works, and material testing. Students apply theoretical knowledge of structural design, soil mechanics, and construction materials in real-time site activities.</p>
6.	QIYAS GENERAL CONTRACTING	PO1, PO2, PO5, PO7	PSO1, PSO2, PSO3	<p>provides exposure to practical civil engineering works such as structural construction, foundation execution, concrete works, and site development. Students apply core concepts of structural engineering, geotechnical engineering, construction materials, and environmental considerations in real-time project environments.</p>
7.	GRM ENTERPRISES	PO1, PO2, PO5	PSO1, PSO2	<p>The organization involves activities such as project planning, quantity estimation, budgeting, scheduling, quality assurance, and site management. Students gain hands-on understanding of converting design drawings into executed structures while maintaining safety standards and project efficiency.</p>
8.	IVA INFRACTURE PRIVATE LIMITED	PO1, PO3, PO5	PSO1, PSO3	<p>IVA Infrastructure Private Limited engages in infrastructure development works such as buildings, roads, drainage systems, and other civil structures. Students apply core civil engineering principles including structural analysis, geotechnical engineering, construction materials, environmental engineering, and transportation engineering in practical project environments.</p>

9.	SREELAKAM DEVELOPERS BUILDERS & CONSTRUCTIONS	PO1, PO2, PO5	PSO1, PSO2	SREELAKAM DEVELOPERS BUILDERS & CONSTRUCTIONS provides practical exposure to residential and commercial building projects where students apply core civil engineering concepts such as structural design principles, geotechnical considerations, concrete technology, construction materials, and environmental aspects in real-time site execution.
10.	HARI RAM CONSTRUCTIONS	PO1, PO4, PO5	PSO1, PSO2	HARI RAM CONSTRUCTIONS provides practical exposure to civil engineering works such as building construction, foundation systems, concrete works, and structural execution. Students apply fundamental concepts of structural engineering, geotechnical engineering, construction materials, and environmental considerations in real-time project environments.
11.	SRI SAI KANISHKA BUILDERS	PO1, PO4, PO5, PO7	PSO1, PSO2	provides exposure to practical construction activities such as foundation works, RCC construction, masonry, finishing works, and site development. Students apply core civil engineering principles including structural engineering, geotechnical engineering, concrete technology, and construction materials in real-time site conditions.
12.	SS ARCHITECTURE & BUILDERS	PO1, PO2, PO5	PSO1, PSO3	The organization involves architectural drafting, structural coordination, quantity estimation, project planning, and site supervision. Students gain experience in converting architectural concepts into practical structures while ensuring compliance with building codes, quality standards, and project timelines.

13.	GRAVITY ASSOCIATES	PO1, PO2, PO5	PSO1, PSO2, PSO3	GRAVITY ASSOCIATES provides exposure to structural/design consultancy and construction-related activities where students apply core civil engineering principles such as structural analysis, RCC/steel design concepts, soil mechanics, and construction materials. This enables them to connect theoretical knowledge with practical design and execution processes.
14.	MESSIHA LIFE SPACES	PO1, PO3, PO5	PSO1, PSO3	MESSIHA LIFE SPACES, being involved in residential and commercial development projects, provides practical exposure to building planning, structural systems, foundation works, concrete technology, and construction materials. Students apply core civil engineering principles such as structural design, geotechnical considerations, and environmental aspects in real-time construction activities.
15.	SUN ASSOCIATES	PO1, PO4, PO5	PSO1, PSO2	Through interaction with engineers, consultants, and site teams, students develop professional communication, teamwork, leadership skills, ethical responsibility, and familiarity with modern engineering tools and construction management practices, thereby enhancing their industry readiness.
16.	IVA INFRACTURE PRIVATE LIMITED	PO1, PO2, PO5	PSO1, PSO2	IVA Infrastructure Private Limited engages in infrastructure development works such as buildings, roads, drainage systems, and other civil structures. Students apply core civil engineering principles including structural analysis, geotechnical engineering, construction materials, environmental engineering, and transportation engineering in practical project environments.

17.	KM CONSTRUCTION & BUILDERS	PO1, PO3, PO5	PSO1, PSO3	KM CONSTRUCTION & BUILDERS provides practical exposure to building construction activities such as foundation works, RCC construction, masonry, finishing works, and site development. Students apply core civil engineering principles including structural engineering, geotechnical engineering, construction materials, and concrete technology in real-time project execution.
18.	GLOBAL ENGINEERING SERVICES	PO1, PO3, PO5	PSO1, PSO3	<p>Planning, Design, and Execution of Civil Engineering Projects</p> <p>GLOBAL ENGINEERING SERVICES is involved in engineering consultancy, design preparation, estimation, project coordination, and technical supervision. Students gain exposure to preparation and interpretation of design drawings, quantity take-off, cost estimation, and adherence to engineering standards and codes, thereby understanding the complete workflow from planning to execution.</p>
19.	GLOBAL ENGINEERING SERVICES	PO1, PO2, PO5	PSO1, PSO2	<p>Planning, Design, and Execution of Civil Engineering Projects</p> <p>GLOBAL ENGINEERING SERVICES is involved in engineering consultancy, design preparation, estimation, project coordination, and technical supervision. Students gain exposure to preparation and interpretation of design drawings, quantity take-off, cost estimation, and adherence to engineering standards and codes, thereby understanding the complete workflow from planning to execution</p>

20.	JK CONSTRUCTIONS	PO1, PO4, PO5	PSO1, PSO2	Through on-site involvement and interaction with engineers, supervisors, and workers, students develop teamwork, communication skills, leadership qualities, safety awareness, and ethical responsibility. This practical exposure enhances their professional competence and prepares them for real-world civil engineering careers.
21.	SUN ASSOCIATES	PO1, PO3, PO5	PSO1, PSO3	Planning, Design, and Execution of Civil Engineering Projects SUN ASSOCIATES is involved in planning, design coordination, quantity estimation, drafting, and site supervision activities. Students gain practical exposure to interpreting architectural and structural drawings, preparing estimates, ensuring quality control, and understanding the systematic execution of civil engineering projects within time and budget constraints.
22.	SRI KUMARAN DEVLEOPERS	PO1, PO2, PO5	PSO1, PSO2	provides practical exposure to residential and commercial building projects involving foundation works, RCC construction, structural systems, and material selection. Students apply core civil engineering concepts such as structural engineering, geotechnical engineering, concrete technology, and environmental considerations in real-time construction environments.
23.	AL BARAQ STEEL WORKS L.L.C	PO1, PO3, PO5	PSO1, PSO3	AL BARAQ STEEL WORKS L.L.C specializes in steel fabrication and structural steel works. Students gain practical exposure to structural engineering concepts such as steel design principles, load transfer mechanisms, connection detailing, material properties, and fabrication techniques. This enables them to apply theoretical knowledge of structural analysis and steel structures in real-time industrial practices.

24.	MESSIHA LIFE SPACES	PO1, PO3, PO5	PSO1, PSO3	MESSIHA LIFE SPACES, being involved in residential and commercial development projects, provides practical exposure to building planning, structural systems, foundation works, concrete technology, and construction materials. Students apply core civil engineering principles such as structural design, geotechnical considerations, and environmental aspects in real-time construction activities
25.	HARI RAM CONSTRUCTIONS	PO1, PO2, PO5	PSO1, PSO2	exposure to building and infrastructure projects involving foundation works, RCC construction, masonry, and finishing activities. Students apply core civil engineering principles such as structural engineering, geotechnical engineering, concrete technology, and construction materials in real-time site execution.
26.	MARK CONSTRUCTION	PO1, PO2, PO5	PSO1, PSO2	To provides practical exposure to civil engineering works such as foundation systems, RCC construction, structural components, masonry, and finishing works. Students apply core civil engineering knowledge including structural engineering, geotechnical engineering, concrete technology, and construction materials in real-time site execution.
27.	OZONE ARCHITECTURE & INTERIORS	PO1, PO2, PO5	PSO1, PSO2	The organization engages in preparation of architectural drawings, 3D modeling, estimation, material selection, project scheduling, and site supervision. Students gain practical understanding of translating conceptual designs into executed projects while ensuring compliance with standards, quality control, and client requirements.

28.	ACREAGE CONSTRUCTION	PO1, PO4, PO5	PSO1, PSO2	Through on-site interaction with engineers, supervisors, and workers, students develop teamwork, communication skills, leadership qualities, safety awareness, ethical responsibility, and familiarity with modern construction management practices, thereby enhancing their professional competence and employability.
29.	BPO INTEGRA INDIA PRIVATE LIMITED	PO1, PO3, PO5	PSO1, PSO3	Through working with multidisciplinary teams and international standards, students develop professional communication, technical documentation skills, software proficiency (AutoCAD, Revit, BIM tools), teamwork, and ethical responsibility. This enhances their readiness for careers in design consultancy and engineering service sectors.
30.	BPO INTEGRA INDIA PRIVATE LIMITED	PO1, PO2, PO5	PSO1, PSO2	Through collaboration with multidisciplinary and international project teams, students develop proficiency in modern engineering software (AutoCAD, Revit, BIM tools), professional communication, teamwork, technical documentation, time management, and ethical responsibility. This exposure enhances their readiness for careers in engineering consultancy and global design services.
31.	DOOR OF DREAM ARCHITECTS	PO1, PO3, PO5	PSO1, PSO3	provides exposure to architectural planning, structural coordination, building systems integration, and material selection. Students apply core civil engineering concepts such as structural behavior, foundation considerations, construction materials, and environmental aspects while integrating architectural design with structural safety and functionality.

32.	OZONE ARCHITECTURE & INTERIORS	PO1, PO3, PO5	PSO1, PSO3	The organization engages in preparation of architectural drawings, 3D modeling, estimation, material selection, project scheduling, and site supervision. Students gain practical understanding of translating conceptual designs into executed projects while ensuring compliance with standards, quality control, and client requirements.
33.	AYES BUILDERS & DEVELOPERS	PO1, PO2, PO5	PSO1, PSO2	
34.	OZONE ARCHITECTURE & INTERIORS	PO1, PO2, PO5	PSO1, PSO2	The organization engages in preparation of architectural drawings, 3D modeling, estimation, material selection, project scheduling, and site supervision. Students gain practical understanding of translating conceptual designs into executed projects while ensuring compliance with standards, quality control, and client requirements
35.	BPO INTEGRA INDIA PRIVATE LIMITED	PO1, PO2, PO5	PSO1, PSO2	provides practical exposure to residential and commercial construction projects involving foundation systems, RCC works, structural components, and material selection. Students apply core civil engineering concepts such as structural engineering, geotechnical engineering, concrete technology, and construction materials in real-time site execution.
36.	HEMKRISH CONSTRUCTIONS & INTERIOR ACADEMY	PO1, PO2, PO5	PSO1, PSO2	HEMKRISH CONSTRUCTIONS & INTERIOR ACADEMY provides exposure to building construction and interior execution works such as structural components, finishing works, space planning, material selection, and building services coordination. Students apply core civil engineering principles including structural systems, construction materials, concrete technology, and environmental considerations in practical projects.



Fig.2.3.6. Internship certificate



DOOR OF DREAM ARCHITECTS

Ref No: DOD/AR/052025/02

Date: May 2, 2025

INTERNSHIP CERTIFICATE

This is to certify that Shakir TV, a student of IV Year, B.E (Civil Engineering) at Nehru Institute of Technology, Coimbatore, bearing registration number 721021103030, has successfully completed an internship at DOD Architects from February 03, 2025 to April 30, 2025.

During this period, he was actively involved in various architectural projects and demonstrated keen interest, dedication, and professional behavior. The scope of work and responsibilities undertaken by him included:

- Assisting in design development and conceptual sketches.
- Preparing AutoCAD drawings and presentation boards.
- Conducting site visits and documentation.
- Supporting the team with research, drafting, and client presentations.
- Gaining exposure to architectural detailing, construction drawings, and project coordination.

His performance during the internship was commendable, and he displayed a good understanding of architectural principles and software skills.

We wish Shakir all the best in his future academic and professional pursuits.

For Door of Dream Architects

Date: May 2, 2025

Place: Thrissur

Signature:

Ar. Dheeraj K Pradeep
Principal Architect
DOD Architects
Reg No: CA/2022/152719

Ar. DHEERAJ.K.PRADEEP
Licensed Architect
Reg No: CA/2022/152719
Council of Architecture, Government of India
Ph: 8129334549, E-mail: dheeraj.kp7@gmail.com

D.O.D
ARCHITECTS

Chowallur Tower, West Fort,
Thrissur Dist.- 680004
Kerala, India
MOB : 8129334549 , 8606513875
doorofdreamarchitects22@gmail.com

Fig.2.3.7. Internship certificate students

2.4 Seminar and Mini/Micro Projects (10)

The Department of Civil Engineering emphasizes experiential and project-based learning through the systematic inclusion of **seminars and mini projects** in the curriculum. These activities are designed to strengthen students' analytical abilities, problem-solving skills, teamwork, and professional communication, thereby bridging the gap between theoretical knowledge and practical applications.

As part of the academic structure, **seminars** are introduced at the pre-final and final year levels. Students select contemporary topics related to Civil Engineering such as sustainable construction practices, smart materials, green buildings, traffic engineering innovations, water resource management, earthquake-resistant structures, and emerging software tools. Under the guidance of faculty mentors, students conduct literature reviews, prepare technical reports, and deliver seminar presentations. This process enhances their technical understanding, confidence, presentation skills, and awareness of recent advancements in the field.

The **mini project component** plays a crucial role in hands-on learning. Students work individually or in small groups to identify real-world civil engineering problems. Projects involve activities such as surveying, design calculations, material testing, structural analysis, quantity estimation, and basic software applications like AutoCAD, STAAD, or ETABS. Faculty members provide continuous mentoring and periodic reviews to ensure academic rigor and learning outcomes.

Evaluation of seminars and mini projects is carried out through **transparent and well-defined rubrics**, considering parameters such as topic relevance, innovation, methodology, analysis, documentation, presentation, and teamwork. Continuous assessment and feedback help students improve both technical competence and professional skills

Rubrics followed for Seminar

Criteria	Description	Marks (%)	Sl.no	Register Number	Name of the Student	Title of the Seminar	PO/PSO Mapping
Topic Relevance & Current Trends	Selection of topic related to Civil Engineering, relevance to contemporary issues and emerging technologies	15					
Literature Review & Content Depth	Understanding of concepts, use of technical references, clarity of explanation	20					
Innovation & Critical Thinking	Originality of ideas, problem identification	15	1	721021103006	GOKUL KRISHNAN	Foundation Failures causes and Prevention	PO1, PO2, PO4, PO7, PSO1, PSO2, PSO3
Organization & Documentation	Logical structuring of seminar report	15	2	721021103031	SHAMNAS S		
Presentation Skills	Clarity of speech, use of visual aids (PPT), time management	20	3	721021103007	HARI MUGESH KUMAR	Rainwater harvesting systems	PO3, PO6, PO7, PSO1, PSO3
Question Handling & Interaction	Ability to answer questions and demonstrate subject knowledge	15	4	721021103301	DALVIN VARGHESE C		
Total		100	5	721021103013	MANOJ	Quality management in construction	PO2, PO3, PO10, PO11, PSO2, PSO3
			6	721021103038	VENGATESAN		
			7	721021103028	RUDRESHWAR KS	Water treatment processes	PO1, PO2, PO3, PO7, PSO1, PSO2, PSO3
			8	721021103030	SHAKIR TV		
			9	721021103032	SHARAFUDEEN S	Sustainable buildings and green rating systems	PO6, PO7, PO8, PSO1, PSO3
			10	721021103035	SURYAPRAKAS H C		
			11	721021103039	VIGNESHWARA N S	Use of industrial waste materials in foundations	PO1, PO2, PO7, PSO1, PSO2, PSO3
			12	721021103302	GOPALA KRISHANAN M		

13	721021103 303	JAYA SURYA K	AI applications in civil engineering	PO2, PO3, PO5, PO12, PSO2, PSO3
14	721021103 304	PRAVEEN KUMAR R		
15	721021103 306	THAMIZHARAS AN S	Settlement of foundations	PO1, PO2, PO4, PSO1, PSO2, PSO3
16	721021103 401	VISHAL G		
17	721022103 002	ALWIN BIJU	Smart materials in civil engineering	PO1, PO3, PO7, PSO1, PSO3
18	721022103 004	ATHUL R		
19	721022103 007	JAGANATHAN P	Ready-mix concrete (RMC) – advantages and challenges	PO1, PO2, PO11, PSO1, PSO3
20	721022103 008	PARTHASARAT HI S		
21	721022103 010	SURYA M	Bio-based construction materials	PO6, PO8, PO11, PSO2
22	721022103 012	THENAMUDHA N J		
23	721022103 011	THARUNRAJ K	Basic construction safety practices	PO1, PO2, PO3, PSO1, PSO2, PSO3
24	721022103 304	AMMAAR AL AABHEEDHEEN H		
25	721022103 306	NAJITH REHEMAN	Pavement failures and remedial measures	PO1, PO2, PO3, PSO1, PSO2, PSO3
26	721022103 303	KATHIR VEL K		
27	721023103 001	AFRIN A	Composite structures	PO1, PO2, PO3, PSO1, PSO3
28	721023103 006	HARINI R		
29	721023103 011	PUGAZHENTHI G	Net-zero energy buildings	PO6, PO7, PO12, PSO1, PSO3
30	721023103 017	SREE RENJINI T. M		
31	721023103 019	VETRIHARAN S	Landslide mitigation and slope stabilization	PO1, PO2, PO4, PO7, PSO1, PSO2, PSO3
32	721023103 014	SHERJIN J S		



Rubrics followed for Mini Project

Sl.No	Register Number	Name of the Student	Description	PO/PSO	Criteria	Description	Marks (%)
33	721023103301	ATHUL MOHAN E	Risk management in construction projects	PO2, PO8, PO11, PSO2, PSO3	Problem Identification & Objectives	Clarity in defining the problem and project objectives	10
34	721023103304	NAVEEN S			Methodology & Design Approach	Appropriateness of methods, design procedures, and technical approach	20
35	721023103012	SABARINATHAN R	Foundations for renewable energy structures	PO1, PO2, PO3, PO7, PSO1, PSO2, PSO3	Data Collection & Analysis	Accuracy in data collection, calculations, testing, and interpretation	20
36	721023103013	SELLAMUTHU S			Innovation & Practical Application	Creativity, feasibility, and real-world applicability of the project	15
37	721023103005	GUNA D	AI and IoT in civil engineering	PO2, PO3, PO5, PO12, PSO2, PSO3	Use of Tools & Software	Effective use of software/tools such as AutoCAD, STAAD, ETABS, Excel, etc.	10
38	721023103010	PAVAN B			Documentation & Report Quality	Organization, drawings, calculations, conclusions, references	15
39	721023103003	ANJAL. S	Waste-to-energy technologies	PO3, PO6, PO7, PSO1, PSO3	Teamwork & Individual Contribution	Collaboration, role distribution, and individual involvement	10
40	721023103007	LAVANYA M			Total		100

Sl.No	Register Number	Name of the Student
1	721021103006	GOKUL KRISHNAN (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadacztyqazprcesegrngxleicrvzyudqaivbsyxzjmljprupkdsbbjwldlqmrkybcIncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuwimhuywubrwwnvpzfkzliardmh-rptyvpweypmgrtejqcguclnetsknnx&studid=20214005)
2	721021103031	SHAMNAS S (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadacztyqazprcesegrngxleicrvzyudqaivbsyxzjmljprupkdsbbjwldlqmrkybcIncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuwimhuywubrwwnvpzfkzliardmh-rptyvpweypmgrtejqcguclnetsknnx&studid=20211946)

3	721021103 013	MANOJ S (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczktyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcIncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuwimhuywubrwwnvipzkzliardmh-rptyvpweypmgrtejqcgucltnsknnx&studid=20211874)
4	721021103 038	VENGATESAN A (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczktyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcIncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuwimhuywubrwwnvipzkzliardmh-rptyvpweypmgrtejqcgucltnsknnx&studid=20212149)
5	721021103 028	RUDRESHWAR KS (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczktyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcIncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuwimhuywubrwwnvipzkzliardmh-rptyvpweypmgrtejqcgucltnsknnx&studid=20211286)
6	721021103 030	SHAKIR TV (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczktyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcIncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuwimhuywubrwwnvipzkzliardmh-rptyvpweypmgrtejqcgucltnsknnx&studid=20214175)
7	721021103 032	SHARAFUDEEN S
8	721021103 035	SURYAPRAKASH C (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczktyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcIncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuwimhuywubrwwnvipzkzliardmh-rptyvpweypmgrtejqcgucltnsknnx&studid=20212036)
11	721021103 039	VIGNESHWARAN S (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpggadaczktyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcIncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuwimhuywubrwwnvipzkzliardmh-rptyvpweypmgrtejqcgucltnsknnx&studid=20211650)
12	721021103 302	GOPALA KRISHANAN M
15	721021103 306	THAMIZHARASAN S
16	721021103 401	VISHAL G
17	721022103 002	ALWIN BIJU
18	721022103 004	ATHUL R

21	721022103 010	SURYA M
22	721022103 012	THENAMUDHAN J
23	721022103 011	THARUNRAJ K
24	721022103 304	AMMAAR AL AABHEEDHEEN H
25	721022103 306	NAJITH REHEMAN
26	721022103 303	KATHIR VEL K
27	721023103 001	AFRIN A
28	721023103 006	HARINI R

Bottom of Form

Through seminars and mini projects, the department successfully promotes **active learning, research orientation, industry awareness, and collaborative skills** among students. These practices contribute significantly to achieving program outcomes and preparing graduates for higher studies, research, and professional careers in Civil Engineering

2.5 Case Studies and Real-Life Examples (10)

The **Department of Civil Engineering** actively incorporates **case studies and real-life examples** into the teaching–learning process to enhance students' understanding of practical applications of theoretical concepts. These activities are designed to **bridge the gap between classroom learning and field practices**, thereby improving students' analytical, problem-solving, and professional skills.

Implementation Methodology

- Faculty members explain real-time construction practices using site photographs, videos, and live case discussions.
- Students are encouraged to observe, analyze, and discuss real-life engineering problems.
- Field exposure and interaction with practicing engineers help students understand constraints related to safety, cost, environment, and societal impact.
- These activities promote experiential learning without adding examination or evaluation pressure.

The primary objective of these case studies and real-life examples is:

- To **enhance conceptual clarity**
- To develop **professional awareness and practical insight**
- To motivate students towards **industry-oriented learning**

Impact on Student Learning

- Improved understanding of practical civil engineering applications
- Better correlation between theory and field practices
- Enhanced critical thinking and decision-making abilities
- Increased awareness of professional ethics, safety, and sustainability
- Preparation for industry and higher studies

The Department of Civil Engineering strongly believes that **case studies and real-life examples play a vital role in holistic engineering education**. These activities significantly contribute to the overall development of students by enriching their learning experience and preparing them for real-world engineering challenges.

