

Civil Engineering

Part A :

1 Name and Address of the Institution:

NIRMALA COLLEGE OF ENGINEERING TECHNOLOGY AND MANAGEMENT
KUNNAPPILLY PO, CHALAKUDY, THRISSUR, KERALA - 680311

2 Name and Address of the Directorate of Technical Education:

Name of the Director of Technical Education: Dr. Jayaprakash P

Address of the Directorate of Technical Education:

The Director of Technical Education

Padmavilasam Street, Fort P.O

Thiruvananthapuram, Kerala – 695023

3 Year of Establishment:

2018

4 Type of the Institution:

- | | |
|---|--|
| ☐ University | ☐ Autonomous |
| ☐ Deemed University | ☒ Any Other(Please Specify) |
| ☐ Affiliated | |

Provide Details:

Self Supported

5 Ownership Status:

☐ Central Government	☐ Trust
☐ State Government	☐ Society
☐ Government Aided	☐ Section 25 Company
☒ Self financing	☐ Any Other(Please Specify)

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

Name of Institutions	Year of Establishment	Programs of Study	Location
Nirmala College of Arts and Sciene	2014	M.Com, MTTM, B.Sc (Artificial Intelligence)	Meloor, Chalakkudi
Nirmala College of Health Science	2016	M.Pharm, B.Pharm, D.Pharm, Pharm.d	Meloor, Chalakkudi

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

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Civil Engineering	Diploma	2018	2018	60	No	60	Applying first time	--	--	Yes	3
Mechanical Engineering	Diploma	2018	2018	60	No	60	Applying first time	--	--	No	3

[illegible]

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Sanctioned Intake for Last Five Years for the Mechanical Engineering											
Academic Year					Sanctioned Intake						
2021-22					60						
2020-21					60						
Civil Engineering	UG	2011	2011	60	Yes	30	Eligible but not applied	--	--	0	4
Sanctioned Intake for Last Five Years for the Civil Engineering											
Academic Year					Sanctioned Intake						
2025-26					30						
2024-25					30						
2023-24					60						
2022-23					60						
2021-22					60						
2020-21					60						
MBA	PG	2019	2019	60	Yes	120	Eligible but not applied	--	--	0	2
Sanctioned Intake for Last Five Years for the MBA											
Academic Year					Sanctioned Intake						
2025-26					120						
2024-25					120						

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Sanctioned Intake for Last Five Years for the MBA											
Academic Year					Sanctioned Intake						
2023-24					120						
2022-23					60						
2021-22					60						
2020-21					60						
MCA	PG	2026	2026	60	No	60	Not eligible for accreditation	--	--	0	2

7a Accreditation History

Sr.No	Name of the Department	Name of the Program	Year of 1st Accreditation(if Applicable)	Year of 2nd Accreditation(if Applicable)	Year of 3rd Accreditation(if Applicable)
1					

7b Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Diploma	Engineering & Technology	Civil Engineering

2	Diploma	Engineering & Technology	Mechanical Engineering
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8 Total number of Employees:

A. Regular* Employees (Faculty and Staff):

Engineering and Technology- Diploma

☒ Shift1

☐ Shift2

Engineering and Technology- Diploma Shift-1

Items	2025-26		2024-25		2023-24		2022-23	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering & Technology (Male)	15	15	13	13	18	18	14	14
Faculty in Engineering & Technology (Female)	22	22	22	22	15	15	17	17
Faculty in Science & Humanities (Male)	3	3	3	3	3	3	2	2
Faculty in Science & Humanities (FeMale)	6	6	6	6	6	6	7	7
Non-teaching staff (Male)	10	10	10	10	10	10	10	10
Non-teaching staff (FeMale)	7	7	6	6	6	6	5	5

B. Contractual Staff (Not Covered in 9.A):

Engineering and Technology- Diploma

☐ Shift1

☐ Shift2

9 Total number of Students:

Engineering and Technology- Diploma	☒ Shift1	☐ Shift2
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Engineering and Technology- Diploma Shift-1

Course Name	2025-26	2024-25	2023-24	2022-23
Total no. of Boys	491	572	634	660
Total no. of Girls	66	54	44	47
Total	557	626	678	707

10 Contact Information of the Head of the Institution and NBA Coordinator:

Head of the Institution

Name	Julien Joseph E
Designation	Principal
Mobile No.	9790678100
Email ID	principal.nit@nirmalacollege.edu.in

☒ **NBA Coordinator, If Designated**

Name	Harikrishnan T K
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Designation	Head of the Department, Mechanical Engineering
Mobile No.	9847852716
Email ID	E-Mail



PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	50	50.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	200	200.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	100	100.00
4	STUDENTS' PERFORMANCE	200	104.69
5	FACULTY INFORMATION AND CONTRIBUTIONS	150	130.75
6	FACILITIES AND TECHNICAL SUPPORT	100	100.00
7	CONTINOUS IMPROVEMENT	75	75.00
8	STUDENT SUPPORT SYSTEMS	50	50.00
9	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	75	75.00
	Total	1000	886

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (50)

1.1 State the Vision and Mission of the Department and Institution (5)

Vision of the institute

To be a premier polytechnic, moulding technically skilled and ethically driven learners making impactful contributions to the sustainable development of society

Mission of the institute

M1: To foster technical skills and creativity by embracing innovative practices in the teaching learning process

M2: To support the overall personality development of students through the promotion of holistic education

Vision of the Department

To develop knowledgeable and technically skilled Civil Engineering competent to serve the society

✓

Mission of the Department

Mission No.	Mission Statements
M1	To impart quality education with emphasis on theoretical and practical concepts ✓
M2	To expose students to the recent trends and technology via industry institute interaction ✓
M3	To impart leadership quality and professional ethics among the students. ✓

1.2 State the Program Educational Objectives (PEOs) (5)

PEO No.	Program Educational Objectives Statements
PEO1	To prepare students to become qualified engineers in government, public and private sectors in various fields of civil engineering to take up the various roles and responsibilities. ✓
PEO2	To motivate the students to pursue higher studies and lifelong learning. ✓
PEO3	To develop skills to become an entrepreneur for personal and societal growth. ✓

1.3 Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders (10)

Department of Civil Engineering Vision, Mission and PEOs are published and widely disseminated via the below mentioned prominent places/mode as mentioned in Table 1.7 and Table 1.8. for internal and external stakeholders respectively of the programme Vision, Mission, and PEOs. Internal and External stakeholders of the department include Students, Faculty, Alumni, Parents and Employer.

1. Student: Student plays the most prominent role in the program whose views are considered in upgrading the teaching and learning methodologies.
2. Faculty: Faculty are a key component in providing inputs for establishment of the POs & PEOs and execution of the program in attaining its Vision & Mission.
3. Alumni: Alumni are a measure of the long-term accomplishment of the program. They provide inputs with necessary information for the amendments to be incorporated in the program for the benefit of student community.
4. Parents: The suggestions from parents are taken into consideration in view of good professional career and higher education of their wards.
5. Employer: Employer represents the majority end users of the graduates who give inputs to strengthen industry-institute interaction

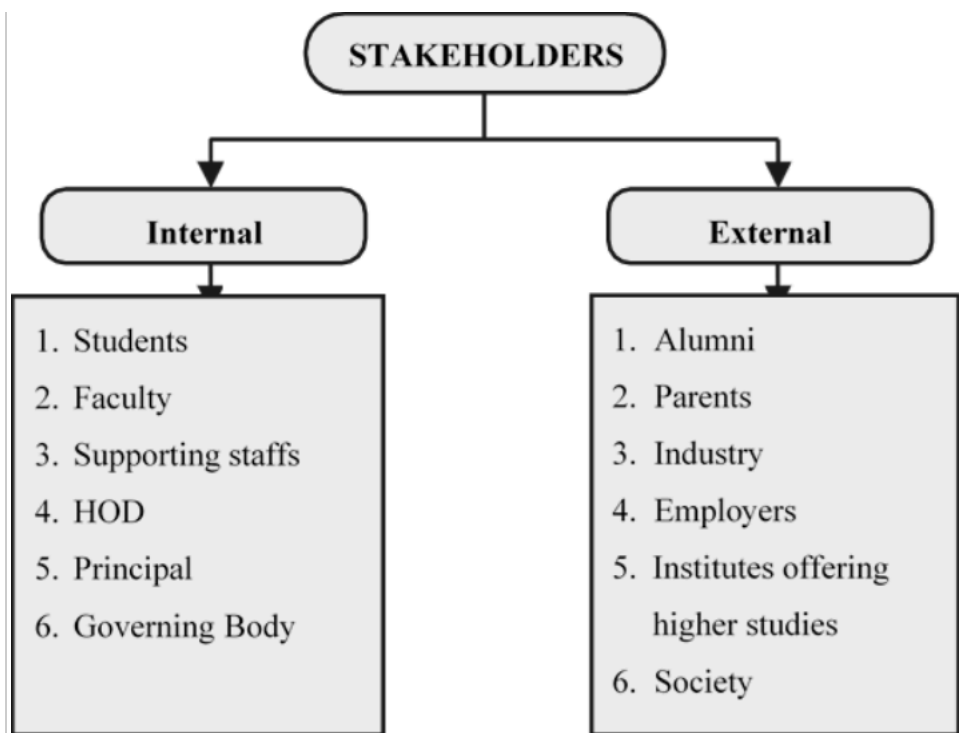
A. Adequacy in respect of publication and dissemination (2)

Table 1.7 Publication and Dissemination of vision, mission and PEO statements

Sl. No.	Vision and missions are published at	Stakeholder	
		Internal	External
1	Department page of institute website (https://nit.nirmalacollege.edu.in/department/civil-engineering)	√	√
2	HOD cabin	√	
3	Department staff room	√	
4	Three classrooms	√	
5	All departmental laboratories	√	
Sl. No.	Vision and missions are disseminated through		
1	Department advisory committee (DAC) and Program Assessment Committee (PAC) meetings	√	
2	Orientation programs	√	√
3	Department level alumni meet	√	√
4	Lab instruction manuals	√	
5	Seminar and project reports	√	

6	Continuous Internal Assessment (CIA) booklets	√	
7	Course files of all courses	√	
8	All other department files	√	
Sl. No.	PEOs are published at		
1	Department page of institute website	√	√
2	HOD cabin	√	
3	Department staff room	√	
4	Three classrooms	√	
5	All departmental laboratories	√	
Sl. No.	PEOs are disseminated through		
1	Department advisory committee (DAC) and Program Assessment Committee (PAC) meetings	√	
2	Orientation programs	√	√
3	Department level alumni meet	√	
4	Continuous Internal Assessment (CIA) booklets	√	√
5	Course files of all courses	√	
6	All other department files	√	

The published and disseminated vision, mission and PEO statements are well adequate. Internal stakeholders include students, faculty, supporting staffs, HOD, principal and governing body members. External stakeholders include alumni, en



B. Process of dissemination among stakeholders (2)

The vision, mission and PEO statements are disseminated first through the induction program and class PTA meetings for the newly admitted students. During the Department Advisory and Program Assessment Committee meeting faculty meetings we spread maximum awareness about all these statements. Every year in the beginning of the semester, HOD addresses the students and spread awareness about all the statements.

Table 1.8 Locations of Vision, Mission, PEOs, POs & PSOs are displayed

Location	Institute		Department		
	Vision	Mission	Vision Mission	PEOs POs PSOs	
College Entrance	√	√			Faculty member
Principal Chamber	√	√			Faculty member
HOD Room	√	√	√	√	Faculty member
Administrative Office	√	√			Faculty member

Central Library	√	√			Faculty member
Placement Cell	√	√			Faculty member
IEDC Cell	√	√			Faculty member
IQAC Cell	√	√			Faculty member
College Website	√	√	√	√	Faculty member
Department page of Institute Website			√	√	Faculty member
Staff Rooms	√	√	√	√	Faculty member
Class Rooms	√	√	√	√	Faculty member
Laboratories	√	√	√	√	Faculty member
Drawing Hall	√	√			Faculty member
Department Notice Board	√	√	√	√	Faculty member
Main Corridors	√	√			Faculty member
Seminar Hall	√	√			Faculty member

C. Extent of awareness of vision, mission and PEOs among the stakeholders (6)

The institution actively disseminates its Vision, Mission, and Program Educational Objectives (PEOs) to ensure alignment across all stakeholder groups. Various channels and mechanisms are employed to raise and maintain this awareness.

a. Students

- Displayed in classrooms, laboratories, and student record books.
- Orientation programs for new students include sessions on Vision, Mission, and PEOs.
- Regular workshops and seminars integrate these elements to reinforce their relevance.
- Feedback is collected through surveys to assess understanding and alignment.

b. Faculty and Staff

- Shared during induction and training programs.
- Embedded in curriculum design and course delivery planning.
- Periodic meetings and strategic planning sessions revisit and realign these elements.
- Faculty appraisals and academic audits often reference contribution to institutional goals.

c. Alumni

- Discussed during alumni meets and newsletters.
- Shared via email communications and social media.

- Alumni feedback is sought for continuous improvement of PEOs

d. Employers and industry partners

- Industry advisory board meetings include discussions on Vision, Mission, and PEOs.
- Collaborations and MoUs highlight mutual objectives aligned with institutional goals.
- Employer surveys gather insights into the relevance and applicability of PEOs.

e. Parents and community

- Parent-teacher meetings and open houses offer brief overviews.
- Website and institutional brochures provide access to Vision, Mission, and PEOs.

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (15)

A. Description of process for defining the vision, mission of the department (7)

The department Vision and mission were arrived at, through a consultative procedure with a bench marking on college vision and mission with due consideration to future scope and societal and environmental values. The process has got : Committee and Academic Council. In establishing the vision and mission of the department, the following steps were followed:

- The vision and mission of the Department were drafted in alignment with the vision and mission of the College.
- An awareness of college vision and mission were given to the stake holders through various kinds of feedback mechanisms and suggestions were taken from the Stake holders towards framing Vision and Mission of the department by t
- The Program Assessment committee reviewed the statements based on the suggestions collected and submitted it to the Advisory Committee.
- The Department Advisory Committee refined the draft. Suggestions from the committee were sent back to Assessment committee for further discussion and modifications. Modified vision and mission is submitted to the Acader ratification by Board of Governors.

The finalized Vision and Mission of the Department are disseminated to the stake holders. The same will be validated through the verification of outcome attainment and may be reviewed and refined periodically.

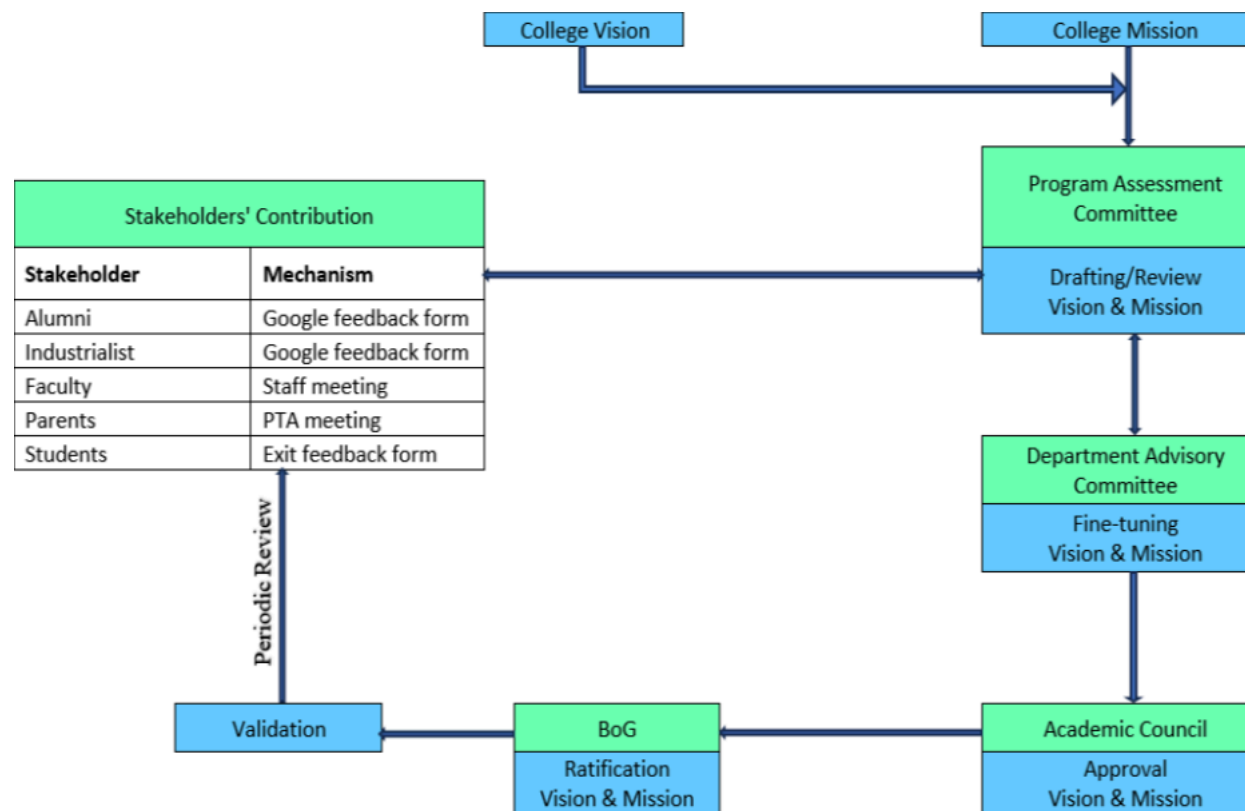


Figure 1.2 Process of framing vision and mission of the department

Members of Department Advisory Committee (DAC)

- Head of the department (Chairperson)
- Principal
- Two representatives from industry as technical advisors
- Two representatives from institutions offering higher education as academicians
- Two representatives from alumni
- One representative from PTA
- All faculty members from the department
- One representative from workshop

Members of Program Assessment Committee (PAC)

- Head of the department (Chairperson)
- All lecturers of the department
- All demonstrators of the department
- One representative from general department
- One representative from workshop

B. Description of process involved in defining the PEOs of the department (8)

Programme Educational Objectives envisage the professional and social accomplishments that the students would gain after completion of the programme. The College and Department Vision and Mission were taken as the foundation for stakeholders of the Department was adopted for the due attainment of the Department Vision and Mission.

In defining the PEOs, the following steps were undertaken:

- The PEOs of the Department were drafted in alignment with the Mission of the Department. The Program Assessment Committee had multiple brainstorming sessions to make a draft. Suggestions were taken from the various : Department coordinator.
- Program Assessment Committee reviewed the statements taking into account the feedbacks and future industry requirements, and submitted it to the Department Advisory Committee.
- The Department Advisory Committee reviewed and refined the draft. Suggestions from the committee were fed back to the Assessment Committee for further discussion and modification, if required. Modified statements of PEOs were
- Academic Council tables the PEOs for ratification by Board of Governors (BoG). The finalized PEOs of the Department were disseminated to the stakeholders

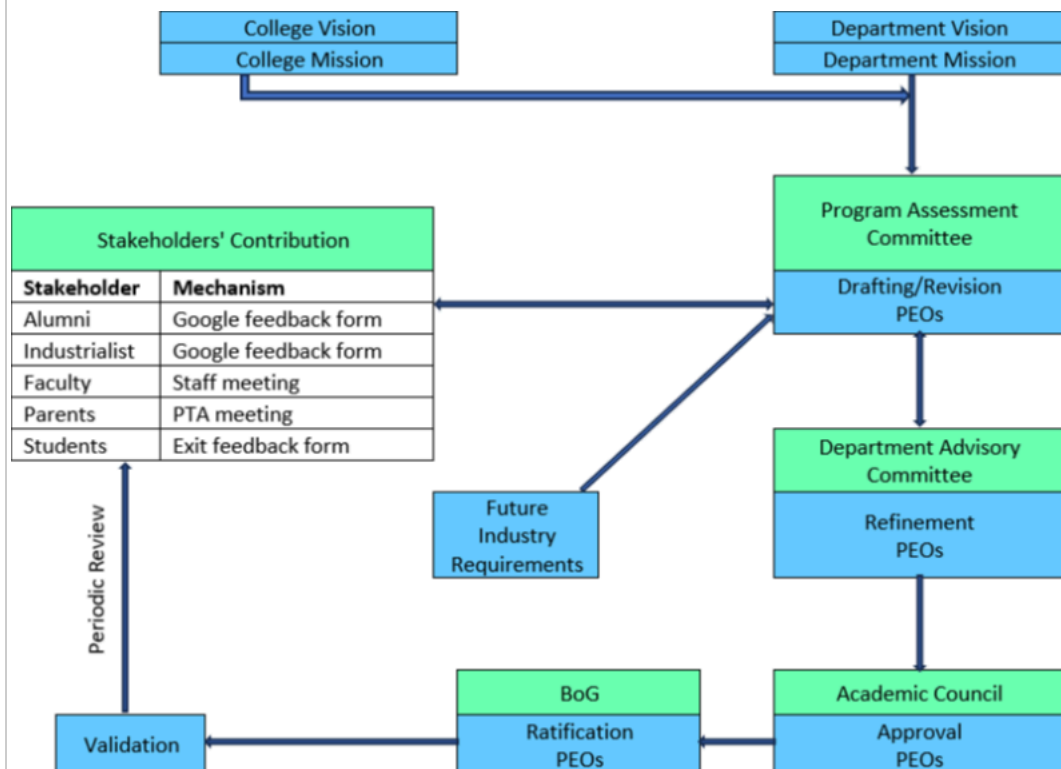


Figure 1.3 Process for framing PEOs of the department

1.5 Establish Consistency of PEOs with Mission of the Department (15)

PEO 1 – M1	Strongly mapped; Mission Statement M1 focuses on providing quality education with a balanced emphasis on theoretical knowledge and practical skills. This foundational approach is essential for producing competent and job-ready civil engineering graduates, which is the core intent of PEO 1
PEO 1 – M2	Strongly mapped; Mission Statement M2 aims to keep students up-to-date with recent advancements, tools, and technologies in civil engineering. This directly supports PEO 1, which focuses on preparing graduates for employment in various sectors where staying current with modern practices is essential.
PEO 1 – M3	Strongly mapped; Mission M3 focuses on developing leadership qualities and instilling professional ethics, which are critical soft skills for civil engineers working in any sector. These competencies enable graduates to take on responsible positions, lead teams, and make ethical decisions in complex professional settings—directly supporting the goal of PEO 1.
PEO 2 – M1	Strongly mapped; Mission M1 provides a strong academic foundation by focusing on both theoretical understanding and practical skills. This dual emphasis cultivates a deep interest in the subject matter and equips students with the competence and confidence required to pursue advanced studies and engage in continuous professional development.
PEO 2 – M2	Strongly mapped; Mission M2 focuses on keeping students informed about emerging trends and cutting-edge technologies in civil engineering. By introducing students to the latest advancements, M2 ignites a curiosity for continuous learning and encourages them to pursue further studies in order to stay relevant in a fast-evolving field. This directly aligns with PEO 2, which emphasizes motivating students for higher education and lifelong learning.
PEO 2 – M3	Strongly mapped; Mission M3 emphasizes leadership qualities and professional ethics, both of which are essential for motivating students to pursue higher studies and engage in lifelong learning. The development of leadership skills and a strong sense of ethics prepares students for higher academic and professional responsibilities. It also encourages self-driven learning and the ability to seek out new knowledge, particularly in postgraduate education and research settings.
PEO 3 – M1	Strongly mapped; Mission M1, which emphasizes both theoretical knowledge and practical skills, is crucial for entrepreneurship development. In order to become successful entrepreneurs, students must have a strong grasp of core concepts (theory) as well as the ability to apply those concepts in real-world settings (practice). This blend of theoretical and practical knowledge equips students with the necessary technical and problem-solving skills to launch and sustain businesses, addressing both personal and societal growth. Therefore, M1 directly supports the goals of PEO 3 by preparing students for entrepreneurial ventures.
PEO 3 – M2	Strongly mapped; Mission M2 emphasizes exposing students to recent trends and technology, which is essential for entrepreneurship in today's rapidly changing world. For entrepreneurs, staying informed about the latest technological advancements and market trends is critical for identifying new opportunities, innovating products or services, and addressing emerging

	societal needs. The exposure to cutting-edge developments fosters an entrepreneurial mindset that is key to personal growth and contributes to broader societal advancement.
PEO 3 – M3	Strongly mapped; Mission M3 emphasizes the development of leadership qualities and the instillation of professional ethics, both of which are crucial for entrepreneurship. Entrepreneurs not only need technical and practical skills, but they must also possess strong leadership capabilities to manage teams, inspire others, and drive their businesses forward. Furthermore, professional ethics guide entrepreneurs in making responsible decisions that benefit both society and their businesses. A solid ethical foundation is essential for sustainable entrepreneurship, ensuring that businesses not only thrive but also contribute positively to societal growth.