Table 2.5.1 Students actively involved in Case study

SI.No	Register No	Name of the student	Title of the Case Study	Case study incorporated with the course	PO/PSO Mapping
1	721021103031	SHAMNAS S	RECYCLED AGGREGATE CONCRETE FOR SUSTAINABLE CONSTRUCTION	Concrete Technology	PO1,PO2,PO3,PO6,PO7,PSO1,PSO1,PSO2
2	721021103028	RUDRESHWAR KS	GREEN BUILDING FEATURES AND PERFORMANCE EVALUATION	Sustainable Engineering / Green Building	PO2,PO3,PO4,PO6,PO7, PSO1,PSO2
3	721022103010	SURYA M	PERFORMANCE EVALUATION		
4	721022103008	PARTHASARATHI S			

5	721022103304	AMMAAR AL AABHEEDHEE N H	ESTIMATION OF SOIL LOSS AND RUNOFF IN HILL SLOPES UNDER SIMULATION RAINFALL CONDITION	Ground Improvement Techniques	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PSO1,PSO2
6	721022103002	ALWIN BIJU	CONDITION FOR LANDSLIDE MITIGATION		
7	721023103001	AFRINA	SELF-HEALING CONCRETE USING BACTERIA	Concrete Technology	PO1,PO2,PO3,PO4,PO7,PSO1,PSO2
8	721023103012	SABARINATHAN R			
9	721023103304	NAVEEN S		Transportation Engineering	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PSO1,PSO2
10	721023103301	ATHUL MOHANE			



Fig:2.5.1 CASE STUDY: ESTIMATION OF SOIL LOSS AND RUNOFF IN HILL SLOPES

UNDER SIMULATION RAINFALL CONDITION FOR LANDSLIDE

MITIGATION

Table 2.5.2 Students involved in Real life examples

Sl.No	Register No	Name of the student	Activities involved in Real life examples	PO/PSO Mapping
1	721023103003	ANJAL	PLOT MARKING (SETTING OUT) OF A RESIDENTIAL BUILDING	PO1, PO2, PO3, PO5, PO9, PSO1, PSO2
2	721023103007	LAVANYA		
3	721023103007	SRI RENJINI		
4	721023103001	PUGAZHENTHI		

3	721022103010	SURYA M	DECISION-MAKING FOR REPAIR OR DEMOLITION	PO1, PO2, PO4, PO6, PO7, PO11, PSO1, PSO3
4	721022103008	PARTHASARATHI S		
5	721022103304	AMMAAR AL AABHEEDHEEN H	DETERMINING SOIL STRATA AND DEPTH OF HARD STRATA	PO1, PO2, PO4, PO5, PSO1, PSO2
6	721022103002	ALWIN BIJU		
7	721023103001	AFRIN A	REINFORCEMENT DETAILING AND PLACEMENT IN FOOTING	PO1, PO2, PO3, PO5, PO9, PSO1, PSO2
8	721023103011	PUGAZHENTHI		
9	721023103304	SELLAMUTHU	TRAFFIC CONGESTION ANALYSIS AT A MAJOR URBAN INTERSECTION	PO1, PO2, PO4, PO6, PO7, PO10, PSO1, PSO3

Table 2.5.2 Students involved in Real life examples

SI.No	Register No	Name of the student	Activities involved in Real life examples	PO/PSO Mapping
1	721023103003	ANJAL	PLOT MARKING (SETTING OUT) OF A RESIDENTIAL BUILDING	PO1, PO2, PO3, PO5, PO9, PSO1, PSO2
2	721023103007	LAVANYA		
3	721023103017	SRI RENJINI		
4	721023103011	PUGAZHENTHI		
3	721022103010	SURYA M	DECISION-MAKING FOR REPAIR OR DEMOLITION	PO1, PO2, PO4, PO6, PO7, PO11, PSO1, PSO3
4	721022103008	PARTHASARATHI S		



Fig 2.5.1 Plot Marking (Setting Out) of a Residential Building

5	721022103304	AMMAAR AL AABHEEDHEEN H	DETERMINING SOIL STRATA AND DEPTH OF HARD STRATA	PO1, PO2, PO4, PO5, PSO1, PSO2
6	721022103002	ALWIN BIJU		
7	721023103001	AFRIN A	REINFORCEMENT DETAILING AND PLACEMENT IN FOOTING	PO1, PO2, PO3, PO5, PO9, PSO1, PSO2
8	721023103011	PUGAZHENTHI		
9	721023103304	SELLAMUTHU	TRAFFIC CONGESTION ANALYSIS AT A MAJOR URBAN INTERSECTION	PO1, PO2, PO4, PO6, PO7, PO10, PSO1, PSO3
10	721023103301	SABARINATHAN		



Fig 2.5.2 Decision-making for repair or demolition



Fig 2.5.3 Determining soil strata and depth of hard strata



Fig 2.5.4 Reinforcement Detailing and Placement in Footing



Fig 2.5.5 Traffic Congestion Analysis at a Major Urban Intersection

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

Sl.No	Name of the Student	Name of the Course	Certificate Issued Bodies	PO/PSO's Mapping
1	GOKUL KRISHNAN	Formwork For Concreting	COURSERA	PO2,PO3,PO7,PO8,PO11,PSO1,PSO2,P SO3
2	GOKUL KRISHNAN	Construction Management	COURSERA	PO2,PO3,P09,P10,PO11, PSO1,PSO2,PSO3
3	GOKUL KRISHNAN	The Great Sustainability Transition: Global challenges, Local actions	COURSERA	PO6,PO7,PO8,P012,PSO1,PSO3

3	HARIMUGESH KUMAR	Construction Cost Estimation and Cost Control	COURSERA	PO2,PO3,PO5,PO11, PSO1,PSO2,PSO3
5	RUDRESHWAR	Construction Cost Estimation and Cost Control	COURSERA	
6	MANOJ	Construction Cost Estimation and Cost Control	COURSERA	
7	VENGATESAN	Construction Cost Estimation and Cost Control	COURSERA	
8	VIGNESHWARAN	Construction Cost Estimation and Cost Control	COURSERA	
9	SHAKIR TV	Construction Cost Estimation and Cost Control	COURSERA	
10	SHARAFUDHEEN S	Construction Cost Estimation and Cost Control	COURSERA	

11	GOKUL KRISHNAN	Construction Cost Estimation and Cost Control	COURSERA	
12	AFRIN A	Construction Scheduling	COURSERA	PO2,PO3,PO5,PO9,PO11, PSO1,PSO2,PSO3
13	AJAY.J	Construction Scheduling	COURSERA	
14	ANJAL. S	Construction Scheduling	COURSERA	
15	DHAMODHARAN V	Construction Scheduling	COURSERA	
16	GUNA D	Construction Scheduling	COURSERA	
16	HARINI R	Construction Scheduling	COURSERA	
17	LAVANYA M	Construction Scheduling	COURSERA	
	SHERJIN	Construction Scheduling	COURSERA	
18	AFRIN A	Construction Cost Estimation and Cost Control	COURSERA	PO2,PO3,PO5,PO11, PSO1,PSO2,PSO3
19	AJAY.J	Construction Cost Estimation and Cost Control	COURSERA	
20	HARINI R	Construction Cost Estimation and Cost Control	COURSERA	
21	LAVANYA M	Construction Cost Estimation and Cost Control	COURSERA	

23	VETRIHARAN	The Construction Industry: The Way Forward	COURSERA	PO6,PO7,PO8,PO10, PO12,PSO1,PSO3
24	SHERJIN	The Construction Industry: The Way Forward	COURSERA	
25	VETRIHARAN	Construction Project Management	COURSERA	PO2,PO3,P09,P10,PO11, PSO1,PSO2,PSO3
26	SHERJIN	Construction Finance	COURSERA	PO2,PO3,PO8,PO11, PSO1,PSO2,PSO3
	VETRIHARAN	Construction Finance	COURSERA	
27	GOKUL KRISHNAN	Precast & Advanced Pile Foundation	COURSERA	PO1,PO2,PO3,PO4,PO7, PSO1,PSO2,PSO3
28	GOKUL KRISHNAN	Industrial Applications of AI	COURSERA	PO2, PO3, PO5, PO12, PSO2, PSO3
29	GOKUL KRISHNAN	Excel Basics for Data Analysis	COURSERA	PO2, PO5, PO10, PSO2, PSO3
30	GOKUL KRISHNAN	Effective Problem-Solving and Decision-Making	COURSERA	PO2, PO3, PO8, PO10, PO12
31	GOKUL KRISHNAN	Transportation, Sustainable Buildings, Green Construction	COURSERA	PO1, PO2, PO3, PO7, PSO1, PSO2, PSO3
32	GOKUL KRISHNAN	Introduction to Management Consulting	COURSERA	PO2, PO8, PO10, PO11, PO12, PSO2, PSO3
33	GOKUL KRISHNAN	Construction Project Management	COURSERA	PO2,PO3,P09,P10,PO11, PSO1,PSO2,PSO3
34	GOKUL KRISHNAN	Construction Aspects of Formwork	COURSERA	PO2, PO3, PO7, PO8, PO11, PSO1, PSO2, PSO3

35	GOKUL KRISHNAN	Sustainable Neighborhoods	COURSERA	PO6, PO7, PO8, PO12, PSO1, PSO3
36	GOKUL KRISHNAN	Basics of Fire Protection, Detection and Life Safety Systems	COURSERA	PO1, PO2, PO3, PO6, PO8, PSO1, PSO2, PSO3
43	GOKUL KRISHNAN	Basic Construction Materials	NPTEL	PO1, PO2, PO4, PO7, PSO1, PSO2, PSO3
44	GOKUL KRISHNAN	Principles of Construction Management	NPTEL	PO2, PO3, PO9, PO10, PO11 PSO1, PSO2, PSO3
45	AFRINA	Digital Land Surveying and Mapping	NPTEL	PO1, PO2, PO4, PO5, PO7, PSO1, PSO2, PSO3
46	AFRINA	Foundation Engineering	NPTEL	PO1, PO2, PO3, PO4, PO7, PSO1, PSO2, PSO3

The Department of Civil Engineering ensures the attainment of clearly defined learning outcomes through a structured teaching–learning process that integrates classroom instruction with national-level online learning platforms. One of the significant initiatives adopted by the department to enhance student performance and learning outcomes is the active participation of students in **COURSERA, SWAYAM–NPTEL online certification courses**. Faculty members guide students in selecting appropriate courses are recognized as per university and institutional norms wherever applicable. The department systematically motivates students through orientation programs, faculty mentoring, and academic counseling to enroll in these courses.

Faculty members guide students in selecting appropriate courses that complement their curriculum and career goals. The consistent increase in student enrollment and successful certification in courses reflects the department's commitment to **outcome-based education (OBE)**. These initiatives significantly contribute to the attainment of POs and PSOs, particularly in areas related to **lifelong learning, problem analysis, modern tool usage, sustainability, and professional ethics**. Thus, the integration of COURSERA ,SWAYAM–NPTEL learning into the academic ecosystem of the Department of Civil Engineering has positively impacted student performance and learning outcomes, reinforcing the quality and effectiveness of the teaching–learning process






Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to
GOKUL KRISHNAN
for successfully completing the course

Basic Construction Materials


with a consolidated score of **64** %


Online Assignments	21.81/25	Proctored Exam	42/75
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Total number of candidates certified in this course: **1001**



Prof. Devendra Jalihal
Chairperson,
Centre for Outreach and Digital Education, IITM

Jan-Apr 2024
(12 week course)



Prof. Andrew Thangaraj
NPTEL, Coordinator
IIT Madras




Indian Institute of Technology Madras



Roll No: NPTEL24CE06S1264100217


To verify the certificate 

No. of credits recommended: 3 or 4



NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



This certificate is awarded to
AFRIN
for successfully completing the course

Digital Land Surveying and Mapping (DLS&M)

with a consolidated score of **52** %


Online Assignments	21.67/25	Proctored Exam	30/75
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Total number of candidates certified in this course: **161**



Prof. Kaushik Ghosh,
Professor (Chemistry)
Coordinator DEC

Jan-Mar 2025
(8 week course)



Prof. Ranjana Pathania,
Professor (BSBE)
Coordinator (NPTEL)



Indian Institute of Technology Roorkee



Roll No: NPTEL25CE13S443402286

To verify the certificate 

No. of credits recommended: 2 or 3

2.7 Solving Complex Engineering Problems Incorporating Sustainability Goals (20)

2.7 Solving Complex Engineering Problems Incorporating Sustainability Goals

The department adopts a **Project-Based Learning (PBL)** and **Research-Led Instructional** approach to prepare students for the multifaceted challenges of the **Civil Engineering** profession. In Civil Engineering, **Complex Engineering Problems** are those that cannot be solved using standard formulas or routine procedures alone. These problems require the integration of multiple disciplines—such as structural engineering, geotechnical engineering, environmental engineering, transportation engineering, water resources engineering, construction management, and material science—while also addressing economic, environmental, sustainability, safety, and ethical constraints.

Pedagogical Approach to Complexity

Identification of Socio-Technical Gaps:

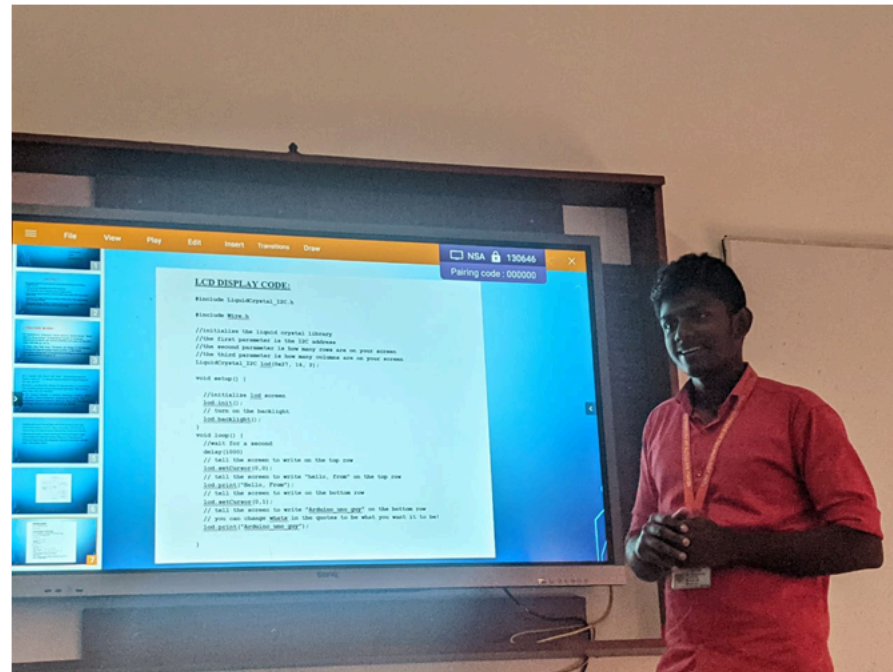
Students are encouraged to identify real-world civil engineering challenges such as urban flooding due to inadequate drainage systems, traffic congestion in rapidly growing cities, deterioration of infrastructure, ineffective solid waste management, water scarcity, and the need for affordable and disaster-resilient housing. This helps students understand the relationship between engineering systems, community needs, environmental conditions, and economic limitations.

Multidisciplinary Integration:

Projects are designed to require knowledge from core courses such as Structural Engineering, Geotechnical Engineering, Environmental Engineering, Transportation Engineering, Fluid Mechanics, Water Resources Engineering, and Construction Management. This ensures that proposed solutions are safe, technically sound, economically feasible, and suitable for large-scale implementation in real-world conditions.

Sustainability as a Design Constraint:

Following the guidelines of the United Nations Sustainable Development Goals (SDGs), sustainability is treated as a primary design parameter. This includes minimizing carbon emissions in construction, conserving water resources, using sustainable and recycled construction materials, improving energy efficiency, and developing environmentally responsible and climate-resilient infrastructure.



Participated in Design Infrastructure Hackathon in 2025



Students participated in smart India Hackathon 2025

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 Civil Engineering, a robust framework for Industry–Institute Interaction has been systematically established. This collaborative ecosystem enables students to adapt to rapid technological advancements in infrastructure development, sustainable construction, and smart urban systems while understanding the commercial, regulatory, and operational dimensions of the civil engineering sector. The department follows a structured procedure to facilitate this engagement

Knowledge Dissemination through Expert Forums:

The department regularly invites senior civil engineers, project managers, structural consultants, geotechnical experts, and infrastructure planners to participate in National and International Conferences, Seminars, and Technical Symposiums. These platforms expose students to contemporary developments such as sustainable construction practices, green buildings, smart cities, advanced materials, and digital construction technologies like BIM.

Strategic Networking and Career Guidance:

Interactive sessions are organized with HR managers, project directors, and recruitment heads from reputed construction companies, design consultancies, and public sector organizations. These engagements help students understand industry expectations, required technical competencies, safety standards, and professional ethics, thereby bridging the gap between academic preparation and corporate demands.

Experiential Learning via Industry Visits and Site Training:

Students actively participate in structured industrial training programs and site visits to major infrastructure projects such as highways, bridges, metro rail projects, dams, water treatment plants, and high-rise buildings. These visits provide practical exposure to construction methodologies, quality assurance procedures, safety practices, equipment handling, and project management techniques.

Collaborative Consultation with Industry Experts:

The department maintains active professional associations with construction firms, structural design consultancies, geotechnical investigation agencies, material testing laboratories, and government bodies such as PWD and municipal corporations. These linkages bring experienced technocrats and R&D professionals into academic forums to discuss global construction standards, seismic design codes, environmental regulations, project execution challenges, and sustainable infrastructure development.

Technical Workshops on Emerging Tools and Technologies:

To ensure students are proficient in modern engineering tools, the department conducts hands-on workshops and certification programs in collaboration with industry partners. Training is provided in software applications such as STAAD Pro, ETABS, AutoCAD, Revit (BIM), Primavera, and other project management and structural analysis tools. Workshops are also conducted on Non-Destructive Testing (NDT), advanced surveying techniques, and innovative construction materials.

Industry–Academia Interaction – Department of Civil Engineering

In the era of rapid urbanization, infrastructure expansion, and globalization, the civil engineering sector faces intense competition and continuous technological transformation. The demand for sustainable infrastructure, smart cities, resilient structures, and advanced construction methodologies has significantly increased. To remain globally competitive, construction companies, infrastructure developers, and consultancy firms increasingly collaborate with academic institutions for innovative, cost-effective, and sustainable engineering solutions. At the same time, it is essential that civil engineering students are exposed to emerging technologies, industry workflows, safety regulations, and global engineering standards to ensure they are industry-ready and employable in multinational organizations.

Industry-Offered Short-Term Certification Programs:

The department collaborates with reputed construction companies, professional bodies, and technical training organizations to offer specialized certification programs beyond the university syllabus. These include certifications in Building Information Modeling (BIM), Quantity Surveying, Construction Planning & Scheduling (Primavera/MS Project), Non-Destructive Testing (NDT), Advanced Surveying Techniques, and Sustainable Construction Practices. Such programs enhance technical competency and improve employability.

Partial Delivery of Courses by Industry Experts:

Experienced professionals including structural consultants, geotechnical engineers, project managers, and infrastructure planners are invited to deliver selected modules within core subjects such as Structural Analysis, Geotechnical Engineering, Environmental Engineering, and Construction Planning & Management. These sessions provide real-time case studies, exposure to contemporary design practices, insights into industry challenges, and awareness of evolving technologies.

Industrial Support and Professional Training:

The department maintains active collaborations with construction firms, infrastructure developers, material testing laboratories, and government bodies such as PWD, municipal corporations, and irrigation departments. These partnerships facilitate internships, industrial training, site visits, consultancy projects, and exposure to national codes (IS Codes), environmental compliance standards, safety regulations, and quality assurance protocols. Students receive hands-on training directly under certified professionals, enabling them to understand real-world project execution and regulatory requirements.

Industry-Offered Short-Term Programs: To enhance industry-readiness and practical competency among students, the Department of Civil Engineering collaborates with reputed construction companies, professional bodies, and technical training organizations to offer industry-oriented short-term certification programs beyond the prescribed university curriculum.

Partial Delivery of Courses: These sessions incorporate real-world case studies, live project discussions, advanced construction methodologies, quality control practices, safety standards, and recent technological advancements such as Building Information Modeling (BIM) and sustainable construction techniques. By integrating industry expertise into classroom teaching, students gain practical insights into current engineering challenges, professional standards, regulatory requirements (IS Codes), and project execution strategies.

Industrial Support and Training: The Department of Civil Engineering maintains strong collaborations with construction companies, infrastructure development firms, structural design consultancies, geotechnical investigation agencies, material testing laboratories, and government organizations such as PWD, municipal corporations, and irrigation departments to provide comprehensive industrial support and training to students.

Table 2.8.1: Overall Data of Industry Institute Partnerships

Nature of Activity	Program / Industry Partner	Key Industry Expert / Agency	Date / Duration
Guest Lecture	Geo-Strut Engineering Consultant	Er.M.Yuvaraj	29-June 24
Seminar	Ins Culp Civil Consultants	Er.Jenin raj	22-Oct 24
Internship	Sri Kumaran Developers	Mr. Krishnamurthy	May 2023-June 2023
Placement	Balaji Builders	Er.Vasudevan	May-2024
Workshop	COZCENA	Er.VP.Palanisamy	5-Feb-24
Industrial visit	Aadani Cement	Aadani cements, Coimbatore	17-Oct-25
Hands on training	Gravity Associates	Er.Puniya moorthy	20-Nov -25
Field visit	HFS Geo technical consultants	Er.Shamsun	10-Dec-25

The structured training covered key areas such as Building Information Modeling (BIM), Structural Design as per IS Codes, Construction Planning and Scheduling using Primavera/MS Project, Quality Control in Concrete and Materials Testing, and Site Safety Management in accordance with national safety regulations.



Fig 2.8.1 workshop on recent trends in civil engineering

To enhance practical competency in civil engineering practice, the Department of Civil Engineering organized a **Hands-on Training on Modern Construction Practices and Material Testing**, followed by a **Technical Poster Presentation Competition**. Conducted in collaboration with a reputed construction company and led by a senior project engineer/quality control manager, these initiatives provided industry-specific knowledge on construction planning, quality assurance, structural detailing, material testing procedures, and site safety regulations. This industry–academia partnership directly supported the attainment of professional competencies required by construction and infrastructure stakeholders.



Fig 2.8.2: Hands-on Training on reinforced concretet

Seminar on Fiber Reinforced Concrete Applications

Fiber Reinforced Concrete (FRC) is concrete that contains small, discrete fibers uniformly distributed throughout the mix to improve its structural performance. These fibers help control cracking, enhance tensile strength, increase toughness, and improve durability.



Fig 2.8.3: seminar on fibre reinforced concrete

3 OUTCOME-BASED ASSESSMENT (120)

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

Continuous Internal Assessment :

In order to ensure that students receive accurate assessments, the department maintains the quality of the internal exam question papers and assignments for the courses taught in a semester. The faculty maintains a positive teacher-student relationship through an effective, transparent, and ethical assessment methodology. The questions for internal exams are derived from the syllabus that was covered in class, and the assignment questions are designed to test students critical and creative thinking. The faculty maintains transparency in evaluation and steers clear of unfair, harsh, and inappropriate grading. The questions are structured according to the Blooms Taxonomy knowledge level of mapping to Course Outcomes.

Continuous assessment component will be decided by the course coordinator who has the liability to go for any mode of continuous assessment suitable to the course. However, the assessment mode should be decided before the commencement of course in the semester and approved by the Head of the department concerned. In case a student misses the assessment due to medical reasons (hospitalization /accident / specific illness) or due to participation in the College / University / State /National / International level Sports, events with prior permission from the Chairman, Sports Board, only one Reassessment may be given at the end of the semester after getting approval from the Head of the Department through the concerned course instructor.

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

- The department ensures that the faculty completes the syllabus required to conduct exam by taking the Class Committee meeting twice in a semester.
- The question paper is set as per the guidelines provided by the university curriculum for R21 regulation and Autonomous Curriculum for R23 regulation giving equal weightage to all the units in the course.
- Two sets of question papers will be prepared by the faculty for every mid-term examination. The question paper contains questions from the syllabus with COs coverage and the level of difficulty as per the revised Bloom's Taxonomy. Scheme of evaluation will be prepared by the corresponding faculty.
- The quality of the question paper is evaluated by the Department IQAC member.
- One set will be selected by the Head of the Department one day prior on the day of exam.
- Papers are evaluated by the course instructor as per the scheme and the scripts were shown to students to maintain transparency. The students are given a chance to ask doubts regarding the evaluation procedure marks allotted. The doubts are clarified by the course instructor and the assessment is done.
- Academically poor student's i.e slow learners will be identified and we organize remedial classes for such students to improve their learning ability.

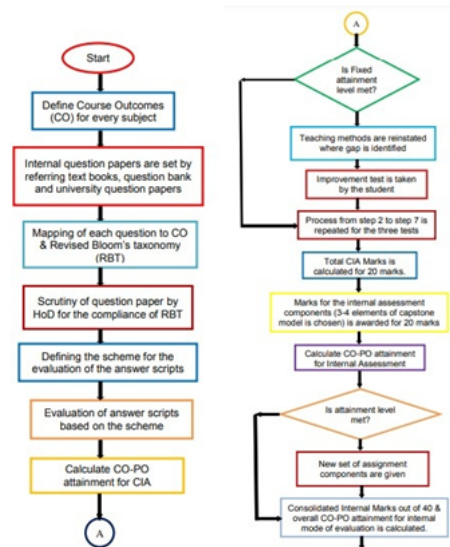


Fig 3.1.1: Process for internal examination evaluation & assessment

Process to ensure questions from outcomes/learning levels perspective:

- When creating the question paper for the internal test, the department and IQAC make sure that the faculty members closely adhere to the Bloom taxonomy levels.
- The faculty coordinator assigns COs to POs and establishes the course outcomes for the chosen course.

The syllabus contents and the students capacity to learn following a successful course completion are taken into account while writing the COs. The degree of comprehension specified by Blooms Taxonomy is indicated by the verb used to describe the CO.

When creating the questions for the internal exam, the course instructor makes sure that they are framed to the same level as those specified by the COs and that this is made explicit on the question paper.

The image shows a document titled 'NEHRU INSTITUTE OF TECHNOLOGY' with a 'COURSE PLAN' section. The course is 'CE3602 & STRUCTURAL ANALYSIS II' for the 'Third Year B.E. Civil' class, Semester VI, Academic year 2023-24. It lists prerequisites (Engineering mechanics, Strength of Materials, Structural Analysis I) and course objectives (drawing influence lines, analyzing indeterminate beams, arches, suspension bridges, and frames). Below this, 'COURSE OUTCOMES' are listed (CO1 to CO5) with corresponding action verbs and Bloom's Taxonomy levels. A 'MAPPING OF PROGRAM OUTCOMES' section follows, listing PO1 to PO5 with their descriptions.

COURSE PLAN	
Course code and title	CE3602 & STRUCTURAL ANALYSIS II
Class	Third Year B.E. Civil
Semester	VI
Regulation	2021
Academic year	2023-24
Course prerequisites	1. Engineering mechanics 2. Strength of Materials 3. Structural Analysis I
Course objectives	1. To learn the method of drawing influence lines and its uses in various applications like Beams and plane trusses. 2. Also to learn influence lines of indeterminate beams. 3. To analyze the arches. 4. To analyze the suspension bridges and space trusses. 5. To analyze the frames.
COURSE OUTCOMES	
At the end of the course, students can able to	
CO1	Draw influence lines for statically determinate structures and calculate critical stress resultants.
CO2	Understand Muller Breslau principle and draw the influence lines for statically indeterminate beams.
CO3	Analyse three hinged, two hinged and fixed arches.
CO4	Analyse the suspension bridges with stiffening girders.
CO5	Analyse FFD rigid frames by approximate methods for gravity and horizontal loads.
MAPPING OF PROGRAM OUTCOMES	
PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of Mathematics, natural sciences, and engineering sciences.
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 the public health and safety, and the cultural, societal, and environmental considerations.
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.
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including predictive and modeling to complex engineering activities with an understanding of the limitations.

Fig. 3.1.2: Sample Course COs and Blooms Taxonomy levels

Justification of questions from the outcomes/learning levels perspective :

Action Verb used	Revised Blooms's Taxonomy Level
What	Understand(L1)
Mention	Understand(L2)
Determine	Understand(L2)
Show	Apply(L3)
State	Apply(L3)
Examine	Apply(L3)

Table 3.1.1: Mapping of question paper verbs to Bloom's Taxonomy level

Process to ensure questions from outcomes:

Evaluation of Theory courses: -

Two assessments each carrying 100 marks shall be conducted during the semester by the Department / College concerned. The total marks obtained in all assessments put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weightage to the two assessments).

Assessment I (100 Marks)		Assessment II (100 Marks)		Total Internal Assessment
Individual Assignment / Case Study / Seminar / Mini Project	Written Test	Individual Assignment / Case Study / Seminar / Mini Project	Written Test	
40	60	40	60	200

*The weighted average shall be converted into 40 marks for internal Assessment.

Table 3.1.2 (i) Marks Distribution for 2021 Regulation

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

Table 3.1.2 (ii) Marks Distribution for 2023 Regulation

Two internal assessments will be conducted as a part of continuous assessment. Each internal assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., Individual Assignment/Case study/Seminar/Mini project and Test with each having a weightage of 40% and 60% respectively. The tests shall be in written mode. The total internal assessment marks of 200 shall be converted into a maximum of 40 marks and rounded to the nearest integer.

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

Table 3.1.3 Distribution of Course Outcomes (Regulation 2021 & 2023)

Part-A	Part-B	Part-C	Total Marks
	O11% O12% O13% O14% O15% O16%		

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11b	Q12b	Q13b	Q14b	Q15b	Q16b	100
CO1	CO1	CO1	CO1	CO2	CO2	CO2	CO2	CO3	CO3	CO1	CO1	CO2	CO2	CO3	CO1/CO	
2	2	2	2	2	2	2	2	2	2	13	13	13	13	13	15	

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

Part-A										Part-B					Part-C			Total Marks	Grand Total Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16a/ Q16b	Q17a/ Q17b	Q18a/ Q18b		
CO1	CO1	CO1	CO1	CO2	CO2	CO2	CO2	CO3	CO3	CO1	CO1	CO2	CO2	CO3	CO1/CO	CO2/CO2	Any CO	50 100	100
1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	10	10	10		

Table 3.1.4 (ii) Distribution of Course Outcomes for Continuous Internal Assessment – I (Regulation 2023)

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

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

Part-A										Part-B					Part-C			Total Marks	Grand Total Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16a/ Q16b	Q17a/ Q17b	Q18a/ Q18b		
CO1	CO1	CO1	CO1	CO2	CO2	CO2	CO2	CO3	CO3	CO1	CO1	CO2	CO2	CO3	CO1/CO	CO2/CO2	Any CO	50	100
1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	10	10	10		

Table 3.1.5 (ii) Distribution of Course Outcomes for Continuous Internal Assessment – II (Regulation 2023)

Evidence of Cos coverage in internal tests:

The department makes ensuring that internal exams are administered in accordance with the established COs. A example copy of an internal exam for a course is displayed below, along with an illustration of the topics covered by the test.

A sample Internal-I question paper and Answer Booklet is given below:

NEHRU INSTITUTE OF TECHNOLOGY
(Autonomous)
Department of Civil Engineering
Continuation Internal Assessment I, July 2024
CE7602 STRUCTURAL ANALYSIS II

Semester VI
Max (Marks) 100
Date: 23/08/2024

Question Paper
Duration: 2 Hours
Max (Marks) 100

(Codes/Notes/Charts to be permitted, if any may be indicated)
Any missing data may be assumed suitably

REMARKS (FACULTY LEVEL, ONLY)

LEVEL	Q1	Q2	Q3	Q4	Q5	Q6	TOTAL
1	10	10	10	10	10	10	100

PART - ANSWER ALL QUESTIONS

Q1 (10 Marks)
1. Define influence line.
2. Differentiate between fixed end and roller supports.
3. Why are the ends of continuous beam fixed?
4. What is meant by reaction in a fixed beam?
5. State the Muller-Breslau principle.
6. Define influence line.
7. Define reaction.
8. Define reaction.
9. Mention the classification of axes.
10. State Biot's Theorem.

Q2 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

Q3 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

Q4 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

Q5 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

Q6 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

NEHRU INSTITUTE OF TECHNOLOGY
(Autonomous)
Department of Civil Engineering
Continuation Internal Assessment I, July 2024
CE7602 STRUCTURAL ANALYSIS II

Semester VI
Max (Marks) 100
Date: 23/08/2024

Question Paper
Duration: 2 Hours
Max (Marks) 100

(Codes/Notes/Charts to be permitted, if any may be indicated)
Any missing data may be assumed suitably

REMARKS (FACULTY LEVEL, ONLY)

LEVEL	Q1	Q2	Q3	Q4	Q5	Q6	TOTAL
1	10	10	10	10	10	10	100

PART - ANSWER ALL QUESTIONS

Q1 (10 Marks)
1. Define influence line.
2. Differentiate between fixed end and roller supports.
3. Why are the ends of continuous beam fixed?
4. What is meant by reaction in a fixed beam?
5. State the Muller-Breslau principle.
6. Define influence line.
7. Define reaction.
8. Define reaction.
9. Mention the classification of axes.
10. State Biot's Theorem.

Q2 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

Q3 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

Q4 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

Q5 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

Q6 (10 Marks)
1. A simply supported beam ABC is shown in figure. Using Muller-Breslau Principle, develop the ILD for the reaction at B. Compute the absolute maximum value of reaction at B.

Figure 3.1.3 (i): Sample Internal-I question paper and Front Page Answer Booklet for a course for R21

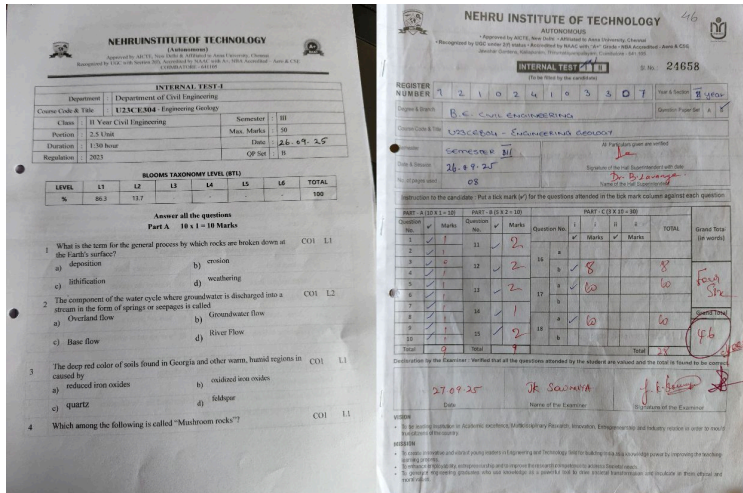


Figure 3.1.3 (ii): Sample Internal-I question paper and Front Page Answer Booklet for a course for R23

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:

Assignment 1					
Question	CO 1	CO 2	CO 3	CO 4	CO 5
Q1	✓				
Q2	✓				
Q3		✓			
Q4		✓			
Q5			✓		

Assignment 2					
Question	CO 1	CO 2	CO 3	CO 4	CO 5
Q1			✓		
Q2			✓		

Q3				✓	
Q4				✓	
Q5					✓
Q6					✓

Table 3.1.6 Distribution of Course Outcomes for Assignments followed by Regulation 2021 & 2023

NEHRU INSTITUTE OF TECHNOLOGY
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ASSIGNMENT 3

1. Analyse the continuous beam shown in the figure using method of consistent deformations. Find constant for the entire span.

2. Analyse the frame shown in the figure using deformation method. Draw the bending moment diagram.

3. Analyse the continuous beam shown in the figure using moment distribution method. Support B is fixed by 10mm. Take $E = 200 \times 10^6 \text{ N/m}^2$ and $I = 100 \times 10^8 \text{ m}^4$.

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Assignment Questions Correlated with Course Outcomes

	CO1	CO2	CO3	CO4	CO5
Q1	+				
Q2	+				
Q3					
Q4	+				
Q5					

Course Outcomes Correlated with Program Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	+	+	+	+	+	+	+	+	+	+	+	+
CO2	+	+	+	+	+	+	+	+	+	+	+	+
CO3	+	+	+	+	+	+	+	+	+	+	+	+
CO4	+	+	+	+	+	+	+	+	+	+	+	+
CO5	+	+	+	+	+	+	+	+	+	+	+	+

1. Load Estimation
 2. Matrix Stiffness
 3. Displacement

Justification
 Questions are answered using consistent deformation method. The questions are answered using the method of consistent deformations.

Faculty In-charge:

HOD:

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ASSIGNMENT 3

1. Analyse the continuous beam shown in the figure by using moment distribution method. Support B is fixed by 10mm. Take $E = 200 \times 10^6 \text{ N/m}^2$ and $I = 100 \times 10^8 \text{ m}^4$.

2. Analyse the frame shown in the figure by using matrix stiffness method. Assume the reaction at support B is zero.

3. Analyse the continuous beam shown in the figure using flexibility method. Draw the loading moment diagram.

4. Analyse the frame shown in the figure below using flexibility method. Also draw the bending moment diagram.

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Assignment Questions Correlated with Course Outcomes

	CO1	CO2	CO3	CO4	CO5
Q1	+				
Q2	+				
Q3					
Q4	+				
Q5					

Course Outcomes Correlated with Program Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	+	+	+	+	+	+	+	+	+	+	+	+
CO2	+	+	+	+	+	+	+	+	+	+	+	+
CO3	+	+	+	+	+	+	+	+	+	+	+	+
CO4	+	+	+	+	+	+	+	+	+	+	+	+
CO5	+	+	+	+	+	+	+	+	+	+	+	+

1. Load Estimation
 2. Matrix Stiffness
 3. Displacement

Justification
 Questions are answered using consistent deformation method. The questions are answered using the method of consistent deformations.

Faculty In-charge:

HOD:

Fig. 3.1.4 Framing of Assignment questions

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

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

- To ensure the quality of the end semester question paper, the following process is adopted.
- A formal notification regarding the schedule of the end semester examination is released by the COE through the department exam coordinators.
- The COE constitutes a board of question paper setters for each programme. The board constituted in this way has a chairperson and the members of the board are responsible for setting the question papers for the courses allotted to them by the COE.
- The question paper for the end semester examination is set either by the external faculty members from affiliated colleges, autonomous institutions or universities appointed by the COE.
- The question paper setters prepare two sets of question papers following blooms taxonomy in such a way to cover the prescribed syllabus and ensure the relevant course outcomes.
- The question papers are scrutinized by the scrutiny committee constituted by COE to ensure its standards. After the scrutiny, changes or corrections in questions, if any are incorporated before printing.
- 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.

Table 3.2.1 (i) 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	Any 2 CO	100
2	2	2	2	2	2	2	2	2	2	13	13	13	13	13	15	

Table 3.2.1(ii) Distribution of Course Outcomes for Semester End Examination (Regulation 2023)

Part-A					Part-B					Part-C					Total Marks
Q1	Q2	Q3	Q4	Q5	Q11	Q12	Q13	Q14	Q15	Q16a/ Q16b	Q16a/ Q16b	Q16a/ Q16b	Q16a/ Q16b	Q16a/ Q16b	
CO1	CO1	CO1	CO1	CO2	CO1	CO1	CO2	CO2	CO3	CO1/CO	CO2/CO	CO2/CO	CO2/CO	CO2/CO2	
1	1	1	1	1	2	2	2	2	2	14	14	14	14	14	
Q6	Q7	Q8	Q9	Q10	Q16	Q17	Q18	Q19	Q20						
CO2	CO2	CO2	CO3	CO3	CO1	CO1	CO2	CO2	CO3						100
1	1	1	1	1	2	2	2	2	2						

A sample question paper and feedback form is furnished below:

Reg. No. : 7 2 1 0

NEHRU INSTITUTE OF TECHNOLOGY - COIMBATORE
(AUTONOMOUS)

Question Paper Code :
B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER / DECEMBER 2025

Third Semester
CIVIL ENGINEERING
U23CE303 - SURVEYING - I
(Regulations 2023)

Time: Three hours Maximum : 100 marks

Answer ALL questions.

- PART A - (10 x 1 = 10 marks)
- Which of the following is the first principle of surveying? L1 CO1
 - Whole to whole
 - Part to part
 - Part to whole
 - Whole to part
 - Direct ranging is possible only when the end stations are? L1 CO1
 - Close to each other
 - Not more than 100 m apart
 - Manually Intervisible
 - Located at highest points in the sea
 - In which of the following areas does compass surveying is not recommended? L1 CO2
 - Large areas
 - Undulating areas
 - Crowded with many details

- Local attraction suspected areas
- The instrument used for accurate centering in plane table survey is L1 CO2
 - Spirit level
 - Alidade
 - Plumbing fork
 - Trough compass
 - A relatively permanent point of reference, whose elevation is known, with respect to any assumed datum is known as L1 CO3
 - Benchmark
 - Datum
 - Level
 - None of the above
 - For computation of volumes, if the effect of curvature of earth is taken into account the volume obtained is L1 CO3
 - Straight volume
 - Curved volume
 - Both i) and ii)
 - None of the above
 - A theodolite is often designed by L1 CO4
 - Diameter of the objective lens
 - Diameter of the horizontal circle
 - Diameter of the eye piece lens
 - Length of the telescope
 - Theodolite is an instrument used for L1 CO4
 - Tightening the capstan-headed nuts of level tube
 - Measurement of horizontal angles only
 - Measurement of vertical angles only
 - Measurement of both horizontal and vertical angles

- A simple circular curve is denominated by the L1 CO5
 - Radius of the curve
 - Curvature of the curve
 - Angle subtended at the centre by chord of any length
 - Angle subtended at the centre by chord of particular length
 - The angle by which the forward tangent deflects from the backward tangent of a curve is called L1 CO5
 - Deflection angle
 - Central angle
 - Angle of intersection
 - Flower's angle
- PART B - (10 x 2 = 20 marks)
- State the principles of surveying L1 CO1
 - What are conventional signs? L2 CO1
 - Define fore bearing and back bearing. L1 CO2
 - Define a Plan and a Map L2 CO2
 - What is meant by the term orientation in plane table surveying? L2 CO3
 - Define fore sight and back sight L2 CO3
 - State the temporary adjustments of a theodolite L2 CO4
 - What is meant by closing error? L1 CO4
 - Diameter of the eye piece lens L1 CO5
 - List any two methods of setting out simple curve L1 CO5
- PART C - (5 x 4 = 20 marks)
- What are the accessories for a chain survey? Explain the functions of each. (14) L2 CO1
- Or
- Discuss chain surveying instruments and explain obstacles in chaining. (14) L2 CO1

- Explain with neat sketch the radiation method in plane table surveying (14) L2 CO2

Or

- Explain with neat sketches the different types of compasses. (14) L2 CO2

- Explain types of levelling and temporary adjustments of Dumpy level with neat sketch. (14) L2 CO3

Or

- Explain contouring, characteristics, uses and methods of contouring with diagram. (14) L2 CO3

- Describe Theodolite types, fundamental axes & measurement of horizontal angles - repetition & reiteration. (14) L2 CO4

Or

- A traverse survey was conducted and following data is received, find missing length and bearing of line DA. (14) L3 CO4

Line	Length (m)	Bearing
AB	155.80	78° 30'
BC	175.00	153° 35'
CD	238.50	248° 42'
DA	?	?

- Explain simple curve elements & methods of setting out simple curves with suitable sketches. (14) L2 CO5

Or

- Explain simple curve elements & methods of setting out simple curves with suitable sketches. (14) L2 CO5

Course Outcomes	
CO1	: Able to calculate distances, angles.
CO2	: Able to understand about compass and plane table.
CO3	: Able to interpret survey data and compute areas and volumes.
CO4	: Able to calculate levels of various points.
CO5	: Able to know about setting out of curves.

Maximum Marks

Marks for Unit-wise Outcomes	Marks for Program Outcomes				
	CO1	CO2	CO3	CO4	CO5
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
Total	110	100	100	100	100

Vertical Blooms: Taxonomy Level (BTL)	Level	Weightage of Marks	Marks in each Division			Total Marks for each BTL	% of Distribution
			Part - A	Part - B	Part - C		
Remembering	L1	50% - 60%	10	12	56	86	
Understanding	L2			8			
Apply	L3	30% - 45%			14	14	
Analyzing	L4						
Evaluating	L5	15%					
Creating	L6						
Total			10	20	70	100	

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Office of the Controller of Examinations
QUESTION PAPER FEEDBACK FROM STUDENTS
End Semester Theory Examinations - Nov. / Dec. 2025

Name of the Department : _____
Course Code & Title : _____
Date of Exam & Session : _____

Student Name:	Reg. No. :	
(i) How was the Question Paper?	Easy / Moderate / Difficult	
(ii) Question paper is more into	Theoretical / Analytical / Balanced	
(iii) Is there any discrepancy or missing data or mistake(s) in the question paper? (if Yes, Specify)	Yes / No	
(iv) Remarks (if any):		
Signature of the Student:		

Student Name:	Reg. No. :	
(i) How was the Question Paper?	Easy / Moderate / Difficult	
(ii) Question paper is more into	Theoretical / Analytical / Balanced	
(iii) Is there any discrepancy or missing data or mistake(s) in the question paper? (if Yes, Specify)	Yes / No	
(iv) Remarks (if any):		
Signature of the Student:		

Course Coordinator
Signature with Date
HOD
Principal

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Jawahar Gardens, Kalyanspuram, Thirumalaysampalayam, Coimbatore - 641105

Office of the Controller of Examinations
QUESTION PAPER FEEDBACK FROM FACULTY MEMBER
End Semester Theory Examinations - November/December 2025

Name of the Faculty : _____ Designation / Department: _____
Date of Exam & Session : _____ Semester: _____
Course Code & Title : _____

1	Are the questions within the syllabus?	
Yes / No : (If No, please specify)		
2	Are the questions uniformly distributed over the syllabus?	
Yes / No : (If No, please specify)		
3	Whether an average student with adequate preparation could answer the questions?	
Yes / No : (If No, please specify)		
4	Is it feasible to complete within the given time?	
Yes / No : (If No, please specify)		
5	Is the question paper more into theoretical or analytical or balanced?	
Specify:		
6	Are the questions proportion to the weightage of marks?	
Yes / No : (If No, please specify)		
7	Whether the diagram and data are clearly visible in the question paper?	
Yes / No : (If No, please specify)		
8	Is there any discrepancy or missing data or mistake(s) in the question paper?	
Yes / No : (If Yes, please specify)		

Course Coordinator
Signature with Date
HOD
Principal

Fig.3.2 Sample End semester question paper and feed back form

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

LABORATORY COURSES: -

The Practical courses maximum marks for Internal Assessment shall be 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 3.3.1 Mark Distribution for Laboratory courses

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

Table 3.3.2 Evaluation scheme for lab experiments

Department: Civil Engineering																
Branch /Sem											Batch:2021-2025					
Name of the Lab :																
Marks details																
SI.NO	EXP-1	EXP-2	EXP-3	EXP-4	EXP-5	EXP-6	EXP-7	EXP-8	EXP-9	EXP-10	AVG TOTAL OUT OF 100	AVG TOTAL MARK (75)	MODEL EXAM (100)	MODEL EXAM (25)	INTERNAL MARK (100)	INTERNAL MARK (60)
Student Name																

Table 3.3.3 Laboratory Rubrics

CRITERIA/PARAMETERS	PERFORMANCE OF EVALUATION			
	EXCELLENT (> 45 & ≤ 50)	GOOD (> 40 & ≤ 45)	AVERAGE (>35 & ≤ 40)	SATISFACTORY (> 25 & ≤ 35)
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

Fig : 3.3.1 Sample Lab record Front Page, Index Page and Rubrics Page

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 Accredited by NAAC with 'A' Grade - 1003/2015/1003/2015/1003/2015

LABORATORY RECORD BOOK

Name of the student: SOMAN, M. Roll No: 201204
 Course of study: B.Tech. in Mechanical Engineering
 Laboratory by the name of student: Mechanics
 Institute Register Number: 721022103005 Year: 1 Semester: II Page: 10/26
 Branch: M.E. / Civil / Environmental / during the semester year: 2023-2024

45
 Head of the Department: _____ Staff In-charge: _____
 Date: 20/2/24

Submitted for the Annual University Practical Examination (Date: 2/18/2024)
 NEHRU INSTITUTE OF TECHNOLOGY, Coimbatore

Register Number: 7 2 1 0 2 2 1 0 3 0 0 5

H. Jeyapriya
 Internal Examiner
 Date: 20/2/24

External Examiner

INDEX

S.No	Date	Name of the Experiment	Page No.	Marks	Sign
1	17/2/2024	TESTING OF MATERIALS	2	45	8
2	18/2/2024	TESTING OF MATERIALS TEST	4	45	8
3	20/2/2024	IMPACT TEST	6	45	8
4	21/2/2024	BRITTLE SHEAR TEST	7	50	8
5	18/2/2024	TORSION TEST ON	11	45	8
6	20/2/2024	WELD METAL SPECIMEN	13	45	8
7	20/2/2024	TEST ON BRINELL	15	45	8
8	7/2/2024	CHARPY TEST	18	45	8
9	11/2/2024	MECHANICAL PROPERTY OF COPPER	20	45	8
10	14/2/2024	MECHANICAL PROPERTY OF COPPER	22	45	8
11	20/2/2024	MECHANICAL PROPERTY OF COPPER	24	45	8
12	20/2/2024	TEST ON COMPRESSIVE	25	45	8
13	4/2/2024	MECHANICAL TEST ON	26	45	8
14	2/2/2024	MECHANICAL PROPERTY OF COPPER	30	45	8

INDEX

S.No	Date	Name of the Experiment	Page No.	Marks	Sign
15	5/2/2024	DETERMINATION OF	30	45	8
16	11/2/2024	DETERMINATION OF	32	45	8

Completed

3

5. Note the loading loads in forward direction to apply the major load of specimen and allow the load to act on the specimen for 15 seconds.

6. Release the major load by reading the load gauge in the backward direction of the specimen.

7. Read the next small loadings for either from an or side to see over the density or the side of the specimen.

8. Release the major load of 10 kg by reducing the load slowly and then of the specimen.

9. Repeat the experiment to obtain atleast 3 mm of final sets of observation for given specimen by using a set of atleast 3 mm between any two adjacent observation use on the value for the average value which will be there in the specimen.

RESULT:
 The forward loading for the given specimen = 41.50 mm for 10 kg, 45.00 mm for 20 kg, 48.50 mm for 30 kg, 52.00 mm for 40 kg, 55.50 mm for 50 kg.