PEO Statements	M1	M2	M3
To prepare students to become qualified engineers in government, public and private sectors in various fields of civil engineering to take up the various roles and responsibilities.	3	3	3
To motivate the students to pursue higher studies and lifelong learning.	3	3	3
To develop skills to become an entrepreneur for personal and societal growth.	3	3	3

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (200)

2.1 Program Curriculum (40)

All POs and PSOs are being demonstrably met through Curriculum ? : NO

2.1.1 State the process used to identify extent of compliance of the Board curriculum for attaining the Program Outcomes (POs) and Program Specific Outcomes (PSOs) as mentioned in AnnexureI. Also mention the identified cu

A. Process used to identify extent of compliance of curriculum for attaining POs & PSOs (15)

The State Institute of Technical Teachers Training and Research (SITTTR) is the only institute of its kind established by the Government of Kerala under the Technical Education Department, with the objective of promoting technician edu district, SITTTR has functioned as the flagship center for Polytechnic education since 1990, when the state had only three polytechnic colleges. Over time, its mandate expanded from curriculum revision and faculty training to academ manpower development initiatives in coordination with the National Skill Development Mission and other central agencies.

The curriculum for Diploma in Engineering programs offered across Polytechnic Colleges in Kerala is designed, developed, and periodically revised by the State Institute of Technical Teachers Training and Research (SITTTR), Kalamasser this task in close consultation with the National Institute of Technical Teachers Training and Research (NITTTR), Chennai, and in strict conformity with the model curriculum guidelines issued by the All-India Council for Technical Educatio

Since the curriculum forms the foundation on which the attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs) is built, it is essential to have a well-defined, verifiable process to establish the extent to which the curriculum is carried out through four systematically sequenced steps, illustrated in Figure 1 below, and elaborated in the sections that follow

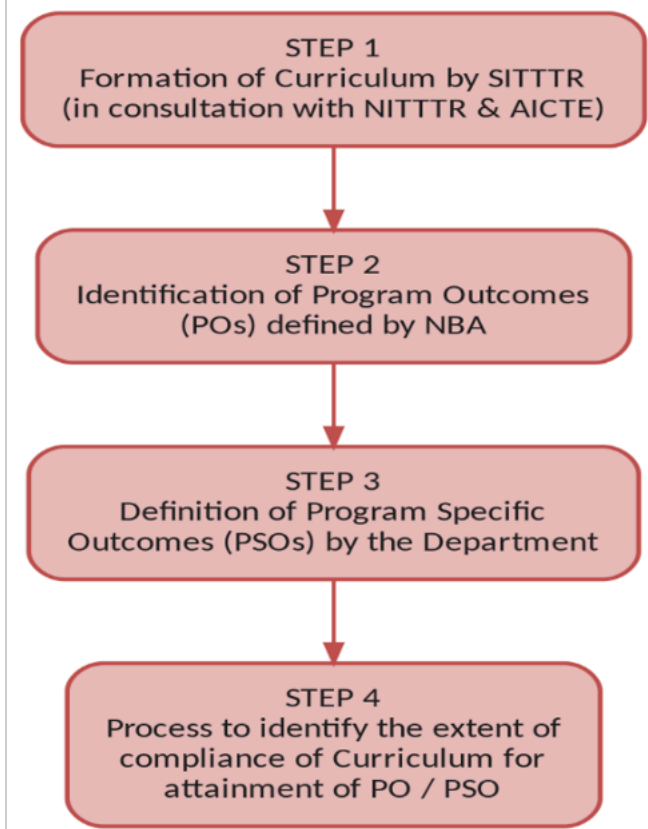


Figure 2.1 Four step process for identifying curriculum compliance for attainment of PO/PSO

Table 2.1 Overview of Four Steps

Step	Title	Description
1	Formation of Curriculum by SITTTTR	The curriculum is designed and periodically revised by SITTTTR in consultation with NITTTR, strictly following AICTE model curriculum guidelines and Outcome-Based Education (OBE) principles.
2	Identification of Program Outcomes (POs) defined by NBA	The generic Program Outcomes prescribed by the National Board of Accreditation (currently seven for engineering diploma programs) are identified and adopted as the outcome framework.

3	Definition of Program Specific Outcomes (PSOs)	The department defines PSOs specific to the branch of engineering, capturing discipline-specific competencies not covered by the generic POs.
4	Process to identify extent of compliance of PO/PSO attainment	Course Outcomes (COs) of every course are mapped against the POs/PSOs, validated through stakeholder feedback, academic result analysis, and industry vetting, to establish the degree of compliance.

Step 1: Formation of Curriculum by SITTTR

The state-level curriculum is set by the Kerala State Board of Technical Education through SITTTR, in consultation with NITTTR, Chennai, and AICTE guidelines. The curriculum is revised once every five years based on structured analysis of industry.

The Program follows curriculum Revision 2015 and Revision 2021 across the assessment years CAY 2025 – 2026, CAYm1 2024 – 2025, CAYm2 2023 – 2024, CAYm3 2022-23, CAYm4 2021-22, and CAYm5 2020-21. Both curricula are taken out at the departmental level to rearrange and remap Course Outcomes (COs) with Program Outcomes (POs) when NBA revised the POs to seven for engineering diploma programs.

A program-wise curriculum committee is constituted by SITTTR for every revision cycle, headed by a senior faculty member as chairman, with content developers drawn from government and aided polytechnic colleges having considered. The process of revising the curriculum is summarized in Table 2.2 and illustrated in Figure 2.2.

Figure 2.2 Methodology adopted by SITTTR for curriculum formation/ revision

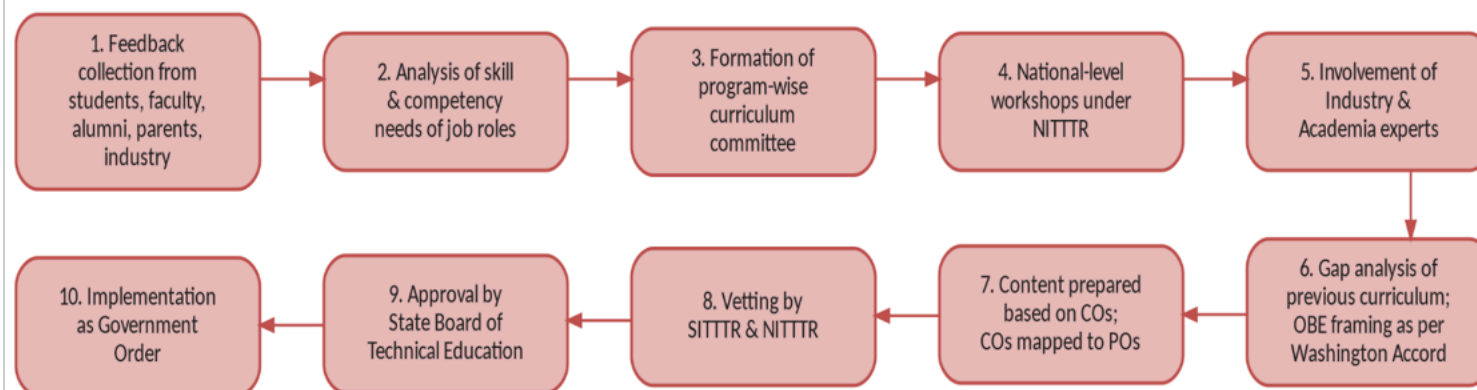


Table 2.2 Methodology adopted by SITTTR for curriculum format

Sl. No.	Activity	Description
1	Feedback collection	Detailed institution-wise feedback was collected throughout the state from students and faculty members through online
2	Skill & competency analysis	A thorough analysis of the skills and competencies required for various job roles in industry was carried out.
3	Formation of curriculum committee	SITTTR formulates a program-wise curriculum committee with a senior faculty member as chairman, supported by con
4	National-level workshops	National-level workshops were conducted by SITTTR under the supervision of NITTTR for framing the curriculum.
5	Industry & academia involvement	Experts from industry and academia were involved in vetting and finalizing the curriculum.

6	Analysis of previous curriculum	Academic result analysis and a detailed review of the earlier curriculum revision were carried out.
7	AICTE guideline compliance	Guidelines set by AICTE were taken as the template for every revision, ensuring national-level standardization.
8	Training on OBE / taxonomy	Workshops on Outcome-Based Education and Blooms taxonomy were conducted for faculty involved in curriculum rev
9	Course gap analysis	Additions and deletions of courses were finalized based on curriculum gap analysis and technological advancement.
10	CO–PO mapping & content development	Course Outcomes were defined to match Program Outcomes, strengthening cognitive, psychomotor, and affective doma
11	Vetting & approval	Upon finalization and vetting by SITTTR and NITTTR, the syllabus was approved by SBTE and implemented through

Step 2: Identification of Program Outcomes (POs) Defined by NBA

Once the curriculum framework is established, the Program Outcomes prescribed by the National Board of Accreditation are identified and adopted as the reference outcome set against which the curriculum must be evaluated. NBA curr framework was revised, the department carried out the necessary exercise of rearranging and remapping its Course Outcomes to correspond with the updated set of POs, ensuring that no outcome area was left unaddressed and that the mappir

Table 2.3 Program Outcomes

POs	Description
PO 1	Basic and Discipline Specific Knowledge: Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.
PO 2	Problem Analysis: Identify and analyse well defined engineering problems using codified standard methods.
PO 3	Design / Development of Solutions: Design solutions for well – defined technical problems and assist with the design of systems components or processes to meet specified needs
PO 4	Engineering Tools, Experimentation and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.
PO 5	Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.
PO 6	Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well defined engineering.
PO 7	Life-long learning: Ability to analyse individual needs and engage in updating in the context of technological changes.

Step 3: Definition of Program Specific Outcomes (PSOs)

In addition to the generic POs defined by NBA, the department defines Program Specific Outcomes that are unique to the discipline of Civil Engineering. PSOs capture the specialized knowledge, skills, and competencies expected of a ; engineering works, or to apply modern tools and sustainable practices relevant to the field — that are not fully captured by the generic POs alone. Defining PSOs at the department level ensures that the outcome framework remains both natio

Table 2.4 Program Specific Outcomes

PSOs	Description
PSO 1	To understand, read, draw & interpret drawings of different Civil Engineering Systems.
PSO 2	To apply the laboratory investigations, code of practice and software skills to plan, design and to prepare cost estimates

Step 4: Process to Identify the Extent of Compliance for Attainment of PO/PSO

This is the core evaluative stage of the framework, in which the actual degree of alignment between the curriculum and the POs/PSOs is systematically established. It is carried out through the following sub-processes:

Table 2.5 Process to Identify the Extent of Compliance for Attainment of PO/PSO

Sl. No.	Sub Process	Purpose
1	CO–PO/PSO mapping	Every Course Outcome of every course in the curriculum is mapped against the POs and PSOs to determine the strength of correlation (e.g., low/medium/high).
2	Domain-coverage check	Verifies that outcomes set for cognitive, psychomotor, and affective domains collectively cover the complete expected outcome set.
3	Gap identification	Feedback and academic result analysis from previous curriculum cycles are used to identify POs/PSOs that were inadequately addressed.
4	Industry validation	Industry feedback and expert vetting confirm whether curriculum content translates into industry-relevant, real-world competence.
5	Corrective gap closure	Course additions, deletions, or content modifications are made specifically to strengthen weak CO–PO/PSO linkages identified during the review.
6	Institutional approval	The revised mapping and curriculum content are vetted by NITTTR and formally approved by SBTE before implementation.

Through this closed loop of mapping, feedback, gap analysis, and corrective revision — repeated once every five years — SITTTR ensures that the curriculum is not merely delivered but is demonstrably capable of enabling the attainment of

Program Curriculum

The curriculum comprises theory, practical, seminar, and project work as prescribed. Its curricular components are classified into Foundation Courses, Common Courses, Basic Technology Courses, Applied Technology Courses, and Elective Courses. It also includes additional provisions to bridge curricular gaps, including Industry–Institute Interaction (comprising industry visits, training, project work, and expert lecture series), Finishing Schools, and Visiting Faculty Programs.

The Revision 2015 curriculum, structured around the same core categories of courses, laid the foundation for competency-based diploma education in the state. Building on this, the Revision 2021 curriculum development process began with consultations with stakeholders on requirements and emerging industry trends. Unlike its predecessor, Revision 2021 was designed as an outcome-based curriculum aligned with the Model Curriculum published by the AICTE, envisioning the measurement of Learning Outcomes (LOs) and Program Outcomes (POs). These regulations apply to students admitted from the 2021–22 academic year onward, and from 2022–23 for those admitted through the Lateral Entry Scheme. As part of this revised structure, every student is required to complete the first four semesters respectively, reinforcing the curriculum's emphasis on industry exposure alongside the existing Industry–Institute Interaction, Finishing School, and Visiting Faculty provisions. The scheme of Revision 2015 and Revision 2021 is given below.

Table 2.6 Scheme of Revision 2015

CURRICULUM REVISION – 2015, PROGRAM SCHEME						
STATE BOARD OF TECHNICAL EDUCATION, KERALA						
Sl No.	SITTTR Code	Course	Course Category	Periods per week		
				Theory	Practical	Total
Semester I						
1	1001	English for Communication I	F	2	2	4
2	1002	Engineering Mathematics I	F	6	0	6
3	1003	Engineering Physics I	F	3	0	3
4	1004	Engineering Chemistry I	F	3	0	3
5	2005	Engineering Graphics	F	2	3	5
6	1009	Health & Physical Education	C	1	2	3
7	2008	Workshop Practice	F	0	3	3
8	1008	Computing Fundamentals	C	2	3	5
9	2007	Engineering Science Lab I	F	0	3	3
				19	16	35
Semester II						
10	2001	English for Communication II	F	2	2	4
11	2002	Engineering Mathematics II	F	6	0	6

12	2003	Engineering Physics II	F	3	0	3
13	2004	Engineering Chemistry II	F	3	0	3
14	2011	Surveying I	B	4	0	4
15	2005	Engineering Graphics	F	1	3	4
16	2008	Workshop Practice	F	0	3	3
17	2007	Engineering Science Lab II	F	0	3	3
18	2019	Survey Practical I	B	0	3	3
19	2009	Life Skill	C	1	1	2
				20	15	35
Semester III						
20	3013	Theory of Structures I	B	6	0	6
21	3012	Surveying II	B	6	0	6
22	3011	Construction Materials and Engineering	B	6	0	6
23	3001	Environmental Science & Disaster Management	C	3	0	3
24	3014	Building Planning & Drawing	B	1	4	5
25	3017	Survey Practical II	B	0	3	3
26	3019	Construction Engg. Lab	B	0	3	3
27	3018	Concrete Lab	B	0	3	3
				22	13	35
Semester IV						
28	4014	Theory of Structures II	B	6	0	6

29	4013	Quantity Surveying I	B	6	0	6
30	4011	Hydraulics	B	6	0	6
31	4012	Irrigation Engineering	A	5	0	5
32	4019	Survey Practical III	A	0	3	3
33	4018	Hydraulics Lab	A	0	3	3
34	4017	Computer Aided Drafting Lab	A	0	6	6
35	4009	Mini Project	A	0	0	0
				23	12	35
Semester V						
36	5012	Construction Management & Safety Engineering	C	4	0	4
37	5015	Structural Design I	A	5	0	5
38	5013	Geotechnical Engineering	A	3	0	3
39	5014	Quantity Surveying II	A	4	0	4
40	5011	Building Maintenance & Services	E	4	0	4
	5016	Cost Effective Construction & Green Building	E	4	0	4
	5017	Habitat Technology	E	4	0	4
41	5018	Geotechnical Engineering Lab	A	0	3	3
42	5019	Computer Application Lab	A	0	6	6
43	5009	Industrial Training/Industrial Visit/Collaborative work	A		2 Week	
44	6009	Project & Seminar	A	0	6	6
				20	15	35

Semester VI

45	6013	Structural Design II	A	4	0	4
46	6012	Environmental Engineering	A	5	0	5
47	6014	Transportation Engineering	A	6	0	6
48	6015	Concrete Technology	E	4	0	4
	6016	Design of Pre-stressed Concrete	E	4	0	4
	6017	Ground Improvement Technique	E	4	0	4
49	6011	Structural & Irrigation Engineering Drawing	A	1	3	4
50	6018	Material Testing Lab	A	0	3	3
51	6019	Environmental Engineering Lab	A	0	3	3
52	6009	Project & Seminar	A	0	6	6
				20	15	35
		Total Credits				

Abbreviations used:

Course Categories: F - Foundation Courses, C - Common Courses, B - Basic Technology Courses, A - Applied Technology Courses, E - Elective Courses

Evaluation Type: T - Theory, P - Practical, D - Drawing, Pr - Project

Table 2.7 Scheme of Revision 2021

CURRICULUM REVISION 2021 - PROGRAMME SCHEME
STATE BOARD OF TECHNICAL EDUCATION, KERALA
SEMESTER: First Semester

Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation		
				Contact Hours/ week				CA	ESA	Total
				L	T	P	Total			

1	Humanities & Social Sciences	1001	Communication Skills in English	4	0	0	4	50	75
2	Basic Science	1002	Mathematics I	5	0	0	5	50	75
3	Basic Science	1003	Applied Physics I	3	0	0	3	50	75
4	Basic Science	1004	Applied Chemistry	3	0	0	3	50	75
5	Engineering Science	1005	Engineering Graphics	0	0	3	3	50	75
6	Basic Science	2006	Applied Physics Lab	0	0	2	2	^	^
7	Basic Science	1007	Applied Chemistry Lab	0	0	2	2	75	50
8	Engineering Science	1008	Introduction to IT systems Lab	1	0	2	3	75	50
9	Engineering Science	2009	Engineering Workshop Practice	0	0	3	3	^	^
10	Humanities & Social Sciences	1009	Sports and Yoga	0	0	2	2	75	50
				16	0	14	30		

SEMESTER: Second Semester

Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation		
				Contact Hours/ week				CA	ESA	Total
				L	T	P	Total			
1	Basic Science	2002	Mathematics II	4	0	0	4	50	75	
2	Basic Science	2003	Applied Physics II	3	0	0	3	50	75	
3	Common Courses	2001	Environmental Science	3	0	0	3	50	75	
4	Engineering Science	2021	Engineering Mechanics	3	0	0	3	50	75	
5	Engineering Science	2011	Basic Surveying	3	0	0	3	50	75	
6	Humanities & Social Sciences	2008	Communication Skills in English Lab	0	0	3	3	75	50	

7	Basic Science	2006	Applied Physics Lab	0	0	2	2	75	50	
8	Engineering Science	2029	Engineering Mechanics Lab	0	0	3	3	75	50	
9	Engineering Science	2019	Basic surveying La b	0	0	3	3	75	50	
10	Engineering Science	2009	Engineering Workshop Practice	0	0	3	3	75	50	
				16	0	14	30			
Summer Internship I to be conducted after Semester 2										
1	Common Courses	3009	Internship I	3 Weeks				0	75	
SEMESTER: Third Semester										
				Teaching Scheme				Evaluation		
Sl. No.	Course Category	Course Code	Course Name	Contact Hours/ week				CA	ESA	Total
				L	T	P	Total			
1	Programme core course	3011	Advanced Surveying	3	1	0	4	50	75	
2	Programme core course	3012	Concrete Technology	2	1	0	3	50	75	
3	Programme core course	3013	Building Construction and Construction Materials	3	1	0	4	50	75	
4	Programme core course	3014	Theory of Structures	3	1	0	4	50	75	
5	Programme core course	3015	Concrete Technology Lab	0	0	3	3	75	50	
6	Programme core course	3016	Surveying Lab	0	0	3	3	75	50	
7	Programme core course	3017	Construction Materials Lab	0	0	3	3	75	50	
8	Programme core course	3018	Building Drawing and Estimation Lab	0	0	3	3	75	50	
9	Programme core course	3019	CAD Lab	0	0	3	3	75	50	
				11	4	15	30			

SEMESTER: Fourth Semester

Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation		
				Contact Hours/ week				CA	ESA	Total
				L	T	P	Total			
1	Programme core course	4011	Geotechnical Engineering	3	1	0	4	50	75	
2	Programme core course	4012	Hydraulics and Irrigation Engineering	3	1	0	4	50	75	
3	Programme core course	4013	Estimating & Costing	3	1	0	4	50	75	
4	Programme core course	4001	Community Skills in Indian knowledge system	2	0	0	2	50	75	
5	Programme core course	4016	Advanced Surveying Lab	0	0	3	3	75	50	
6	Programme core course	4017	Hydraulics and Irrigation Engineering Lab	0	0	3	3	75	50	
7	Programme core course	4018	Estimating and Costing Lab	0	0	3	3	75	50	
8	Programme core course	4019	Geotechnical Engineering Lab	0	0	3	3	75	50	
9	Minor project	4009	Minor Project	0	0	4	4	75	0	
				11	3	16	30			

Summer Internship II to be conducted after Semester 4

1	Common Courses	5009	Internship II	4 Weeks				0	75	
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SEMESTER: Fifth Semester

Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation		
				Contact Hours/ week				CA	ESA	Total
				L	T	P	Total			
1	Programme core course	5017	Transportation Engineering Lab	0	0	3	3	75	50	

2	Programme core course	5018	Structural Engineering Drawing Lab	0	0	3	3	75	50
3	Common Courses	5011	Construction Management and Safety Engineering	3	1	0	4	50	75
4	Programme core course	5012	Design of Steel and RCC Structures	4	1	0	5	50	75
5	Programme core course	5013	Transportation Engineering	3	1	0	4	50	75
6	Program Elective course	5014 A	Habitat Technology	3	0	0	3	50	75
	Program Elective course	5014 B	Ground Improvement Techniques	3	0	0	3	50	75
	Program Elective course	5014 C	Precast and Prestressed Concrete	3	0	0	3	50	75
7	Program Elective course	5019	Advanced CAD Lab	0	0	3	3	75	50
8	Seminar	5008	Seminar	0	0	2	2	75	0
9	Major Project	6009	Major Project	0	0	3	3	0	0
				13	3	14	30		

The student has two options to complete the sixth semester and he/she shall select any one:

1. NORMAL PATHWAY 2. INTERNSHIP PATHWAY

1. NORMAL PATHWAY

SEMESTER: Sixth Semester

Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation		
				Contact Hours/ week				CA	ESA	Total
				L	T	P	Total			
1	Humanities & Social Sciences	6001	Entrepreneur ship and Startup	3	1	0	4	50	75	
2	Program Elective course	6011 A	Public Health Engineering	4	0	0	4	50	75	
	Program Elective course	6011 B	Building Maintenance and Services	4	0	0	4	50	75	
	Program Elective course	6011 C	Pavement Design and Maintenance	4	0	0	4	50	75	

3	Open Elective course	6012 A	Renewable Energy and Environment	4	0	0	4	50	75
	Open Elective course	6012 B	Sustainable Development	4	0	0	4	50	75
	Open Elective course	6012 C	Disaster Management (CE)	4	0	0	4	50	75
	Open Elective course	6012 D	Rural Technology	4	0	0	4	50	75
4	Common Courses	6002	Indian Constitution	2	0	0	2	50	75
5	Programme core course	6017	Computer Application Lab	0	1	3	4	75	50
6	Programme core course	6018	Material Testing Lab (CE)	0	0	3	3	75	50
7	Program Elective course	6019	Public Health Engineering Lab	0	0	3	3	75	50
8	Major Project	6009	Major Project	0	0	6	6	75	50
				13	2	15	30		

2. INTERNSHIP PATHWAY

SEMESTER: Sixth Semester

Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation		
				Contact Hours/ week				CA	ESA	Total
				L	T	P	Total			
1	Humanities & Social Sciences	6001	Entrepreneur ship and Startup	3	1	0	4	50	75	
2	Common Courses	6002	Indian Constitution	2	0	0	2	50	75	
3	Programme core course	6017	Computer Application Lab	0	1	3	4	75	50	
4	Programme core course	6018	Material Testing Lab (CE)	0	0	3	3	75	50	
5	Internship	6007	Internship	4 - 6 months per semester				250	250	

Teaching Scheme: L-Lecture, T-Tutorial, P- Practical Examination Type: T-Theory, P-Practical, D-Drawing

Examination Mode: B-Board Level, I-Institution Level

^ Carried over to next semester

Various Course categories and its courses in Curriculum Revision 2015

The courses of study shall be in accordance with the scheme and syllabi prescribed in the curriculum. The diploma in civil engineering programme shall consist of following course categories:

- Foundation Courses (F): Foundation Courses are courses for building up a strong foundation for a programme selected by the student by considering the future scope of further studies on the same topic.
- Common Courses (C): Common Courses are courses to be mandatorily studied by all students admitted to a programme.
- Basic Technology Courses (B): Basic Technology Courses are foundation courses which aim to bridge the course of pure science / social science / commercial practice / applied science / management with the applied technology and etc.
- Applied Technology Courses (A): Applied Technology Courses are professional level terminal courses through which the desired knowledge and skills are achieved by the students to perform his/her job functions in the programme selected.
- Elective Courses (E): Elective Courses are integrated courses providing detailed knowledge in specific areas in the same or related course with an aim to develop knowledge and awareness in other interdisciplinary area of study.