70

Performance (25)	45
Record (15)	45
Viva (10)	45
Total (50)	135

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

The Industrial Training / Internship, shall carry 100 marks and shall be evaluated through internal assessment only. The students of Civil Engineering program are motivated to go for internship at various industries in the semester break of their V and V semester. 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 60 days. A report on training undergone by students as a team or as an individual is to be submitted after successful completion of their internship. The certificates (issued by the organization) and Report is submitted by the students shall be attached to the mark list sent by the Head of the Institute 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 Details of students Internship batch 2021- 2025 and 2022-2026

S.No.	Name of the student
1.	AJITH VISHWA K
2.	ALWIN BIJU
3.	ANBUSELVAN R
4.	ATHUL R
5.	DEEPAK S
6.	HALITH J
7.	JAGANATHAN P
8.	PARTHASARATHI S
9.	SREEJITH C G
10.	SURYA M
11.	THARUNRAJ K
12.	THENAMUDHAN J
13.	ANANDHAN N
14.	GOWTHAM D

15.	KATHIR VEL K
16.	AMMAAR AL AABHEEDHEEN H
17.	MOHAMED SUHAIL M
18.	NAJITH REHEMAN
19.	NANDAGOPAL T
20.	PANEER SELVAM R
21.	RAJA K
22.	RAJWA J
23.	SACHIN VP
24.	SANTHOSH D
25.	VASIKARAN K
26.	VIGNESH BOOPATHI S
27.	GOKUL KRISHNAN (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpgrgadacztyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcincjqsidgtkshmcqmeiwecrfirfopezcmprxcqyzlqvudmyxycoiwaobuvwimhuywubrwwwvipzkzliardmhrptyvpweypmgrtejqcgucltnsknnx&studid=20214005)
28.	HARI MUGESH KUMAR (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpgrgadacztyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcincjqsidgtkshmcqmeiwecrfirfopezcmprxcqyzlqvudmyxycoiwaobuvwimhuywubrwwwvipzkzliardmhrptyvpweypmgrtejqcgucltnsknnx&studid=20214338)
29.	MANOJ S (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpgrgadacztyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcincjqsidgtkshmcqmeiwecrfirfopezcmprxcqyzlqvudmyxycoiwaobuvwimhuywubrwwwvipzkzliardmhrptyvpweypmgrtejqcgucltnsknnx&studid=20211874)
30.	RUDRESHWAR KS (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpgrgadacztyqazprcesegrdgxleicrvzyudqaivbsyxzjmljprupkdsbbjwdlqmrkybcincjqsidgtkshmcqmeiwecrfirfopezcmprxcqyzlqvudmyxycoiwaobuvwimhuywubrwwwvipzkzliardmhrptyvpweypmgrtejqcgucltnsknnx&studid=20211286)

31.	SHAKIR TV (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpgrgadacztyqazprcesegrdgxleicrvzyudqaiavsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrteqjcgucletnknxx&studid=20214175)
32.	SHAMNAS S (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpgrgadacztyqazprcesegrdgxleicrvzyudqaiavsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrteqjcgucletnknxx&studid=20211946)
33.	SHARAFHUDEEN S
34.	SURYAPRAKASH C (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpgrgadacztyqazprcesegrdgxleicrvzyudqaiavsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrteqjcgucletnknxx&studid=20212036)
35.	VENGATESAN A (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpgrgadacztyqazprcesegrdgxleicrvzyudqaiavsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrteqjcgucletnknxx&studid=20212149)
36.	VIGNESHWARAN S (https://www.icampuz.in/ngi/home/students.php?page=profile&actionid=zkmgsuwabqxntpgrgadacztyqazprcesegrdgxleicrvzyudqaiavsyzjmljprupkdsbbjwdlqmrkybcncjqsidgtkshmcqmeiwecrfirfopezcmprncqyzlqvudmyxycoiwaobuvwimhuywubrwwnvpzfkzzliardmh rptyvpweypmgrteqjcgucletnknxx&studid=20211650)

Table 3.4.2 Addressing of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for Internship Organizations – Students of 2021–2025 & 2022–2026 :

S.No.	Internship Organization	Mapped POs	Mapped PSOs	Justification
1.	PALANIAPPA CONSTRUCTIONS	PO1, PO2, PO5, PO7	PSO1, PSO2, PSO3	Palaniappa Constructions involves application of fundamental engineering principles such as structural analysis, construction materials, soil mechanics, and environmental engineering. Students apply mathematical and scientific knowledge to solve real-time construction problems like load calculations, material selection, and structural stability.
2.	MARIA CONSTRUCTIONS	PO1, PO4, PO5, PO7	PSO1, PSO2	Maria Constructions provides practical exposure to core civil engineering domains such as structural engineering, geotechnical engineering, construction materials, environmental engineering, and transportation engineering. Students apply theoretical knowledge to real-time activities such as foundation works, concrete technology, structural execution, and quality testing at construction sites.

3.	PALANIAPPA CONSTRUCTIONS	PO1, PO3, PO5	PSO1, PSO3	Palaniappa Constructions involves application of fundamental engineering principles such as structural analysis, construction materials, soil mechanics, and environmental engineering. Students apply mathematical and scientific knowledge to solve real-time construction problems like load calculations, material selection, and structural stability.
4.	DEV DESIGN	PO1, PO2, PO5	PSO1, PSO2, PSO3	Planning, Design, and Execution of Civil Engineering Projects The organization focuses on design preparation, drafting, estimation, detailing, and project coordination. Students gain exposure to preparation of structural drawings, cost estimation, and compliance with design codes, enabling them to understand the complete design-to-execution process.
5.	SRI SAI KANISHKA BUILDERS	PO1, PO2, PO5, PO7	PSO1, PSO2, PSO3	Application of Core Civil Engineering Concepts SRI SAI KANISHKA BUILDERS provides practical exposure to core civil engineering areas such as building construction, concrete technology, structural execution, foundation works, and material testing. Students apply theoretical knowledge of structural design, soil mechanics, and construction materials in real-time site activities.
6.	QIYAS GENERAL CONTRACTING	PO1, PO2, PO5, PO7	PSO1, PSO2, PSO3	provides exposure to practical civil engineering works such as structural construction, foundation execution, concrete works, and site development. Students apply core concepts of structural engineering, geotechnical engineering, construction materials, and environmental considerations in real-time project environments.

7.	GRM ENTERPRISES	PO1, PO2, PO5	PSO1, PSO2	The organization involves activities such as project planning, quantity estimation, budgeting, scheduling, quality assurance, and site management. Students gain hands-on understanding of converting design drawings into executed structures while maintaining safety standards and project efficiency.
8.	IVA INFRACTURE PRIVATE LIMITED	PO1, PO3, PO5	PSO1, PSO3	IVA Infrastructure Private Limited engages in infrastructure development works such as buildings, roads, drainage systems, and other civil structures. Students apply core civil engineering principles including structural analysis, geotechnical engineering, construction materials, environmental engineering, and transportation engineering in practical project environments.
9.	SREELAKAM DEVELOPERS BUILDERS & CONSTRUCTIONS	PO1, PO2, PO5	PSO1, PSO2	SREELAKAM DEVELOPERS BUILDERS & CONSTRUCTIONS provides practical exposure to residential and commercial building projects where students apply core civil engineering concepts such as structural design principles, geotechnical considerations, concrete technology, construction materials, and environmental aspects in real-time site execution.
10.	HARI RAM CONSTRUCTIONS	PO1, PO4, PO5	PSO1, PSO2	HARI RAM CONSTRUCTIONS provides practical exposure to civil engineering works such as building construction, foundation systems, concrete works, and structural execution. Students apply fundamental concepts of structural engineering, geotechnical engineering, construction materials, and environmental considerations in real-time project environments.

11.	SRI SAI KANISHKA BUILDERS	PO1, PO4, PO5, PO7	PSO1, PSO2	provides exposure to practical construction activities such as foundation works, RCC construction, masonry, finishing works, and site development. Students apply core civil engineering principles including structural engineering, geotechnical engineering, concrete technology, and construction materials in real-time site conditions.
12.	SS ARCHITECTURE & BUILDERS	PO1, PO2, PO5	PSO1, PSO3	The organization involves architectural drafting, structural coordination, quantity estimation, project planning, and site supervision. Students gain experience in converting architectural concepts into practical structures while ensuring compliance with building codes, quality standards, and project timelines.
13.	GRAVITY ASSOCIATES	PO1, PO2, PO5	PSO1, PSO2, PSO3	GRAVITY ASSOCIATES provides exposure to structural/design consultancy and construction-related activities where students apply core civil engineering principles such as structural analysis, RCC/steel design concepts, soil mechanics, and construction materials. This enables them to connect theoretical knowledge with practical design and execution processes.
14.	MESSIHA LIFE SPACES	PO1, PO3, PO5	PSO1, PSO3	MESSIHA LIFE SPACES, being involved in residential and commercial development projects, provides practical exposure to building planning, structural systems, foundation works, concrete technology, and construction materials. Students apply core civil engineering principles such as structural design, geotechnical considerations, and environmental aspects in real-time construction activities.

15.	SUN ASSOCIATES	PO1, PO4, PO5	PSO1, PSO2	Through interaction with engineers, consultants, and site teams, students develop professional communication, teamwork, leadership skills, ethical responsibility, and familiarity with modern engineering tools and construction management practices, thereby enhancing their industry readiness.
16.	IVA INFRACTURE PRIVATE LIMITED	PO1, PO2, PO5	PSO1, PSO2	IVA Infrastructure Private Limited engages in infrastructure development works such as buildings, roads, drainage systems, and other civil structures. Students apply core civil engineering principles including structural analysis, geotechnical engineering, construction materials, environmental engineering, and transportation engineering in practical project environments.
17.	KM CONSTRUCTION & BUILDERS	PO1, PO3, PO5	PSO1, PSO3	KM CONSTRUCTION & BUILDERS provides practical exposure to building construction activities such as foundation works, RCC construction, masonry, finishing works, and site development. Students apply core civil engineering principles including structural engineering, geotechnical engineering, construction materials, and concrete technology in real-time project execution.
18.	GLOBAL ENGINEERING SERVICES	PO1, PO3, PO5	PSO1, PSO3	Planning, Design, and Execution of Civil Engineering Projects GLOBAL ENGINEERING SERVICES is involved in engineering consultancy, design preparation, estimation, project coordination, and technical supervision. Students gain exposure to preparation and interpretation of design drawings, quantity take-off, cost estimation, and adherence to engineering standards and codes, thereby understanding the complete workflow from planning to execution.

19.	GLOBAL ENGINEERING SERVICES	PO1, PO2, PO5	PSO1, PSO2	<p>Planning, Design, and Execution of Civil Engineering Projects</p> <p>GLOBAL ENGINEERING SERVICES is involved in engineering consultancy, design preparation, estimation, project coordination, and technical supervision. Students gain exposure to preparation and interpretation of design drawings, quantity take-off, cost estimation, and adherence to engineering standards and codes, thereby understanding the complete workflow from planning to execution</p>
20.	JK CONSTRUCTIONS	PO1, PO4, PO5	PSO1, PSO2	<p>Through on-site involvement and interaction with engineers, supervisors, and workers, students develop teamwork, communication skills, leadership qualities, safety awareness, and ethical responsibility. This practical exposure enhances their professional competence and prepares them for real-world civil engineering careers.</p>
21.	SUN ASSOCIATES	PO1, PO3, PO5	PSO1, PSO3	<p>Planning, Design, and Execution of Civil Engineering Projects</p> <p>SUN ASSOCIATES is involved in planning, design coordination, quantity estimation, drafting, and site supervision activities. Students gain practical exposure to interpreting architectural and structural drawings, preparing estimates, ensuring quality control, and understanding the systematic execution of civil engineering projects within time and budget constraints.</p>

22.	SRI KUMARAN DEVLEOPERS	PO1, PO2, PO5	PSO1, PSO2	provides practical exposure to residential and commercial building projects involving foundation works, RCC construction, structural systems, and material selection. Students apply core civil engineering concepts such as structural engineering, geotechnical engineering, concrete technology, and environmental considerations in real-time construction environments.
23.	AL BARAQ STEEL WORKS L.L.C	PO1, PO3, PO5	PSO1, PSO3	AL BARAQ STEEL WORKS L.L.C specializes in steel fabrication and structural steel works. Students gain practical exposure to structural engineering concepts such as steel design principles, load transfer mechanisms, connection detailing, material properties, and fabrication techniques. This enables them to apply theoretical knowledge of structural analysis and steel structures in real-time industrial practices.
24.	MESSIHA LIFE SPACES	PO1, PO3, PO5	PSO1, PSO3	MESSIHA LIFE SPACES, being involved in residential and commercial development projects, provides practical exposure to building planning, structural systems, foundation works, concrete technology, and construction materials. Students apply core civil engineering principles such as structural design, geotechnical considerations, and environmental aspects in real-time construction activities
25.	HARI RAM CONSTRUCTIONS	PO1, PO2, PO5	PSO1, PSO2	exposure to building and infrastructure projects involving foundation works, RCC construction, masonry, and finishing activities. Students apply core civil engineering principles such as structural engineering, geotechnical engineering, concrete technology, and construction materials in real-time site execution.

26.	MARK CONSTRUCTION	PO1, PO2, PO5	PSO1, PSO2	To provides practical exposure to civil engineering works such as foundation systems, RCC construction, structural components, masonry, and finishing works. Students apply core civil engineering knowledge including structural engineering, geotechnical engineering, concrete technology, and construction materials in real-time site execution.
27.	OZONE ARCHITECTURE & INTERIORS	PO1, PO2, PO5	PSO1, PSO2	The organization engages in preparation of architectural drawings, 3D modeling, estimation, material selection, project scheduling, and site supervision. Students gain practical understanding of translating conceptual designs into executed projects while ensuring compliance with standards, quality control, and client requirements.
28.	ACREAGE CONSTRUCTION	PO1, PO4, PO5	PSO1, PSO2	Through on-site interaction with engineers, supervisors, and workers, students develop teamwork, communication skills, leadership qualities, safety awareness, ethical responsibility, and familiarity with modern construction management practices, thereby enhancing their professional competence and employability.
29.	BPO INTEGRA INDIA PRIVATE LIMITED	PO1, PO3, PO5	PSO1, PSO3	Through working with multidisciplinary teams and international standards, students develop professional communication, technical documentation skills, software proficiency (AutoCAD, Revit, BIM tools), teamwork, and ethical responsibility. This enhances their readiness for careers in design consultancy and engineering service sectors.

30.	BPO INTEGRA INDIA PRIVATE LIMITED	PO1, PO2, PO5	PSO1, PSO2	Through collaboration with multidisciplinary and international project teams, students develop proficiency in modern engineering software (AutoCAD, Revit, BIM tools), professional communication, teamwork, technical documentation, time management, and ethical responsibility. This exposure enhances their readiness for careers in engineering consultancy and global design services.
31.	DOOR OF DREAM ARCHITECTS	PO1, PO3, PO5	PSO1, PSO3	provides exposure to architectural planning, structural coordination, building systems integration, and material selection. Students apply core civil engineering concepts such as structural behavior, foundation considerations, construction materials, and environmental aspects while integrating architectural design with structural safety and functionality.
32.	OZONE ARCHITECTURE & INTERIORS	PO1, PO3, PO5	PSO1, PSO3	The organization engages in preparation of architectural drawings, 3D modeling, estimation, material selection, project scheduling, and site supervision. Students gain practical understanding of translating conceptual designs into executed projects while ensuring compliance with standards, quality control, and client requirements.
33.	AYES BUILDERS & DEVELOPERS	PO1, PO2, PO5	PSO1, PSO2	
34.	OZONE ARCHITECTURE & INTERIORS	PO1, PO2, PO5	PSO1, PSO2	The organization engages in preparation of architectural drawings, 3D modeling, estimation, material selection, project scheduling, and site supervision. Students gain practical understanding of translating conceptual designs into executed projects while ensuring compliance with standards, quality control, and client requirements

35.	BPO INTEGRA INDIA PRIVATE LIMITED	PO1, PO2, PO5	PSO1, PSO2	provides practical exposure to residential and commercial construction projects involving foundation systems, RCC works, structural components, and material selection. Students apply core civil engineering concepts such as structural engineering, geotechnical engineering, concrete technology, and construction materials in real-time site execution.
36.	HEMKRISH CONSTRUCTIONS & INTERIOR ACADEMY	PO1, PO2, PO5	PSO1, PSO2	HEMKRISH CONSTRUCTIONS & INTERIOR ACADEMY provides exposure to building construction and interior execution works such as structural components, finishing works, space planning, material selection, and building services coordination. Students apply core civil engineering principles including structural systems, construction materials, concrete technology, and environmental considerations in practical projects.

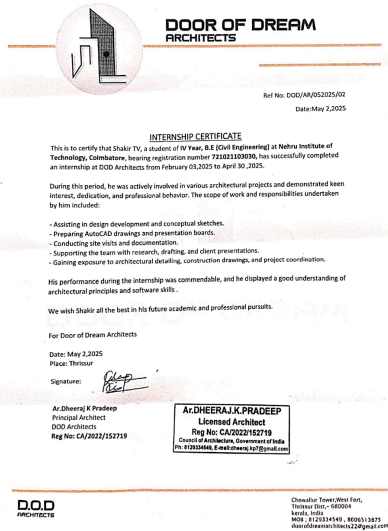
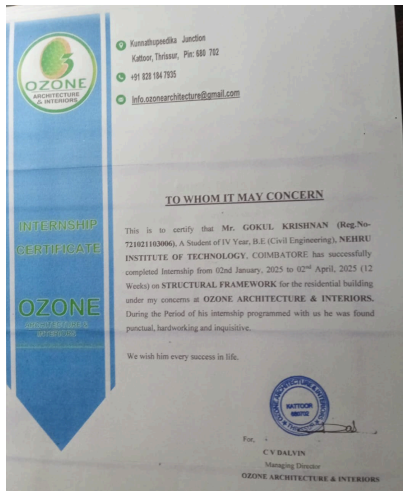


Fig 3.4.1 Internship certificate students

Evaluation of Industrial Training / Internship (Rubric-Based) :

Student should undergo a internship through "Centre for Industry Relations (CIR)" with the approval of Head of the Department during IV & VI semester vacation.

Attendance Certificate signed by the competent authority of the industry, as per the format provided by Centre for Industry Relations (CIR) shall be submitted to the Head of the Department. The attendance certificate shall be forwarded to Controller of Examinations and Head of the Institution by the Head of the Department for processing results.

Total Marks: 100

Breakup

- Industry Supervisor Evaluation – 30 Marks
- Faculty Evaluation – 40 Marks
- Report & Presentation – 30 Marks

Table 3.4.3 : Evaluation of Internship Students assessment through rubrics sheet :

Criteria	Excellent (5)	Good (4)	Satisfactory (3)	Poor (2)	Very Poor (1)	Marks
Technical Knowledge	Demonstrates strong technical competence	Good understanding	Basic understanding	Limited knowledge	Inadequate	/5
Application of Skills	Independently applies concepts	Applies with minor guidance	Requires support	Frequent supervision	Unable to apply	/5
Work Quality	Accurate and professional	Minor errors	Acceptable	Needs improvement	Unsatisfactory	/5
Initiative & Problem Solving	Highly proactive	Takes initiative	Responds when asked	Rarely proactive	No initiative	/5
Professional Conduct	Excellent teamwork & discipline	Good conduct	Acceptable	Needs improvement	Unprofessional	/5
Attendance & Punctuality	Regular & punctual	Minor delays	Acceptable	Irregular	Frequently absent	/5

Table 3.4.4 Faculty Evaluation (40 Marks) :

Criteria	Marks	Allotted Marks
Relevance of Training to Discipline	10	
Learning Outcomes Achieved	10	
Technical Understanding (Viva)	10	
Analytical / Practical Skills Demonstrated	10	

Table 3.4.5 Report & Presentation (30 Marks) :

Criteria	Marks	Allotted Marks
Quality of Internship Report	10	
Clarity of Presentation	10	
Response to Questions (Viva)	10	

Performance Level Classification

Percentage	Grade	Level
≥ 80%	Excellent	Level 3
60–79%	Good	Level 2
50–59%	Satisfactory	Level 1
< 50%	Poor	Not Attained

3.5 Evaluation of Projects (20)

PROJECT WORK :

- The student shall register for Project Work in final semester. Project work may be allotted to a single student or to a group of students not exceeding 4 per group. The student is also permitted to undergo a semester long internship in an industry / academic / research institution.
- The Head of the Institutions shall constitute a review committee for Project Work for each programme. The review committee consists of supervisor, an expert from the Department and a project coordinator from the Department. If the project coordinator/expert member happens to be the supervisor, then an alternate member shall be nominated. In the case of Industrial Project / Internship, the review committee shall consist of the supervisor, the coordinator from industry and the project coordinator from the Department.
- There shall be three reviews conducted by the review committee. The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be reduced for 60 marks and rounded to the nearest integer.
- The project report shall carry a maximum of 10 marks. The project report shall be submitted as per the approved guidelines as given by the Director, Centre for Academic Courses. Same marks shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 30 marks. Marks awarded to each student of the project group is based on the individual performance in the viva-voce examination.

Process for monitoring:

- 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.

Process for 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 shall make presentation on the progress made by him / her before the committee.
- The assessments of individual and team performance are done by the respective supervisor or 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.

Table 3.5.1.Project Rubric: Criteria - Content

Identifies and Summarizes the Problem or Question to be investigated			
Excellent	Good	Satisfactory	Unsatisfactory
5	4	3	2

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 5	Good 4	Satisfactory 3	Unsatisfactory 2
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 5	Good 4	Satisfactory 3	Unsatisfactory 2
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 5	Good 4	Satisfactory 3	Unsatisfactory 2

<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 5	Good 4	Satisfactory 3	Unsatisfactory 2
<p>Analyses data Via graphs, statistics and qualitative analysis as appropriate.</p> <p>Identifies assumptions.</p> <p>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.</p> <p>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 5	Good 4	Satisfactory 3	Unsatisfactory 2

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 5	Good 4	Satisfactory 3	Unsatisfactory 2
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 5	Good 4	Satisfactory 3	Unsatisfactory 2
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 5	Good 4	Satisfactory 3	Unsatisfactory 2
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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 5	Good 4	Satisfactory 3	Unsatisfactory 2
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 5	Good 4	Satisfactory 3	Unsatisfactory 2
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 5	Good 4	Satisfactory 3	Unsatisfactory 2

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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- 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.

Table 3.5.2 Evaluation of Project Work :

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

Table: 3.5.3 Classification of Research Area and Relevant Pos and PSOs Addressed :

S. No	Common Study Area	Relevant POs Addressed	Relevant PSOs Addressed
1	Seismic analysis of buildings	PO1- PO12	PSO1 -PSO3
2	Fibre-reinforced concrete	PO1- PO12	PSO1 -PSO3
3	Soil stabilization techniques	PO1- PO12	PSO1 -PSO3
4	Ground improvement methods	PO1- PO12	PSO1 -PSO3
5	Project scheduling using Primavera/MS Project	PO1- PO12	PSO1 -PSO3
6	Expansive soil treatment	PO1- PO12	PSO1 -PSO3

Relevance to the POs and PSOs: High

Table: 3.5.4 Project Batch list (2021-2025) with POs and PSOs Mapping

I.N o.	Name of the student	Title of the Project	Area of Specialization	Type of Project	Project classification	POs/PSOs Addressed
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1	Gokul Krishnan shamnas	Real time IOT based structural health monitoring system for smart infrastructure management	IOT	IOT applications in civil engineering	Application	PO2, PO3, PSO1
2	Hari mukesh Kumar	Analysis and design of Residential building ground floor+ first floor	Structure	Design Based project	Application	PO3, PO4, PSO2
3	Manoj	Design of multi-storey planning used for V-ray software	Structure	Design Based project	Application	PO2, PO4, PO6, PSO1
4	Rudreshwar KS	Planning designing and analysing of an apartment building	Structure	Industry based project	Application	PO3, PO5, PSO2
5	Shakir TV	Inundation modelling of river basin using GIS	Software based project	Industry Project	Application	PO3, PO7, PSO2
6	Sharafhudheen .S Suryaprakash C	Civil Infrastructure Resilience through smart land slide early warning system	Geo technical	Case study based project	Application	PO1, PO3, PO5, PSO2
7	Vengatesan Goplakrishnan	Use of plastic waste in flexibility pavements	Sustainable materials	Experimental based project	Application	PO3, PO4, PO7, PSO2
8	Thamizhrasan S	Experimental investigation of concrete using natural fibre	structure	Experimental based project	Application	PO6, PO7, PSO1
9	Dalvin Varghse	Planning designing and estimation of panchayat building construction	Structure	Industry based project	Application	PO2, PO3, PSO1
10	Vishal	Estimation analysis and design of community hall	Structure	Industry based project	Application	PO3, PO4, PO7, PSO2

Fig 3.5.1 Sample Evaluation Review Sheet :

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(f)
Coimbatore - 641105

Department : Civil Engineering
Title of Project : *Use of Plastic waste of Flexibility pavement*
Name of Guide : *S. Bindha / S. Sekhar*
Date : *19.02.25*
Project Review: F387
Academic year 2024-25
Batch : 2021

S No	Name of students	Present / Absent	Attendance					Viva	Test	Category	Review Ranking		Signature of students	Remarks/ Suggestions
			10	20	30	40	50				Need	Adequate		
1	KENGATANA	P	10	25	17	19	19	90	Team Participation Availability of the Resources Attention by guide	-	-	<i>[Signature]</i>		

Name of the Committee Members
 Dr. M. Manickam
 Dr. M. Anand Thangaraj
 Dr. M. Sathish
 Mr. S. Subramanian
 Mr. S. Manickam
 Mr. P. Subramanian
 Mr. P. Manickam

[Signatures]
 Project Guide
 Project Co Ordinator
 HOD/Civil

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(f)
Coimbatore - 641105

Department : Civil Engineering
Title of Project : *Use of Plastic waste in Flexibility Pavement*
Name of Guide : *Mr. S. Subramanian*
Date : *19/2/25*
Project Review: 800000
Academic year 2024-25
Batch : 2021

S No	Name of students	Present / Absent	Attendance					Viva	Test	Category	Review Ranking		Signature of students	Remarks/ Suggestions
			10	20	30	40	50				Need	Adequate		
1	KOPALA ARUNATHAN	P	10	25	15	15	10	75	Team Participation Availability of the Resources Attention by guide	-	-	<i>[Signature]</i>		

Name of the Committee Members
 Dr. M. Manickam
 Dr. M. Anand Thangaraj
 Dr. M. Sathish
 Mr. S. Subramanian
 Mr. S. Manickam
 Mr. P. Subramanian
 Mr. P. Manickam

[Signatures]
 Project Guide
 Project Co Ordinator
 HOD/Civil

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Coimbatore - 641105

Department : Civil Engineering
Title of Project : *Portable Detection and Early Warning System*
Name of Guide : *Dr. M. Manickam / Manikam*
Date : *21-05-25*
Project Review: 7000
Academic year 2024-25
Batch : 2021

S No	Name of students	Present / Absent	Attendance					Viva	Test	Category	Review Ranking		Signature of students	Remarks/ Suggestions
			10	20	30	40	50				Need	Adequate		
1	SEENAPATHI	P	10	25	20	16	15	85	Team Participation Availability of the Resources Attention by guide	-	-	<i>[Signature]</i>		

Name of the Committee Members
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Fig 3.5.2 Overall Evaluation Project Work :

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EVALUATION

S.No	Name	Name of the Institution	Marks of the Project										Total		
			1	2	3	4	5	6	7	8	9	10			
1
2
3
4
5
6
7
8
9
10

[Signatures]
 Project Guide
 Project Co Ordinator
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3.6 Evidence of Addressing Sustainable Development Goals (SDG) (10)

The Department of Civil Engineering actively aligns its teaching, research, consultancy, and extension activities with the Sustainable Development Goals (SDGs) adopted by the United Nations. Through curriculum integration, student projects, community engagement, and sustainable infrastructure practices, the department contributes to environmentally responsible and socially inclusive development.

Through academic activities, applied research, and community service, the Department of Civil Engineering:

- Promotes sustainable infrastructure development
- Enhances disaster resilience
- Encourages eco-friendly material usage
- Supports sustainable urban and rural planning
- Contributes to climate adaptation strategies

Stream	Related SDG	Evidence
Environmental Engineering	SDG 6 – Clean Water & Sanitation	Water treatment design, wastewater management studies
Water Resources Engineering	SDG 13 – Climate Action	Flood modelling, hydrological analysis
Structural Engineering	SDG 9 – Industry, Innovation & Infrastructure	Safe and resilient infrastructure design
Transportation Engineering	SDG 12 – Responsible Consumption	Plastic waste in pavements
Disaster Management	SDG 11 – Sustainable Cities	Landslide and flood mitigation planning

Table 3.6.1 Evidence of Addressing SDG

SI No	Name of the Student	Title of the Project	Relevant SDG	Justification
1	Gokul Krishnan Shamnas	Real time IoT based structural health monitoring system for smart infrastructure management	SDG 9 – Industry, Innovation and Infrastructure	Promotes smart infrastructure through IoT-based monitoring, enhancing structural safety, durability, and efficient maintenance while encouraging technological innovation.
2	Hari Mukesh Kumar	Analysis and design of Residential building (G+1)	SDG 11 – Sustainable Cities and Communities	Ensures safe, durable, and sustainable housing through proper structural design, contributing to resilient urban development.

3	Manoj	Design of multi-storey planning using V-Ray software	SDG 9 – Industry, Innovation and Infrastructure	Encourages innovative construction planning and visualization using advanced software tools for efficient infrastructure development.
4	Rudreshwar KS	Planning, designing and analysing of an apartment building	SDG 11 – Sustainable Cities and Communities	Supports sustainable urban housing by optimizing land use, structural safety, and community-based residential planning.
5	Shakir TV	Inundation modelling of river basin using GIS	SDG 13 – Climate Action	Assists in flood prediction, disaster risk reduction, and climate adaptation planning using geospatial analysis tools.
6	Sharafhudheen S & Suryaprakash C	Civil Infrastructure Resilience through smart landslide early warning system	SDG 11 – Sustainable Cities and Communities	Enhances disaster preparedness and infrastructure resilience through early warning systems, reducing risks to life and property.
7	Vengatesan Gopalakrishnan	Use of plastic waste in flexible pavements	SDG 12 – Responsible Consumption and Production	Promotes recycling and sustainable material use by incorporating plastic waste into pavement construction, reducing environmental pollution.
8	Thamizhrasan S	Experimental investigation of concrete using natural fibre	SDG 9 – Industry, Innovation and Infrastructure	Encourages sustainable and eco-friendly construction materials through innovative use of natural fibres in concrete.
9	Dalvin Varghese	Planning, designing and estimation of Panchayat building construction	SDG 11 – Sustainable Cities and Communities	Strengthens rural governance infrastructure and supports inclusive and sustainable community development.
10	Vishal	Estimation, analysis and design of community hall	SDG 11 – Sustainable Cities and Communities	Promotes inclusive social infrastructure by developing public spaces that support community engagement and development.

Table 3.6.2 Project work carried out to meet sustainable development goals

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)

Assessment Process Details: -**Course Outcomes (COs):**

Course Outcomes remain the base of the hierarchy of outcomes and act as a tool to measure student performance in each course and help the learners to understand the reason for pursuing the course and are major domain-specific outcomes written using action verbs that are specific, measurable and can be demonstrated by students on completion of the course. Course Outcomes are defined for all courses.

Well written CO statements are defined by considering the course content covered in each unit of a course. Maximum five COs are framed/reframed for every course based on Bloom's Taxonomy. The department carried out assessment processes to gather and prepare data to evaluate the attainment of course outcomes and program outcomes.

Attainment of course outcomes are evaluated by using the following methods.

Direct Assessments

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

Indirect Assessments

1. Feedback on subjects
2. Class committee meeting
3. Course Pre-Analysis & Post Analysis

Evaluation of Internal Assessment

Theory: -For theory courses, two tests each carrying 100 marks shall be conducted during the semester by the Department. The total marks obtained in all tests put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weight age to all the two tests). For the theory subjects 60 marks are given for external exams (out of which the passing minimum is 45 marks) and the internal marks are 40.

Internal Test –I	Internal Test – II	Total	Internal Mark
100 Marks	100 Marks	200 Marks	40

Practical: -The Practical courses maximum marks for Internal Assessment shall be 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.

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

Project: 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.

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	

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 / Post analysis:

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)

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

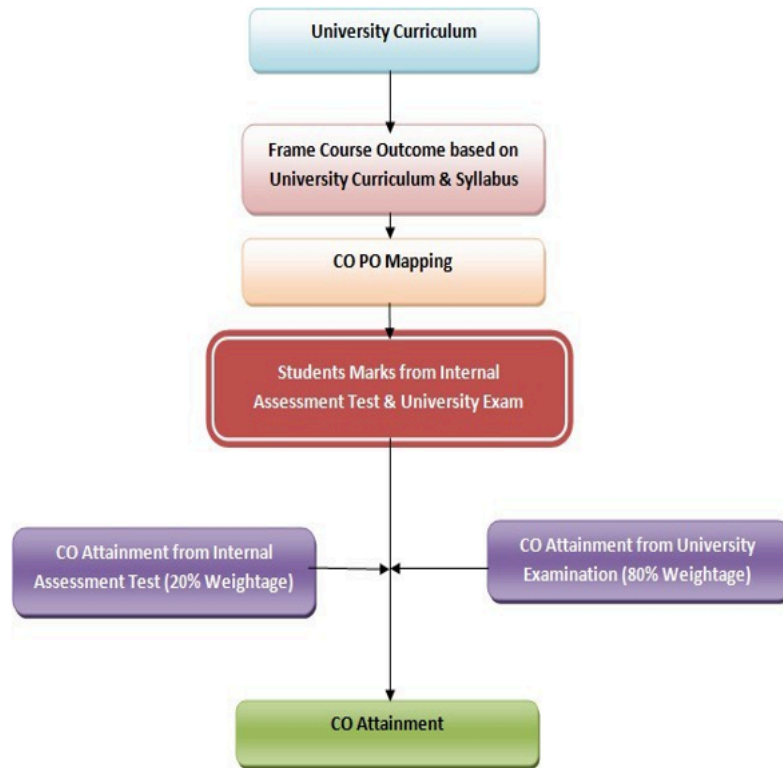


Fig 3.7.2.1 : CO-Attainment flow chart

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
---	--

Table 3.7.2.1 List of Assessment Process

- **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.
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- **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:	50% students scoring the set attainment level 50 in the internal examination.
Attainment Level 2:	60% students scoring the set attainment level 50 in the internal examination.
Attainment Level 3:	70% students scoring the set attainment level 50 in the internal examination.
External Examination:	
Attainment Level 1:	50% students scoring the set attainment level of B Grade in the final examination.
Attainment Level 2:	60% students scoring the set attainment level of B Grade in the final examination.
Attainment Level 3:	70% students scoring the set attainment level of B Grade in the final examination.

AWARD OF LETTER GRADES :

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

Letter Grade	Grade Points*
O (Outstanding)	10
A + (Excellent)	9
A (Very Good)	8
B + (Good)	7
B (Average)	6
C (Satisfactory)	5
U (Re-appearance)	0
SA (Shortage of Attendance)	0
WD (Withdrawal)	0

DIRECT ASSESSMENT METHOD :

- Evaluation of CO Attainment by Internal Assessment Tool :

Consider a subject with five COs.

Assessment Tool	IA1	IA2	IA3	Internal Attainment (20%)	External Attainment (80%)
COs Mapped	CO1/CO2/CO3	CO3/CO4/CO5	CO1/CO2/CO3/CO4/CO5	CO1 to CO5	CO1 to CO5
Attainment Level	AT1/AT2/AT3	AT1/AT2/AT3	AT1/AT2/AT3	AT1/AT2/AT3	AT1/AT2/AT3
Direct CO-Average Attainment				(AT1/AT2/AT3)*20/100	(AT1/AT2/AT3)*80/100

Table 3.7.2.2 Evaluation Scheme for CO attainment

Sample CO Attainment (%) from Micro Analysis (C101 Professional English I) ::

COs	CO Attainment (%)	Internal Test 1	Internal Test 2	Internal Exam
CO1		93.73		93.73
CO2		92.67		92.67
CO3		92.02	93.89	93.89
CO4			95.45	95.45
CO5			92.21	92.21

- Sample CO attainment C101 Professional English I :

COs	CO Attainment (%)	Internal Test I	Internal Test II	Internal Exam	University Exam
CO1	93.73	3		2.81	3
CO2	92.67	3		2.78	
CO3	93.89	3	3	2.82	
CO4	95.45		3	2.86	
CO5	92.21		3	2.77	
Internal /University Attainment level				2.80	3
Weightage				40%	60%
CO Attainment for the course				1.12	1.80
Final Direct CO attainment for the course				2.92	

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

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 Examination	Attainment of Course Outcome through End Semester Examination	Attainment of Course outcome through Direct Method (100%)
C101	Professional English I	1.12	1.8	2.92
C102	Matrices and Calculus	0.8	1.3	2.1
C103	Engineering Physics	1	1.4	2.4
C104	Engineering Chemistry	0.75	1.3	2.05
C105	Problem Solving and Python Programming	1.1	1.7	2.8
C106	Hertiage 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	1	2
C112	Physics for Civil Engineering	0.9	1	1.9
C113	Basic Electrical, Electronics and Instrumentation Engineering	0.8	1	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	0.75	1	1.75
C202	Engineering Mechanics	0.8	1	1.8
C203	Fluid Mechanics	0.7	1	1.7
C204	Construction Materials and Technology	1.1	1	2.1
C205	Water Supply and Wastewater Engineering	1.05	1	2.05
C206	Surveying and Levelling	1.01	1	2.01
C207	Surveying and Levelling Laboratory	1.2	1.8	3
C208	Water and Wastewater Analysis Laboratory	1.2	1.8	3
C209	Professional development	1.2	1.8	3
C210	Applied Hydraulics Engineering	1	1	2
C211	Strength of Materials	0.9	1	1.9
C212	Concrete Technology	1.2	1.8	3
C213	Soil Mechanics	1	1	2
C214	Highway and Railway Engineering	1.2	1.8	3
C215	Environmental Sciences and Sustainability	1.2	1.8	3
C216	Hydraulic Engineering Laboratory	1.2	1.8	3
C217	Materials Testing Laboratory	1.2	1.8	3

C218	Soil Mechanics Laboratory	1.2	1.8	3
C301	Design of Reinforced Concrete Structural Elements	1	1	2
C302	Structural Analysis I	0.85	1	1.85
C303	Foundation Engineering	0.95	1	1.95
C304	Ground Improvement Technique	1.2	1.8	3
C305	Digitalized Construction Laboratory	1.2	1.8	3
C306	Airports and Harbors	1.2	1.8	3
C307	Disaster Risk Reduction and Management	0	0	0
C308	Highway Engineering Laboratory	1.2	1.8	3
C309	Survey Campus (2 Weeks)	1.2	1.8	3
C310	Design of Steel Structural Elements	0.95	1	1.95
C311	Structural Analysis II	0.88	1	1.88
C312	Engineering Geology	1.2	1.8	3
C313	Rehabilitation/Heritage Restoration	1.2	1.8	3
C314	Advanced Construction Techniques	1.2	1.8	3
C315	Environmental Health and Safety	1.2	1.8	3
C316	IOT Concepts and Applications	1.1	1	2.1
C317	Industrial Safety	0	0	0
C318	Building Drawing and Detailing Laboratory	1.2	1.8	3
C401	Estimation, Costing and Valuation Engineering	1.1	1	2.1
C402	Hydrology and Water Resources Engineering	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	Project Report Writing	1.2	1.8	3
C406	Renewable Energy Technologies	1.2	1.8	3
C407	Artificial Intelligence and Machine Learning Fundamentals	1	1	2

C408 Project Work/Internship

1.2

1.8

3

INDIRECT ASSESSMENT METHOD :**Table No. 3.8.2: PO attainment value using indirect assessment tools**

Name of the Survey	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
Graduate Exit Survey	2.1	1.7	2.1	1.6	1.5	1.8	2.2	2.1	1.6	2.3	2.4	2.2	2.2	1.4	1.8

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	1.56	2.14	1.75	2.14	1.46	2.92	2.92	2.92	1.56	2.92	2.92	2.92
C102	2.10	2.10	0.70	0.70	0	0	0	0	1.40	0	1.40	2.10
C103	2.40	2.40	1.28	0.96	1.44	0.80	0	0	0	0	0	0.80
C104	1.91	0.89	1.09	0.68	0	1.03	1.23	0	0	0	0	1.03
C105	1.87	2.80	2.80	2.80	1.87	0	0	0	0	1.87	1.87	2.80
C106	0	0	0	0	0	0	0	0	1	2	0	1
C107	2	3	3	3	2	0	0	0	0	0	2	2
C108	3	2.40	2.60	1	1	1.40	1.80	0	0	0	0	1.30
C109	3	3	3	3	1	3	3	3	3	3	3	3
C110	3	3	3	3	2.75	3	3	3	2.20	3	3	3
C111	2	2	0.67	0.67	0.67	0	0	0	1.33	0	1.33	2
C112	1.90	1.11	1.27	1.27	0.76	0.89	0	0	0	0	0	0
C113	1.20	0.60	0.60	0	0	0	0	0.67	0	0	0	0
C114	3	1	2	0	2	0	0	0	0	3	0	2
C115	0	0	0	0	0	0	0	0	1	2	0	1
C116	3	2	0	0	1	1	1	0	0	0	0	2
C117	1.60	1.40	0.80	1.60	0	0	0	1.20	1.60	0	0	0
C118	2.40	2.80	3	3	1.80	3	3	3	3	3	3	3
C201	1.75	1.75	0.58	0.58	0	0	0	0	1.17	0	0	1.75
C202	1.80	1.20	1.80	0.60	1.20	0	0	0	0	0	0	1.20
C203	1.70	1.16	1.70	1.13	0.57	1.13	1.13	0.57	0.57	0.57	0.57	1.13
C204	1.40	1.40	0.70	1.40	0.70	0.70	1.40	0	0.70	0	1.40	1.40
C205	2.05	2.05	2.05	1.37	1.37	2.05	2.05	1.37	1.37	1.37	1.37	2.05
C206	2.01	1.34	2.01	1.34	2.01	2.01	1.34	1.34	1.34	0	1.34	1.34
C207	3	2	3	3	3	3	3	3	3	3	3	1
C208	2	2	2	2	2	2	2	3	2	2	2	3
C209	0	0	0	0	0	0	0	0	1	3	0	0
C210	2	2	1.33	2	0.67	1.33	1.33	0.67	1.33	0.67	0.67	2
C211	1.90	1.90	1.90	1.90	1.27	1.90	0.63	1.90	1.27	1.90	0.63	1.90
C212	3	1	2	2	1	3	3	2	1	1	1	2

C213	2	2	1.33	1.33	1.33	0.67	0.67	0.67	1.33	0.67	1.33	2
C214	2	3	3	2	2	3	2	3	2	1	3	3
C215	2.80	1.80	1	1	0	2.20	2.40	0	0	0	0	1.80
C216	3	3	2	3	1	2	2	1	2	1	1	2
C217	3	3	2	3	1	2	2	1	3	1	1	2
C218	1	2	3	3	3	1	1	1	3	1	1	3
C301	2	2	2	2	0.67	2	0.67	0.67	2	1.33	0.67	1.33
C302	1.85	1.85	1.85	1.85	0.62	1.85	0.62	0.62	1.85	1.23	0.62	0.62
C304	2	3	3	2	3	3	2	1	2	1	1	3
C305	2	2	3	2	3	3	3	2	3	2	3	3
306	3	3	3	2	2	3	2	3	2	0	1	2
C306	3	3	3	2	2	3	2	3	2	0	1	2
C307	0.88	0.88	0.80	1.04	1.20	1.20	1.20	0.80	0.80	0	0.48	1.04
C308	3	1	3	2	1	1	1	1	3	3	1	3
C309	3	3	2	3	3	2	2	2	2	2	2	3
C310	1.30	1.30	1.95	1.30	1.30	1.30	1.30	1.30	1.30	0.65	1.30	1.30
C311	1.88	1.88	1.88	1.88	0.63	1.88	0.63	0.63	1.88	1.25	0.63	0.63
C312	2	2	3	3	2	2	1	2	2	2	2	2
C313	3	2	3	0	0	0	1	1	1	0	0	1
C314	2	3	3	3	2	2	2	1	1	1	2	1
C315	2	2	2	2	2	3	2	1	3	2	3	2
C316	1.40	1.68	1.54	1.82	2.10	0	0	0	0	1.40	1.82	1.40
C317	1.04	1.20	1.20	1.12	0.96	0.80	0.80	0.80	0.80	0.80	0.80	1.20
C318	3	2	0	2	2	3	0	2	3	2	0	2
C401	2.10	1.40	2.10	2.10	2.10	2.10	1.40	1.40	2.10	1.40	1.40	2.10
C402	2	2	1	2	1	2	2	1	2	2	1	2
C403	2	0	0	0	0	0	2.20	3	0	0	0	2
C404	2.50	3	0	3	2.60	3	2	3	0	0	3	2.50
C405	2.40	2.20	2.40	2.20	2	2.60	2.40	2.20	2.60	3	2.60	3
C406	2.60	2.20	2.30	1	1.60	1.20	3	1.20	1.20	1	1.50	3
C407	1.73	1.33	1.73	1.87	2	1.33	0	0	0	0	0	2
C408	3	2	2	2	2	3	2	2	2	2	2	3

PO Attainment Indirect

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Exit Survey	2.1	1.7	2.1	1.6	1.5	1.8	2.2	2.1	1.6	2.3	2.4	2.2

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	2.19	2.00	1.99	1.90	1.62	2.01	1.78	1.67	1.80	1.75	1.63	1.96
InDirect Attainment	2.1	1.7	2.1	1.6	1.5	1.8	2.2	2.1	1.6	2.3	2.4	2.2
Overall Attainment	2.17	1.94	2.01	1.84	1.60	1.97	1.86	1.76	1.76	1.86	1.78	2.01

PSO Attainment

Course	PSO1	PSO2	PSO3
C101	0	0	0
C102	0	0	0
C103	0	0	0
C104	0	0	0
C105	2.80	2.80	0
C106	0	2	0
C107	3	3	0
C108	0	0	0
C109	0	0	0
C110	0	0	0
C111	0	0	0
C112	0	0	0
C113	0	0	0
C114	2	2	0
C115	0	2	1
C116	2	1	0
C117	0	0	0
C118	0	0	0
C201	0	0	1.17

C202	1.80	0.6	1.80
C203	1.70	1.70	1.13
C204	2.10	1.40	1.40
C205	2.05	1.37	2.05
C206	2.01	2.01	2.01
C207	3	3	2
C208	2	2	0
C209	0	0	3
C210	2	1.33	2
C211	1.90	1.90	1.90
C212	2	2	3
C213	1.33	1.33	1.33
C214	3	3	0
C215	0	0	1
C217	3	2	2
C217	2	2	3
C218	2	3	3
C301	2	2	2
C302	1.85	1.85	1.85
C303	1.30	1.95	1.95
C304	3	3	3
C305	2	2	2
C306	3	3	2
C307	0.80	0.80	0.80
C308	3	3	3
C309	3	3	3
C10	1.30	1.30	1.95
C311	1.88	1.88	1.25
C312	2	2	2
C313	1	1	3
C314	3	3	2
C315	3	3	2.40
C316	1.54	1.68	2.10
C317	0.96	1.20	0.80

C318	3	2	3
C401	2.10	2.10	2.10
C402	2	2	3
C403	2	2	0
C404	2	3	0
C405	0	0	2
C406	2.10	1.20	3
C407	1.33	2	2
C408	3	3	0

PSO Attainment Indirect

Survey	PSO1	PSO2	PSO3
Exit Survey	2.2	1.4	1.8

PSO Attainment Level

Course	PSO1	PSO2	PSO3
Direct Attainment	2.13	2.05	2.07
InDirect Attainment	2.2	1.4	1.8
Overall Attainment	2.14	1.92	2.02

4 STUDENTS' PERFORMANCE (120)

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)	30	30	30	30	60	60	60
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	30	21	19	12	38	13	4
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	15	5	16	7	23	4
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	0	0

Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	30	36	24	28	45	36	8
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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	2	0
N5=N52+N53+N54	N5=N52+N53+N54	0	0	0	0	0	2	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	3	2	0	27	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	2	1	16	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	0	1	0	0
N6=N61+N62+N63	N6=N61+N62+N63	0	3	2	2	29	16	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)	30				
2024-25 (CAYm1)	33	12			
2023-24 (CAYm2)	22	15	16		
2022-23 (CAYm3)	26	7	11	9	
2021-22 (LYG)	16	6	8	8	8
2020-21 (LYGm1)	22	12	6	6	6
2019-20 (LYGm2)	8	7	7	7	7

4.1 Enrolment Ratio (20)

[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)	30	30	0	100.00
2024-25 (CAYm1)	30	21	0	70.00
2023-24 (CAYm2)	30	19	0	63.33