Table 2.8 Various course categories and its courses in Curriculum Revision 2015

Sl No.	SITTTR Course Code	Course	Semester	Theory Hours	Practical Hours	Total Hours	Credit
F: Foundation Courses							
1	1001	English for Communication I	I	2	2	4	3
2	1002	Engineering Mathematics I	I	6	0	6	6
3	1003	Engineering Physics I	I	3	0	3	3
4	1004	Engineering Chemistry I	I	3	0	3	3
5	2005	Engineering Graphics	I	2	3	5	
6	2008	Workshop Practice	I	0	3	3	
7	2007	Engineering Science Lab I	I	0	3	3	
8	2001	English for Communication II	II	2	2	4	3
9	2002	Engineering Mathematics II	II	6	0	6	6
10	2003	Engineering Physics II	II	3	0	3	3
11	2004	Engineering Chemistry II	II	3	0	3	3

12	2005	Engineering Graphics	II	1	3	4	5
13	2008	Workshop Practice	II	0	3	3	3
14	2007	Engineering Science Lab II	II	0	3	3	3
				31	22	53	41

C - Common Courses

15	1009	Health & Physical Education	I	1	2	3	2
16	1008	Computing Fundamentals	I	2	3	5	4
17	2009	Life Skill	II	1	1	2	2
18	3001	Environmental Science & disaster Management	III	3	0	3	3
19	5012	Construction Management and Safety Engineering	V	4	0	4	4
				11	6	17	15

B - Basic Technology Courses

20	2011	Surveying I	II	4	0	4	4
21	2019	Survey Practical I	II	0	3	3	2
22	3013	Theory of Structures I	III	6	0	6	6
23	3012	Surveying II	III	6	0	6	6
24	3011	Construction Materials and Engineering	III	6	0	6	6
25	3014	Building Planning & Drawing	III	1	4	5	3
26	3017	Survey Practical II	III	0	3	3	2
27	3019	Construction Engg. Lab	III	0	3	3	2

28	3018	Concrete Lab	III	0	3	3	2
29	4014	Theory of Structures II	IV	6	0	6	5
30	4013	Quantity Surveying I	IV	6	0	6	5
31	4011	Hydraulics	IV	6	0	6	5
				41	16	57	48

A- Applied Technology

32	4012	Irrigation Engineering	IV	5	0	5	4
33	4019	Survey Practical III	IV	0	3	3	2
34	4018	Hydraulics Lab	IV	0	3	3	2
35	4017	Computer Aided Drafting lab	IV	0	6	6	3
36	4009	Mini Project	IV	0	0	0	5
37	5015	Structural Design I	V	5	0	5	5
38	5013	Geotechnical Engineering	V	3	0	3	2
39	5014	Quantity Surveying II	V	4	0	4	3
40	5018	Geotechnical Engineering Lab	V	0	3	3	2
41	5019	Computer Application lab	V	0	6	6	3
42	5009	Industrial Training/Industrial Visit/Collaborative Work	V	2 weeks	2 weeks		2
43	6009	Project & Seminar	V	0	6	6	0
44	6013	Structural Design II	VI	5	0	4	4
45	6012	Environmental Engineering	VI	5	0	5	4
46	6014	Transportation Engineering	VI	6	0	6	5

47	6011	Structural & Irrigation Engineering Drawing	VI	1	3	4	3
48	6018	Material Testing Lab	VI	0	3	3	2
49	6019	Environmental Engineering Lab	VI	0	3	3	2
50	6009	Project & Seminar	VI	0	6	6	10
				34	42	75	63

E - Elective Courses

51	5011	Building Maintenance & Services	V	4	0	4	4
	5016	Cost Effective Construction & Green Building	V	4	0	4	4
	5017	Habitat Technology	V	4	0	4	4
52	6018	Concrete Technology	VI	4	0	4	4
	6016	Design of Pre-Stressed Concrete	VI	4	0	4	4
	6017	Ground Improvement Technique	VI	4	0	4	4
				8	0	8	8

Table 2.9 Curriculum Content and its proportion in curriculum Revision-2015

Course Categories	Curriculum Content (% of total number of credits in the program)	Total Number o Hours
F - Foundation Courses	23.43	42
C - Common Courses	8.57	17
B - Basic Technology Courses	27.43	57

A - Applied Technology Courses	36	69
E - Elective Courses	4.57	8
All/ Total	100	193

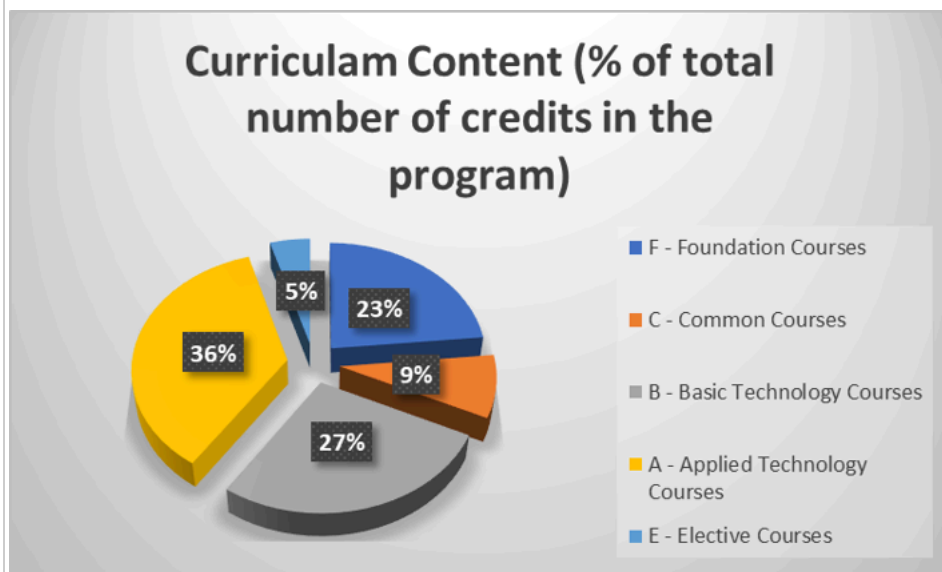


Figure 2.3 Curriculum Content % - Revision 2015

Various Course categories and its courses in Curriculum Revision 2021

The courses of study shall be in accordance with the scheme and syllabi prescribed in the curriculum. The diploma in civil engineering programme shall consist of following course categories:

- **Basic Science Courses:** Basic Science Courses are foundation-level courses in Mathematics, Physics, and Chemistry that build the fundamental scientific base required for understanding and applying engineering concepts across the programme.
- **Engineering Science Courses:** Engineering Science Courses are courses that bridge basic sciences with core engineering practice, introducing fundamental engineering tools, techniques, and workshop-based skills common to all engineering disciplines.
- **Humanities & Social Sciences Courses:** Humanities & Social Sciences Courses are courses aimed at developing communication skills, physical wellbeing, and entrepreneurial/professional attributes necessary for holistic personal and career development.
- **Common Courses:** Common Courses are courses to be mandatorily studied by all students admitted to the programme, covering environmental awareness, constitutional knowledge, safety, and institution-coordinated internships that build professional attributes.
- **Programme Core Courses:** Programme Core Courses are professional/discipline-specific courses through which students acquire the core technical knowledge and skills required to perform the job functions of a Civil Engineering diploma holder.
- **Program Elective Courses:** Program Elective Courses are courses within the discipline that allow students to gain specialized, in-depth knowledge in specific areas of Civil Engineering based on their interest or career aspirations.
- **Open Elective Courses:** Open Elective Courses are courses that allow students to gain interdisciplinary knowledge and awareness in areas outside their core discipline, broadening their overall perspective.
- **Minor Project / Seminar / Major Project:** These are course components in which students apply their acquired theoretical knowledge and skills to identify, analyse, and solve real-world engineering problems, while also developing professional communication skills.
- **Internship:** Internship is a work-integrated learning component during which students gain practical, industry-based exposure, either as short mandatory summer internships (after Semesters 2 and 4) or as an extended 4–6-month internship.

Table 2.10 Various course categories and its courses in Curriculum Revision 2021

Sl No.	SITTTR course code	Course	Semester	Lecture hours	Tutorial hours	Practical hours	Total hours	Credit
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Basic Science Courses

1	1002	Mathematics I	I	5	0	0	5	5
2	1003	Applied Physics I	I	3	0	0	3	3
3	1004	Applied Chemistry	I	3	0	0	3	3
4	1007	Applied Chemistry Lab	I	0	0	2	2	1
5	2002	Mathematics II	II	4	0	0	4	4
6	2003	Applied Physics II	II	3	0	0	3	3
7	2006	Applied Physics Lab	II	0	0	2	2	1
				18	0	4	22	20

Program core course

8	3011	Advanced Surveying	III	3	1	0	4	3
9	3012	Concrete Technology	III	2	1	0	3	3
10	3013	Building Construction and Construction Materials	III	3	1	0	4	4
11	3014	Theory of Structures	III	3	1	0	4	4
12	3015	Concrete Technology Lab	III	0	0	3	3	1.5
13	3016	Surveying Lab	III	0	0	3	3	1.5
14	3017	Construction Materials Lab	III	0	0	3	3	1.5
15	3018	Building Drawing and Estimation Lab	III	0	0	3	3	1.5
16	3019	CAD Lab	III	0	0	3	3	0
17	4011	Geotechnical Engineering	IV	3	1	0	4	4

18	4012	Hydraulics and Irrigation Engineering	IV	3	1	0	4	4
19	4013	Estimating & Costing	IV	3	1	0	4	4
20	4016	Advanced Surveying Lab	IV	0	0	3	3	1.5
21	4017	Hydraulics and Irrigation Engineering Lab	IV	0	0	3	3	1.5
22	4018	Estimating and Costing Lab	IV	0	0	3	3	1.5
23	4019	Geotechnical Engineering Lab	IV	0	0	3	3	0
24	5012	Design of Steel and RCC Structures	V	4	1	0	5	5
25	5013	Transportation Engineering	V	3	1	0	4	4
26	5017	Transportation Engineering Lab	V	0	0	3	3	1.5
27	5018	Structural Engineering Drawing Lab	V	0	0	3	3	1.5
28	6017	Computer Application Lab	VI	0	0	3	3	1.5
29	6018	Material Testing Lab (CE)	VI	0	0	3	3	1.5
				27	9	39	75	51.5

Humanities & Social Sciences

30	1001	Communication Skills in English	I	4	0	0	4	4
31	1009	Sports and Yoga	I	0	0	2	2	1
32	2008	Communication Skills in English Lab	II	0	0	3	3	1.5
33	6001	Entrepreneurship and Startup	VI	3	1	0	4	4
				7	1	5	13	10.5

Engineering Science

34	1005	Engineering Graphics	I	0	0	3	3	1.5
35	1008	Introduction to IT systems Lab	I	1	0	2	3	2
36	2009	Engineering Workshop Practice	II	0	0	3	3	1.5
37	2011	Basic Surveying	II	3	0	0	3	3
38	2019	Basic surveying Lab	II	0	0	3	3	0
39	2021	Engineering Mechanics	II	3	0	0	3	3
40	2029	Engineering Mechanics Lab	II	0	0	3	3	0
				7	0	14	21	11

Program Elective course

41	5019	Advanced CAD Lab	V	0	0	3	3	1.5
42	5014A	Habitat Technology	V	3	0	0	3	3
43	5014B	Ground Improvement Techniques	V	3	0	0	3	3
44	5014C	Precast and Prestressed Concrete	V	3	0	0	3	3
45	6011A	Public Health Engineering	VI	4	1	0	5	5
46	6011B	Building Maintenance and Services	VI	4	1	0	5	5
47	6011C	Pavement Design and Maintenance	VI	4	1	0	5	5
48	6019	Public Health Engineering Lab	VI	0	0	3	3	1.5
				7	1	6	14	11

Open Elective course

49	6012A	Renewable Energy and Environment	VI	4	0	0	4	4
50	6012B	Sustainable Development	VI	4	0	0	4	4
51	6012C	Disaster Management (CE)	VI	4	0	0	4	4
52	6012D	Rural Technology	VI	4	0	0	4	4
				4	0	0	4	4
Common Courses								
53	2001	Environmental Science	II	3	0	0	3	0
54	3009	Internship I	III	2 weeks				2
55	4001	Community Skills in Indian knowledge system	IV	2	0	0	2	0
56	5009	Internship II	V					3
57	5011	Construction Management and Safety Engineering	V	3	1	0	4	0
58	6002	Indian Constitution	VI	2	0	0	2	0
				10	1	0	11	5
Project work								
59	6009	Major Project	VI	0	0	6	6	4
60	4009	Minor Project		0	0	4	4	2
				0	0	10	10	6
Seminar								
61	5008	Seminar	V	0	0	2	2	1

Table 2.11 Curriculum Content and its proportion in curriculum Revision-2021

Course Categories	Curriculum content (% of total number of credits in the program)	Total Number of contact Hours	Total Number of Credits
Basic Science	15.63	22	20
Programme core course	40.23	75	51.5
Humanities & Social Sciences	8.2	13	10.5
Engineering Science	8.59	21	11
Program Elective course	8.59	14	11
Open Elective course	3.13	4	4
Common Courses	3.91	11	5
Project	10.16	13	13
Seminar	1.56	2	2
All/ Total:	100	175	128

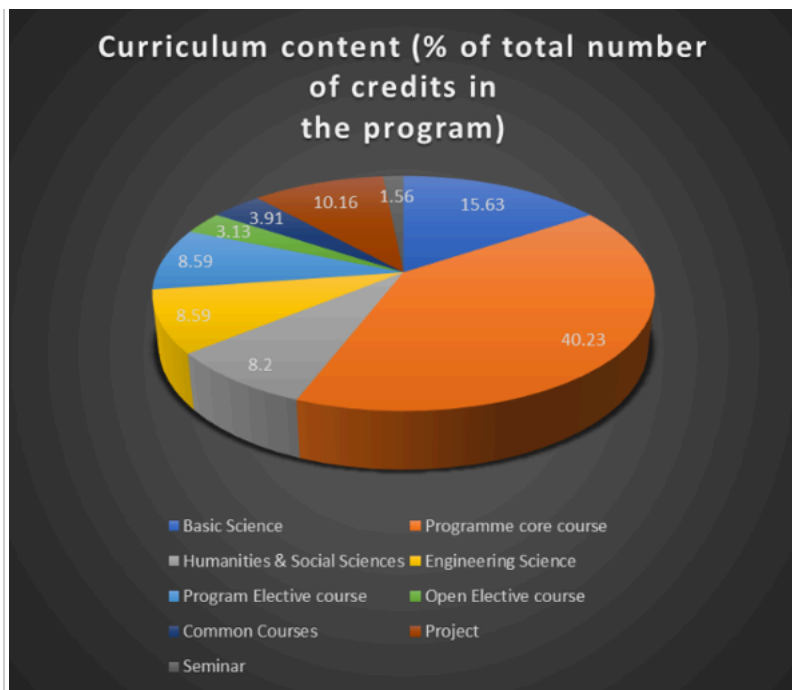


Figure 2.4 Curriculum Content % - Revision 2021

Framing CO-PO-PSO correlation

In the outcome-based curriculum, every faculty member frames the Course Outcomes (COs) for the course/s allotted to them, writing each CO using Blooms Taxonomy action verbs to clearly indicate the cognitive level at which the topic is i correlation matrix, mapping each Course Outcome to the relevant Program Outcomes (PO) and Program Specific Outcomes (PSO) based on defined Competency levels and Performance Indicators, thereby establishing how strongly each cou 2015 scheme, Course Outcomes were framed by faculty at the institution level after the syllabus was finalized, in the Revision 2021 scheme the Course Outcomes are directly taken from the syllabus itself, as they are pre-defined for each co without framing them independently, for carrying out the CO-PO-PSO mapping and for teaching, assessment, and attainment measurement

Table 2.12 Performance Indicators for Diploma in Civil Engineering

Programme Outcomes (POs)		
PO1: Basic and Discipline specific knowledge: Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.		
Expected Competency		Perfori
1.1 Demonstrate competence in conceptual and procedural mathematics		1.1.1 Apply mathematical techniques (algebra, trigonometry, calculus) to solve
		1.1.2 Apply mathematical techniques to model and solve engineering problems
1.2 Demonstrate competence in basic sciences		1.2.1 Apply laws of natural science to solve an engineering problem
1.3 Demonstrate competence in engineering fundamentals		1.3.1 Apply the key ideas and concepts related to engineering fundamentals to s

1.4 Demonstrate competence in engineering specialization	1.3.2 Interpret standards and codes of engineering practices 1.3.3 Apply knowledge and understanding to interpret engineering instructions, 1.4.1 Apply the key ideas and concepts in civil engineering domain to solve eng 1.4.2 Interpret standards and codes of engineering practices in civil engineering
PO2: Problem analysis: Identify and analyze well-defined engineering problems using codified standard methods.	
2.1 Demonstrate the competence to identify a well-defined engineering problem	2.1.1 Identify problem statements, objectives, requirements and constraints of a 2.1.2 Identify engineering systems and variables to solve a problem 2.1.3 Represent the problem in a suitable form of mathematical / physical / cor 2.2.1 Identify existing solutions/methods to solve the problem, including formi 2.2.2 Compare and contrast alternative solution/methods/processes to select the 2.2.3 Apply appropriate engineering tools to analyse the solution/methods/proc
2.2 Demonstrate the competence to analyse a well-defined engineering problem.	2.3.1 Interpret the solution and arrive conclusions with respect to the objectives
2.3 Demonstrate the competence to evaluate the solution using codified standards	
PO 3: Design/Development of Solutions: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs	
3.1 Demonstrate the competence to define a well-defined engineering problem	3.1.1 Define a precise problem statement with objectives and scope of the prob 3.1.2 Able to identify system requirements from stake holders/ industry literatu 3.1.3 Determine design objectives, functional requirements and arrive at specifi 3.2.1 Explore alternate design solutions
3.2 Demonstrate the competence to generate a set of alternate alternative design solutions	3.2.2 Identify requirements of solutions that ensures health, safety and sustainal 3.2.3 Identify suitable solution from a set of alternatives
3.3 Demonstrate the competence to develop a solution	3.3.1 Develop suitable solution using appropriate technologies in civil engineer 3.3.2 Ability to Consult with domain experts and stakeholders to select design s

3.2.3 Prepare document/ manual regarding the usage/ implementation and maintenance

PO.4. Engineering Tools, Experimentation and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

- | | |
|---|---|
| 4.1 Demonstrate the competence to identify modern engineering tools, techniques and resources | 4.1.1 Identify modern engineering tools, techniques and resources for civil engi |
| | 4.1.2 Extend tools and techniques to solve civil engineering problems |
| 4.2 Demonstrate the competence to select and apply discipline specific tools, techniques and resources. | 4.2.1 Identify the strengths and limitations of tools for
(i) acquiring information,
(ii) modelling and simulating,
(iii) monitoring system performance
(iv) creating engineering designs |
| | 4.2.2 Demonstrate proficiency in using Tools and Techniques in Civil Engineer |
| 4.3 Demonstrate the competence to evaluate the tools used to solve engineering problems | 4.3.1 Discuss limitations and validate tools, techniques and resources in the fiel |
| | 4.3.2 Verify the credibility of results from tool use with reference to the accurac |

PO 5: Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.

- | | |
|--|--|
| 5.1 Demonstrate the competence to describe engineering roles in a broader context, | 5.1.1 Identify and describe various engineering roles; particularly as pertains to |
| 5.2 Demonstrate an understanding of the impact of engineering and industrial practices on social, environmental and in economic contexts | 5.2.1 Identify risks/impacts in the life- cycle of an engineering product or activi |
| | 5.2.2 Intrepret the relationship between the technical, socio economic and enviro |
| 5.3 Demonstrate an ability to evaluate the suitability and limitations of tools used to solve an engineering problem | 5.3.1 Describe techniques for sustainable development in the context of Civil en |
| | 5.3.2 Apply principles of engineering and sustainable development to an engine relevant to civil engineering |

PO.6. Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

- | | |
|--|---|
| 6.1 Demonstrate competence to comprehend technical literature and documents to manage a project. | 6.1.1 Interpret technical and non- technical information to manage a project |
| | 6.1.2 Produce clear, well-constructed, and well supported written engineering d |
| 6.2 Demonstrate competence to use engineering management principles as individual and for team operations--communication, problem solving, conflict resolution and leadership skills | 6.2.1 Comprehend information, instructions, and viewpoints of others as a team |
| | 6.2.2 Deliver effective oral presentations to technical and nontechnical audience |

6.3 Demonstrate an ability to plan/manage an engineering activity within time

6.3.1 Identify the tasks required to complete an engineering activity, and the res

6.3.2 apply project management tools to schedule an engineering project with r

PO.7. Life-long learning: Ability to analyse individual needs and engage in updating in the context of technological changes.

7.1 Demonstrate competence to identify gaps in knowledge and a strategy to close these gap

7.1.1 Describe the rationale for requirement for continuing professional develop

7.1.2 Identify deficiencies or gaps in knowledge and demonstrate an ability to s

7.2 Demonstrate an ability to identify changing trends in engineering knowledge and practice

7.2.1 Identify historic points of technological advance in engineering that requi

7.2.2 Recognize the need and be able to clearly explain why it is vitally import

7.3 Demonstrate an ability to identify and access sources for new information

7.3.1 Comprehend technical literature and other credible sources of new inform

7.3.2 Analyze sourced technical and popular information for feasibility, viabilit

Program Specific Outcomes (PSOs)

PSO-1: To understand, read, draw & interpret drawings of different Civil Engineering Systems.

PSO 1.1: Demonstrate the ability to understand and interpret engineering drawings of civil engineering systems.

PSO 1.1.1 Identify engineering drawing symbols, scales, conventions and BIS :

PSO 1.1.2 Read and interpret architectural, structural, surveying, highway, irrig

PSO 1.2 Demonstrate the ability to prepare engineering drawings using conventional and computer-aided drafting techniques.

PSO 1.2.1 Prepare and modify engineering drawings manually and using CAD

PSO 1.2.2: Verify and communicate engineering details from drawings for plan

PSO-2: To apply laboratory investigations, code of practice and software skills to plan, design and prepare cost estimates.

PSO 2.1. Apply laboratory investigations and relevant IS codes in planning and design of civil engineering works.

PSO 2.1.1. Perform laboratory tests on construction materials, soil, concrete, hi

PSO 2.1.2 Analyze laboratory test results and apply code provisions in planning

PSO 2.2: Apply engineering software and estimation techniques for design and project costing.