Average [(ER1 + ER2 + ER3) / 3] = 77.78 \equiv 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).	67.00	83.00	64.00
B=No. of students who graduated from the program in the stipulated course duration	8.00	6.00	7.00
Success Rate (SR)= (B/A) * 100	11.94	7.23	10.94

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 10.04

SR Points : 1.51

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)

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)	7.58	7.56	6.12
Y=Total no. of successful students	12.00	15.00	7.00
Z=Total no. of students appeared in the examination	21.00	19.00	12.00
API [X*(Y/Z)]	4.33	5.97	3.57

Average API[(AP1+AP2+AP3)/3] : 4.62

Assessment = Average API : 4.62

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 2nd year/10)	8.09	5.12	7.00
Y=Total no. of successful students	16.00	11.00	8.00
Z=Total no. of students appeared in the examination	20.00	23.00	13.00
API [X * (Y/Z)]	6.47	2.45	4.31

Average API [(AP1 + AP2 + AP3)/3] : 4.41

Assessment [AverageAPI] : 4.41

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

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)	8.27	6.00	6.15
Y=Total no. of successful students	9.00	8.00	7.00
Z=Total no. of students appeared in the examination	11.00	8.00	7.00
API [X*(Y/Z)]:	6.77	8.50	8.15

Average API [(AP1 + AP2 + AP3)/3] : 7.81

Assessment [1.5 * AverageAPI] : 7.81

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	67.00	83.00	64.00
X=No. of students placed	14.00	19.00	6.00
Y=No. of students admitted to higher studies	0.00	0.00	0.00
Z= No. of students taking up entrepreneurship	2.00	3.00	2.00
Placement Index(P) = $((X + Y + Z)/FS) * 100$:	23.88	26.51	12.50

Average Placement Index = $(P_1 + P_2 + P_3)/3$: 20.96

Placement Index Points: 6.29

4.7 Professional Activities (25)

4.7.1 Professional Societies/ Bodies, Chapters, Clubs, and Professional Engineering Events Organized (5)**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	Indian Geotechnical Society
2	Indian Concrete Institute
3	International Association of Engineers

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/YY)
1	International Association of Engineers	A Technical and Skill driven Program on "AI, IoT & Automation in Construction Management"	International	10/09/2024
2	Indian Concrete Institute	Technical Symposium-Convergence	National	20/03/2025
3	International Association of Engineers	Association Inaguration	National	20/08/2024
4	International Association of Engineers	model making	National	27/08/2024
5	Indian Concrete Institute	lecture on Prefabricated Structures	National	03/09/2024
6	Indian Concrete Institute	Field training	-	06/09/2024
7	International Association of Engineers	Building Marking	-	10/09/2024

(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	Indian Concrete Institute	Hands-on sessions on "mix design, quality control, and material testing methods that bridge classroom theory with real industry practice"	National	12/10/2023
2	International Association of Engineers	Siruvani water treatment Plant	-	04/09/2023
3	Indian Concrete Institute	Technical Symposium	National	15/03/2024
4	International Association of Engineers	Visit to Podhanur Railway Station	-	08/08/2023
5	Indian Concrete Institute	Borehole Investigation	-	03/08/2023
6	Indian Concrete Institute	Visit to Construction Company	-	11/09/2023
7	International Association of Engineers	Visit to Teemage	-	13/10/2023

(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/YY)
1	Indian Geotechnical Society	A Practical Learning & Skill Development Workshop on Geotechnical Laboratory Testing	National	14/03/2023
2	International Association of Engineers	Technical Symposium-Convergence	National	18/04/2023
3	Indian Geotechnical Society	Entrepreneurship Program	-	17/09/2022
4	International Association of Engineers	Career Development Program	-	27/02/2023

4.7.2 Student's Participations in Professional Events (10)

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	PUGAZHENTHI G	PAPER PRESENTATION	NATIONAL	21/03/2025	FIRST PRIZE
2	AJAY.J	PAPER PRESENTATION	INTERNATIONAL	29/03/2025	PARTICIPATEI
3	SHERJIN	POSTER PRESENTATION	NATIONAL	21/03/2025	SECOND PRIZ
4	LAVANYA	PAPER PRESENTATION	NATIONAL	21/03/2025	SECOND PRIZ
5	ANJAL	PAPER PRESENTATION	NATIONAL	21/03/2025	SECOND PRIZ
6	SRE RENJINI	PAPER PRESENTATION	NATIONAL	21/03/2025	FIRST PRIZE
7	DHAMODHARAN V	SEMINAR	NATIONAL	31/01/2025	PARTICIPATEI
8	GUNA D	WORKSHOP	NATIONAL	11/05/2025	PARTICIPATEI
9	HARINI R	QUIZ	NATIONAL	21/03/2025	PARTICIPATEI
10	PAVAN B	WORKSHOP	NATIONAL	27/04/2025	PARTICIPATEI
11	SABARINATHAN R	CODE DEBUGGING	NATIONAL	21/03/2025	PARTICIPATEI
12	SELLAMUTHU S	WORKSHOP ON DGPS	NATIONAL	15/10/2024	PARTICIPATEI
13	VETRIHARAN	WORKSHOP ON 3D PRINTING TECHNOLOGY	NATIONAL	06/02/2025	PARTICIPATEI

(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	RUDRESHWAR KS	POSTER PRESENTATION	NATIONAL	03/04/2024	THIRD PRIZE
2	SHAMNAS S	POSTER PRESENTATION	NATIONAL	03/04/2024	THIRD PRIZE
3	AJITH VISHWA	POSTER PRESENTATION	NATIONAL	06/04/2024	FIRST PRIZE
4	ANANTHAN N	PAPER PRESENTATION	NATIONAL	03/04/2024	PARTICIPATED
5	PARTHASARATHI S	PAPER PRESENTATION	NATIONAL	03/04/2024	PARTICIPATED
6	DEEPAK	PAPER PRESENTATION	NATIONAL	03/04/2024	PARTICIPATED
7	SURYA	PAPER PRESENTATION	NATIONAL	03/04/2024	PARTICIPATED
8	THENAMUDHAN	PAPER PRESENTATION	NATIONAL	03/04/2024	PARTICIPATED
9	ANANDHAN	TECHNICAL QUIZ	NATIONAL	26/04/2024	FIRST PRIZE
10	SHAMNAS	PAPER PRESENTATION	NATIONAL	06/04/2024	PARTICIPATED

(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	GOKULA PRAVEEN	SEMINAR	NATIONAL	13/05/2022	PARTICIPATED
2	VEERAVIGNESH	TECHNICAL QUIZ	NATIONAL	13/02/2022	PARTICIPATED
3	SUSINDAR	TECHNICAL QUIZ	NATIONAL	21/09/2023	FIRST PRIZE
4	SRIHARISH	CODE CRACKING	NATIONAL	21/09/2023	FIRST PRIZE
5	THIRUMOORTHY	CODE CRACKING	NATIONAL	21/09/2023	PARTICIPATED
6	GOKUL KRISHNAN	PAPER PRESENTATION	NATIONAL	05/10/2023	FIRST PRIZE
7	SHAMNAS	PAPER PRESENTATION	NATIONAL	05/10/2023	SECOND PRIZE
8	SHAKIR	POSTER PRESENTATION	NATIONAL	05/10/2023	SECOND PRIZE
9	SHARAFUDHEEN	POSTER PRESENTATION	NATIONAL	05/10/2023	PARTICIPATED
10	SURYAPRAKASH	POSTER PRESENTATION	NATIONAL	05/10/2023	PARTICIPATED

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

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
1	CIVIL ENGINEERING DIGEST -I 2024-2025	DR M SAMUEL THANARAJ	GOKUL KRISHNAN,MANOJ,RUDRESHWAR,SABARINATHAN,AJAY	7	2	SOFT COPY
2	NEHRU CIVIL BULLETIN 2024-2025	DR M SAMUEL THANARAJ	SHAMNAS,SHAKIR,SHARAFUDHEEN,SURYAPRAKASH,AFRIN,HARINI	7	2	SOFT COPY
3	CIVIL ENGINEERING DIGEST-II 2024-2025	DR M SAMUEL THANARAJ	LAVANYA,ANJAL,SRIRENJINI,PUGAZHENTHI,	5	2	SOFT COPY

(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 c
1	CIVIL ENGINEERING DIGEST -I 2023-24	DR M SAMUEL THANARAJ	SRI HARISH,VIGENSH,VEERAVIGNESH,GOKULA PRAVEEN	7	2	SOFT COPY
2	NEHRU CIVIL BULLETIN 2023-2024	DR M SAMUEL THANARAJ	MANOJ,GOKUL KRISHNAN,VENGATESSAN,VIGNESHWARAN,	5	2	SOFT COPY
3	IVIL ENGINEERING DIGEST-II 2023-24	DR M SAMUEL THANARAJ	ALWIN BIJU,ATHUL,SREEJITH,THATUN RAJ	3	2	SOFT COPY

(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	CIVIL ENGINEERING DIGEST 2022-2023	DR M VADIVEL	SHARATH RS	7	2	SOFT COPY
2	NEHRU CIVIL BULLETIN 2022-2023	DR M VADIVEL	DHRISHYAL	7	2	SOFT COPY

4.7.4 Student Publications (5)

**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 A any
1	SURYA M	6	JCT COLLEGE OF ENGINEERING AND TECHNOLOGY	INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL ENGINEERING	4	2	PARTICIPATEI
2	ATHUL	6	NEHRU INSTITUTE OF TECHNOLOGY	INTERNTATIONAL CONFERENCE ON NEWGEN TECHNOLOGIES AND SUSTAINABLE DEVELOPMENT	1	1	PARTICIPATEI
3	VENGATESAN A	8	NEHRU INSTITUTE OF TECHNOLOGY	INTERNTATIONAL CONFERENCE ON NEWGEN TECHNOLOGIES AND SUSTAINABLE DEVELOPMENT	1	1	PARTICIPATEI
4	PARTAHSARATHY S	6	NEHRU INSTITUTE OF TECHNOLOGY	NTERNATIONAL CONFERENCE ON NEWGEN TECHNOLOGIES AND SUSTAINABLE DEVELOPMENT	1	1	PARTICIPATEI
5	MANOJ S	8	NEHRU INSTITUTE OF TECHNOLOGY	INTERNTATIONAL CONFERENCE ON NEWGEN TECHNOLOGIES AND SUSTAINABLE DEVELOPMENT	1	1	PARTICIPATEI
6	DEEPAK S	6	NEHRU INSTITUTE OF TECHNOLOGY	INTERNTATIONAL CONFERENCE ON NEWGEN TECHNOLOGIES AND SUSTAINABLE DEVELOPMENT	1	1	PARTICIPATEI
7	AMMAAR AL ABHUDHEEN	6	NEHRU INSTITUTE OF TECHNOLOGY	INTERNTATIONAL CONFERENCE ON NEWGEN TECHNOLOGIES AND SUSTAINABLE DEVELOPMENT	1	1	PARTICIPATEI
8	JAGANATHAN P	6	NEHRU INSTITUTE OF TECHNOLOGY	INTERNTATIONAL CONFERENCE ON NEWGEN TECHNOLOGIES AND SUSTAINABLE DEVELOPMENT	1	1	PARTICIPATEI

(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 / any
1	MANOJ	5	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE
2	VENGATESAN A	5	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE
3	VIGNESHWARAN	5	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE
4	ATHUL	3	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE
5	SREEJITH	3	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE
6	PARTHASARATHY	3	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE
7	NAJITH RAHEMAN	3	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE
8	DALVIN VARGHESE	5	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE
9	GOPALAKRISHNAN	5	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE
10	THAMILARASAN	5	NEHRU INSTITUTE OF TECHNOLOGY	NATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE TECHNOLOGY AGRICULTURE AND HEALTHCARE APPLICATIONS	0	0	PARTICIPATE

(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 / any
1	GOKUL KRISHNAN	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
2	RUDRESHWAR	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
3	HARIMUGESHKUMAR	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
4	MANOJ	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
5	SHAKIR	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
6	SHAMNAS	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
7	SHARAFUDHEEN	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
8	SURYAPRAKASH	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
9	VENAGTESAN	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
10	VIGNESHWARAN	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
11	DALVIN VARGHESE	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
12	GOPALAKRISHNAN	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
13	THAMILARASAN	3	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
14	ABIN	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
15	ABHISHEK	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
16	BALIJA NARESH	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
17	MAGULURI VENGATA KRISHNA	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
18	REVA DURGA PRASAD	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
19	SRI HARISH	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
20	SUSINDAR	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE

21	VEERAVIGNESH	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
22	VIGNESH	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
23	THIRUMOORTHY	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
24	KARAN	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE
25	GOKULA PRAVEEN	5	NEHRU INSTITUTE OF TECHNOLOGY	INTERNATIONAL CONFERENCE ON ENVIRONMENTAL FUNCTIONAL MATERILAS APPLIED MATHEMATICS AND LANGUAGE	0	0	PARTICIPATE

5 FACULTY INFORMATION (100)

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	Siddharthan P	FKOPS2399R	364195054378	M.E.	ANNA UNIVERSITY	STRUCTURAL ENGINEERING	07/03/2022	3.9	Assistant Professor	Assistant Professor		Regular	Yes		No
2	S Brindha	BIAPB6421R	960085270070	M.E.	ANNA UNIVERSITY	STRUCTURAL ENGINEERING	20/09/2021	4.2	Assistant Professor	Assistant Professor		Regular	Yes		No
3	Dr.M.Vadivel	AKEPV8099C	853402247709	Ph.D	KARUNYA UNIVERSITY	STRUCTURAL ENGINEERING	03/07/2013	12.5	Assistant Professor	Associate Professor	13/02/2024	Regular	Yes		No
4	Dr.M.Samuel Thanaraj	ALTPS3884L	406811900208	Ph.D	KARUNYA UNIVERSITY	Geotechnical Engineering	15/06/2011	14.6	Assistant Professor	Associate Professor	22/07/2025	Regular	Yes		No
5	Sowmiya.J.K	BPKPS0034Q	978139835074	M.E.	ANNA UNIVERSITY	Geotechnical Engineering	16/03/2022	3.9	Assistant Professor	Assistant Professor		Regular	Yes		No
6	SUKUMAR S	DYRPS6197E	348452508838	M.Tech	BHARATHIDASAN UNIVERSITY	GEOINFORMATICS	26/08/2010	15.3	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Madhan P	CUXPM6518E	494003544942	M.E.	ANNA UNIVERSITY	STRUCTURAL ENGINEERING	16/07/2015	8.11	Assistant Professor	Assistant Professor		Regular	No	22/06/2024	No
8	Dr K SHUNMUGAPRIYA	BOYPS0356A	NA	Ph.D	VISHVESWARAYA TECHNOLOGICAL UNIVERSITY	CIVIL ENGINEERING	02/08/2021	2.9	Professor	Professor		Regular	No	31/05/2024	No
9	Dr UDHAYASAKTHI R	ABIPU8961D	NA	Ph.D	ANNA UNIVERSITY	CIVIL ENGINEERING	02/08/2021	2.9	Professor	Professor		Regular	No	31/05/2024	No
10	Dr PRAKASH ARUL JOSE	ABFPJ1340J	NA	Ph.D	BHARATHIYAR UNIVERSITY	CIVIL ENGINEERING	02/08/2021	2.9	Professor	Professor		Regular	No	31/05/2024	No
11	Dr.M.Sivaraja	BENPS4385E	437721528140	Ph.D	ANNA UNIVERSITY	CIVIL ENGINEERING	29/12/2020	4.11	Professor	Professor		Regular	Yes		Yes

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):

Civil Engineering						
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	30	3	30	3	30	3
3rd Year	30	3	30	3	60	6
4th Year	30	3	60	6	60	6
Sub-Total	90	9	120	12	150	15
Total	99		132		165	
Grand Total	<input type="text" value="99"/>		<input type="text" value="132"/>		<input type="text" value="165"/>	

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

Civil Engineering

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	33	33	33
UG1.C	33	33	66
UG1.D	33	66	66
UG1: Civil Engineering	99	132	165
DS=Total no. of students in all UG and PG programs in the Department	99	132	165
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= 99	S2= 132	S3= 165
DF=Total no. of faculty members in the Department	7	7	11
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= 7	F2= 7	F3= 11
FF=The faculty members in F who have a 100% teaching load in the first-year courses	1	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 16.50	SFR2= 18.86	SFR3= 15.00
Average SFR for 3 years	SFR= 16.79		

Average SFR for three assessment years : 16.79

Assessment SFR : 26

5.2 Faculty Qualification (25)

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF]
2025-26(CAY)	3	4	4.00	28.75
2024-25(CAYm1)	3	4	6.00	19.17
2023-24(CAYm2)	5	6	8.00	23.12

Average Assessment : 23.68

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	1.00	2.00	3.00	4.00
CAYm1(2024-25)	1.00	1.00	1.00	1.00	4.00	5.00
CAYm2(2023-24)	1.00	4.00	1.00	0.00	5.00	7.00
Average Numbers	1.00	2.00	1.00	1.00	4.00	5.33

Cadre Ratio Marks $[(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 25.00$

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

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 P SRINIVASAN	PROJECT MANAGER	SREEVATSA REAL ESTATES PVT LTD	CONCRETE TECHNOLOGY	25.00
2	ER J JENEIN RAJASINGH	PROPRIETER	INSCULP CONSULTANTS	DESIGN OF REINFORCED CONCRETE ELEMENTS	25.00

(CAYm2) 2023-24

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	PROF RAMESH KUMAR	PROPRIETER	RAMASAMY ASSOCIATES	FOUNDATION ENGINEERING	25.00
2	DR ISAAC SOLOMON JEBAMANI	RETIRED PRINCIPAL, GOVERNMENT COLLEGE OF ENGINEERING, THIRUNELVELI	GOVERNMENT COLLEGE OF ENGINEERING, THIRUNELVELI	ENVIRONMENTAL HEALTH AND SAFETY	25.00

(CAYm3) 2022-23

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	PROF SATHISH RAJA	PROPRIETER	AKSHAYA PROPERTIES	SOIL MECHANICS	25.00

5.5 Faculty Retention (10)

Description	2024-25 (CAYm1)	2023-24 (CAYm2)	2022- (CAYi
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).	6	8	10
AF=The no. of available faculty members in the Department including allied Departments	7	11	14
A= The no. of faculty members at the current institute with less than 1 year of experience (A in AF)	0	0	8
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)	0	0	2
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)	0	3	0
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)	2	2	0
E= The no. of faculty members at the current institute with more than 4 years of experience (E in AF)	5	6	4
FR= $((A*0) + (B*1) + (C*2) + (D*3) + (E*4)) / RF$ *2.50 (points limited to 10)	10	10	4

Average : 8.00

Assessment Marks : 8.00

6 FACULTY CONTRIBUTIONS (120)

6.1 Professional Development Activities (60)

6.1.1 Memberships in Profession Societies at National/International Levels (5)**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.M.Sivaraja	Indian society for technical Education (ISTE)	life member
2	Dr.M.Sivaraja	Institution of member (IEI)	life member
3	Dr.M.Sivaraja	Indian concrete institute (ICI)	life member
4	Dr.M.Sivaraja	Computer society of India (CSI)	life member
5	Dr.M.Samuel Thanaraj	Indian Geotechnical Society	life member
6	Dr.M.Samuel Thanaraj	Indian society for Technical Education	life member
7	Dr.M. Samuel Thanaraj	Indian society of systems for science and Engineering	life member
8	Dr.M. Samuel Thanaraj	Coimbatore civil Engineers Association	member
9	Dr.M.Vadivel	International association of engineers	life member
10	Dr.M.Vadivel	International association of Hydrological sciences	life member
11	Dr.M.Vadivel	Universal association of civil, structural & environmental engineers	life member
12	Dr.M.Vadivel	International association of bridge maintenance & safety	life member
13	Prof.P.Siddharthan	International association of engineers	life member
14	JK Sowmiya	Coimbatore civil Engineers Association	member
15	JK Sowmiya	International association of engineers	life member
16	JK Sowmiya	International association of Hydrological sciences	life member
17	S Brindha	Coimbatore civil Engineers Association	member
18	S Brindha	International association of engineers	life member
19	S Brindha	International association of Hydrological sciences	life member
20	Dr.M.Vadivel	Indian society for technical Education (ISTE)	life member

6.1.2 Faculty as Resource Persons or Participants in STTPs/FDPs (15)**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 M SAMUEL THANARAJ	A Short term training Program on "Selection of Foundation for Challenging Soils"	26/02/2025	MIET COLLEGE, TRICHY	TRICHY ROCK CITY CIVIL ENGINEER ASSOCIATION
2	DR M VADIVEL	Faculty Development Program on "Recent Advances and Emerging Trends in Civil Engineering"	13/08/2024	SRI KRISHNA COLLEGE OF TECHNOLOGY, COIMBATORE	DEPARTMENT OF CIVIL ENGINEERIN
3	S BRINDHA	FDP on Prefabricated Structures	17/03/2025	NEHRU INSTITUTE OF TECHNOLOGY	DEPARTMENT OF CIVIL ENGINEERIN
4	S SUKUMAR	STP on Remote Sensing & GIS	11/05/2025	NEHRU INSTITUTE OF TECHNOLOGY	DEPARTMENT OF CIVIL ENGINEERIN

(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 M VADIVEL	A Short Term Training Program on "Bridging Academia and Industry in Civil Engineering Practices"	10/11/2023	RI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY, COIMBATORE	DEPARTMENT OF CIVIL ENGINEERING
2	DR M SIVARAJA	Faculty Development Program on "Identifying Research Gaps in Civil Engineering"	01/03/2024	KARUNYA INSTITUTE OF TECHNOLOGY, COIMBATORE	DEPARTMENT OF CIVIL ENGINEERING
3	P MADHAN	STP on Recent Trends in Civil Engineering construction and Materials	26/12/2023	NEHRU INSTITUTE OF TECHNOLOGY	DEPARTMENT OF CIVIL ENGINEERING
4	JK SOWMIYA	STP on In-situ tests on Soil exploration	26/05/2024	NEHRU INSTITUTE OF TECHNOLOGY	DEPARTMENT OF CIVIL ENGINEERING

(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 M SAMUEL THANARAJ	AICTE Sponsored online short tern training program STTP Phase III on "Geotechnical Engineering"	18/02/2023	VELLALAR COLLEGE OF ENGINEERING AND TECHNOLOGY	DEPARTMENT OF CIVIL ENGINEERING
2	DR M VADIVEL	Faculty Development Program on "Green Building Materials and Technologies"	08/10/2022	KARUNYA INSTITUTE OF TECHNOLOGY, COIMBATORE	DEPARTMENT OF CIVIL ENGINEERING
3	S BRINDHA	STP on Quantity Surveying & Tender Scheduling	12/12/2022	NEHRU INSTITUTE OF TECHNOLOGY	DEPARTMENT OF CIVIL ENGINEERING
4	JK SOWMIYA	FDP on Geosynthetics in Civil Engineering	05/03/2023	NEHRU INSTITUTE OF TECHNOLOGY	DEPARTMENT OF CIVIL ENGINEERING

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

Name of the faculty	Max 5 Per Faculty		
	2024-25(CAYm1)	2023-24(CAYm2)	2022-23(CAYm3)
DR M SAMUEL THANARAJ	3.00	0.00	3.00
DR M VADIVEL	3.00	3.00	3.00
P SIDDHARTHAN	3.00	3.00	3.00
S BRINDHA	3.00	3.00	3.00
JK SOWMIYA	3.00	3.00	3.00
P MADHAN	0.00	2.00	3.00
DR K SHUNMUGAPRIYA	0.00	0.00	1.00
DR R UDHAYASAKTHI	0.00	0.00	1.00
DR M SIVARAJA	1.00	0.00	0.00
S SUKUMAR	3.00	3.00	3.00
Sum	19.00	17.00	23.00
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).	4.95	6.60	8.25
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)

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 an
1	DR M SAMUEL THANARAJ	NPTEL COURSE ON CONSTRUCTION METHODS AND MANAGEMENT	IIT MADRAS	40%
2	P SIDDHARTHAN	NPTEL COURSE ON PROJECT PLANNING AND CONTROL	IIT MADRAS	60%
3	JK SOWMIYA	NPTEL COURSE ON GROUND IMPROVEMNT TECHNIQUES	IIT KHARAGPUR	60%
4	DR M SAMUEL THANARAJ	NPTEL COURSE ON BUILDING MATERIALS AS A CORNER STONE TO SUSTAINABILITY	IIT MADRAS	61%
5	JK SOWMIYA	NPTEL COURSE ON GEOTECHNICAL ENGINEERING I	IIT BOMBAY	62%
6	JK SOWMIYA	NPTEL COURSE ON FOUNDATION ENGINEERING	IIT KHARAGPUR	45%
7	DR.M.SAMUEL THANARAJ	NPTEL COURSE ON SOIL MECHANICS/GEOTECHNICAL ENGINEERING 1	IIT KHARAGPUR	71%
8	DR M VADIVEL	NPTEL COURSE ON FOCUSED ON PLASTIC WASTE MANAGEMENT	IIT MADRAS	53%
9	DR M VADIVEL	NPTEL COURSE ON HOUSING POLICY & PLANNING	IIT ROORKEE	54%