PSO 2.2.1: Use engineering software (AutoCAD, STAAD Pro, Revit, MS Exce

PSO 2.2.2: Prepare quantity estimates, rate analysis and detailed cost estimates

Compliance of the Board curriculum with POs and PSOs

Compliance of the Board curriculum with Program Outcomes (POs) and Program Specific Outcomes (PSOs) refers to the extent to which the courses, course outcomes, and their associated performance indicators, prescribed by the State B holder at the end of the programme. In the Revision 2015 scheme, this compliance was largely indirect and institution-dependent — since Course Outcomes were framed by individual faculty after the syllabus was finalized, the extent to which alignment, varied from college to college, making uniform attainment measurement and accreditation reporting difficult. In the Revision 2021 scheme, compliance is built directly into the curriculum design itself: since COs are pre-defined specified Performance Indicators and Competency levels aligned to the POs and PSOs of the programme, ensuring that every polytechnic college following the Board curriculum measures and reports outcome attainment on a consistent, common

Table 2.13 Compliance of the Board curriculum with POs and PSOs – Revision 2015

Sl No	DTE Course Code	SAR Course Code	Course Title	Programme Outcome			
				PO1	PO2	PO3	PO4
1	1001	C101	English For Communication I	2.00	2.50		
2	1002	C102	Engineering Mathematics I	3.00	2.00		1.00
3	1003	C103	Engineering Physics I	3.00	2.25	1.50	2.00
4	1004	C104	Engineering Chemistry I	3.00	1.50	1.00	2.00
5	1009	C105	Health & Physical Education				
6	1008	C106	Computing Fundamentals	1.25	1.00	1.50	2.00
7	2001	C107	English For Communication II		1.00	1.00	
8	2002	C108	Engineering Mathematics II	3.00	3.00	2.50	1.33
9	2003	C109	Engineering Physics II	3.00	2.75	2.25	1.50
10	2004	C110	Engineering Chemistry II	3.00	2.00	1.75	1.33
11	2011	C111	Surveying I	3.00	1.50	2.00	3.00
12	2005	C112	Engineering Graphics	2.50	2.25	2.00	2.00
13	2008	C113	Workshop Practice	3.00	2.00	1.00	1.50
14	2007	C114	Engineering Science Lab II	3.00	2.25	1.25	3.00
15	2019	C115	Survey Practical I	3.00	2.50	2.50	2.00
16	2009	C116	Life Skill		2.00	1.00	
17	3013	C201	Theory Of Structures I	3.00	2.75	1.50	1.00

18	3012	C202	Surveying II	2.33	2.50		2.00
19	3011	C203	Construction Materials and Engineering				3.00
20	3001	C204	Environmental Science & Disaster Management	1.50	1.67		
21	3014	C205	Building Planning & Drawing	2.50			1.00
22	3017	C206	Survey Practical II	2.00	1.75	1.00	1.75
23	3019	C207	Concrete Lab	1.67	1.00		1.00
24	3018	C208	Construction Engg. Lab	3.00	2.33		3.00
25	4014	C209	Theory Of Structures II	3.00	2.00		
26	4013	C210	Quantity Surveying I	3.00	1.00		1.00
27	4011	C211	Hydraulics	3.00	2.00	2.00	1.00
28	4012	C212	Irrigation Engineering				
29	4019	C213	Survey Practical III	3.00			2.00
30	4018	C214	Hydraulics Lab	3.00	2.00		3.00
31	4017	C215	Computer Aided Drafting Lab				1.50
32	4009	C216	Mini Project	2.00	2.00	1.67	1.50
33	5012	C301	Construction Management & Safety Engineering		3.00		
34	5015	C302	Structural Design I	3.00	2.00	2.00	
35	5013	C303	Geotechnical Engineering	2.00	2.50	3.00	
36	5014	C304	Quantity Surveying II & Valuation	3.00			1.50
37	5011	C305	Building Maintenance & Services		2.00		1.00
38	5016	C306	Cost Effective Construction & Green Building		1.00		

39	5017	C307	Habitat Technology		2.00		2.00
40	5018	C308	Geotechnical Engineering Lab	3.00	2.00		3.00
41	5019	C309	Computer Application Lab		2.00	2.00	2.67
42	5009	C310	Industrial Training/Industrial Visit/Collaborative Work	2.00			1.00
43	6009	C311	Project & Seminar	3.00	3.00	2.50	3.00
44	6013	C312	Structural Design II	1.00	3.00		2.00
45	6012	C313	Environmental Engineering	2.00	3.00		2.00
46	6014	C314	Transportation Engineering	2.25	2.00		3.00
47	6015	C315	Concrete Technology	2.25	2.50	3.00	1.00
48	6016	C316	Design of Pre-Stressed Concrete	3.00		2.00	
49	6017	C317	Ground Improvement Technique	1.75		3.00	2.00
50	6011	C318	Structural & Irrigation Engineering Drawing	3.00	2.00		2.33
51	6018	C319	Material Testing Lab	3.00	2.50	2.00	3.00
52	6019	C320	Environmental Engineering Lab	3.00	2.50	2.00	3.00

Table 2.14 Compliance of the Board curriculum with POs and PSOs – Revision 2021

Si No	Dte Course Code	Sar Course Code	Course Title	Programme Outcome			
				PO1	PO2	PO3	PO4
1	1001	C101	Communication Skills in English	1.50	2.25	1.00	1.25
2	1002	C102	Mathematics 1	3.00	3.00	1.50	1.50
3	1003	C103	Applied Physics 1	3.00	3.00	1.75	2.00
4	1004	C104	Applied Chemistry	3.00	2.50	1.75	1.50

5	1005	C105	Engineering Graphics	3.00	2.50	2.25	2.25
6	1007	C106	Applied Chemistry Lab	3.00	3.00	1.75	3.00
7	1008	C107	Introduction To It Systems Lab	2.50	2.50	1.75	2.75
8	1009	C108	Sports And Yoga	1.00	1.25	1.00	
9	2001	C109	Environmental Science	3.00	2.00	1.67	1.00
10	2002	C110	Mathematics II	3.00	2.75	1.75	1.00
11	2003	C111	Applied Physics II	3.00	2.75	1.50	1.25
12	2006	C112	Applied Physics Lab	3.00	3.00	1.75	3.00
13	2008	C113	Communication Skills in English Lab	1.00	1.75	1.00	
14	2009	C114	Engineering Workshop Practice	3.00	2.80	2.80	3.00
15	2011	C115	Basic Surveying	3.00	2.00	1.00	3.00
16	2019	C116	Basic Surveying Lab	3.00	2.00	1.25	3.00
17	2021	C117	Engineering Mechanics	3.00	2.50	2.00	1.75
18	2029	C118	Engineering Mechanics Lab	3.00	3.00	2.00	3.00
19	3009	C201	Internship I	1.75	2.00	1.75	1.25
20	3011	C202	Advanced Surveying	3.00	3.00	2.00	3.00
21	3012	C203	Concrete Technology	2.50	2.50	3.00	
22	3013	C204	Building Construction and Construction Materials	1.00	2.00	1.50	
23	3014	C205	Theory Of Structures	2.75	2.75	1.00	
24	3015	C206	Concrete Technology Lab	2.00	1.00	3.00	3.00

25	3016	C207	Surveying Lab	3.00	3.00		3.00
26	3017	C208	Construction Materials Lab				3.00
27	3018	C209	Building Drawing and Estimation Lab	3.00	1.00	1.50	1.75
28	3019	C210	Cad Lab				3.00
29	4001	C211	Community Skills in Indian Knowledge System	1.75	2.50	2.25	1.50
30	4009	C212	Minor Project	3.00	2.75	2.25	2.75
31	4011	C213	Geotechnical Engineering	3.00	2.25	2.00	2.00
32	4012	C214	Hydraulics And Irrigation Engineering	3.00	2.00	1.50	
33	4013	C215	Estimating & Costing	3.00	2.50	2.00	1.00
34	4016	C216	Advanced Surveying Lab	2.00	2.00	1.00	3.00
35	4017	C217	Hydraulics And Irrigation Engineering Lab	3.00	2.00	1.00	3.00
36	4018	C218	Estimating And Costing Lab	3.00	2.50	2.00	
37	4019	C219	Geotechnical Engineering Lab	2.00	2.00	2.00	3.00
38	5008	C301	Seminar	1.67	1.67	1.00	2.33
39	5009	C302	Internship II	2.00	2.20	1.40	1.60
40	5011	C303	Construction Management and Safety Engineering	3.00	2.00	1.50	
41	5012	C304	Design Of Steel and Rcc Structures	1.00		3.00	1.00
42	5013	C305	Transportation Engineering	2.25	1.33	1.00	2.50
43	5014a	C306	Habitat Technology	2.67	2.00	2.00	1.00
44	5014b	C307	Ground Improvement Techniques	2.50	1.00	2.00	1.33

45	5014c	C308	Precast And Prestressed Concrete	2.50	1.33	1.67	1.00
46	5017	C309	Transportation Engineering Lab	2.25	2.00	1.50	3.00
47	5018	C310	Structural Engineering Drawing Lab	3.00	2.00	1.00	3.00
48	5019	C311	Advanced Cad Lab				3.00
49	6001	C312	Entrepreneurship And Startup	2.25	2.25	2.25	1.50
50	6002	C313	Indian Constitution	1.00	1.67	1.00	
51	6009	C314	Major Project	2.00	2.17	2.17	2.20
52	6011 A	C315	Public Health Engineering	3.00	3.00	3.00	
53	6011 B	C316	Building Maintenance and Services	2.00	1.50	1.00	2.00
54	6011 C	C317	Pavement Design and Maintenance	2.50	2.00	2.00	1.00
55	6012 A	C318	Renewable Energy and Environment	1.00	2.00	1.00	
56	6012 B	C319	Sustainable Development		2.00		3.00
57	6012 C	C320	Disaster Management	1.25		1.00	2.00
58	6012 D	C321	Rural Technology	1.25	1.00	2.00	2.00
59	6017	C322	Computer Application Lab	3.00	3.00	3.00	3.00
60	6018	C323	Material Testing Lab	2.50	1.50		3.00
61	6019	C324	Public Health Engineering Lab	2.50	1.00		3.00
62	6007	C327	Internship - Pathway	2.50	2.60	2.33	2.00

B. List the curricular gaps for the attainment of POs & PSOs (10)

Methodology Adopted to Identify Curriculum Gap

The Figure 2.5 illustrates the step-by-step process followed by the institution to identify gaps in the SITTTR curriculum and bridge them through supplementary academic activities, ensuring the curriculum stays aligned with the required Pro

Step 1: The process begins with three parallel inputs feeding into the gap-identification process:

- SITTTR Curriculum — the Board-prescribed curriculum document (syllabus, COs, scheme) that forms the baseline for analysis.
- Mapping of COs with POs and PSOs — the CO-PO-PSO correlation matrix that quantifies how strongly each course contributes to each Program Outcome and Program Specific Outcome.
- Identification of Curriculum Gaps — the analytical step where the mapped data is examined to detect areas where the curriculums coverage of POs/PSOs falls short.

Step 2: Threshold Conditions for Identifying a Gap

Two quantitative criteria are applied to the CO-PO/PSO mapping data to formally flag a curriculum gap:

- PO Compliance Threshold: If the percentage of courses mapped with a given Program Outcome is less than 70%, that PO is identified as having a curriculum gap — meaning too few courses in the curriculum are contributing toward th
- PSO Compliance Threshold: If the percentage of courses mapped with a given Program Specific Outcome is less than 80%, that PSO is identified as having a curriculum gap — since PSOs are branch-specific, a stricter (higher) thresho

Any PO or PSO falling below its respective threshold is marked as a gap requiring intervention.

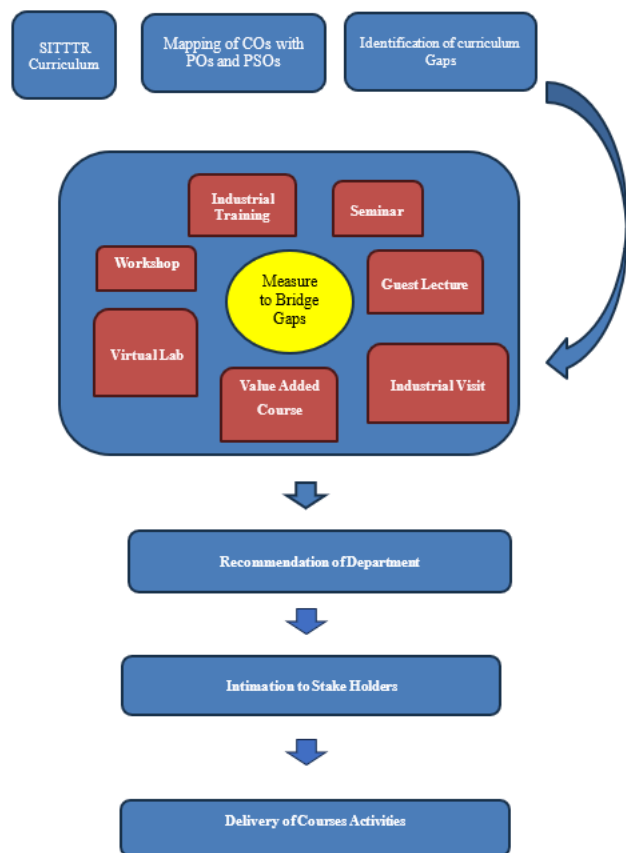


Figure 2.5 Methodology adopted to identify the curriculum gaps

Step 3: Measures to Bridge Gaps

Once gaps are identified, the institution deploys a set of supplementary academic and co-curricular activities — shown inside the large blue box, centred around "Measure to Bridge Gaps" — to compensate for the shortfall. These include:

- Workshop
- Industrial Training
- Seminar
- Virtual Lab
- Guest Lecture
- Value Added Course
- Industrial Visit

These activities are chosen based on which specific PO/PSO is underrepresented, so that students still achieve exposure to that outcome even though the regular curriculum doesn't sufficiently cover it.

Step 4: Recommendation of Department

After selecting the appropriate bridging activities, the concerned department formally recommends them — typically through department-level academic committee discussion — to address the identified gap in a structured, planned manner.

Step 5: Intimation to Stakeholders

The finalized recommendations are communicated to relevant stakeholders — which may include students, faculty, industry partners, or the Academic Council/IQAC — so that everyone involved is aware of the additional activities being intr

Step 6: Delivery of Course Activities

Finally, the recommended bridging activities are actually delivered/conducted as planned, closing the loop between gap identification and gap resolution. The curved arrow returning to the top of the flowchart indicates this is a continuous, cycles to verify whether the gap has been sufficiently addressed, or whether further bridging measures are needed.

This methodology ensures that even though the Board-prescribed curriculum is fixed and uniform across all polytechnics, individual institutions can proactively identify where the fixed curriculum under-serves specific POs or PSOs (ba targeted action through institution-level academic enrichment activities — thereby strengthening actual outcome attainment beyond what the standard syllabus alone guarantees.

Table 2.15 Compliance of the Board curriculum with POs – Revision 2021

Program Outcomes	No. of courses maj
PO1: Basic and Discipline specific knowledge	
PO 2: Problem analysis	
PO 3: Design/Development of Solutions	
PO 4. Engineering Tools, Experimentation and Testing	
PO 5: Engineering practices for society, sustainability and environment	
PO 6: Project Management	
PO 7: Life-long learning	

Table 2.16 Compliance of the Board curriculum with POs – Revision 2015

Program Outcomes	No. of P _i
PO1: Basic and Discipline specific knowledge	
PO2: Problem analysis	
PO 3: Design/Development of Solutions	
PO.4. Engineering Tools, Experimentation and Testing	
PO 5: Engineering practices for society, sustainability and environment	
PO.6. Project Management	

PO.7. Life-long learning	
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Table 2.17 Compliance of the Board curriculum with PSOs – Revision 2021

Program Specific Outcomes	No. of courses m
PSO-1: To understand, read, draw & interpret drawings of different Civil Engineering Systems.	
PSO-2: To apply laboratory investigations, code of practice and software skills to plan, design and prepare cost estimates.	

Table 2.18 Compliance of the Board curriculum with PSOs – Revision 2015

Program Specific Outcomes	No. of courses m
PSO-1: To understand, read, draw & interpret drawings of different Civil Engineering Systems.	
PSO-2: To apply laboratory investigations, code of practice and software skills to plan, design and prepare cost estimates.	

The following POs and PSOs are identified as curricular gaps as per the criteria

PO 3	Design/Development of Solutions: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs
PO 5	Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.
PO 6	Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
PSO1	To understand, read, draw & interpret drawings of different Civil Engineering Systems.
PSO2	To apply laboratory investigations, code of practice and software skills to plan, design and prepare cost estimates.

Table 2.19 Comparison of compliance of Revision 2015 and Revision 2021

Program Outcome	Revision 2015
PO 1: Basic and Discipline specific knowledge	79
PO 2: Problem analysis	81

PO 3: Design/Development of Solutions	50
PO 4: Engineering Tools, Experimentation and Testing	77
PO 5: Engineering practices for society, sustainability and environment	63
PO 6: Project Management	44
PO 7: Life-long learning	83
PSO 1: To understand, read, draw & interpret drawings of different Civil Engineering Systems.	62
PSO 2: To apply laboratory investigations, code of practice and software skills to plan, design and prepare cost estimates.	67

The table presents a comparison of compliance levels for Program Outcomes (POs) and Program-Specific Outcomes (PSOs) between the 2015 and 2021 curriculum revisions for a Civil Engineering program, as part of an outcome-based 2021 revision, with no area showing a decline. The most substantial improvement was seen in PO3 (Design/Development of Solutions), which rose sharply from 50 to 89, indicating that this was a major area of weakness in 2015 that was addressed. Outcomes that reflect discipline-specific skills such as interpreting engineering drawings and applying laboratory, software, and cost-estimation techniques, showed strong gains of around 15 and 10 points respectively, pointing to better alignment of the revision. Outcomes PO4 (Engineering Tools, Experimentation and Testing) and PO7 (Life-long learning) were already performing well in 2015 and saw only marginal increases, suggesting these outcomes were adequately covered even before revision. PO6 (Project Management) was the weakest outcome overall, indicating that further curriculum strengthening may still be needed in this area. Taken together, the data suggests that the 2021 revision was a targeted effort to close compliance gaps identified in 2015, with the weakest outcomes showing the most improvement.

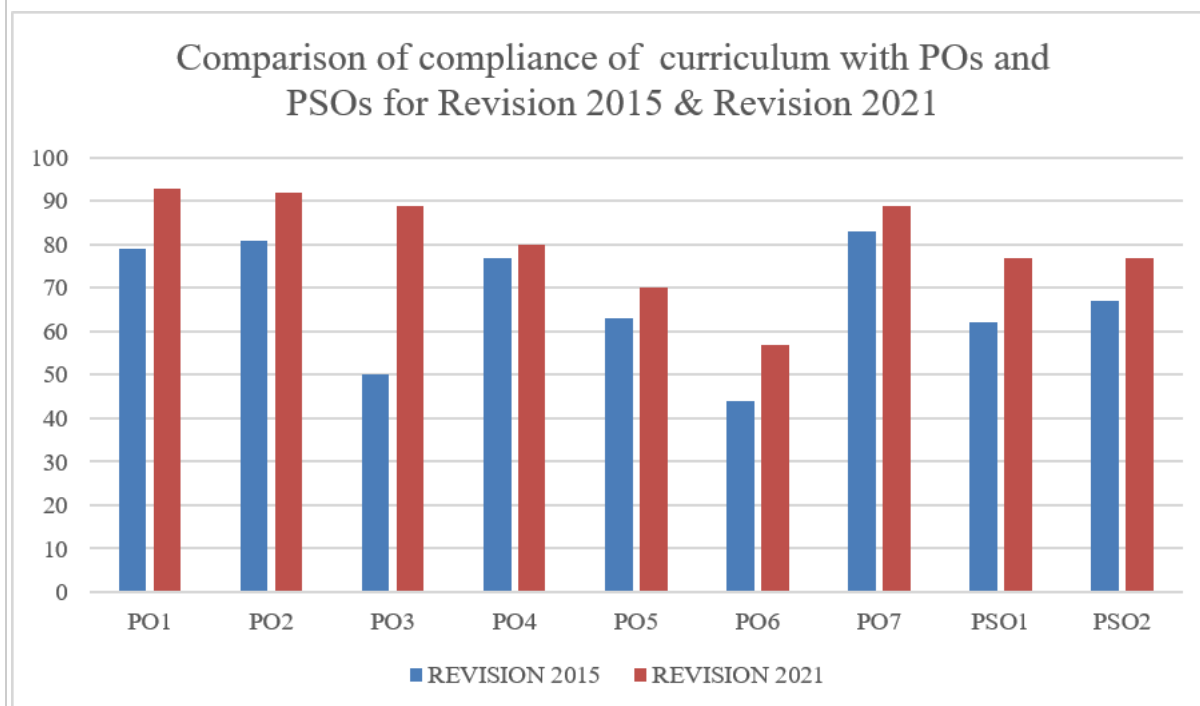


Figure 2.6 Compliance comparison of POs and PSOs: Revision 2015 vs. Revision 2021

2.1.2 Contents beyond the Syllabus (15)

A. Steps taken to get identified gaps included in the curriculum (eg. letters to Board) (2)

Based on the analysis of Program Outcomes (POs) and Program Specific Outcomes (PSOs) across the Revision 2015 and Revision 2021 curricula, gaps were identified using a threshold of less than 70% attainment for POs and less than : Design/Development of Solutions (50%), PO5: Engineering practices for society, sustainability and environment (63%), and PO6: Project Management (44%) — along with both PSOs, PSO1 (62%) and PSO2 (67%). Following targets outcomes, with PO3 and PO5 successfully crossing the 70% threshold. PO6: Project Management, though improved to 57%, remains the only PO below the benchmark, while PSO1 and PSO2, both at 77%, continue to fall short of the 85% effectively bridged most of the previously identified gaps, with Project Management and the two PSOs flagged for continued improvement in future curriculum planning. The curriculum itself comprises basic, core, and elective courses relevant to the seven POs defined by NBA and the two PSOs; any components not covered within the SBTE curriculum are addressed through Content Beyond Syllabus (CBS). Gap identification and bridging is carried out through a structured process: conducted by subject teachers based on COs, CO–PO mapping is analyzed to identify weak areas, feedback from alumni and industry is reviewed, faculty examine syllabi to detect prerequisites and gaps, Program Advisory Committee (PAC) members implement improvements aimed at minimizing these gaps.

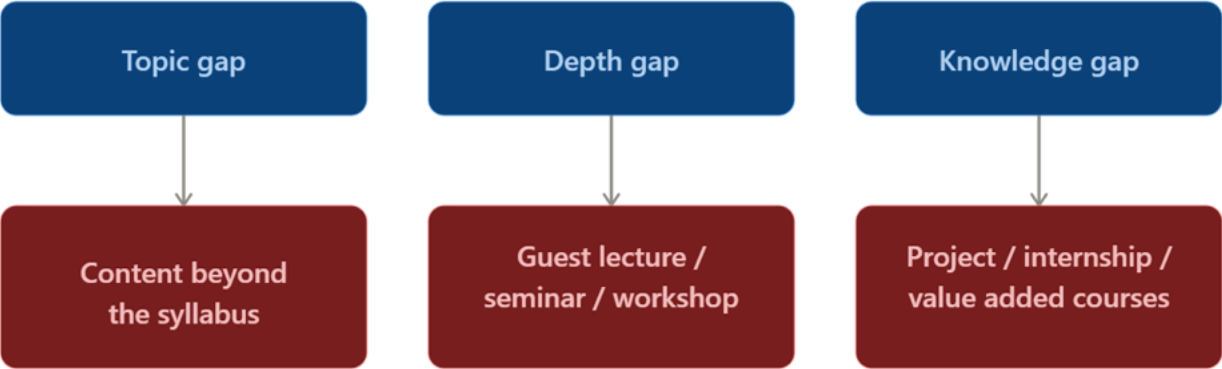


Figure 2.7 Classification of curricular gaps
Table 2.20 Action Taken for Gaps Based on Levels

Levels	Action Taken
Faculty Level	Content Beyond the Syllabus – Topics Covered
Department Level	Seminar / Workshop / Industrial Visit
Institute Level	Project / Internship / Value Added Courses

Beyond Institute Level	Sending letter to DTE

B. Delivery details of content beyond syllabus (10)

The identified curricular gaps are fulfilled by the following process.

- Workshops/ Seminar/ Guest Lectures and Symposium
- Value Added Courses
- Technical lectures (Internal academic experts / External academic experts / Industrial experts)
- Open ended projects
- Internships and Industrial visits

Table 2.21 Number of Enrichment programs conducted

Sl.No	Academic Year	Total No. of Enrichment Programmers Conducted	Total No. of Value-Added Courses Conducted	Total No. of Industrial
1	CAY 2025-2026	6	1	4
2	CAYm1-2024-2025	6	1	4
3	CAYm2-2023-2024	5	1	4
4	CAYm3-2022-2023	4	1	4

Table 2.22 Details of Enrichment programs conducted

Sl No	Date – Month– Year	Name of the Event	
CAY 2025-2026			
1	06-02-2026	Workshop on AutoCAD for Civil Engineering Drawings	
2	23-01-2026	Workshop on Project Planning using Primavera/MS Project	

3	12-01-2026	Expert Talk and Workshop	
4	08-12-2025	Training on Building Information Modelling (BIM)	
5	15-07-2025	Seminar on Total Station Survey	
6	22-07-2025	Integrated Civil Engineering Council Program	
CAYm1 2024-2025			
1	19-02-2025	Training on Building Information Modelling (BIM)	
2	05-02-2025	Career Guidance Workshop	
3	10-12-2024	Workshop on Project Planning using Primavera/MS Project	
4	28-10-2024	Expert Talk and Workshop	
5	28-09-2024	Industry Expert Talk and Workshop	
6	03-09-2024	Workshop on the Topic of Construction Industry Scope and Challenges	
CAYm2 2023-2024			

1	25-03-2024	Integrated Civil Engineering Council Program	
2	02-03-2024	Project Exhibition and Auto Expo	
3	13-02-2024	Total Station Survey Camp	
4	10-01-2024	Workshop on AutoCAD for Civil Engineering Drawings	
5	06-12-2023	Workshop on Project Planning Using Primavera/MS Project	

CAYm3 2022-2023

1	23-02-2023	Career Guidance Workshop	
2	24-01-2023	Industry Talk and Workshop	
3	04-01-2023	Workshop on Civil Career Opportunities and Real Time Experience	
4	15-12-2022	Workshop on AutoCAD for Civil Engineering Drawings	

Table 2.23 Value Added Courses

Sl. No.	Value Added Course	
1	BIM Modelling	
2	Quality Assurance and Quality Control Training	

3	Hands on training on Total Station	
---	------------------------------------	--

C. Mapping of content beyond syllabus with the POs & PSOs (3)

2025-26

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	Mode	
1	AutoCAD for Civi	Workshop	06/02/2026	Er. Vivek K V, HEADAY Build	Offline	38
2	Project Planning	Workshop	23/01/2026	Er. Vinod Kumar K, ACES Cc	Offline	35
3	An overview of fu	Workshop	12/01/2026	Mr. Athulkrishna P K, Managi	Offline	40
4	Building Informat	Training	08/12/2025	Er. Sajjan Jose, M. Tech Stru	Offline	36
5	Total Station Sun	Seminar	15/07/2025	Er. Anish Abraham, Heritage	Offline	35
6	Integrated Civil E	Seminar	22/07/2025	Er. Sajjan Jose, M. Tech Stru	Offline	28
7	Hands on Trainin	Value Added Cou	06/12/2025	Mrs. Mrudula Baiju, Lab Instr	Offline	19

2024-25

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	Mode	
1	Building Informat	Training	19/02/2025	Er. Sajjan Jose, M. Tech Stru	Offline	32
2	Understanding of	Career Guidance	05/02/2025	Mr. Akhil Babu, Head of Tech	Offline	30
3	Project Planning	Workshop	10/12/2024	Er. Vinod Kumar K, ACES Cc	Offline	27
4	An overview of fu	Workshop	28/10/2024	Mr. Athulkrishna P K Managi	Offline	30
5	Civil Engineering	Workshop	28/09/2024	Mr. Athulkrishna P K, Managi	Offline	42
6	Construction Ind	Workshop	03/09/2024	Ar. Jackson Paul Director Viy	Offline	38
7	Hands on Trainin	Value Added Cou	19/11/2024	Mrs. Mrudula Baiju, Lab Instr	Offline	12

2023-24

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	Mode	
1	Integrated Civil E	Seminar	25/03/2024	Er. Sajjan Jose, M. Tech Stru	Offline	42
2	Project Exhibitor	Workshop	02/03/2024	Rakesh Babu Automotive Pr	Offline	31

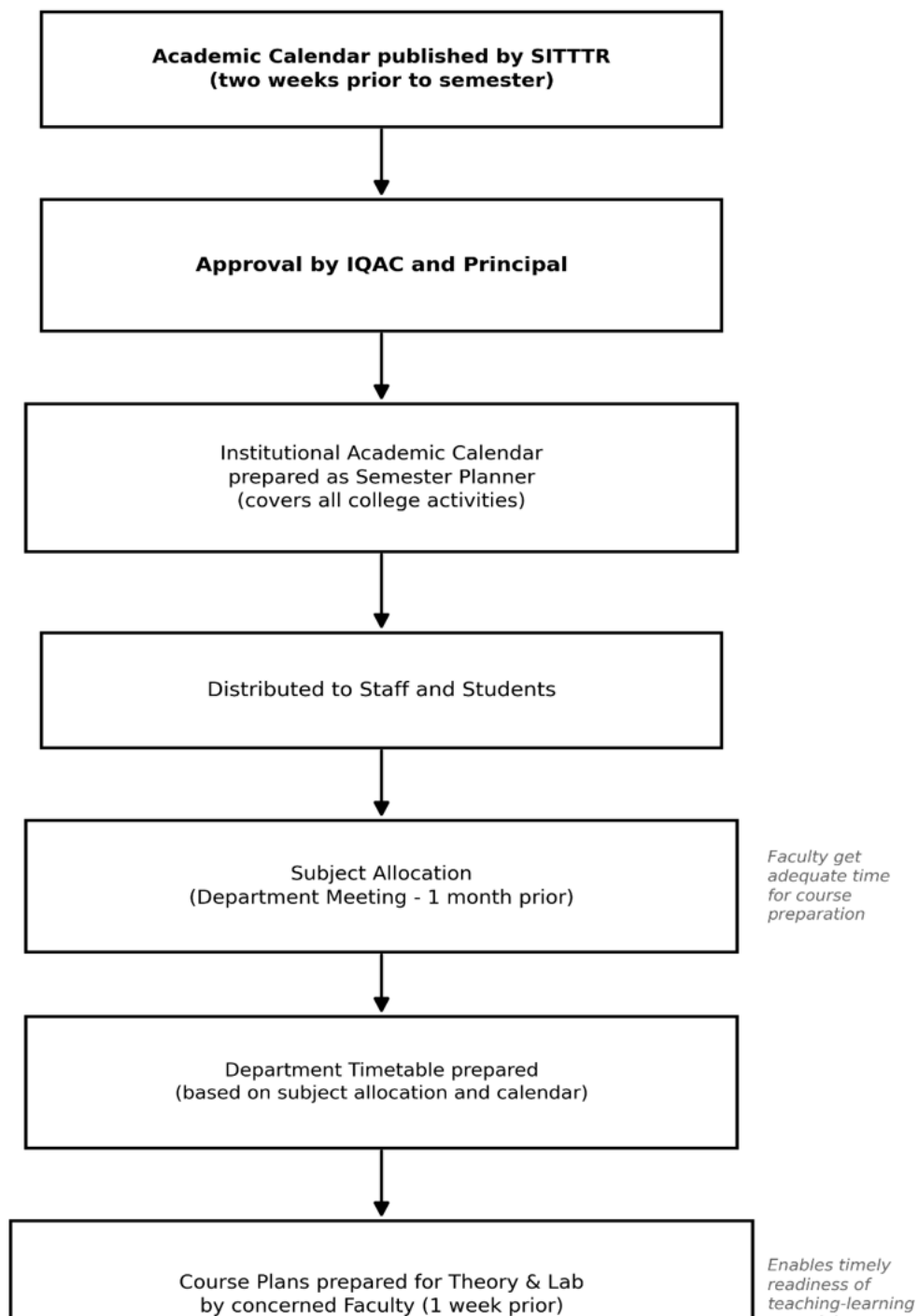
3	Total Station Sun	Seminar	13/02/2024	Er. Anish Abraham, Heritage	Offline	40
4	AutoCAD For Civ	Workshop	10/01/2024	Er. Vivek K V, HEADAY Build	Offline	45
5	Project Planning	Workshop	06/12/2023	Er. Vinod Kumar K, ACES Cc	Offline	40
6	BIM Modelling	Value Added Cou	02/12/2023	Mr. Kiran Francis, Gulf Tech I	Offline	18

2.2 Teaching - Learning Process (160)

2.2.1 Describe Processes followed to ensure/improve quality of Teaching & Learning based on following points (25)

A. Adherence to Academic Calendar (3)

The academic calendar is published by the State Institute for Technical Teachers Training (SITTTR) two weeks prior to the commencement of each semester. Based on this academic calendar, and with the approval of the IQAC and the semester, encompassing all college activities. This institutional calendar is then distributed to staff and students, enabling faculty to schedule their activities effectively. Subject allocation within the department is carried out during departmental meetings, ensuring adequate time for course preparation. Department timetables for all semesters are then prepared based on the subject allocation and the institutional academic calendar. Course plans for both theory and laboratory courses are prepared by the faculty, ensuring that all courses are completed within the stipulated time frame. The academic calendar will be published by State Institute for Technical Teachers Training and Research (Figure 2.9, 2.10, 2.11) and



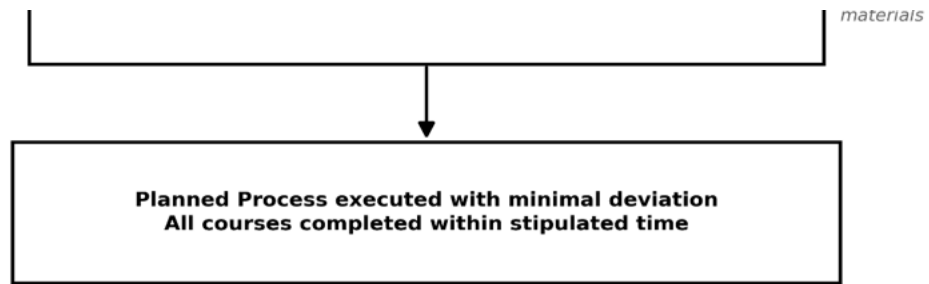


Figure 2.8 Flow chart showing course plan preparation according to academic calendar and institution calendar



STATE INSTITUTE OF TECHNICAL TEACHERS TRAINING & RESEARCH
DEPARTMENT OF TECHNICAL EDUCATION
GOVERNMENT OF KERALA
ACADEMIC CALENDAR FOR THIRD & FIFTH SEMESTER IN 2025 - 26
(FOR ALL POLYTECHNIC COLLEGES UNDER SBTE IN THE STATE)
 Academic Calendar for S3 Regular & PT(2024 adm) and S5 Regular & PT(2023 adm)

JUNE 2025 (No. of Instructional days : 16)

02.06.2025 to 07.06.2025	College reopens after summer vacation. Completion of Practical and institution mode examinations of S2, S4 & S6 as per notification from JCTE and Internship.
05.06.2025	World Environment Day^.
09.06.2025	Commencement of S3 & S5 classes
14.06.2025	World Blood Donor's Day^.

JUNE 2025						
SUN	MON	TUE	WED	THU	FRI	SAT
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	26	27	28
28	30					

JULY 2025 (No. of Instructional days : 22)

07.07.2025	Publication of Attendance Statement of the month June.
15.07.2025	Formative Assessment(as per curriculum) No.1
21.07.2025	Summative Assessment(as per curriculum) No.1.

JULY 2025						
SUN	MON	TUE	WED	THU	FRI	SAT
		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	26
27	28	29	30	31		

AUGUST 2025 (No. of Instructional days : 19)

07.08.2025	Publication of attendance of the month of July
	Semester Registration starts for S3 and S5
15.08.2025	Independence Day^
19.08.2025	Formative Assessment(as per curriculum) No.2
21.08.2025	Summative Assessment(as per curriculum) No.2
26.08.2025	National Sports Day^

AUGUST 2025						
SUN	MON	TUE	WED	THU	FRI	SAT
31					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	26	27	28	29	30

29.08.2023

Polytechnic College closes for Onam Holidays*

SEPTEMBER 2025 (No of Instructional days: 17)

08.09.2025	Polytechnic College reopens after Onam Holidays*
11.09.2025	Publication of attendance of the month of August
26.09.2025	Notification for End Semester Examination Nov 2025'
26.09.2025	Formative Assessment(as per curriculum) No.3
29.09.2025	Model exam for S3 & S5

SEPTEMBER 2025						
SUN	MON	TUE	WED	THU	FRI	SAT
	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	26	27
28	29	30				

OCTOBER 2025 (No of Instructional days: 9)

08.10.2025	Publication of attendance of the month of September
10.10.2025	Student's Union Election as per notification from DTE(Tentative)
15.10.2025	last working day for S3 & S5
17.10.2025	Publication of internal marks and consolidated attendance statement of S3 & S5
27.10.2025	Commencement of End Semester Examination for S3 & S5'

OCTOBER 2025						
SUN	MON	TUE	WED	THU	FRI	SAT
			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
26	27	28	29	30	31	

Academic work shall be handled in online/contact mode as per the directions of the Govt. from time to time

^ Institutions may arrange programmes to observe these days and other days as notified by Govt./ AICTE.

* Onam Holidays shall be according to directives from Govt. of Kerala.

` Any change in the Examination related dates will be informed in due course by JCTE.

Details regarding fee remittance shall be notified by DTE.

Academic Calendar shall be updated as and when higher authorities schedule remedial classes, practical classes and examinations.

Other directives from higher authorities, for conduct of classes due to the pandemic or other causes shall be followed and the academic calendar shall be updated accordingly.

Academic Calendar shall be modified if required.

Shortage in the number of working Days may be compensated by conducting special classes on Saturdays and ensure that requisite number of instructional days are obtained.



Depakar
for Joint Director
SITTTR

JOINT DIRECTOR
INSTITUTE OF TECHNICAL TEACHERS TRAINING & RESEARCH

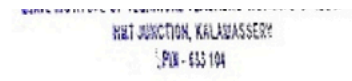


Figure 2.9 Sample Academic calendar published by SITTTR (Odd Semester)



STATE INSTITUTE OF TECHNICAL TEACHERS TRAINING & RESEARCH
DEPARTMENT OF TECHNICAL EDUCATION
GOVERNMENT OF KERALA
ACADEMIC CALENDAR FOR FOURTH & SIXTH SEMESTER in 2025 - 26
(FOR ALL POLYTECHNIC COLLEGES UNDER SBTE IN THE STATE)
 Academic Calendar for S4,S6 (Regular/PT/WP)

NOVEMBER 2025 (No. of Instructional days : 5)

24.11.2025	Commencement of fourth and sixth semester classes
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NOVEMBER 2025						
SUN	MON	TUE	WED	THU	FRI	SAT
30	*	*	*	*	*	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	26	27	28	29

DECEMBER 2025 (No. of Instructional days : 17)

01.12.2025	World Aids Day^
01.12.2025	Commencement of Sixth Semester Internship 2025-26
02.12.2025	World Pollution Prevention Day^
14.12.2025	National Energy Conservation Day^
18.12.2025	Union Inauguration (Tentative)
19.12.2025	College Sports Day (Tentative)
23.12.2025	Polytechnic College closes for X'mas Holidays*

DECEMBER 2025						
SUN	MON	TUE	WED	THU	FRI	SAT
*	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	26	27
28	29	30	31	*	*	*

JANUARY 2026 (No. of Instructional days : 19)

05.01.2026	Polytechnic College reopens after X'mas Holidays*
12.01.2026	Formative Assessment(as per curriculum) No.1
13.01.2026	Publication of attendance of the month of November & December 2025
15.01.2026 16.01.2026	College Level Arts Festival(Tentative)
19.01.2026	Summative Assessment(as per curriculum) No.1.

JANUARY 2026						
SUN	MON	TUE	WED	THU	FRI	SAT
*	*	*	*	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24

26.01.2026	Republic Day^	25	26	27	28	29	30	31
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FEBRUARY 2026 (No of Instructional days: 20)

06.02.2026	Publication of attendance of the month of January 2026
18.02.2026	Formative Assessment(as per curriculum) No.2
25.02.2026	Summative Assessment(as per curriculum) No.2
27.02.2026 to 01.03.2026	State Athletic Meet <i>(Tentative)</i>

FEBRUARY 2026						
SUN	MON	TUE	WED	THU	FRI	SAT
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	26	27	28
*	*	*	*	*	*	*

MARCH 2026 (No of Instructional days: 15)

03.03.2026	Formative Assessment(as per curriculum) No.3
05.03.2026 - 08.03.2026	Interpoly Arts Festival (<i>Tentative</i>)
09.03.2026	Publication of attendance of the month of February 2026
10.03.2026	Model examination for S4 & S6
23.03.2026	Last working day for S4 & S6
24.03.2026	Publication of internal marks and consolidated attendance statement of S4 & S6
30.03.2026	End Semester Examination as per notification of JCTE. Conduct of Institution level and practical examinations. (<i>Tentative</i>)

MARCH 2026						
SUN	MON	TUE	WED	THU	FRI	SAT
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	26	27	28
29	30	31	*	*	*	*

APRIL 2026 (No of Instructional days:)

30.04.2026	Last day for conducting institution level and practical examination of S4 and S6.
------------	---

APRIL 2026						
SUN	MON	TUE	WED	THU	FRI	SAT
*	*	*	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
26	27	28	29	30	*	*

MAY 2026 (No of Instructional days:)

01.05.2026	Internship II for S4 students(4 weeks)
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MAY 2026						
SUN	MON	TUE	WED	THU	FRI	SAT
31	*	*	*	*	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	26	27	28	29	30

Academic work shall be handled in online/contact mode as per the directions of the Govt. from time to time

^ Institutions may arrange programmes to observe these days and other days as notified by Govt./ AICTE.

* X'mas Holidays shall be according to directives from Govt. of Kerala.

Details regarding fee remittance shall be notified by DTE.

Academic Calendar shall be updated as and when higher authorities schedule remedial classes, practical classes and examinations.

Other directives from higher authorities, for conduct of classes due to the pandemic or other causes shall be followed and the academic calendar shall be updated accordingly.

Academic Calendar shall be modified if required.

Joint Director

Table 2.25 Sample semester planner with adherence to academic calendar published by SITTTR (Odd Semester)

NIRMALA COLLEGE OF ENGINEERING TECHNOLOGY AND MANAGEMENT (Diploma Programme)

Odd Semester Plan of Academic Year 2025-2026

S3 & S5

DAY	DATE	WD	ACTIVITY
Mon	2-Jun		College reopens after Summer Vacation
Tue	3-Jun		
Wed	4-Jun		Submission of Module 1& 2 Notes, SAT-1 Question Bank & Lab Manual
Thu	5-Jun		End Semester Examination of 3009 - Internship I & 5009 - Internship II / World Environment Day
Fri	6-Jun		Public Holiday - Bakrid / Eid al Adha
Sat	7-Jun		Holiday - Students
Sun	8-Jun		Holiday
Mon	9-Jun	1	Commencement of Classes Issue of Module 1& 2 Notes, SAT-1 Question Bank & Lab Manual
Tue	10-Jun	2	

Wed	11-Jun	3	S5 - Project Work Group Formation & Guide Allocation
Thu	12-Jun	4	S5 - Seminar Topic Draft Submission
Fri	13-Jun	5	S5 - Submission of Finalized Seminar Topic
Sat	14-Jun		Holiday / World Blood Donors Day
Sun	15-Jun		Holiday
Mon	16-Jun	6	S5 - Seminar Abstract Draft Submission
Tue	17-Jun	7	S5 - Submission of Finalized Seminar Abstract
Wed	18-Jun	8	S5 - Seminar PPT Draft Submission
Thu	19-Jun	9	
Fri	20-Jun	10	S5 - Submission of Finalized Seminar PPT
Sat	21-Jun		Holiday - Students
Sun	22-Jun		Holiday
Mon	23-Jun	11	S5 - Seminar Presentation Commences
Tue	24-Jun	12	
Wed	25-Jun	13	
Thu	26-Jun	14	
Fri	27-Jun	15	
Sat	28-Jun		Holiday
Sun	29-Jun		Holiday
Mon	30-Jun	16	
Tue	1-Jul	17	

Wed	2-Jul	18	
Thu	3-Jul	19	
Fri	4-Jul	20	
Sat	5-Jul		Holiday - Students
Sun	6-Jul		Holiday
Mon	7-Jul	21	Publication of Attendance Statement of the month June
Tue	8-Jul	22	Formative Assessment No.1 QP Issue to students (All Sub)
Wed	9-Jul	23	
Thu	10-Jul	24	Last date for Payment of Tuition Fees Without Fine
Fri	11-Jul	25	Commencement of Submission of Semester Enrollment Form (Accounts)
Sat	12-Jul		Holiday
Sun	13-Jul		Holiday
Mon	14-Jul	26	
Tue	15-Jul	27	Last Date for Submission of Formative Assessment No.1
Wed	16-Jul	28	
Thu	17-Jul	29	Publication of Formative Assessment-1 Marks
Fri	18-Jul	30	
Sat	19-Jul	31	
Sun	20-Jul		Holiday
Mon	21-Jul	32	
Tue	22-Jul	33	

Wed	23-Jul	34	Last Date to Complete Teaching of Module 1 & 2
Thu	24-Jul		Public Holiday - Karkidaka Vavu
Fri	25-Jul	35	S5 - End of Seminar Presentation
Sat	26-Jul		Holiday
Sun	27-Jul		Holiday
Mon	28-Jul	36	S5 - Seminar Report Work Commences
Tue	29-Jul	37	Presentation Competition - Batch List Submission
Wed	30-Jul	38	Last Date to Complete Teaching of Module 1 & 2 Presentation Competition - Grooming Session Commences
Thu	31-Jul	39	Revision Class for SAT-1
Fri	1-Aug	40	Revision Class for SAT-1
Sat	2-Aug		Holiday - Students
Sun	3-Aug		Holiday
Mon	4-Aug	41	Summative Assessment No.1
Tue	5-Aug	42	
Wed	6-Aug	43	Submission of Module 3 & 4 Notes, SAT-2 Question Bank
Thu	7-Aug	44	Publication of Attendance Statement of the month July Semester Registration starts for S3 and S5
Fri	8-Aug	45	
Sat	9-Aug		Holiday
Sun	10-Aug		Holiday

Mon	11-Aug	46	S5 - Seminar Report Work Draft Submission Issue of Module 3 & 4 Notes, SAT-2 Question Bank
Tue	12-Aug	47	Formative Assessment No.2 QP Issue to students (All Sub) Last Date for Submission of Semester Enrollment Form - Academic Clearance (Stage 1 of 2)
Wed	13-Aug	48	Publication of Summative Assessment No.1 Marks Presentation Competition - End of Grooming Session
Thu	14-Aug	49	S5 - Submission of Finalized Seminar Report Commencement of Remedial Class of SAT-1
Fri	15-Aug		Public Holiday - Independence Day
Sat	16-Aug		Holiday - Students
Sun	17-Aug		Holiday
Mon	18-Aug	50	
Tue	19-Aug	51	Last Date for Submission of Formative Assessment No.2
Wed	20-Aug	52	
Thu	21-Aug	53	Publication of Formative Assessment-2 Marks
Fri	22-Aug	54	Presentation Competition Day of NIT
Sat	23-Aug		Holiday
Sun	24-Aug		Holiday
Mon	25-Aug	55	
Tue	26-Aug	56	
Wed	27-Aug	57	Completion of Remedial Class of SAT-1
Thu	28-Aug		Public Holiday - Ayyankali Jayanthi
Fri	29-Aug		National Sports Day Polytechnic College closes for Onam Holidays

Sat	30-Aug		Holiday - Students
Sun	31-Aug		Holiday
Mon	1-Sep		Onam Holidays
Tue	2-Sep		Onam Holidays
Wed	3-Sep		Onam Holidays
Thu	4-Sep		Public Holiday - First Onam
Fri	5-Sep		Public Holiday - Thiruvonam / Milad-i-Sherif
Sat	6-Sep		Onam Holidays
Sun	7-Sep		Holiday
Mon	8-Sep	58	Polytechnic College reopens after Onam Holidays
Tue	9-Sep	59	
Wed	10-Sep	60	
Thu	11-Sep	61	Publication of Attendance Statement of the month August
Fri	12-Sep	62	
Sat	13-Sep		Holiday
Sun	14-Sep		Holiday
Mon	15-Sep	63	Formative Assessment No.3 (Class Notes) Sub 1 & 2 Submission
Tue	16-Sep	65	Formative Assessment No.3 (Class Notes) Sub 3 & 4 Submission
Wed	17-Sep	65	Last Date to Complete Teaching of Module 3 & 4 Publication of Formative Assessment-3 Marks & Publication of Consolidated Formative Assessment Mark Statement
Thu	18-Sep	66	Revision Class for SAT-2
Fri	19-Sep	67	Revision Class for SAT-2

Sat	20-Sep		Holiday - Students
Sun	21-Sep		Holiday
Mon	22-Sep	68	Summative Assessment No.2
Tue	23-Sep	69	
Wed	24-Sep	70	
Thu	25-Sep	71	
Fri	26-Sep	72	Notification for End Semester Examination Nov 2025
Sat	27-Sep		Holiday
Sun	28-Sep		Holiday
Mon	29-Sep	73	Commencement of Revision Class
Tue	30-Sep	74	Revision Class
Wed	1-Oct		Public Holiday - Mahanavami
Thu	2-Oct		Public Holiday -Vijayadasami/Gandhi Jayanthi
Fri	3-Oct	75	Revision Class Publication of Summative Assessment No.2 Marks
Sat	4-Oct	76	Revision Class / Commencement of Remedial Class of SAT-2 Publication of Consolidated Summative Assessment Mark Statement
Sun	5-Oct		Holiday
Mon	6-Oct	77	Revision Class
Tue	7-Oct	78	Revision Class
Wed	8-Oct	79	Revision Class Publication of attendance of the month of September
Thu	9-Oct	80	Revision Class

Fri	10-Oct	81	Revision Class Students Union Election as per notification from DTE (Tentative)
Sat	11-Oct		Holiday
Sun	12-Oct		Holiday
Mon	13-Oct	82	Revision Class
Tue	14-Oct	83	Revision Class / Completion of Remedial Class of SAT-2
Wed	15-Oct	84	Revision Class
Thu	16-Oct	85	Revision Class Last Date for Submission of Semester Enrollment Form - Academic Clearance (Stage 2 of 2)
Fri	17-Oct	86	Revision Class / Last Working Day Publication of internal marks and consolidated attendance statement
Sat	18-Oct		Holiday - Students
Sun	19-Oct		Holiday
Mon	20-Oct		Public Holiday - Deepavali
Tue	21-Oct		
Wed	22-Oct		
Thu	23-Oct		
Fri	24-Oct		
Sat	25-Oct		Holiday
Sun	26-Oct		Holiday
Mon	27-Oct		Commencement of End Semester Examination

Table 2.26 Sample semester planner with adherence to academic calendar published by SITTR (Even Semester)

Even Semester Plan of Academic Year 2025-2026

S4 & S6

DAY	DATE	WD	ACTIVITY
Mon	1-Dec	1	Date of Commencement of Classes / World Aids Day Commencement of Sixth Semester Internship 2025-26
Tue	2-Dec	2	World Pollution Prevention Day
Wed	3-Dec	3	Issue of Module 1 & 2 Notes, Lab Manual & Preparation of SAT-1 QB
Thu	4-Dec	4	S4 - Minor Project Work Group Formation & Guide Allocation
Fri	5-Dec	5	Major & Minor Project Topic Draft Submission
Sat	6-Dec		Holiday - Students
Sun	7-Dec		Holiday
Mon	8-Dec	6	
Tue	9-Dec	7	
Wed	10-Dec	8	Last Date for Payment of II Instalment Fees without Fine
Thu	11-Dec	9	Commencement of Submission of Semester Clearance Form / Submission of Finalized Major & Minor Project Topic
Fri	12-Dec	10	Odd Sem Presentation Competition - Semi Final
Sat	13-Dec		Holiday
Sun	14-Dec		Holiday / National Energy Conservation Day
Mon	15-Dec	11	
Tue	16-Dec	12	Major & Minor Project Abstract Draft Submission
Wed	17-Dec	13	Odd Sem Presentation Competition - Final
Thu	18-Dec	14	Submission of Finalized Major & Minor Project Abstract

Fri	19-Dec	15	Commencement of Major / Minor Project Work Fabrication
Sat	20-Dec	16	Formative Assessment No.1 QP Issue to students (All Sub) / Presentation Competition - Batch List Submission
Sun	21-Dec	17	Commencement of Presentation Competition - Grooming Session
Mon	22-Dec	18	
Tue	23-Dec	19	Polytechnic College closes for Xmas Holidays
Wed	24-Dec		Holiday
Thu	25-Dec		Holiday
Fri	26-Dec		Holiday
Sat	27-Dec		Holiday
Sun	28-Dec		Holiday
Mon	29-Dec		Holiday
Tue	30-Dec		Holiday
Wed	31-Dec		Holiday
Thu	1-Jan		Holiday
Fri	2-Jan		Mannam Jayanthi Holiday
Sat	3-Jan		Holiday - Students
Sun	4-Jan		Holiday
Mon	5-Jan	21	Polytechnic College reopens after Xmas / Publication of attendance of the month of November & December 2025 / Commencement of Industry Talk Session
Tue	6-Jan	22	Submission of Formative Assessment (as per curriculum) No.1 / Valuation camp starts (Tentative)
Wed	7-Jan	23	S6 - 3 or 4 Days Education Tour (Any 3 Departments)
Thu	8-Jan	24	Last Date for Submission of Semester Clearance Form