6.1.4 FDP/STTP Organized by the Department (10)**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 Attend
1	FDP on Prefabricated Structures	17/03/2025	6 days	Dr.Muthupriya, Professor, Sri Krishna College of Engineering and Technology	26
2	STP on Remote Sensing & GIS	11/05/2025	5 days	Dr.J.Brema, Professor, Karunya Institute of Technology and Sciences	32

(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 Attend
1	STP on Recent Trends in Civil Engineering construction and Materials	26/12/2023	5 days	Dr.Srividhya, Professor, Srikrishna college of engineering and Technology	25
2	STP on In-situ tests on Soil exploration	26/05/2024	5 days	Er Samsul Hudha,Proprieter,HFS Geotechnical Consultants,Erode	28

(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 Attend
1	STP on Quantity Surveying & Tender Scheduling	12/12/2022	5 days	Dr Murugesan,Professor,JCT College of Engineering and Technology	35
2	FDP on Geosynthetics in Civil Engineering	05/03/2023	5 days	Prof Senthil Kumar,Hindusthan College of Engineering and Technology,Coimbatore	33

6.1.5 Faculty Support in Student Innovative Projects (10)

**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
1	DR M VADIVEL	LIGHT WEIGHT CONCRETE	22/08/2024	NERHU INTERNATIONAL SCHOOL	-
2	DR M VADIVEL	SPACE STRUCTURES	15/09/2024	NEHRU SCHOOL OF ARCHITECTURE	-
3	DR M SIVARAJA	NATIONAL LEVEL TECHNICAL SYMPOSIUM	21/03/2025	JCT COLLEGE OF ENGINEERING AND TECHNOLOGY,COIMBATORE	-
4	P SIDDHARTHAN	NATIONAL LEVEL TECHNICAL SYMPOSIUM	21/03/2025	JCT COLLEGE OF ENGINEERING AND TECHNOLOGY,COIMBATORE	-
5	S BRINDHA	NATIONAL LEVEL TECHNICAL SYMPOSIUM	15/02/2025	COIMBATORE INSTITUTE OF ENGINEERING AND TECHNOLOGY,COIMBATORE	-
6	JK SOWMIYA	NATIONAL LEVEL TECHNICAL SYMPOSIUM	11/04/2025	GOVERNMENT COLLEGE OF TECHNOLOGY,COIMBATORE	-
7	S SUKUMAR	NATIONAL LEVEL TECHNICAL SYMPOSIUM	12/04/2025	SRI SAKTHI COLLEGE OF ENGINEERING AND TECHNOLOGY	-
8	P SIDDHARTHAN	EDUCATIONAL VISIT	26/09/2024	CSIR,CHENNAI	-
9	DR M VADIVEL	CIVILIANZ MAZE	30/09/2024	GOVERNMENT COLLEGE OF ENGINEERING,KOZHICODE	-
10	P SIDDHARTHAN	ROAD SURVEYING	20/05/2025	KOTHAGIRI	-

(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
1	DR M VADIVEL	NIRAL THIRUVIZHA	02/09/2023	GOVERNMENT COLLEGE OF TECHNOLOGY,COIMBATORE	-
2	DR M VADIVEL	NEWGEN IEDC-DST	17/06/2023	NEHRU INSTITUTE OF ENGINEERING AND TECHNOLOGY,COIMBATORE	-
3	S BRINDHA	NATIONAL LEVEL TECHNICAL SYMPOSIUM	05/02/2024	KARPAGAM ACADEMY OF HIGHER EDUCATION,COIMBATORE	-
4	JK SOWMIYA	PAPER PRESENTATION	10/03/2024	NEHRU INSTITUTE OF TECHNOLOGY,COIMBATORE	-
5	S SUKUMAR	NATIONAL LEVEL TECHNICAL SYMPOSIUM	10/03/2024	NEHRU INSTITUTE OF TECHNOLOGY,COIMBATORE	-

(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
1	DR M SAMUEL THANARAJ	LANDSLIDE MITIGATION	05/02/2023	NEHRU INSTITUTE OF TECHNOLOGY	-
2	P MADHAN	NEWGEN IEDC-DST	21/06/2023	NEHRU INSTITUTE OF ENGINEERING AND TECHNOLOGY,COIMBATORE	-
3	S BRINDHA	NATIONAL LEVEL TECHNICAL SYMPOSIUM	06/02/2023	JCT COLLEGE OF TECHNOLOGY,COIMBATORE	-
4	P SIDDHARTHAN	NEWGEN IEDC-DST	17/06/2023	NEHRU INSTITUTE OF ENGINEERING AND TECHNOLOGY,COIMBATORE	-

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

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 M VADIVEL	MOU COLLABORATION	DSOL EDUCONNECT PRIVATE LTD,CHENNAI & UK	1 YEAR	INTERNSHIP
2	DR M SAMUEL THANARAJ	MOU COLLABORATION	INCULP CIVIL CONSULTANTS,POLLACHI	1 YEAR	PLACEMENT
3	P SIDDHARTHAN	MOU COLLABORATION	S S ARCHITECTS AND BUILDERS	1 YEAR	INTERNSHIP
4	P MADHAN	MOU COLLABORATION	GRAVITY ASSOCIATES,COIMBATORE	1 YEAR	PLACEMENT
5	DR M SAMUEL THANARAJ	MOU COLLABORATION	GEOSTRUCT CONSULTANTS,SALEM	1 YEAR	PLACEMENT
6	DR M VADIVEL	MOU COLLABORATION	JRD REALTORS	1 YEAR	INTERNSHIP
7	DR M VADIVEL	MOU COLLABORATION	NISHANTHI & CO	1 YEAR	WORKSHOP
8	S BRINDHA	MOU COLLABORATION	SRI BALAJI BUILDERS,PERUNDURAI	1 YEAR	INTERNSHIP
9	DR M VADIVEL	MOU COLLABORATION	DESIGN GROUPS	1 YEAR	INTERNSHIP
10	JK SOWMIYA	MOU COLLABORATION	GEOCARE ENGINEERING CONSULTANTS	1 YEAR	PLACEMENT
11	S SUKUMAR	MOU COLLABORATION	AKSHAYA PROPERTIES	1 YEAR	INDUSTRIAL VISIT
12	DR M SAMUEL THANARAJ	MOU COLLABORATION	PA RAMASAMY ASSOCIATES	1 YEAR	INTERNSHIP

6.2 Research and Development Activities (60)

6.2.1 Academic Research (15)**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	31	9	4
2	No. of peer reviewed conference papers published	11	5	3
3	No. of books/book chapters published	9	10	2

6.2.2 Development Activities (10)

SIN o	Name of Faculty	Date and year of Publication	Title of paten	Type	Application Number
1	Brindha S	15-12-2023	Reinforced Concrete Multi Storey Multi-Span Frame Structures By The Cantilever Units And Method There Of	Indian	202341073612
2	P.Siddharthan	06.10.2023	A Panel connectivity structure in assembling a building and manufacturing method thereof	Indian	202341064165 A
3	J K Sowmiya	24.11.2023	A Simple And Robust Method For Simultaneous Consideration Of Overland And Underground Space In Urban Flood Modelling	Indian	202321071999 A
4	Dr.M.Vadivel	22.12.2023	Development Of Fracture Behaviour Of Fiber Reinforced concrete Using Artificial Intelligence (Ai) Techniques	Indian	202341082034 A
5	Dr.M.Vadivel	20.10.2023	Development of Light weight Aggregate concrete using glass and basalt	Indian	202341065831 A
6	Dr.M.Vadivel	22.12.2023	Development of Recycled tyre steel Fibers concrete for Sustainable construction	Indian	202341077139 A
7	Dr.M.Vadivel	06.10.2023	Development of Strengthening Techniques for reinforced concrete columns with FRP	Indian	202341062061 A
8	Dr.M.Samuel Thanaraj	28.11.24	Artificial intelligence based digital sprit level for construction	Indian	427899-001

9	Dr.M.Samuel Thanaraj	15.01.25	Artificial intelligence based apparatus for home automation management	Indian	438133-001
10	Dr.M.Samuel Thanaraj	21.02.25	AI Integrated smart Agricultural Rooftops for Urban buildings	Indian	202541013027 A
11	Dr.M.Vadivel	14-03-2025	Automated Print Machine	Indian	202541018950A
12	Dr.M.Vadivel	14-02-2025	IoT based Coconut tree climber with Real Time monitoring and controlling using Smartphone application	Indian	202541009353A
13	Dr.M.Vadivel	25-04-2025	Using biochar as carbon sink enhancement material in cement concrete composites	Indian	202541027608
14	Dr.M.Vadivel	24-01-2025	Development of Innovative Sustainable Construction Materials	Indian	2.02541E+11
15	Dr.M.Vadivel	09.02.2025	Smart Water Level Monitoring Device for Flood-Resilient Infrastructure	Indian	447463-001
16	Dr.M.Vadivel		Self-healing bio plastic as repairing material for concrete	Indian	202544040700
17	Dr.M.Vadivel	04.10.2025	Device to Analyse Cement Quality	Indian	425752-001
18	Dr.M.Vadivel	11.07.2024	Digital Road Safety Cone	Indian	404093-001
19	Dr.M.Vadivel	13-06-2024	Artificial Intelligence based smart goggles for construction labor	Indian	412779-001
20	Mr.P.Siddharthan	27-12-2024	System and Method for Structural Health Monitoring of Civil Engineering Infrastructure	Indian	202421082540 A

6.2.3 Sponsored Research Project (15)**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 M VADIVEL	THENAMUDHAN,ALWIN BIJU	CIVIL ENGINEERING	TRANSPARENT WOOD	NEWGEN IEDC-DST	1 YEAR	2.50
						Amount received (Rs.)

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=
DR M VADIVEL	GOKULA PRAVEEN,VEERAVIGNESH	CIVIL ENGINEERING	CLEAN AND GREEN TECHNOLOGY INTEGRATION IN CIVIL CONSTRUCTION	NIRAL THIRUVIZHA-GOVERNMENT	1 YEAR	0.01
						Amount receiv (Rs.):0.01

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
P SIDDHARTHAN	PEDDAIAH GARU SHARANSI	CIVIL ENGINEERING	INSTANT POT HOLE REPAIR	NEWGEN IEDC-DST	1 YEAR	2.50
P MADHAN	SHAMNAS	CIVIL ENGINEERING	GLAZING DECORS	NEWGEN IEDC-DST	1 YEAR	2.50
						Amount received (Rs)

Total Amount (Lacs) Received for the Past 3 Years: 7.51**Note*:**

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

6.2.4 Consultancy Work (15)

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. 15,25,00
DR M VADIVEL	DR M SAMUEL THANARAJ	CIVIL ENGINEERING	CONCRETE CORE TEST AND REBOUND HAMMER TEST FOR ROOF SLAB IN SCHOOL BUILDING	PRIVATE	7,14,28 DAYS	1.00
DR M VADIVEL	DR M SAMUEL THANARAJ	CIVIL ENGINEERING	CONCRETE CORE TEST AND REBOUND HAMMER TEST FOR ROOF SLAB IN PHYSIOTHERAPHY BUILDING-THIRUMALAYAMPALAYAM	PRIVATE	7,14,28 DAYS	1.00
DR M VADIVEL	DR M SAMUEL THANARAJ	CIVIL ENGINEERING	BITUMEN STEEL CONCRETE CUBE PVC PIPE HOLLOW BLOCKS THIRD PARTY INSPECTION	GOVERNMENT	7,14,28 DAYS	1.00
						Amount rece (Rs.):3.00

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=15.2
DR M VADIVEL	P MADHAN	CIVIL ENGINEERING	STABILITY OF SCHOOL BUILDING,KOVAIPUDUR	PRIVATE	30 DAYS	0.50
DR M VADIVEL	P SIDDHARTHAN	CIVIL ENGINEERING	MATERIAL TESTING	PRIVATE	28 DAYS	0.50
						Amount received (R

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=1
DR M VADIVEL	P MADHAN	CIVIL ENGINEERING	STABILITY OF NIS BUILDING,KALIAPURAM	PRIVATE	28 DAYS	1.00
DR M VADIVEL	P MADHAN	CIVIL ENGINEERING	CONSULTATION OF STEEL ROOF TRUSS AT KUNIYAMUTHUR	PRIVATE	6 MONTHS	1.00
DR M VADIVEL	DR M SAMUEL THANARAJ	CIVIL ENGINEERING	SOIL INVESTIGATION FOR NEW BUILDING THIRUMALAYAMPALAYM	GOVERNMENT	15 DAYS	0.50
						Amount receive (Rs.):2.50

Total amount (Lacs) received for the past 3 years: 6.50

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)

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)

7 FACILITIES AND TECHNICAL SUPPORT (100)**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	Surveying labc	30	Theodolite	3 hours	Sathishkumar	Lab Assistant	Diploma in Civi
2	Soil Mechanics	30	Direct shear aq	3 hours	Rahul	Lab Assistant	Diploma
3	Strength of ma	30	Universal Testi	3 hours	Subramanian	lab Superinden	Diploma
4	Concrete and I	30	Abrasion testin	3 hours	Sathishkumar	Lab Assistant	Diploma in Civi
5	Hydraulic engir	30	Francis Turbine	2 hours	Shanmugam	Lab Assistant	Diploma
6	CADD in Civil E	30	Building Darwi	3 hours	Sabarigirisan	lab Assistant	Diploma

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

Sr. No	Name of the Facility	Details	Purpose for creating facility	Utilization	Relevance to POs/PSOs
1	Soil Testing	Inndex properties	Consultancy	10	P12
2	Material Testing	Compressive strength of concrete cubes, Engineering properties of coarse and fine aggregates, bitumen testing, Cement, bricks strength properties	Consultancy	10	P12
3	Water testing	water quality parameters testing	Consultancy	10	P12

7.3 Maintenance of laboratories and overall ambience (10)

Laboratories Maintenance and Overall Ambiance

The laboratory technicians 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 repaired either on-site by the supplier/service personnel or at the vendor's service facility. Equipment calibration is performed at regular intervals through authorized agencies.

- 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 technicians.
- 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.

The overall ambiance 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.

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 trail 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. <p>Verifying the quantity and number of consumables and equipment as per the requirement.</p>

4.	Semester	<p>Checking the performance and working condition of equipment for servicing.</p> <p>Servicing the equipment which were identified and repairing.</p> <p>Preparation of list for consumables and equipment for the upcoming semester.</p> <p>First Aid kit: Verifying the availability and expiry dates of the medicines/medical accessories in the medical kit.</p>
5.	Academic Year	<p>Calibration of gauges and equipment.</p> <p>Servicing the equipment which were identified and repairing.</p> <p>Verifying the conditions of fire extinguishers and refilling.</p> <p>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</p>

The laboratory technicians 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 repaired either on-site by the supplier/service personnel or at the vendor's service facility. Equipment calibration is performed at regular intervals through authorized agencies.

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- 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 technicians.
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- 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.
- 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.

7.4 Safety measures in laboratories (10)

Sr. No	Laboratory Name	Safety Measures
1	Applied Hydraulics laboratory	1.First aid box 2. Fire extinguisher 3. Safety instruction Board (Do's & Don'ts) 4.Electrical panels, switches, and wiring connected to pumps and motors are properly insulated, earth protected against water splashes. 5.Equipment is operated only under the supervision of faculty members and trained laboratory technicians.
2	Soil Mechanics laboratory	1.Safety instructions, standard operating procedures, and emergency guidelines are clearly displayed in the Soil Mechanics Laboratory. 2.Personal protective equipment (PPE) such as coats, hand gloves, safety shoes, and masks are recommended while handling soil samples, chemicals, and heavy apparatus. 3.Electrical connections of equipment such as over and motorized testing machines are properly insulated, earthed, and periodically inspected. 4.First-aid kits and fire extinguishers are made available, and emergency contact details displayed in the laboratory. 5.Adequate ventilation is provided to prevent inhalation of dust and fumes during soil preparation and testing.
3	Surveying Laboratory	1.Students are given proper orientation on the safe handling and operation of surveying instruments such as total stations, theodolites, auto levels, GPS equipment, and accessories. 2.Tripods are placed on stable ground, and care is taken to avoid obstruction in walkways during indoor and outdoor surveying exercises. 3.During field surveying, students are advised to wear safety shoes, caps, and reflective jackets, especially when working near roads or construction sites. 4.Surveying activities are carried out under the supervision of faculty members and trained laboratory technicians. 5.During field surveying, students are advised to wear safety shoes, caps, and reflective jackets, especially when working near roads or construction sites.
4	Strength of materials laboratory	1.Students will enter the laboratory only under the supervision of a lab instructor. 2.Safety shoes, lab coat is compulsorily monitored 3.Loose clothing, dangling jewellery, and long hair are secured properly. 4.Periodical Checking of the Inspect machines (UTM, torsion testing machine, impact testing machine, etc.) 5.Applying & releasing of Load is done gradually and uniformly.
5	Concrete and Highway Engineering Laboratory	1.Students are provided with safety orientation before conducting experiments involving cement, aggregates, admixtures, and concrete mixing. 2.Mixing machines, vibrators, and compression testing machines are operated only under the supervision of faculty members and trained laboratory technicians. 3.Moving parts of mixers, vibrating tables, and testing machines are properly guarded to prevent accidents. 4.Heavy moulds and concrete specimens are lifted using proper lifting techniques to prevent strain and injury Heavy molds and specimens are lifted using proper lifting techniques to prevent strain and injury 5.Equipment is cleaned immediately after use, and waste materials are disposed of safely.

7.5 Project laboratory/research laboratory /centre of excellence (20)

The Department of Civil Engineering is equipped with well-established laboratories that support undergraduate and postgraduate projects, faculty research, consultancy activities, innovation initiatives, and startup incubation. These laboratories are continuously upgraded to meet academic, research, and industry requirements.

Soil Mechanics Laboratory	Laboratory supports experimental studies related to soil mechanics, foundation engineering, ground improvement, and slope stability. Facilities include advanced soil testing equipment such as consolidation apparatus, permeability testing setups, and compaction equipment. The laboratory enables students and faculty to undertake research-oriented projects, model studies, and consultancy work related to soil characterization and foundation design.
Concrete and Highway Laboratory	This laboratory supports research and innovation in concrete technology, sustainable construction materials, and structural materials testing. Facilities include concrete mixers, compression testing machines (CTM), non-destructive testing equipment, and curing tanks. The laboratory enables experimentation on high-performance concrete, fiber-reinforced concrete, and alternative construction materials, supporting student projects, funded research, and prototype development. The Highway Engineering Laboratory supports projects and research in pavement materials. Equipment for bitumen testing, aggregate testing, Marshall stability analysis, and pavement evaluation facilitate applied research and innovation. The laboratory supports student projects related to pavement performance, material optimization, and traffic studies.

8 CONTINUOUS IMPROVEMENT (80)

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	Target Level	Attainment Level	Identified Gap	Action Taken
1	MA3151 Matrices and Calculus	3	2.1	Students experienced challenges in understanding and applying matrix operations and calculus concepts, particularly while solving higher-order and application-oriented problems.	1. Conducted extra classes to revise important matrix and calculus concepts. 2. Additional practice questions with solutions were provided.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
2	PH3151 Engineering Physics	3	2.4	Difficulty in understanding and applying concepts in optics, electromagnetic waves, and quantum physics, especially in numerical and application-based problems.	1. Remedial classes were conducted to revise basic concepts in optics, electromagnetic waves, and quantum physics 2. More numerical and application-based problems were solved step by step in class.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
3	CY3151 Engineering Chemistry	3	2.05	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. Arranged industrial visits to Water treatment plants
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
4	GE3151 Problem Solving and Python Programming	3	2.8	Insufficient practice in algorithm design, Python coding, use of loops, functions, data structures, and file handling reduced students' confidence in solving programming problems.	1. Introduced additional hands-on practice hours per week. 2. Regular programming assignments and debugging sessions were given to improve logical thinking and coding skills.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken

5	MA 3251 Statistics and Numerical Methods	3	2	Students showed difficulty in applying statistical concepts and numerical methods to real-life engineering problems	1.Conducted additional problem- solving sessions and tutorial classes focusing on application- based numerical problems. 2.Implemented assignment sheets and practice tests with real engineering examples to improve analytical and computational skills.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
6	PH3201 Physics for Civil Engineering	3	1.9	Lack of understanding in applying physics concepts -properties of materials, acoustics, optics, and quantum physics to civil engineering applications.	1.Implemented assignment- based learning and practical demonstrations to strengthen conceptual clarity and numerical skills. 2.Solved more University exam papers .
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
7	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.	1.Fundamental concepts were re-explained using circuit diagrams, practical demonstrations, and simple examples. 2. Industrial and real-life applications of sensors and instruments were discussed to improve practical understanding.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
8	MA 3351- Transforms and Partial Differential Equations	3	1.75	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	Target Level	Attainment Level	Identified Gap	Action Taken

9	ME3351 Engineering Mechanics	3	1.8	Students faced difficulty in understanding fundamental concepts of statics and dynamics, particularly in free body diagrams, equilibrium conditions, friction, and centroids.	1. Conducted problem-solving sessions focusing on step-by-step solution methods and free body diagram practice. 2. Introduced application-based assignments and model demonstrations to improve conceptual clarity and analytical skills.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
10	CE3301-Fluid Mechanics	3	1.7	Difficulty in understanding fundamental concepts such as fluid statics, fluid kinematics, and flow through pipes	1. Conducted additional tutorial classes and problem-solving sessions focusing on step-by-step numerical approaches. 2. Organized laboratory demonstrations and real-life application discussions to improve conceptual clarity and practical understanding.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
11	CE3303-Water Supply and Wastewater Engineering	3	2.05	Difficulty in applying theoretical concepts to numerical problems related to population forecasting, water demand estimation, and treatment process calculations.	1. Distributed unit-wise 2 & 16 mark questions for more number of Practice 2. Arranged site visits to water/wastewater treatment plants and assigned mini design projects to improve practical understanding and application skills.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
12	CE3351 - Surveying and Levelling	3	2.01	Students faced challenges in performing accurate field measurements, contour mapping, and interpretation of survey data due to limited practical exposure.	1. Increased supervised field practice sessions. 2. Assigned field data processing exercises..
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken

13	CE3401- Applied Hydraulics Engineering	3	2	Inadequate understanding in applying hydraulic principles such as open channel flow, flow measurement, dimensional analysis, and hydraulic machines to solve complex real-world engineering problems, resulting in errors in numerical analysis and limited ability to interpret laboratory and field data effectively.	1.Strengthened laboratory correlation by explaining experimental results with theoretical concepts after each lab session 2. Provided application-based assignments and case studies involving canal design, flow measurement in field conditions, and pump performance analysis to enhance practical understanding.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
14	CE3402- Strength of Materials	3	1.9	Difficulty in understanding and applying fundamental concepts such as stress-strain relationships, bending and torsion theory, shear force and bending moment analysis, and deflection of beams, which resulted in errors in numerical problem-solving and limited ability to analyze structural members under various loading condition	1. Problem-solving sessions with free body diagram practice were conducted. 2.Provided structured assignment sheets and periodic practice tests focusing on application-based and design-oriented problems.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
15	CE3404-Soil Mechanics	3	2	Insufficient understanding of soil behavior under different loading and environmental conditions, particularly in areas such as soil classification, compaction, permeability, shear strength, and consolidation, leading to difficulty in interpreting laboratory results and solving geotechnical numerical problems accurately.	2. Strengthened laboratory-theory correlation by explaining soil test procedures with detailed result interpretation session 2.Assigned field-based case studies and practical problem sets related to foundation and soil behavior to improve application-oriented understanding.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken

16	CE3501- Design of Reinforced Concrete Structural Elements	3	1	Significant difficulty in applying limit state design principles and IS 456 code provisions for the analysis and design of reinforced concrete structural elements such as beams, slabs, columns, and footings, leading to errors.	1.Organized reinforcement detailing practice sessions using real structural drawings to improve understanding of bar bending schedules and detailing standards. 2.Conducted intensive design-oriented tutorial sessions focusing on step-by-step limit state design procedures with IS code references.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
17	CE3502- Structural Analysis I	3	1.85	exhibited difficulty in analyzing statically indeterminate structures using methods such as consistent deformation, slope deflection, and moment distribution	1.Reviewed common mistakes from internal assessments and provided structured corrective feedback to address conceptual misunderstandings 2.Conducted collaborative classroom workshops where students solved indeterminate structure problems in small groups to improve peer learning and conceptual discussion.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
18	CE3503- Foundation Engineering	3	1.95	Showed difficulty in applying soil mechanics principles to the design and analysis of shallow and deep foundations, particularly in bearing capacity calculation	1.Organized site visits to ongoing construction projects to observe footing excavation, pile driving, and raft foundation works to improve practical understanding. 2.Organized focused sessions solving university exam questions related to pile capacity, settlement, and retaining structures

S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
19	Design of Steel Structural Elements	3	1.95	difficulty in applying limit state design principles and IS 800 code provisions for the design of tension members, compression members, beams, and bolted/welded connections	<p>1.Organized visits to steel fabrication units or construction sites to observe real-time connection detailing, welding practices, and erection procedures.</p> <p>2.Implemented group-based design tasks where students collaboratively designed structural elements and presented their approach</p>
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
20	Structural Analysis II	3	1.88	difficulty in understanding and applying advanced structural analysis methods such as matrix stiffness method, flexibility method, influence lines for indeterminate structures,	<p>1.Used demonstration videos and moving load simulations to improve conceptual understanding of influence lines and moving load analysis.</p> <p>2.Analyzed common mistakes from internal assessments and provided detailed corrective feedback focusing on matrix sign conventions and boundary conditions.</p>
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
21	IOT Concepts and Applications	3	2.1	demonstrated limited practical understanding of IoT architecture, sensor integration, data acquisition, cloud connectivity, and real-time monitoring applications	<p>1.Organized guest lecture on IoT platforms, cloud integration, and real-world smart infrastructure applications to bridge theory–practice gaps.</p> <p>2.Conducted hands-on laboratory sessions involving sensor interfacing, microcontroller programming and real-time data monitoring application</p>
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken

22	Industrial Safety	3	1.2	Inadequate understanding of industrial safety regulations, hazard identification techniques, risk assessment procedures, and accident prevention strategies,	1. Conducted case-study-based sessions analyzing real industrial and construction accident reports to improve hazard identification and risk analysis skills. 2. Arranged industrial/site visits and assigned safety audit mini-projects to provide practical exposure to safety management systems and statutory compliance practices.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
23	Estimation, Costing and Valuation Engineering	3	2	Difficulty in preparing detailed quantity takeoffs, rate analysis, abstract estimates, and valuation reports from engineering drawings, leading to errors in measurement calculations	1. Conducted step-by-step classroom practice sessions on quantity takeoff and rate analysis using standard drawings and Schedule of Rates 2. Assigned drawing-based estimation exercises and BOQ preparation tasks to strengthen practical calculation skills.
S No	Course Code & Name	Target Level	Attainment Level	Identified Gap	Action Taken
24	Artificial Intelligence and Machine Learning Fundamentals	3	2	understanding in applying fundamental AI and machine learning concepts such as supervised and unsupervised learning, regression, classification, model evaluation, and basic algorithm implementation,	1. Assigned mini-task such as prediction models, simple classification tasks, and data analysis exercises related to engineering applications. 2. Formed student groups to work on small real-world datasets

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

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.

POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO1 Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.				
PO1	2.5	2.6	Target attained	Improvement is needed in applying core engineering fundamentals to complex problems.
Action 1: Provided additional application-based numerical problems. Action 2: Organize subject-wise concept clarification sessions.				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO2 Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of Mathematics, natural sciences, and engineering sciences.				
PO2	2.7	2.6	Target not attained	Difficulty in solving the problems observed from series test performance
Action 1: Problem solving skill of the student need to be enhanced by conducting tutorial classes for Mathematics ,Strength of Materials and Structural Analysis I &II. Action 2: Understanding and analyzing skill have to be enhanced further by practicing more problems through assignments.				

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 the public health and safety, and the cultural, societal, and environmental considerations				
PO3	2.7	2.6	Target not attained	Difficulty in understanding the design procedure and unable to visualize the components in different structures
<p>Action 1: The design procedure has to be familiarized by practicing more design problems through assignments.</p> <p>Action 2: Motivation to participate in design contest conducted in other institutions need to be provided.</p> <p>Action 3: Students have to be encouraged to take up project in various streams of Civil Engineering.</p> <p>Action 4: Visualization ability has to be enhanced by encouraging students to do models.</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
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.				
PO4	2.7	2.6	Target not attained	Lack of awareness in software and its application
<p>Action 1: In laboratory classes students should be instructed to analyse and interpret the obtained results with standard values prescribed in IS codes of Concrete Laboratory, Soil laboratory, Strength of Materials laboratory</p> <p>Action 2: Encouragement and Motivation should be provided to participate in paper presentations.</p>				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN

PO5 Modern tool usage: 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				
PO5	2.8	2.6	Target not attained	
Action 1: STAAD PRO, MATLAB is to be introduced.				
Action 2: Students should be encouraged to employ modern tools to analyse, design and optimize components while carrying out their project.				
Action 3: Workshop related to Modern Tool usage has to be organized to enrich the software knowledge of faculty as well as students.				
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	2.8	2.7	Target not attained	Lack of Global Awareness
Action 1: Students will be encouraged to participate in club activities and NSS activities.				
Action 2: Need to Conduct seminars on safety and legal issues.				
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	2.8	2.7	Target not attained	Lack of Global Awareness
Action 1: Awareness has to be created by exposing students to various treatment technologies and waste disposal options.				
Action 2: Need to Conduct environmental impact analysis discussions.				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN

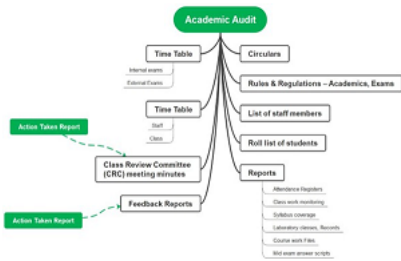
PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.				
PO8	2.8	2.7	Target not attained	Lack of awareness in Professional ethics.
Action 1: Students need to be emphasized to take Professional Ethics & Human Values subject as one of their electives.				
Action 2: Students should be instructed to follow ethical practices in project work.				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.				
PO9	2.8	2.7	Target not attained	Lack of opportunity to work as team.
Action 1: Students have to be motivated to participate in various club activities where they will learn to function effectively both as individuals and as team members in a group.				
Action 2: Students have to be encouraged to organize various technical events through Civil Engineering association.				
Action 3 Students will be assigned various works to perform as a group while arranging industrial and field visit.				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PO10 Communication: 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				
PO10	2.8	2.7	Target not attained	Hesitation and fear to face a forum observed during project presentations.

Action 1: Special training program will be organized to improve the verbal communication skill of students				
Action 2: Students should be emphasized to take seminars during theory courses.				
POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
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				
PO11	2.8	2.7	Target not attained	Lack of management skill
Action 1: Students will be involved while arranging Civil Engineering association activities, IEI activities and industrial visit.				
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	2.8	2.6		Lack of research activities
Action 1: Faculty and student have to be insisted to get membership in various professional Societies				
Action 2: Students have to be encouraged to pursue higher studies.				
Action 3: Students should be motivated to do research by arranging lectures various expert lectures.				
PSOs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PSO1 Knowledge of Civil Engineering discipline Demonstrate in-depth knowledge of Civil Engineering discipline, with an ability to evaluate, analyze and synthesize existing and new knowledge				
PSO1	2.8	2.6	Target not attained	Lack of exposure to management practices

Action 1: Students should be guided to take up online courses or NPTEL courses.				
Action 2: Students have to undergo internship in construction companies.				
Action 3: Expert lecture by a person from company or industry will be arranged to enhance the knowledge regarding management practices.				
PSOs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PSO2 Critical analysis of Civil Engineering problems and innovation				
Critically analyze complex Civil Engineering problems, apply independent judgment for synthesizing information and make innovative advances in a theoretical, practical and policy context.				
PSO2	2.8	2.6	Target not attained	Difficulty in understanding and need of recent development
Action 1: Faculty are instructed to Implement problem-based learning activities.				
Action 2: Assign more innovative mini projects.				
Action 3: Encourage Students participation in technical competitions				
PSOs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATIONS	ACTION TAKEN
PSO3 Conceptualization and evaluation of engineering solutions to Civil Engineering Issues				
Conceptualize and solve Civil Engineering problems, evaluate potential solutions and arrive at technically feasible, economically viable and environmentally sound solutions with due consideration of health, safety, and socio cultural factors				
PSO3	2.8	2.6	Target not attained	Difficulty in understanding the treatment process.
Action 1: Students should involve in case-study discussions on real projects.				
Action 2: Encourage evaluation of technical and economic feasibility in projects.				

8.2 Academic Audit and actions taken thereof during the period of Assessment (15)

Nehru Institute of Technology periodically carries out the academic audit using its own scientific and methodical approach while making reference to the standards established by accreditation agencies like NAAC and NBA. The Internal Quality Assurance Cell (IQAC), which oversees the entire academic audit process, focuses on key indicators such as student achievement, curriculum enrichment, student feedback, research performance, and extension activities.



NEHRU INSTITUTE OF TECHNOLOGY			
INTERNAL QUALITY ASSURANCE CELL (IQAC)			
Academic & Administrative Audit (AAA)			
Academic Year	2024-2025	Date :	3/16/2024
Department	CIVIL ENGINEERING	Semester:	02D
Part A			
Teaching Learning Process and Evaluation			
Sl. No	Items	Verification (Yes/No)	Remarks
1	Academic Advisory committee	Yes	Not updated in file
2	Teaching methodology/teaching Aids (PPT, Handouts)	Yes	Soft copy available.
3	E-learning soft files	Yes	Soft copy available.
4	TimeTable, Manual/TimeTable	Yes	Available
5	Class Committee Meeting	Yes	Available
6	Internal assessment Test,	Yes	Available in course file
7	Lab Manual	Yes	Available
8	Lab Record	Yes	Available
9	Course File with Attainment of COs, POs & PSOs	Yes	To be updated
10	Use of Value Added Program/ Certificate Program conducted	Yes	Available.
11	Project work, ITP, ICA	Yes	-
12	Student support: Remedial coaching	Yes	Available in course file.
13	Parent/industry evaluation of student progress	Yes	Not updated.
14	Feedback from students	Yes	In progress.
15	Action Taken on the feedback	Yes	-
16	ICampus update	Yes	Available
17	Naam Mudra/In Documents	Yes	Available
18	Best Practices - Cooperative Learning	Yes	Available in course file.
19	Department Staff Meeting & Minutes	Yes	Need to take print out

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List of Faculty Course file

Sl.No	Name of the Faculty	Course File Odd Sem (2024-2025)	Verification (Completed /Not Completed)
	Dr. Suresh Tharasa	Subject 1 CE3004 - Construction Materials Subject 2 CE 3101 - Estimation, Costing & Quantity Surveying I.	Need to be updated
	Dr. M. Vadivel	Subject 1 CE 3002 - Surveying I. Subject 2 CE 3002 - Structural Analysis I	✓
	Prof. J. K. Sumaniga	Subject 1 U230101 - Engineering Drawing Subject 2 CE 3004 - Fundamentals of Programming Subject 3 - CE3015 - Reinforced Concrete Subject 2	Need to update software for tools
	Prof. S. Bandula	Subject 1 U230101 - Fluid Mechanics Subject 2 CE 3025 - Airport & Highways Subject 3 AI 3V04 - Hydrology & Water Resources Subject 2	Need to be updated
	Prof. P. Subbarathin	Subject 1 U2302 205 - Construction Materials Subject 2 R 2501 - Surveying of R.C. Subject 1 Subject 2 Subject 1 Subject 2	✓

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Part B
Students Support and Progression

Sl. No	Items	Verification (Yes/No)	Remarks
1	Sanctioned Strength 71 / 82	Yes	Available
2	Actual Strength 5 (10) / 17 (12) = 50%	Yes	✓
3	Mentor/Mentee Ratio 1:1	Yes	✓
4	Mentor/Mentee File	Yes	Not completed
5	Industrial Visit	Yes	Soft copy is available
6	Internship/Inplant Training	Yes	Available.
7	No of Student involvement in extra curricular and Co-curricular Activities = 10	Yes	Need to be updated.
8	No of Achievement & Awards	—	—
9	NPTER File	Yes	Need to be updated (No Nptertooling in 25)

Part C
Faculty Information and Contribution

Sl. No	Items	Verification (Yes/No)	Remarks
1	Seminar/Workshops/Conference/ED Participated	Yes	Soft copy
2	No of Publications = 4	Yes	Soft copy
3	No of Books Published = 3	Yes	Soft copy
4	Academic Resource Person	—	—
5	Fund Generated	Yes	Updated (Consistency)
6	No of New Gen. IITC Projects	—	—
7	Faculty Awards and Recognitions	—	—

(Director & Administrative Authority) 7/2023

NEHRU INSTITUTE OF TECHNOLOGY
WILSON COLLEGE

Part D
Department Infrastructure & Activities

Sl.No	Items	Verification (Yes/No)	Remarks
1.	No of Classrooms - 3	Yes	
2.	No of Laboratories - 6	Yes	
3.	No of Department Library books, Issue Register -	Yes	Need to be updated
4.	No of Entrepreneurship IPR Awareness Program Conducted - 1	Yes	→
5.	No of Guest Lectures/Seminar /Workshops/Conferences Conducted (1)	Yes	-
6.	No of Collaborations - 5	Yes	Not updated
7.	No of Consultancy -	Yes	Need to be updated
8.	Magazine / Newsletter -	-	-
9.	Accreditation -	Yes	-

Declaration: We hereby declare that all the above documents have been verified and found to be true to the best of our knowledge.

[Signature]
Department IQAC Member

[Signature]
AUDITING MEMBER

[Signature]
IQAC CHIEF

[Signature]
IQAC DIRECTOR

[Signature]
HOD

[Signature]
PRINCIPAL

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	3.00	5.00	4.00
No. of publications in peer reviewed journals	31.00	9.00	4.00
No. of publications in conferences	11.00	5.00	3.00

8.4 Improvement in Academic Performance (10)

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)	4.38	5.88	3.57
Academic Performance Index (API) of the Second-Year Students in the Program (Refer to section 4.4)	6.73	2.45	4.00
Academic Performance Index (API) of the Third-Year Students in the Program (Refer to section 4.5)	6.77	8.50	8.15

9 STUDENT SUPPORT AND GOVERNANCE (120)

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
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 Th	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 Eva	ABUPE8056H	Ph.D	No	26/04/2013	Comparitive literature	Professor	11/08/2023	Yes	Regular	
Dr.S.Attrait Do	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	

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. N Mohamm	BWTPR4623L	Ph.D	Yes	20/02/2025	Mechanical Engineering	Assistant Professor	23/05/2011	Yes	Regular	
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 l	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 Af	AAHPI4031N	Ph.D	Yes	16/06/2009	Computer Science	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)
2023-24(CAYm2)	360	18	14	6
2024-25(CAYm1)	480	24	16	5
2025-26(CAY)	540	27	17	6
Average Percentage				60.4

9.2 Mentoring system (5)

Mentoring System Yes

- Type of Mentoring Total Development
- Number of faculty mentors 09
- Number of students per mentor 18
- Frequency of meeting 4 / Student / Month

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

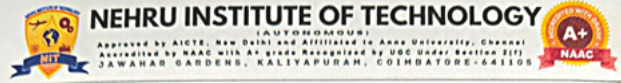
9.3.2 Feedback on Academic Facilities (10)

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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 JAWAHAR GARDENS, KALYANPURAM, COIMBATORE-641105

**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" whomakes 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
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)

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
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	Educationist or Industrialist	Member	Dr.V.Ramachandran Former Director, National Institute of Technology, Nagaland Former Vice Chancellor, Anna University, Tiruchirappalli
11		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.Sanathi 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



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

P. S. Srinivasan
Principal

Member Secretary



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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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	a) Discussion on long-term development strategies b) IDP framework as per UGC guidelines was reviewed and approved for execution
Subject 8	Note on Placement Training and Career Assurance
Resolution 8	a) Discussed technical skills, coding skills, and writing skills to improve placement b) Strategies to enhance student employability and career growth c) Placement training programs were approved for continuation and expansion The committee members suggested strategies to improve the placement status of students in the forthcoming years - Action Principal & NCPIR Director
Subject 9	Note on Industry Institute Connect
Resolution 9	a) Enhancing collaboration with industries for academic and research purposes b) Industry partnerships and MoUs were reviewed and suggestions were made for further improvement 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
Subject 10	Note on Research, Innovation & Incubation
Resolution 10	a) Promoting research culture and innovation b) Strategies for strengthening research and incubation were discussed and approved c) Dr. P. Krishnakumar CEO & Secretary, NCI appreciated for Grants Received (2023-2024) from various funding agency TNSDC & Naan Mudhalvan - Niral Thiruvizha, NewGen IEDC, Ministry of Agriculture (RKVY-RAFTAAR), Balakamalam Environmental fund, MOE's Innovation Cell, TNSCST, DST - Startup TN 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
Subject 11	Note on Approval of Income and Expenditure statement for the year 2023-2024


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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	a) Long-term institutional strategic planning b) Members provided valuable insights, and the roadmap was adjusted accordingly
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

NEHRU INSTITUTE OF TECHNOLOGY

Action Taken Report for Governing Council 2024-25

Venue: Board Room, NIT

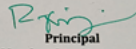
Members Present: Principal, All HODs, Centre Heads, Senior Faculty Members

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 I2B 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.

NEHRU INSTITUTE OF TECHNOLOGY

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

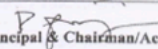
Sl.No	Position	Name
1	Chairman	Dr. M. Sivaraja Principal Nehru Institute of Technology Coimbatore
2	Heads of the Departments	Dr. T. Manikandan Head of the Department Department of Aeronautical Engineering
		Dr. R. Bharthikanna Head of the Department Department of Agricultural Engineering
		Prof. M. Vadivel 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
		Dr. M. Kumaresan Head of the Department Department of Science and Humanities
3	Senior Faculty members	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. Ilangovan Ramasamy President, AgriInfotech Inc, India & USA, Coimbatore Mr. Bijoy Sivan Managing Director, Rently Software Development Pvt., Ltd, Coimbatore Mr. Vignesh Paramasivam Campus Recruitment Lead (Tamilnadu & Puduchery) Tata Consultancy Services, Chennai
6	University Nominees	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 Dr. K. Rathnakannan Professor Department of Electrical and Electronics Engineering Anna University, Chennai - 600025
7	Controller of Examination	Dr. A. Sivasamy Professor & Controller of Examinations
8	Member Secretary	Dr. V. Saravanan, Associate Professor in Aeronautical Engineering & Head / Academic Affairs


Principal & Chairman/Academic Council


 Nehru Institute of Technology
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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
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Faculty Grievance Link	https://forms.gle/VTMFE6JrheYPHZT7 (https://forms.gle/VTMFE6JrheYPHZT7)
Student Grievance Link	https://forms.gle/q1PQXKRvfuiesp658 (https://forms.gle/q1PQXKRvfuiesp658)
Official Email ID	grievancesnit@nehrucolleges.com

Grievance Redressal Committee & University Ombudsman

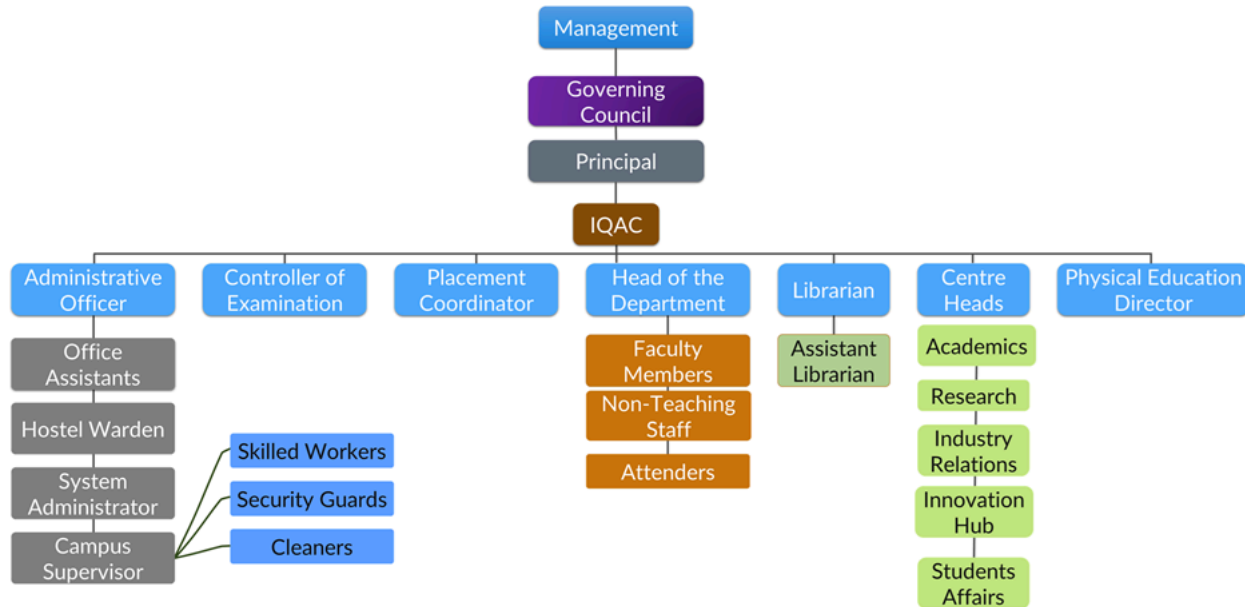
Particulars	Details
Institutional Grievance Redressal Committee	Constituted and functioning
University Ombudsman	As per University norms and regulations

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	nitdrnvithya@nehrucolleges.com
3	Dr. N. Mohammed Rafiq, Assistant Professor (S.G) / Mech	Member	nitmohammedraffic@nehrucolleges.com
4	Mr. V. Satheswaran, Assistant Professor (S.G) / ECE	Member	nitsatheswaran@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	—
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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	300000C	0	0	0	360000C	3571752	0	0

Library	100000	805722	750000	804768	650000	657253	380000	305000
Laboratory equipment	484200	3512890	474500	17000	900000	866343	570000	5777293
Teaching and non-teaching stal	815000	8133825	650000	6333825	500000	5089848	355000	352000
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	380000	360000
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	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 675000		Actual expenditure (till...): 57420		Total No. Of Students 99
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
675000	675000	57420	8.5	580

Table 2 :: CFYm1 2023-2024

Total Budget 520000		Actual expenditure (till...): 347600		Total No. Of Students 133
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
520000	520000	347600	67	2613.53

Table 3 :: CFYm2 2022-2023

Total Budget 311110		Actual expenditure (till...): 166637		Total No. Of Students 159
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
311110	311110	166637	53	1048.03

Table 4 :: CFYm3 2021-2022

Total Budget 264000		Actual expenditure (till...): 220440		Total No. Of Students 198
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
264000	264000	220440	83.5	1113.33

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	50000	57420	175000	113540	830000	368169	1830000	1714445
Software	200000	0	100000	0	0	0	0	0
SDGs	20000	0	20000	10000	0	0	0	0
Support for faculty developmen	50000	0	50000	50000	125500	94070	88500	59460
R & D	100000	0	25000	25000	0	0	0	0

Industrial Training, Industry exp	155000	0	50000	49060	40000	28732	20000	10400
Miscellaneous Expenses*	100000	0	100000	100000	180000	108272	200000	145308
Total	675000	57420	520000	347600	1175500	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

Sl.No.	Rankings	View Document
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)

Sl.N o.	Rankings	View Document
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)

Our commitment to the United Nations' Sustainable Development Goals

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.N o.	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.

NEHRU GROUP OF INSTITUTIONS TAMILNADU • KERALA www.nehrucolleges.com		
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 Vjsit / 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	Knowledge of Civil Engineering discipline Demonstrate in-depth knowledge of Civil Engineering discipline, with an ability to evaluate, analyze and synthesize existing and new knowledge.
PSO2	Critical analysis of Civil Engineering problems and innovation Critically analyze complex Civil Engineering problems, apply independent judgment for synthesizing information and make innovative advances in a theoretical, practical and policy context. 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	Conceptualization and evaluation of engineering solutions to Civil Engineering Issues Conceptualize and solve Civil Engineering problems, evaluate potential solutions and arrive at technically feasible, economically viable and environmentally sound solutions with due consideration of health, safety, and socio cultural factors

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

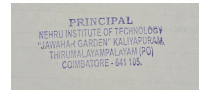
Name : Dr.M.SIVARAJA

Designation : PRINCIPAL

Signature :



Seal of The Institution :



Place : Coimbatore

Date : 16-02-2026 10:14:03