Fri	9-Jan	25	Last Date of Submission of Record Note (Phase-1) / College Sports Day (Tentative)
Sat	10-Jan		Holiday
Sun	11-Jan		Holiday
Mon	12-Jan	26	Closing of Industry Talk Session
Tue	13-Jan	27	Presentation Competition - End of Grooming Session
Wed	14-Jan	28	Last Date to Complete Teaching of Module 1 & 2 / Issue of SAT-1 Question Bank / Submission of FA-1 Marksheet / Valuation camp ends (Tentative)
Thu	15-Jan	29	Revision Class for SAT-1
Fri	16-Jan	30	Revision Class for SAT-1
Sat	17-Jan		Holiday - Students
Sun	18-Jan		Holiday
Mon	19-Jan	31	Summative Assessment(as per curriculum) No.1 Sub1
Tue	20-Jan	32	Summative Assessment(as per curriculum) No.1 Sub2
Wed	21-Jan	33	Summative Assessment(as per curriculum) No.1 Sub 3
Thu	22-Jan	34	Summative Assessment(as per curriculum) No.1 Sub 4
Fri	23-Jan	35	Summative Assessment(as per curriculum) No.1 Sub 5
Sat	24-Jan		Holiday
Sun	25-Jan		Holiday
Mon	26-Jan		Holiday - Republic Day
Tue	27-Jan	36	Commencement of Remedial Class of SAT-1 / Preperation of SAT-2 QB
Wed	28-Jan	37	Submission of SAT - 1 Consolidated Marksheet / Issue of Module 3 & 4 Notes / Commencement of Presentation Competition Prelims
Thu	29-Jan	38	Commencement of Major / Minor Project Work Fabrication

Fri	30-Jan	39	Review of Major / Minor Project Work Fabrication
Sat	31-Jan	40	S4 - Industrial Visit
Sun	1-Feb		Holiday
Mon	2-Feb	41	Commencement of Major / Minor Project PPT & Report Draft Work / Application for Revaluation last date
Tue	3-Feb	42	Commencement of Subject Related Model Creation Work
Wed	4-Feb	43	Completion of Presentation Competition Prelims / S6 - 3 or 4 Days Education Tour (Any 3 Departments)
Thu	5-Feb	44	Publication of attendance of the month of January 2026
Fri	6-Feb	45	Last Date of Submission of Record Note (Phase-2) / Completion of Remedial Class of SAT-1
Sat	7-Feb		Holiday - Students
Sun	8-Feb		Holiday
Mon	9-Feb	46	Submission of Subject Related Model Creation Work
Tue	10-Feb	47	Submission of Major / Minor Project PPT & Report Draft Work
Wed	11-Feb	48	Formative Assessment No.2 QP Issue to students (All Sub)
Thu	12-Feb	49	Presentation Competition Semi Final
Fri	13-Feb	50	Presentation Competition Final
Sat	14-Feb		Holiday
Sun	15-Feb		Holiday
Mon	16-Feb	51	Submission of Finalized Major / Minor Project PPT & Report Work / Even sem registration
Tue	17-Feb	52	Major / Minor Project PPT Presentation
Wed	18-Feb	53	Last Date to Complete Teaching of Module 3 & 4 / Issue of SAT-2 Question Bank
Thu	19-Feb	54	Revision Class for SAT-2 / Submission of Formative Assessment (as per curriculum) No.2

Fri	20-Feb	55	Revision Class for SAT-2 / Last Date for Certification of Record Note
Sat	21-Feb		Holiday - Students
Sun	22-Feb		Holiday
Mon	23-Feb	56	Summative Assessment(as per curriculum) No.2 Sub1
Tue	24-Feb	57	Summative Assessment(as per curriculum) No.2 Sub2
Wed	25-Feb	58	Summative Assessment(as per curriculum) No.2 Sub 3 / Submission of FA-2 Marksheet
Thu	26-Feb	59	Summative Assessment(as per curriculum) No.2 Sub 4
Fri	27-Feb	60	Summative Assessment(as per curriculum) No.2 Sub 5 / State Athletic Meet (Tentative)
Sat	28-Feb		Holiday
Sun	1-Mar		Holiday
Mon	2-Mar	61	Board Exam Revision Class / Commencement of Remedial Class of SAT-2
Tue	3-Mar	62	Board Exam Revision Class / Submission of Formative Assessment (Full Notes) No.3
Wed	4-Mar	63	Board Exam Revision Class / Submission of SAT-2 Consolidated Marksheet
Thu	5-Mar	64	Board Exam Revision Class / Interpoly Arts Festival (Tentative)
Fri	6-Mar	65	Board Exam Revision Class / Interpoly Arts Festival (Tentative) / Completion of Remedial Class of SAT-2
Sat	7-Mar		Holiday - Students
Sun	8-Mar		Holiday
Mon	9-Mar	66	Board Exam Revision Class / Publication of attendance of the month of February 2026
Tue	10-Mar	67	Board Exam Revision Class / Submission of FA & SAT Consolidated Marksheet
Wed	11-Mar	68	Board Exam Revision Class
Thu	12-Mar	69	Board Exam Revision Class

Fri	13-Mar	70	Board Exam Revision Class / / Issue of Semester Closing Form
Sat	14-Mar		Holiday
Sun	15-Mar		Holiday
Mon	16-Mar	71	Board Exam Revision Class
Tue	17-Mar	72	Board Exam Revision Class
Wed	18-Mar	73	Board Exam Revision Class / Last Date for Submission of Semester Closing Form
Thu	19-Mar	74	Last working day for S4 & S6 / Publication of internal marks and consolidated attendance statement of S4 & S6
Fri	20-Mar		Eid al-Fitr - Holiday
Sat	21-Mar		Holiday - Students
Sun	22-Mar		Holiday
Mon	23-Mar		
Tue	24-Mar		End Semester Examination as per notification of JCTE. Conduct of Institution level and practical examinations.(Tentative)
Wed	25-Mar		
Thu	26-Mar		
Fri	27-Mar		
Sat	28-Mar		Holiday
Sun	29-Mar		Holiday
Mon	30-Mar		Last day for conducting institution level and practical examination of S4 and S6.

B. Use of various instructional planning and delivery methods (3)

A variety of instructional planning and delivery methods are employed to strengthen the teaching-learning process within the department. For instructional planning, each faculty member prepares a detailed course plan in line with the academic calendar prepared prior to the commencement of the semester and is duly approved by the Head of the Department. The course plan specifies the topics to be covered in each lecture hour along with the planned date, based on the timetable. As the Head of the Department monitors progress on an ongoing basis. Assignment questions and series examination question papers are framed so as to comprehensively cover all course outcomes of the respective course.

A course file is maintained by the concerned faculty member for every course offered. This file contains complete records of course coverage, question papers, assessment sheets, course outcome attainment, attendance, and internal marks. At the end of each semester, the completed course file is submitted to the Head of the Department for record and review.

Table 2.27 Course file index approved by IQAC (Theory Courses)

S.No	Table of Contents
1.	Class Time table – Approved Copy
2.	Faculty Workload – Approved Copy
3.	Student List – Approved Copy
4.	Course Syllabus with Recommended Books (As per SITTR)
5.	Institution Vision & Mission, Department Vision & Mission, PEOs, POs and PSO – Approved Copy
6.	CO – PO, PSO Mapping Matrix
7.	Course Plan (TEAMS)
8.	Course log (TEAMS)
9.	Course Attendance (TEAMS)
10.	Summative Assessment Test -I Question Paper with quality checking (2 Sets)
11.	Summative Assessment Test -I 3 Sample Answer Sheets
12.	Summative Assessment Test -I Remedial Class Statement & Sample Answer Sheets (Weaker Student Coaching Proof)
13.	Summative Assessment Test -II Question Paper with quality checking (2 Sets)

14.	Summative Assessment Test -II 3 Sample Answer Sheets
15.	Summative Assessment Test -II Remedial Class Statement & Sample Answer Sheets (Weaker Student Coaching Proof)
16.	Summative Assessment Test - Result Analysis (TEAMS)
17.	Formative Assessment-I Question Paper & 3 Sample Answer Sheets (Teaching and Learning Methods Proof)
18.	Formative Assessment-II Question Paper & 3 Sample Answer Sheets (Teaching and Learning Methods Proof)
19.	Formative Assessment-III Proof (Teaching and Learning Methods Proof)
20.	Assessments of Assignment (TEAMS)
21.	Continuous Evaluation Report obtained from TEAMS – Approved Copy
22.	Final Internal Report (TEAMS) – Approved Copy
23.	Final Internal Mark Report (SBTE) – Approved Copy
24.	Previous Year Board Exam Question Papers
25.	Institutional Level Examination Circular & Timetable
26.	Institutional Level Exam Valuation report – Approved Copy
27.	Institutional Level Exam Question paper with quality checking (2 sets)
28.	Institutional Level Exam Answer Sheets – Approved Copy
29.	Institutional Level Exam Mark List (SBTE) – Approved Copy
30.	Current External Exam Question Paper with CO mapping with Examination feedback form
31.	Result of External Exam (SBTE) – Approved Copy
32.	Attainment of Course Outcome (CO) – Approved Copy
33.	Attainment of PO/PSO – Approved Copy

Table 2.28 Course file index approved by IQAC (Practical Courses)

S.No	Table of Contents
1.	Class Time table (Approved Copy)
2.	Faculty Workload (Approved Copy)
3.	Student List (Approved Copy)
4.	Course Syllabus with Recommended Books (As per SITTTTR)
5.	Institution Vision & Mission, Department Vision & Mission, PEOs, POs and PSO – Approved Copy
6.	CO – PO, PSO Mapping matrix
7.	Course Plan (TEAMS)
8.	Course log (TEAMS)
9.	Course Attendance (TEAMS)
10.	Internal Exam I and II Question Papers (IQAC Approved)
11.	Internal exam I & II-Sample answer sheets (3 sets for each Internal exam)
12.	Internal Examination Result Analysis (TEAMS)
13.	Weaker student coaching schedule and proof
14.	Experimental methodology (Teaching and Learning Methods Proof)
15.	CE Mark Split up Report obtained from TEAMS
16.	Final Internal Mark Report (SBTE)
17.	Institutional Level Examination Circular & Timetable
18.	Institutional Level Exam Question paper with quality checking (IQAC Approved)

19.	Institutional Level Exam Answer Sheets
20.	Institutional Level Exam Mark List (SBTE)
21.	Lab log book
22.	Rough Record sample
23.	Fair record sample
24.	Result of External Exam (SBTE)
25.	Attainment of Course Outcome (CO)
26.	Attainment of PO/PSO

Regular Academic Activities

The departments regular academic activities encompass the following components:

1. Classroom lectures and discussions
2. Laboratory experiments / hands-on practice
3. Assignments
4. Seminars / presentations
5. Visiting faculty and finishing school programs
6. Technical visits / industrial training
7. Video lectures
8. Student projects
9. Library facilities
10. Internet facility
11. Feedback process
12. Regular assessment
13. Remedial measures
14. Moodle LMS
15. E-learning

1. Classroom Lecture and Discussion

Lecture hours are scheduled at the beginning of each semester in accordance with the academic calendar and timetable. Every course coordinator attends class well prepared, with a clear understanding of the specific learning outcomes expected of students before the class begins. Since traditional lecturing is inherently teacher-centric, the department emphasizes active lecturing that encourages student participation. Faculty pose prompting questions and provide constructive feedback to students.

2. Laboratory Experiment

Laboratory sessions play a key role in developing practical skills, allowing students to verify or implement the theoretical concepts learned in class through hands-on experimentation. Students are divided into two batches of approximately 20 students per batch, with a maximum of 10 students per procedure prior to each session. Every experiment is first demonstrated in the laboratory to ensure clarity, following which students are expected to articulate the inference drawn from the experiment. Continuous assessment is carried out by the faculty, and fair records are maintained.

3. Assignments

Assignments consisting of topics and related practical problems, mapped to one or more course outcomes, are given to students. Faculty provide appropriate guidance on accessing e-materials and relevant online resources, and student submissions are evaluated and feedback is provided.

4. Seminars / Presentations

Students research a given topic and present their findings to peers using PowerPoint, thereby enhancing both their own understanding and that of the audience. Each student subsequently prepares and submits a report to the department.

5. Visiting Faculty / Finishing School Programs

Qualified and experienced external faculty are periodically invited to share real-world industry experience and contemporary engineering practices, enriching students understanding and learning experience. Expert talks, seminars, training se

6. Technical Visits / Industrial Training

Students are encouraged to visit industries relevant to electrical engineering to gain first-hand exposure to industrial practices, safety standards, and organizational structures, thereby enhancing their employability. In line with AICTE gu facilitate meaningful training and industrial visit opportunities for students.

7. Video Lectures

Video presentations are used in classrooms to aid the visualization of concepts and improve topic comprehension. Students are also encouraged to engage with video lectures, animations, illustrative content, and open courseware to benefit fro

8. Student Projects

Minor-projects and final-year projects form an integral part of the diploma curriculum. Students work in groups under the guidance of faculty mentors, with the department placing particular emphasis on projects of social relevance. Projects

9. Library Facilities

The college library maintains a well-curated collection of textbooks, reference books, technical journals, and magazines, systematically arranged according to course classification. A dedicated newspaper section is also available for day-to-da

10. Internet Facility

Students have access to internet facilities that enable them to explore online content and prepare papers on emerging technologies for presentation at symposiums. The well-equipped computer laboratory offers high-speed connectivity information.

11. Feedback Process

Feedback is collected from students at the end of every semester and analyzed by the faculty coordinator, with necessary corrective actions implemented based on the outcomes.

12. Regular Assessment

Two series examinations and one model examination are conducted each semester, supplemented by continuous evaluation throughout the term. Marks from assignments, series examinations, and attendance across the three phases are consol

13. Remedial Measures

Students identified as academically weak, based on series test performance, are provided remedial support during additional hours, with their progress subsequently assessed.

14. Linways

The department has implemented a customized Learning Management System, with login credentials issued to all students and faculty. Since 2021, Linways has been actively used by faculty to conduct online tests and quizzes, administer banks.

Department of Civil Engineering
Course: Hydraulics and Irrigation Engineering (4012) Semester : S4
COURSE LESSON PLAN

Sl. No.	Lesson/Topic	Hours Required	Planned Date	Module	CO	TLM
1	Fluid, fluid mechanics, hydraulics, hydrostatics and hydrodynamics; ideal and real fluid, application of hydraulics; physical properties of fluid - density, specific volume, specific gravity, surface tension, capillarity, viscosity	3	2022-12-12	Module 1	CO1	Chalk & Talk / PPT
2	Types of pressure - atmospheric, gauge, absolute, vacuum pressure; concept of pressure head and its unit; Pascal's law of fluid pressure	2	2022-12-15	Module 1	CO1	Chalk & Talk
3	Pressure measuring devices - piezometer tubes, manometers (U-tube simple, differential and inverted), mechanical gauges - Bourdon's tube pressure gauge	2	2022-12-20	Module 1	CO1	Charts / Model
4	Pressure on a plane surface immersed in liquid - total pressure and center of pressure on horizontal, vertical and inclined surfaces	3	2022-12-22	Module 1	CO1	Chalk & Talk (numericals)
5	Types of flow (gravity, pressure, laminar, turbulent, uniform, non-uniform, steady, unsteady - definitions only); Reynolds number; discharge and continuity equation of flow; energy of flowing liquid; Bernoulli's theorem - statement, assumptions, equation	2	2023-01-24	Module 1	CO1	PPT / Video
6	Discharge measuring devices - Venturi meter (working and simple problems), orifices (definition and uses), notches (simple problems), weirs (definition)	3	2023-01-30	Module 2	CO2	Charts / Model
7	Flow through pipes - major head loss (frictional loss by Darcy-Weisbach equation), minor losses (entrance, exit, sudden contraction, sudden enlargement, fittings); hydraulic gradient line & total energy line; water hammer in pipes	3	2023-02-02	Module 2	CO2	Chalk & Talk / PPT
8	Flow through open channel - geometrical properties (wetted area, wetted perimeter, hydraulic radius for rectangular & trapezoidal sections); discharge by Chezy's & Manning's equations; most economical rectangular & trapezoidal sections; velocity measuring devices - current meter, floats, Pitot's tube	3	2023-02-08	Module 2	CO2	Charts / PPT
	Hydroelectric installation layout - intake works.					

9	pressure tunnel, penstock, surge tank, anchor blocks, tail race; turbines - Pelton wheel, Francis & Kaplan turbines (description only); hydraulic pumps - centrifugal & reciprocating (description only)	3	2023-02-14	Module 2	CO2	Video / Charts
10	Series Test - I	1	2023-02-20	Module 1 & 2	CO1, CO2	Written Test
11	Irrigation and its classification Crop water requirement - cropping seasons, cropping calendar (Kerala), crop period, base	2	2023-02-21	Module 3	CO3	Chalk & Talk
12	period, duty, delta, command area, intensity of irrigation, factors affecting duty; simple problems on duty	3	2023-02-23	Module 3	CO3	Chalk & Talk
13	Classification of irrigation projects - major, medium and minor schemes (definition only)	2	2023-03-01	Module 3	CO3	PPT
14	Canals - classification according to alignment & position in the canal network; cross section of canal in embankment and cutting, partial	3	2023-03-06	Module 3	CO3	Charts / Chalk & Talk

Sl. No.	Lesson/Topic	Hours Required	Planned Date	Module	CO	TLM
15	embankment and cutting, balancing depth; design of most economical canal section Canal lining - purpose, material used and its properties, advantages	2	2023-03-09	Module 3	CO3	PPT / Video
16	Irrigation structures - classification of head works, storage and diversion head works, their suitability under different conditions	2	2023-03-14	Module 4	CO4	PPT / Charts
17	Storage headworks - dams and its classification: earthen dams and gravity dams (masonry & concrete); earthen dams & spillway - components with function, typical cross section; gravity dams - typical cross section, drainage gallery	3	2023-03-16	Module 4	CO4	Video / Charts
18	Spillways - definition, function, location, energy dissipaters	2	2023-03-22	Module 4	CO4	PPT
19	Diversion head works - layout, components and their function; weirs - components, parts, types; barrages - components and their functions; difference between weir and barrage	3	2023-03-27	Module 4	CO4	Charts / Video
20	Canal regulators - head regulator, cross regulator, escape, falls and outlets (brief description only)	1	2023-03-30	Module 4	CO4	Chalk & Talk
21	Cross drainage works - aqueduct, siphon aqueduct, super passage, level crossing (brief description only)	2	2023-04-03	Module 4	CO4	PPT / Charts
22	Series Test - II	1	2023-04-05	Module 3 & 4	CO3, CO4	Written Test

Figure 2.11 Sample lesson plan with TLM method

C. Methodologies to support weak students and encourage bright students (4)

The institute follows a structured, dual-track mechanism to identify and support academically weak students while simultaneously nurturing the potential of bright and advanced learners. This approach ensures inclusive academic growth across all its programs.

A. Support Mechanisms for Weak Students

1. Mentoring System

A structured mentoring system is in place, wherein two mentors are allotted to each class. Students in the class are divided equally between the two mentors, ensuring a manageable mentee group size for personalized attention. Regular mentoring sessions are held to track the overall academic journey, with special focus and maximum support extended to weaker students to help them overcome their difficulties.

2. Conducting Internal Tests

Internal assessment tests and assignments are conducted strictly as per the schedule laid out in the academic calendar. These formative assessments serve as an early diagnostic tool, enabling faculty to identify students who are struggling with the course and where support should be initiated.

3. Teaching the Basics

For students identified as weak, faculty place additional emphasis on revisiting and reinforcing fundamental concepts. Repetition of basic principles helps such students build a clearer and more concentrated understanding, forming a stronger foundation for advanced topics.

4. Interaction with Parents

Parents are kept informed of their wards academic progress through regular intimation, and parent-teacher meetings are arranged whenever necessary. This ensures active parental involvement in creating a conducive study environment at home.

5. Remedial Classes

Dedicated remedial classes are conducted for students identified as academically weak based on their performance in internal tests. These classes are held outside regular teaching hours and focus specifically on the topics or concepts where the student is struggling.

6. Peer Support Programs

Peer-assisted learning is encouraged; wherein academically bright students mentor and coach their weaker classmates. This not only benefits the weaker students through relatable, peer-level explanation but also reinforces the understanding of concepts for the mentors.

7. Scholar Support Programs

The institute conducts structured scholar support programs aimed specifically at students with backlog papers. Weak students identified across classes are provided focused academic support to help them clear their pending courses in the early part of the semester.

8. Additional Laboratory Sessions

Extra laboratory sessions are arranged for weak students to give them additional hands-on practice, helping strengthen their practical skills and conceptual clarity alongside their theoretical learning.

9. Audio-Visual Aids

Slow learners are provided access to NPTEL online videos and PowerPoint presentations to help them grasp fundamental concepts in each domain through visual and repeatable learning aids, catering to different learning paces and styles.

10. Practice Questions and Periodic Testing

Shorter tests, oral testing, and makeup tests are conducted periodically to continuously evaluate and reinforce the learning of weak students, ensuring steady improvement is tracked and encouraged throughout the semester.

B. Encouragement Mechanisms for Bright/Advanced Students

1. Seminars, Certifications, and Online Courses

Bright and academically strong students are actively encouraged to participate in seminars, pursue certification courses, and enroll in online courses (such as NPTEL, Coursera, and similar platforms) to broaden their knowledge base beyond the curriculum.

2. Placement-Oriented Special Classes

Special placement-oriented classes are conducted for high-performing students to prepare them for campus recruitment, enabling them to secure job offers during the final year of the program itself.

3. Scholarships for Meritorious Students

The institute facilitates and encourages meritorious students, across all its programs, to avail of prestigious scholarships, including:

- Varghese Vattoly Memorial (VVM) Scholarship — a merit-based scholarship awarded to students pursuing undergraduate and postgraduate studies, aimed at encouraging economically backward students who are outstandingly meritorious.
- APJ Abdul Kalam Scholarship — awarded to recognize and support academically talented students, encouraging continued excellence in their field of study.

4. Institute-Level Awards for Semester Toppers

To motivate consistent academic excellence, the management institutes award for the top-performing student of each semester across all programs and departments of the institute, recognizing sustained academic performance throughout the c

5. Best Outgoing Student Award

In recognition of holistic excellence — encompassing academic performance, discipline, and overall contribution to the institute — the Best Outgoing Student Award is conferred at the institute level upon graduating students on two significa

- College Day, celebrated within the institute
- Convocation, marking the formal culmination of the students academic journey

This recognition serves as a benchmark of excellence for students across the institute and reinforces a culture of aspiration and achievement across every batch and department.



D. Quality of classroom teaching (3)

All classrooms within the department are well furnished and equipped with Information and Communication Technology (ICT) facilities, providing an environment conducive to effective teaching and learning. The availability of inte seamlessly and integrate digital resources into their regular coursework. This ICT-enabled infrastructure supports a wide range of instructional delivery formats — including projected multimedia content, streamed video lectures, and re

confined to conventional methods alone but is enriched through continuous access to contemporary digital resources. Faculty members adopt a range of innovative teaching and learning methodologies to create the best possible learning environment, including, collaborative classroom sessions, and cooperative learning, among others, allowing faculty to tailor their instructional approach to the nature of the topic and the learning needs of students.

- Course Preamble: At the commencement of each course, students are given a detailed preamble outlining the course objectives, expected outcomes, and overall structure, ensuring clarity of purpose from the outset.
- LCD Projectors: LCD projectors are extensively used for classroom teaching to support visual explanation of concepts, diagrams, and multimedia content, enhancing comprehension of complex topics.
- Supplementary Learning Resources: Resources such as NPTEL video lectures and other internet-based sources are systematically incorporated into teaching to reinforce classroom instruction and provide students with additional perspectives.
- Expert Sessions: Regular classes are supplemented with sessions delivered by subject-matter experts, exposing students to industry practices, emerging technologies, and specialized knowledge that extends beyond the standard curriculum.
- Assignments and Attendance Monitoring: Assignments are regularly given to students to reinforce learning and improve academic performance, while student attendance is closely and continuously monitored to ensure consistent class participation.
- To provide practical industrial exposure and bridge the gap between industry requirements and institutional learning, students are taken for industrial visits and industrial training as an integral part of the curriculum. These interact with workplace expectations, thereby strengthening their readiness for professional careers.

The table below presents a summary of the principal instructional delivery methods adopted within the department, together with the pedagogical justification for each, as reflected in Table 2.29.

Table 2.29 Details of Delivery Methods

Delivery Method	Justification
PowerPoint Presentations	Abstract concepts that are otherwise difficult to comprehend are presented through PowerPoint presentations and animation tools to provide students with a graphical form, thereby improving overall comprehension and retention.
Tutorials	Quality tutorial sheets are prepared, and effective tutorial classes are conducted for students. As part of this process, students gather knowledge related to the concepts before their peers.
Assignments	Written assignments prompt students to think more deeply about the concepts being taught and reinforce classroom learning. Group assignments, in part, encourage collaborative learning.
Videos (NPTEL and Others)	Video presentations effectively communicate the working of real-world engineering solutions and their practical impact. Videos and e-learning materials provide access to the domain expertise of faculty from various leading institutions.

Laboratory instruction follows a structured, well-monitored process designed to ensure that students are adequately prepared before each session and that practical learning remains closely aligned with classroom teaching.

- Scheduled Conduct: Laboratory classes are conducted strictly in accordance with the schedule specified in the course plan, ensuring systematic coverage of all prescribed experiments within the semester timeframe.
- Pre-Lab Preparation: In the class session preceding each laboratory session, the concerned faculty provides students with an overview of the upcoming experiment and requires them to prepare and write the experimental procedure in a notebook.
- Dedicated Laboratory Manuals: Laboratory manuals are prepared separately for students and for staff. The student manual serves as a structured reference that supports consistent, high-quality practical learning, while the staff manual provides detailed instructions for conducting the experiment.

E. Conduct of experiments (3)

The conduct of practical experiments in the Civil Engineering laboratories follows a structured, faculty-supervised process designed to ensure both academic rigor and adherence to standard procedures, as illustrated in the process flow (Figure 2.10).

Pre-Lab Preparation

Prior to each practical session, students are required to maintain a rough record in which they note down the relevant details of the experiment to be conducted. Based on this, students write the procedure for the experiment, including the aim and objectives.

Verification of Procedure

Before proceeding with the actual experiment, the procedure written by the students is verified by the faculty in charge. This step ensures that students have correctly understood the experimental methodology, safety precautions, and understanding before hands-on work begins.

Execution of the Experiment

Once the procedure is verified, students proceed with the experiment under the direct supervision of the faculty/lab instructor. Students are typically organized into small groups of 4–5 members to carry out the experiment collaboratively. Adequate safety measures and standard operating practices are followed throughout.

Recording of Observations

During the course of the experiment, students record all relevant observations, readings, and measurements systematically in the tabular columns/observation sheets prepared beforehand, ensuring accuracy and traceability of data.

Analysis of Output

The recorded observations are then analyzed using the appropriate formulae, graphs, or calculations as applicable to the experiment, in order to arrive at the required results.

Verification of Output

The analyzed results/output are subsequently verified by the faculty in charge to check for correctness, consistency with expected theoretical values, and overall validity of the experimental outcome. Faculty guidance at this stage helps students.

This systematic cycle — from maintaining a rough record to final verification of output — ensures that students not only perform experiments correctly but also develop the ability to document, analyze, and interpret experimental data, thereby

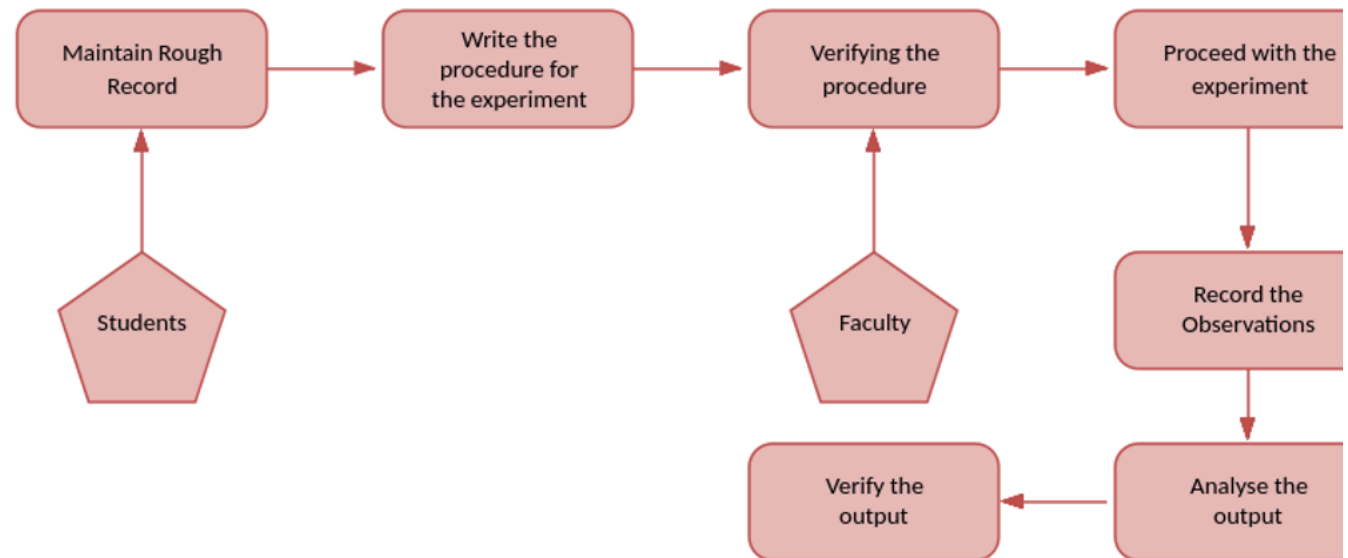


Figure 2.12: Process of conduct of experiments

Revision 2021

Under the 2021 revision, the total internal (continuous) assessment mark for a practical/lab course is distributed across four components: a summative lab examination, formative lab work, a formative open-ended experiment or micro project

Table 2.30 Continuous internal assessment of practical courses – Revision 2021

Type of Assessment	Tools	Marks	
Summative	Lab Examination	20% of the total internal mark	Two tests are mandatory
Formative	Lab Work	50% of the total internal mark	1. List of lab experiments must be given which may include some mandatory experiments. 2. The faculty concerned may include additional experiments. 3. For each experiment, assessment may be made and marks should be awarded accordingly.
Formative	Open ended experiment / Micro projects	10% of the total internal mark	1. Time for Open ended experiments / Micro project must be included in the lab schedule. 2. For first and second year students, open ended experiments/Micro projects must be assigned as group work.
Attendance	—	20% of the total internal mark	This is only for CIA. Marks for attendance will not be considered for attainment.

Summative Assessment – Lab examination (20)

- This is exam-based, testing overall lab competence at set points in the semester.
- Two lab tests are mandatory and together make up this 20% share.

Formative Assessment – Lab work (50%)

- The largest single component, reflecting day-to-day performance across the semester.
- The department must issue a list of experiments, which may include mandatory ones.
- The faculty member teaching the course may add further experiments beyond this list.
- Every experiment is assessed individually and scored using a formal assessment rubric (covering knowledge, conduct, data recording, documentation, and safety/clean-up).

Formative Assessment – Open Ended Experiment (10%)

- Time for this activity must be scheduled within the regular lab hours, not as extra work.
- For first- and second-year students, it may be assigned as group work.

Attendance (20%)

- Counted only towards Continuous Internal Assessment (CIA) marks.
- Explicitly excluded from the calculation of course outcome attainment — i.e., it affects a student's internal score but not the outcome-based education (OBE) attainment metrics for the course.

Table 2.31 Sample Rubrics for the Assessment of Lab Work

Criteria	Max Marks	Excellent 100%	Good >60% to 90%	Average 40% to 60%
Knowledge of the Experiment	10 marks	Thorough knowledge of the experiment and is able to correlate the objectives to the experiment	Adequate knowledge, but not able to correlate the objectives to the experiment	Sufficient knowledge, but lacks clarity in understanding the objectives of the experiment

Implementation and Result	15 marks	Implemented, Accurate result	Implemented, but inaccurate result	Implemented, but partial result	Partial Implementation	No implementation
Documentation	5 marks	Well documented and submitted within the stipulated time	Documented and submitted in time, but not in an organized way	Documented, but without covering the entire aspect of the project and not submitted in time	Documented with partial contents and not submitted in time	No Documentation

Table 2.33 Sample Rubrics for the Assessment of Lab Exam

Criteria	Max Marks	Excellent 100%	Good >60% to 90%	Average 40% to 60%
Background Knowledge	10 marks	Thorough study and all the questions have been answered correctly	Adequate study and more than half of the questions have been answered correctly	Sufficient study and half of the questions have been answered correctly
Implementation, Data Recording and Result	15 marks	Implemented successfully. Observations, measurements and inference are adequate with proper reasoning. Accurate results with reasonable precision, proper units and representations/illustrations.	Implemented successfully. Observations, measurements and inference are adequate and accurate, but with missing proper units, representations/illustrations.	Implemented successfully. Observations, measurements and inference are adequate. But, inaccurate results and missing units, representations/illustrations.
Selection and usage of tools and equipments	10 marks	Relevant and appropriate selection and optimum usage of tools/equipments with proper handling throughout the work	Satisfactory in the selection of tools/equipments with proper handling, but without optimal usage	Satisfactory in the selection of tools/equipments, but with improper way and without optimal usage
Development of appropriate Procedures, Diagrams	15 marks	Able to develop procedures for meeting the specified requirements with proper justification (diagrams, flowchart etc)	Able to develop procedures for meeting the specified requirements with incomplete justification	Able to develop procedures for meeting the specified requirements without justification

Revision 2015

Table 2.34 Weightage for Internal Continuous Assessment – Revision 2015

Sl. No	Criteria Component
1	Observation Note / Rough Record
2	Fair Record (Timely Submission, Accuracy and Neatness)
3	Attendance

4	Test
---	------

Observation Note / Rough Record — 20%

- Reflects the students real-time observations and rough working recorded during the lab session itself.

Fair Record (Timely Submission, Accuracy and Neatness) — 20%

- The formally written-up fair record is assessed on three criteria: whether it was submitted on time, the accuracy of the content, and the neatness of presentation.

Attendance — 20%

- A fixed weightage awarded purely on the basis of the students attendance in the lab sessions.

Test — 40%

- The single largest component, based on an internal practical test conducted during the semester.

G. Student feedback of teaching learning process and action taken (6)

The Department conducts a structured, module-wise student feedback exercise at the end of every semester to assess the effectiveness of the Teaching-Learning Method (TLM) adopted by faculty for each subject. The exercise is designed this into comparable percentage scores across subjects and semesters, (c) identify subjects and modules where the TLM needs strengthening, and (d) drive documented corrective action that is verified in the subsequent feedback cycle, the semester (S1 to S6) of the programme, and every student registered for that subject in the given semester. Feedback is collected only after a subject has been substantially covered, so that students have a complete basis to rate the TLM follow

Module wise rating:

Each subject is divided into four modules (M1-M4), corresponding to the four modules defined in the course syllabus. Rather than asking students to rate a subject as a single whole, feedback is collected separately for each module. This delivery is weak, instead of only flagging the subject in general.

Rating Scale

Each module is rated by every student on a 3-point scale:

- 3 - High (TLM followed effectively for that module)
- 2 - Medium (TLM followed adequately, with scope for improvement)
- 1 - Low (TLM followed inadequately for that module)

A 3-point numeric scale was adopted to keep the form quick for students to complete across all subjects and modules of a semester, while still yielding a numeric score that can be directly aggregated into percentages.

Figure 2.13 Sample TLM Feedback from students

TLM Feedback from Students — 2025-2026 Batch — S1

SLNo	Students Name	Communication Skills In English 1001				Mathematics 1 1002				Applied Physics 1 1003				Applied Chemistry 1004				Engineering Graphics 1005			
		M1	M2	M3	M4	M1	M2	M3	M4	M1	M2	M3	M4	M1	M2	M3	M4	M1	M2	M3	M4
1	ABHINAV P S	3	3	2	3	3	3	2	3	2	3	2	3	2	3	3	3	2	2	3	2
2	ADISH K S	3	3	2	3	2	3	2	3	2	3	2	3	2	3	3	3	3	2	3	3
3	ADITHYAN E	2	3	2	2	3	3	2	3	2	3	3	2	3	3	2	3	2	3	2	3
4	AKSHAYA SJI	3	2	3	3	2	2	3	2	3	2	3	3	2	3	2	3	2	3	2	3
5	ALVIN JAISON	2	3	3	2	3	2	3	3	2	3	2	3	2	2	2	3	2	3	3	2
6	AMAYA V	2	3	2	3	3	2	2	3	2	3	2	2	3	3	3	2	3	2	3	3
7	AMBADI M R	3	2	2	3	2	3	3	2	1	2	3	3	2	2	3	3	2	3	2	3
8	ANANDHALAKSHMI C J	2	3	3	2	2	2	3	3	2	3	3	3	3	2	3	3	2	2	3	2
9	ANEENA V J	2	2	3	3	3	3	2	3	3	3	2	3	2	3	2	3	2	3	3	3
10	ANJANA R	2	3	2	3	3	3	2	3	2	3	2	3	2	3	2	3	2	2	3	3
11	ANJANA T S	2	3	2	3	2	3	2	2	3	3	2	3	2	3	3	3	3	2	2	3
12	ARJUN V A	2	3	3	2	3	2	3	3	2	2	3	2	3	2	3	3	3	3	2	3
13	ATHULKRISHNA A S	3	2	3	3	2	3	3	3	3	2	3	3	2	3	2	3	2	3	2	3
14	CHRISTINO V J	2	3	2	2	2	3	3	2	1	2	3	3	2	2	3	3	3	2	3	2
15	GAYATHRI C S	2	3	3	3	3	2	3	3	2	3	2	3	2	3	3	2	3	2	3	2
16	GODWIN RIJU	3	2	2	3	3	3	3	2	3	3	3	2	3	3	3	2	2	3	3	2
17	GOPIKA S	2	2	3	2	3	3	3	2	3	2	3	2	3	3	3	3	2	3	3	2
18	JOSIN JAIN	3	3	3	2	3	2	3	2	2	3	3	2	3	2	3	2	3	2	3	2
19	KISHOR BABU	2	2	3	3	2	3	2	3	3	2	2	3	2	2	3	2	3	2	3	2
20	MIDHUL P M	3	3	2	3	3	2	3	3	3	3	2	3	3	2	3	2	3	3	3	3
21	NEHA P D	3	2	3	2	3	2	3	2	3	2	3	3	3	3	2	3	2	3	2	3
22	RAHUL A R	2	3	3	3	2	3	3	3	2	3	2	3	2	2	3	3	3	2	3	2
23	RIDHA N R	2	3	2	3	2	2	3	3	2	2	3	3	3	2	2	3	3	2	2	3
24	RITHIKA M K	3	2	3	2	3	3	2	3	2	3	3	2	3	3	3	2	3	2	3	3
25	SANJAY C S	3	3	2	3	3	3	3	2	3	3	3	2	2	3	3	3	2	3	3	3
26	SREEHARI V P	3	3	2	3	3	2	3	2	3	3	3	3	2	3	2	3	2	3	3	3
27	SWAPNA P S	3	3	3	2	3	3	3	2	3	2	3	2	3	3	3	3	2	3	2	3
28	VISMAYA T M	2	3	3	3	3	2	3	3	2	2	3	2	3	3	2	2	3	2	2	3
SUM		69	75	71	74	74	72	75	73	66	73	73	74	69	74	74	76	69	70	74	74
PERCENTAGE		82.1%	89.3%	84.5%	88.1%	88.1%	85.7%	89.3%	86.9%	78.6%	86.9%	86.9%	88.1%	82.1%	88.1%	88.1%	90.5%	82.1%	83.3%	88.1%	88.1%
AVERAGE		86.0%				87.5%				85.1%				87.2%				85.4%			

Feedback sheet format

The raw feedback sheet records, for every student: Serial Number, Student Name, and for each subject of the semester, four module scores (M1, M2, M3, M4). This gives a complete student x subject x module data matrix for the semester, for

Administration of the feedback exercise

1. Feedback is administered once per semester, after sufficient coverage of the syllabus, to all students currently registered in that semester.
2. Each student fills in module-wise ratings (M1-M4) for every subject of the semester on the standard feedback sheet.
3. Completed responses are compiled subject-wise and semester-wise by the Department into a consolidated feedback register for analysis.
4. The exercise is repeated identically for every semester (S1-S6) so that data is available for the entire academic year in a uniform format.

Computation Methodology

The consolidated ratings are processed through a four-tier aggregation - module, subject, semester, and academic year - so that any dip at the year level can be traced back to the exact semester, subject, and module responsible.

For each module (M1-M4) of a subject, the scores given by all students are summed. This sum is expressed as a percentage of the maximum possible score (3 x number of students who responded):

$$\text{Module \%} = (\text{Sum of student scores for that module} / (3 \times \text{Number of students})) \times 100$$

A subjects overall TLM feedback percentage is the mean of its four module percentages (M1-M4). This reflects the average effectiveness of the TLM across the complete syllabus of that subject.

$$\text{Subject \%} = (M1\% + M2\% + M3\% + M4\%) / 4$$

The semester average is the mean of the TLM feedback percentages of all subjects taught in that semester. The overall academic year average is the mean of the six semester averages (S1-S6), giving a single consolidated figure representing ' together in a single summary table for the academic year, allowing quick comparison of TLM effectiveness across subjects and across semesters. Subjects whose TLM feedback percentage falls below the overall academic year average are id rather than a fixed cut-off, so the standard automatically adapts to the institutions own current performance level each year rather than remaining static. The current years overall average is compared against the previous academic years ove primarily responsible for a change in trend is specifically identified.

Action taken procedure

- 1. Subjects and modules falling below the overall academic year average are compiled into an Action Taken list.
- 2. This list, along with the relevant module-level scores, is shared with the concerned faculty members and the Head of the Department.
- 3. Faculty are advised on specific corrective measures targeted at the weak module(s) - such as revisiting the pace of delivery, and incorporating additional practical, case-based, or activity-based sessions for that module - rather than a ger
- 4. The corrective measures adopted are documented against the concerned subject and semester for institutional record.

The effect of the corrective action is verified in the subsequent semester or academic years feedback cycle by checking whether the previously flagged subject/module has moved closer to, or above, the overall average. Where improvemen action-verification cycle operates continuously rather than as a one-time exercise.

Figure 2.14 Sample Teaching Learning Method (TLM) Feedback Report

Teaching-Learning Method (TLM) Feedback Report

Academic Year 2025-2026

1. Marking Criteria

Each Student Rates The Teaching-Learning Method (TLM) On 4 Method-Parameters (M1-M4) Per Subject On A 3-Point Scale: 3 - High, 2 - Medium, 1 - Low. The Subject-Wise Percentage Is Calculated From The Sum Of All Student Scores Against The Maximum Possible, And The Semester "Average" Is The Mean Of All Subject Percentages For That Semester.

2. Overall Academic Year Performance

Overall TLM Feedback Average: 85.3%. This Reflects A Decrease Of 0.3 Points Compared To The Previous Academic Year (Stable, Slight Dip In S4).

3. Semester-Wise Tlm Feedback Summary

Semester	Subject	TLM Feedback (%)
S1	Communication Skills In English 1001	86.0%
	Mathematics 1 1002	87.5%
	Applied Physics 1 1003	85.1%
	Applied Chemistry 1004	87.2%
	Engineering Graphics 1005	85.4%
	S1 Average	86.3%
S2	Mathematics Ii 2002	87.2%
	Applied Physics Ii 2003	84.7%
	Environmental Science 2001	86.8%

	Engineering Mechanics 2021	85.1%
	Basic Surveying 2011	86.8%
	S2 Average	86.1%
S3	Advanced Surveying 3011	86.4%

Semester	Subject	TLM Feedback (%)
	Concrete Technology 3012	86.8%
	Building Construction And Construction Materials 3013	85.5%
	Theory Of Structures 3014	85.1%
	S3 Average	86.0%
S4	Geotechnical Engineering 4011	80.7%
	Hydraulics And Irrigation Engineering 4012	82.5%
	Estimating & Costing 4013	81.6%
	Community Skills In Indian Knowledge Sysytem 4001	81.6%
	S4 Average	81.6%
S5	Construction Management And Safety Engineering 5011	87.0%
	Design Of Steel And Rcc Structures 5012	84.8%
	Transportation Engineering 5013	86.6%
	Habitat Technology 5014 B	84.8%
	S5 Average	85.8%
S6	Entrepreneurship & Startup 6001	84.8%
	Public Health Engineering 6011a	86.6%
	Energy Conservation & Management 6032b	84.8%
	Indian Constitution 6002	87.0%
	S6 Average	85.8%

4. Weakest Subjects (Below Overall Average)

Semester	Subject	Tlm Feedback (%)
S4	Geotechnical Engineering 4011	80.7%
S4	Estimating & Costing 4013	81.6%

Semester	Subject	Tlm Feedback (%)
S4	Community Skills In Indian Knowledge Sysytem 4001	81.6%

5. Action Taken

Overall Performance Remained Stable And High (85.3%), Sustaining The Previous Year's Gains. A Mild Dip Was Noted In Semester 4 Subjects (Geotechnical Engineering, Estimating & Costing, Community Skills In Indian Knowledge System), So The Concerned Faculty Were Advised To Review Teaching Pace/Methodology And Incorporate More Practical/Case-Based Sessions For That Semester.

2.2.2 Initiatives to improve the quality of semester tests and assignments (15)

A. Process for Internal semester question paper setting and evaluation and effective process implementation (5)

1. Basis of Question Paper Design

Internal semester question papers are designed by mapping each question to the appropriate cognitive level defined under Blooms Taxonomy Learning Levels (Remember, Understand, Apply, Analyse, Evaluate, Create) and to the specific COs. Internal examinations are not merely tests of recall but are constructed to assess the intended depth of learning and outcome attainment defined for the course, rather than being set in an ad hoc manner by individual faculty discretion.

2. Setting of Question Papers

Based on this mapping, the concerned faculty member sets the question paper for internal examinations, ensuring balanced coverage across modules and an appropriate distribution of questions across the different Blooms levels, in proportion to the weightage assigned to each module.

3. Institutional Vetting through IQAC

The question paper, once set, is not directly used for examination. It is first submitted to the Internal Quality Assurance Cell (IQAC) for scrutiny. This is a critical quality-control checkpoint: it introduces an independent institutional review of the question paper before it is used for examination.

4. Approval Loop

IQAC reviews the paper against the intended learning levels and course outcomes. If the paper is not approved, it is returned to the faculty for revision and re-submission — the process loops back to the setting stage rather than proceeding to examination. This loop at the very first stage ensures that no internally inconsistent or poorly mapped question paper is ever administered to students, catching quality issues before the exam rather than after.

5. Printing and Distribution

Once approved, the finalized question paper is printed and prepared for distribution to students at the time of the internal examination, ensuring that only the IQAC-cleared version is used.

6. Conduct of Internal Examinations

The examination itself is conducted strictly as per the institutions Timetable and Academic Calendar. Anchoring the exam schedule to these two institutional documents ensures internal examinations are conducted in a planned, non-overlapping manner across individual faculty or sections.

7. Evaluation of Answer Scripts

Following the examination, answer scripts are evaluated by the concerned faculty. Evaluation is expected to be carried out against the same Blooms-level and CO mapping used while setting the paper, so that the marks awarded genuinely reflect the student's performance.

8. Publication of Results

Evaluated results are published, making individual student performance available for both the student and the institutions academic records.

9. Calculation of CO Attainment

Using the published results, CO attainment is calculated for each course outcome targeted by that internal examination. This converts raw marks into a quantified, outcome-wise attainment figure, which is the basis for the next — and most in the cycle — step.

10. Attainment Check and Corrective Action

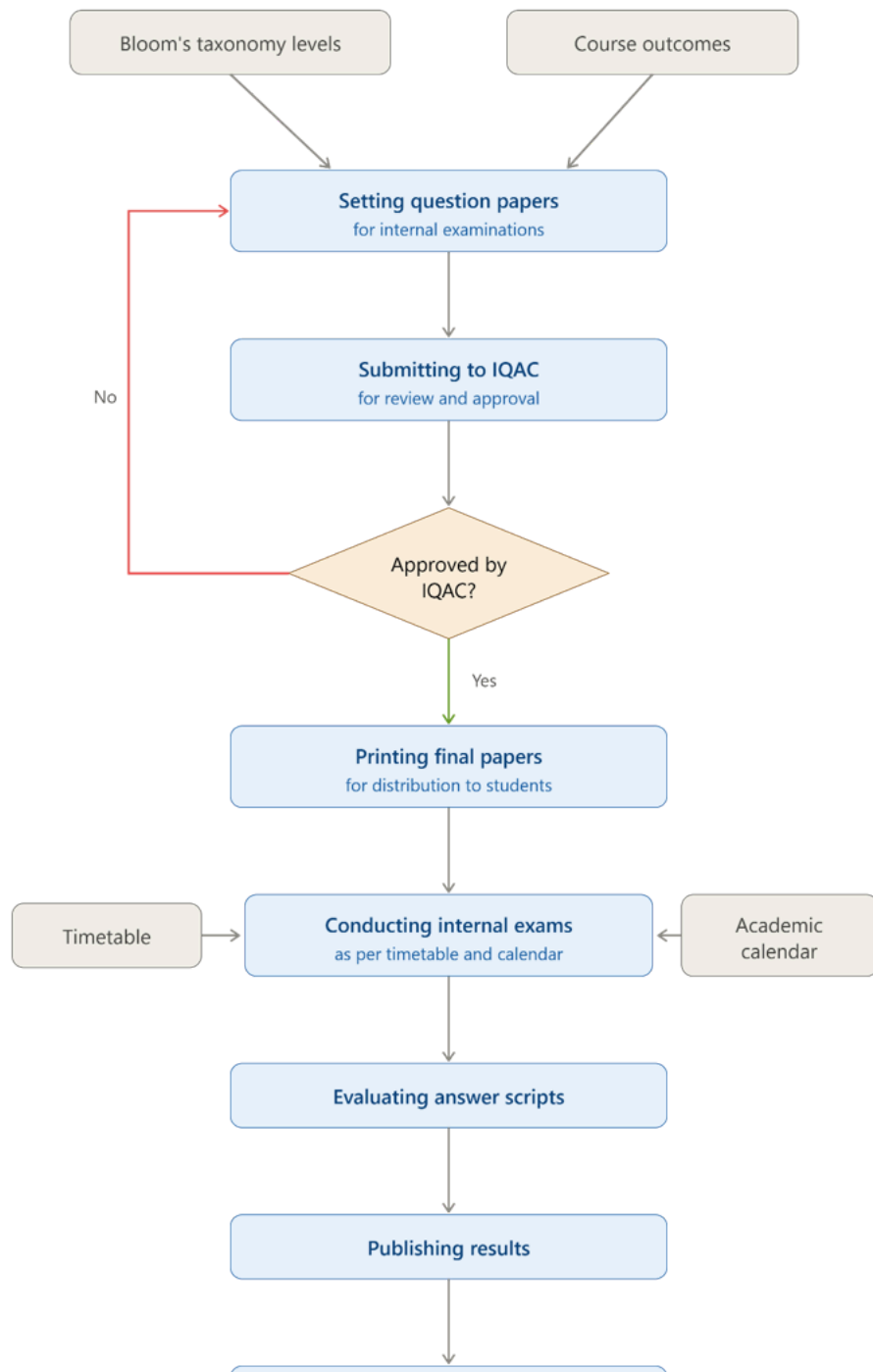
The calculated CO attainment is checked against the pre-defined target level for each CO:

- If the target level is not attained, the institution initiates specific steps to help reach the target attainment level — such as remedial teaching, revision of pedagogy for the concerned modules, additional tutorials, or realignment of questions.
- If the target level is attained, the institution does not treat this as a stopping point. Instead, it takes further steps to raise CO attainment even higher in subsequent cycles — reflecting a philosophy of continuous improvement rather than complacency.

11. Effective Process Implementation

The effectiveness of this process rests on four features built into its design:

- Outcome-driven design at the source — question papers originate from Blooms levels and COs, not from convenience or repetition of past papers, ensuring assessment validity from the first step.
- Independent quality checkpoint (IQAC approval loop) — no question paper bypasses institutional review; the explicit "No → revise and resubmit" loop guarantees this is enforced, not optional.
- Standardised, calendar-driven administration — tying exam conduct to the timetable and academic calendar removes scheduling inconsistency across departments.
- Closed-loop, data-driven follow-up — the process does not end at result publication. CO attainment is computed, checked against targets, and drives a defined corrective or enhancement action every single cycle, and this outcome is tracked over time, making the process cyclical and self-correcting rather than linear and one-time.



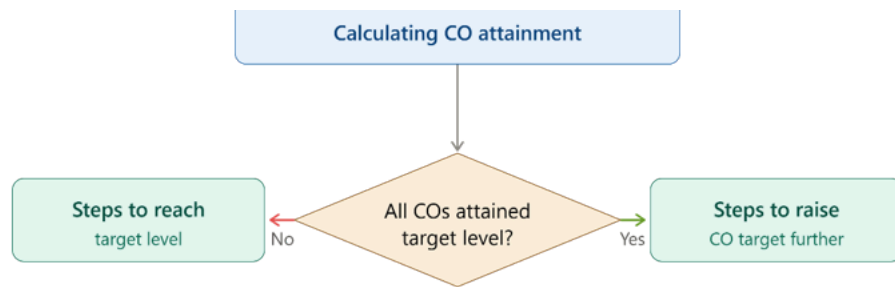
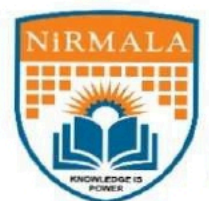


Figure 2.15 Process of conduction of internal assessment

B. Question paper setting taking into account outcomes/learning levels (5)

Figure 2.16 Sample Question paper of summative assessment with Bloom's Taxonomy Level



Nirmala College of Engineering Technology and Management

Nutmeg Gardens, Meloor, Kunnappilly P.O., Chalakkudy, Thrissur Dist., PIN:680311

Approved by AICTE, New Delhi and Affiliated to APJ Abdul Kalam Technological University, State
Board of Technical Education, Kerala.

SUMMATIVE ASSESSMENT 2

Sem : S3	Program : DIPLOMA IN CIVIL ENGINEERING	Course Code 3011	Total Marks 40	Time 2 Hrs
Course Name: Advanced Surveying				

CO: Course Outcome, **Level:** Bloom's Taxonomy Level no (1-6)

Section 1

Answer ALL Questions

Q.no	Questions	Marks	CO	Level
1.	A total station is a combination of..... and.....	1	CO3	1
2.	EDM are used for _____ measurement	1	CO3	1
3.	Electronic theodolite are used for _____ measurement	1	CO3	1
4.	Name any 2 EDM instruments	1	CO3	1
5.	Expand GNSS	1	CO4	1
6.	Expand the term GIS.	1	CO4	1
7.	is the type of photogrammetry in which camera is mounted in an aircraft and is pointed vertically towards the ground.	1	CO4	2
8.	Acquisition of information about an object or phenomenon without making	1	CO4	1

physical contact with the object is

Section 2

Answer Any 6 Questions

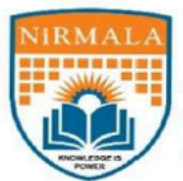
Q.no	Questions	Marks	CO	Level
9.	Explain any 6 component parts of Electronic Theodolite.	3	CO3	2
10.	Describe the advantages of electronic theodolite over non digital theodolite.	3	CO3	3
11.	Explain the uses of total station.	3	CO3	2
12.	Explain measurement with total station.	3	CO3	2
13.	List the four types of Map Projections	3	CO4	2
14.	List out any 6 applications of remote sensing in civil engineering	3	CO4	2
15.	Enumerate the components of GPS receiver	3	CO4	2
16.	Differentiate between aerial and terrestrial photogrammetry	3	CO4	2

Section 3

Answer ALL Questions

Q.no	Questions	Marks	CO	Level
17.	Explain the temporary adjustments in total station set up	7	CO3	2
(OR)				

Table 2.17 Sample question paper of formative assessment with Bloom's Taxonomy Level



Nirmala College of Engineering Technology and Management

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Approved by AICTE, New Delhi and Affiliated to APJ Abdul Kalam Technological University, State Board of Technical Education, Kerala.

FORMATIVE ASSESSMENT 2

Sem : S4	Program : DIPLOMA IN CIVIL ENGINEERING	Course Code 4012	Total Marks 20	Time 483 Hrs 49 Mins
Course Name: Hydraulics and Irrigation Engineering				

CO: Course Outcome, Level: Bloom's Taxonomy Level no (1-6)

Q.no	Questions	Marks	CO	Level
1.	Describe about methods of irrigation.	10	CO3	2
2.	Discuss about cross drainage works	10	CO4	2

Blooms Taxonomy classifies learning into a hierarchy of cognitive levels — Remember, Understand, Apply, Analyse, Evaluate, and Create — progressing from lower-order thinking skills (recall and comprehension) to higher-order thinking is consciously framed to target a specific Blooms level, ensuring that the assessment does not remain confined to testing memory alone but progressively evaluates a students ability to apply, analyse, and evaluate the concepts learnt. Th mapped, before it is further mapped to the Course Outcomes (COs) it is intended to assess.

Mapping Questions to Course Outcomes

Each subjects syllabus is structured into modules, and each module is mapped to one or more defined Course Outcomes. Internal assessment is distributed across two cycles to ensure complete and non-overlapping CO coverage over the semester.

- **First Summative Assessment Test (SAT-1) and First Formative Assessment Test (FAT-1)** — cover **CO1 and CO2**, corresponding to the modules taught in the first half of the semester.
- **Second Summative Assessment Test (SAT-2) and Second Formative Assessment Test (FAT-2)** — cover **CO3 and CO4**, corresponding to the modules taught in the second half of the semester.

This staged split ensures that by the end of the semester, all four course outcomes have been independently assessed at least once through both a summative and a formative instrument, rather than being bunched together in a single comprehensive assessment.

Combining the Two Dimensions — CO and Blooms Level

While setting the question paper for each test, questions are framed along two simultaneous dimensions:

1. **Outcome dimension** — every question is tagged to the specific CO (CO1/CO2 in the first cycle, CO3/CO4 in the second) it is intended to assess.
2. **Cognitive-level dimension** — every question is tagged to a Blooms level, with a deliberate mix ranging from lower-order levels (Remember, Understand) to higher-order levels (Apply, Analyse), so that the paper does not skew toward lower-order levels.

This produces a two-way mapping — a CO × Blooms-level grid — used as the blueprint for setting the paper, ensuring that each CO being tested in that cycle is assessed across more than one cognitive level rather than through a single type of question.

Verification Before Finalization

The mapped question paper (CO-wise and Blooms-level-wise) is reviewed as part of the paper-setting and IQAC-approval process, confirming that: (a) only the COs assigned to that test are covered, (b) all assigned COs are adequately covered, and (c) the paper is suitable for learning for that stage of the course, before the paper is approved for use.

C. COs coverage in class test / mid-term tests and assignments (5)

The mandatory assessment methods for a course include two internal exams (Series Tests) and two assignments. While preparing the course plan, the faculty member decides the portions of the syllabus to be covered in each internal test and the combination of internal tests and assignments across the semester. After each internal test and assignment, the question-wise marks are collected from every student. The mapping of each question number to the course outcome it addresses is noted against the corresponding CO on the facing sheet of the answer script. This question-wise, CO-tagged recording is what makes CO attainment calculation possible after every test and assignment, rather than only at the end of the course.

Table 2.35 Assessment Criteria – Syllabus Revision 2015

Type		Weightage	Marks
Summative	Series Tests	50%	25
Formative	Assignments	30%	15
	Attendance	20%	10
Total		100%	50

Two Series Exams are conducted for 50 marks each, covering two COs each, with a duration of 90 minutes. It will convert into 25 Marks for attainment calculation and internal marks calculation. Two assignments are given, each of 15 marks. Students are encouraged to improve their assignment score, but this third assignment must cover all COs. For courses giving equal weightage to all COs, the mark distribution is as shown below, ensuring all COs are covered and equally weighted:

Table 2.36: Sample coverage of course outcomes in Rev 2015 Scheme

Type	CO1	CO2	CO3	

Series Test 1	ü	ü		
Series Test 2			ü	
Assignment 1	ü	ü		
Assignment 2			ü	

Table 2.37 Assessment Criteria – Syllabus Revision 2021

Type		Weightage	Marks
Summative	Series Tests	40%	20
Formative	Assignments	40%	20
	Attendance	20%	10
Total		100%	50

Two Series Exams are conducted for 40 marks each, covering two COs each, with a duration of 2 hours. It will convert into 20 Marks for attainment calculation and internal marks calculation. Two assignments are given, each of 20 marks wish to improve their assignment score, but this third assignment must cover all COs. For courses giving equal weightage to all COs, the mark distribution is as shown below, ensuring all COs are covered and equally weighted:

Table 2.38: Sample coverage of course outcomes in Rev 2021 Scheme

Type	CO1	CO2	CO3	
Series Test 1	ü	ü		
Series Test 2			ü	
Assignment 1	ü	ü		
Assignment 2			ü	
Assignment 3	ü	ü	ü	

2.2.3 Quality of Experiments (15)

A. Experimental methodologies (5)

- **Laboratory Manuals:** A laboratory manual is prepared for each laboratory course by subject experts from various polytechnics affiliated with the **Kerala State Board of Technical Education**, under the guidance of **SITTTR**.
- **Laboratory Courses:** The Diploma in Civil Engineering programme comprises:
 - **First Year:** 6 laboratory courses
 - **Second Year:** 7 laboratory courses
 - **Third Year:** 7 laboratory courses
- **Batch System:** To ensure individual attention and effective supervision, each class is divided into **two batches**.
- **Faculty Allocation:** A faculty member is assigned to each batch to guide students during laboratory sessions.
- **Laboratory Plan:** A systematic **laboratory plan** is prepared for every laboratory course, specifying the experiments, schedule, requirements, and expected learning outcomes.
- **Theory–Laboratory Integration:** Most laboratory courses are associated with a corresponding **theory course**, enabling students to apply theoretical concepts through practical experiments.
- **Experimental Methodology:** Laboratory experiments are conducted following a systematic methodology that promotes understanding, practical skills, observation, measurement, analysis, and interpretation of results.

Most of these laboratory courses have an associated theory course, as listed below.

Table 2.39 Mapping of theory courses with their associated lab courses – Revision 2015

SYLLABUS REVISION 2015						
Theory Course						
Sl No.	Sem	Course Code	Course Name	Sl No.	Sem	Course Code
1	S1	1003	Engineering Physics I	1	S1 & S2	2007
2	S1	1004	Engineering Chemistry I			
3	S2	2003	Engineering Physics II			
4	S2	2004	Engineering Chemistry II			
5	S2	2011	Surveying I	2	S2	2019
6	S2	2011	Surveying I	3	S3	3017

7	S3	3012	Surveying II			
8	S3	3011	Construction Materials & Engineering	4	S3	3019
9	S3	3011	Construction Materials & Engineering	5	S3	3018
10	S2	2011	Surveying I	6	S4	4019
11	S3	3012	Surveying II			
12	S4	4011	Hydraulics	7	S4	4018
13	S3	3014	Building Planning & Drawing	8	S4	4017
14	S5	5013	Geotechnical Engineering	9	S5	5018
15	S5	5015	Structural Design I	10	S5	5019
14	S3	3013	Theory of structure I	11	S6	6018
15	S4	4014	Theory of structure II			
16	S6	6012	Environmental Engineering	12	S6	6019

Table 2.40 Mapping of theory courses with their associated lab courses – Revision 2021

SYLLABUS REVISION 2021						
Theory Course						
SI No	Sem	Course Code	Course Name	SI No.	Sem	Course Code
1	S1	1003	Applied Physics I	1	S1	2006
2	S2	2003	Applied Physics II		S2	

3	S1	1004	Applied Chemistry	2	S1	1007
4	S2	2021	Engineering Mechanics	3	S2	2029
5	S2	2011	Basic Surveying	4	S2	2019
6	S3	3011	Advanced Surveying	5	S3	3016
				6	S4	4016
7	S3	3012	Concrete Technology	7	S3	3015
8	S3	3013	Building Construction & Construction Materials	8	S3	3017
9	S3	3014	Theory of Structures	9	S6	6018
10	S4	4011	Geotechnical Engineering	10	S4	4019
11	S4	4012	Hydraulics & Irrigation Engineering	11	S4	4017
12	S4	4013	Estimating & Costing	12	S4	4018
13	S5	5012	Design of Steel and RCC Structures	13	S5	5018
				14	S6	6017
14	S5	5013	Transportation Engineering	15	S5	5017
15	S6	6011A	Public Health engineering	16	S6	6019

B. Innovative experiments including industry attached practices, virtual labs (5)

Table 2.41 Details of virtual labs

Details of Virtual Lab Courses			
Sl. No	Name of course	List of Experiment	Virtual Lab with link
1	Material Testing Lab	1. Brinell hardness Test	Strength of Material Lab https://sm-nitk.vlabs.ac.in/-area-civil-engineeri
2	Environmental Engineering Lab	1. Determine dissolved solids as per BIS	Environmental Engineering Lab https://eel-nitk.vlabs.ac.in/-area-civil-engineer
3	Transportation Engineering Lab (5017) - Rev 2021	1. Crushing Value of Aggregate	Transportation Engineering Lab https://ts-nitk.vlabs.ac.in/area
		2.Impact Test on Aggregate	
		3.Los Angeles Abrasion Test on Aggregate	
		4.Ductility Test on Bitumen	
		5.Softening Point Test on Bitumen	
		6.Penetration Test on Bitumen	
		7.Specific Gravity Test on Bitumen	
4	Public Health Engineering Lab (6019) – Rev 2021	1. Determine dissolved solids as per BIS	Environmental Engineering Lab https://eel-nitk.vlabs.ac.in/-area-civil-engineer
		2. Determine BOD of given sample of sewage	

C. Relevance to outcomes (5)

Table 2.42 Relevance to Outcomes – Laboratory Experiments

2007- ENGINEERING SCIENCE LAB**Course Outcome**

CO1

Measure physical quantities using instruments and determine focal length of lenses using optical methods.

CO2

Determine spring constant, verify Ohm's law and calculate resistance of conductors.

CO3

Perform volumetric analysis and standardize chemical solutions.

CO4

Estimate chemical properties such as pH, metal content using EDTA and titration methods.

Sl No**List of Experiments**

1

Measurement of dimensions using Vernier Calipers

2

Measurement of dimensions using Screw Gauge

3

Determination of Focal Length of a Convex Lens by Displacement Method

4

Determination of Velocity of Sound in Air using Resonance Column

5

Determination of Spring Constant using Hookes Law

6

Determination of Acceleration due to Gravity using Simple Pendulum

7

Verification of Law of Resistances

8

Determination of Specific Resistance of a Material using Meter Bridge

9

Determination of Internal Resistance of a Primary Cell using Potentiometer

10

Plotting Characteristics of a Photoelectric Cell

11	Determination of Mass of a Body using Moment Bar
12	Determination of Mass of a Body by Parallelogram Method (Lamis Theorem)
13	Verification of Ohms Law and Determination of Resistance of a Wire
14	Determination of Coefficient of Viscosity using Stokes Method
15	Determination of Relative Density using U-Tube Apparatus
16	Standardization of Hydrochloric Acid (HCl)
17	Standardization of Sodium Hydroxide (NaOH)
18	Estimation of Sodium Hydroxide (NaOH)
19	Estimation of Potassium Hydroxide (KOH)
20	Estimation of Sodium Carbonate (Na_2CO_3)
21	Estimation of Potassium Carbonate (K_2CO_3)
22	Estimation of Hydrochloric Acid (HCl)
23	Estimation of Nitric Acid (HNO_3)
24	Estimation of Sulphuric Acid (H_2SO_4)
25	Estimation of Oxalic Acid

26	Standardization of Potassium Permanganate (KMnO ₄)
27	Estimation of Oxalic Acid using KMnO ₄
28	Estimation of Ferrous (Fe ²⁺) Ion
29	Estimation of Mohrs Salt
30	Determination of pH of a Solution
31	Estimation of Zinc using EDTA
32	Estimation of Magnesium using EDTA
2008- WORKSHOP PRACTICE	
Course Outcome	
CO1	Perform various exercises on given drawings and specifications in the Carpentry and Foundry & Casting shops.
CO2	Perform various exercises on given drawings and specifications in the Smithy, Forging and Fitting shops.
CO3	Perform various exercises on given drawings and specifications in the Sheet Metal shop.
CO4	Perform various exercises on given drawings and specifications in the Welding shop.
Sl No	List of Experiments
1	Marking and Measuring Exercise
2	Sawing Exercise

3	Planning Exercise
4	Chiseling Exercise
5	Grooving Exercise
6	Rebating Exercise
7	Preparation of Carpentry Joints
8	Preparation of Moulding Sand
9	Preparation of Single Piece Mould
10	Preparation of Double Piece Mould
11	Preparation of Three-Piece Mould
12	Ferrous Metal Casting using Simple Pattern
13	Non-Ferrous Metal Casting using Simple Pattern
14	Building Fire in Furnace

15	Upsetting Operation
16	Bending Operation
17	Drawing Operation
18	Setting Down Operation
19	Pinching Operation
20	Cutting Operation
21	Forge Welding Exercise
22	Cutting Exercise (Fitting)
23	Filing Exercise
24	Scribing Exercise
25	Preparation of Simple Fitting Joint
26	Sheet Cutting

27	Development of Sheet Metal Surface
28	Folding Operation
29	Bending Operation
30	Pipe Bending
31	Preparation of Right-Angle Joint
32	D.C. Arc Welding
33	A.C. Arc Welding
34	Gas Welding
35	Edge Preparation (V & Double V Groove)
36	Horizontal, Flat and Vertical Welded Joints
2019- SURVEY PRACTICAL I	
Course Outcome	
CO1	Perform chain and tape surveying for small civil engineering works.

CO2	Perform plane table surveying for mapping and layout preparation.
CO3	Perform chain and compass surveying in field conditions.
CO4	Perform levelling practice for determining elevations and gradients.
S No	List of Experiments
1	Study of instruments used in Chain Surveying
2	Plotting of a Building using Chain Survey
3	Measurement of Area of a Given Plot by Cross Staff Survey
4	Measurement of Area of a Given Plot by Triangulation Method
5	Plotting Various Objects in a Given Field using Radiation Method
6	Determination of Horizontal Distance between Two Inaccessible Points by Intersection Method
7	Plotting of a Given Traverse
8	Determination of Horizontal Distance between Two Inaccessible Points using Cosine Rule
9	Determination of Horizontal Distance between Two Inaccessible Points by Baseline Method
10	Study of Levelling Instrument and Simple Levelling
11	Determination of Reduced Levels (RL) of Given Stations with Respect to a Given Bench Mark (Including Inverted Reading)

12	Determination of Level Difference between Two Given Points by Differential Levelling (Height of Collimation Method)
13	Establishing a Bench Mark by Taking Fly Levels (Rise and Fall / Height of Collimation Method)
Content beyond the syllabus	
14	Conduct cross staff survey and find the area
15	Set up and orient the plane table
3017- SURVEY PRACTICAL II	
Course Outcome	
CO1	Perform longitudinal levelling, cross-sectioning and contouring.
CO2	Conduct theodolite survey, identify its parts and carry out temporary adjustments.
CO3	Conduct theodolite traversing and measure horizontal angles using different methods.
CO4	Use theodolite for computation of height and distance.
S No	List of Experiments
1	Longitudinal Sectioning and Cross Sectioning
2	Spot Levelling for Preparing Contour Map
3	Preparation of Contour Map

4	Temporary Adjustments of Theodolite
5	Measurement of Horizontal Angles by Different Methods
6	Measurement of Vertical Angles
7	Determination of Difference in Elevation and Distance Between Two Objects (Single Station Method)
8	Determination of Difference in Level and Horizontal Distance Between Two Points by Observations from the Ends of a Baseline
9	Determination of Height of a Tall Object (Base Accessible)
10	Determination of Height of a Tall Object (Base Inaccessible)
11	Theodolite Traverse, Latitude and Departure, Preparation of Gales Traverse Table, Traverse Adjustment, Plotting, and Area Calculation
Content beyond the syllabus	
12	Conduct theodolite survey
13	Conduct the traversing by the methods of included angle
3019- CONSTRUCTION ENGG. LAB	
Course Outcome	
CO1	Set out a small building in the field and perform brick masonry.
CO2	Perform plumbing practice including pipe fittings and water supply service connections.

CO3	Perform painting, white washing and colour washing on wood and metal surfaces.
CO4	Perform single-phase electrical wiring for lighting circuits.
S No	List of Experiments
1	Setting Out of a Residential Building
2	Brick Masonry – English Bond
3	Brick Masonry – Flemish Bond
4	Brick Masonry – Rat Trap Bond
5	Identification of Plumbing Tools, Fittings and Sanitary Wares
6	Thread Cutting on GI and PVC Pipes
7	Pipe Fittings and Installation of Taps, Showers, etc.
8	Service Connection from Water Supply Mains
9	Installation of Closets, Wash Basins, Flushing Cisterns and Flushing Valves
10	Connection of Different Types of Water Traps

11	Connection of Drainage to Public Drainage System
12	Water Connections to Plumbing and Sanitary Appliances
13	Painting on Wood Work
14	Painting on Metal Surfaces
15	White Washing and Colour Washing
16	Painting with Distempers and Emulsion Paints
17	Single Phase Wiring – One Lamp Controlled by One Switch
18	Single Phase Wiring – One Lamp Controlled by Two Switches
19	Connections to Plug & Socket, DP & TP Main Switch, MCB, ELCB, Earthing and Lightning Arrester
Content beyond the syllabus	
20	Set out of small building
3018- CONCRETE LAB	
Course Outcome	

CO1	Conduct and interpret the test results of cement as per IS Codes.
CO2	Conduct the test of concrete and design of concrete mix as per IS Codes.
CO3	Conduct and interpret the test results of coarse and fine aggregates as per IS Codes.
S No	List of Experiments
1	Fineness Test on Cement
2	Specific Gravity Test on Cement
3	Consistency Test on Cement
4	Setting Time Test on Cement
5	Soundness Test on Cement
6	Slump Test
7	Compaction Factor Test
8	Compressive Strength Test on Concrete Cubes
9	Concrete Mix Design by IS Code Method
10	Preparation and Comparison of Concrete Mix
11	Bulking of Sand

12	Void Ratio, Bulk Density, Porosity and Specific Gravity Test on Fine and Coarse Aggregates
13	Sieve Analysis of Fine and Coarse Aggregates
14	Flakiness Index Test
15	Elongation Index Test
Content beyond the syllabus	
16	Effect on workability in admixtures
17	Self-compacting concrete
4019- SURVEY PRACTICAL III	
Course Outcome	
CO1	Find the height and distances using a tacheometer.
CO2	Set out curves by different methods.
CO3	Use Total Station for surveying applications.
CO4	Conduct a survey of a given plot and prepare a survey report.
S No	List of Experiments
1	Determination of Stadia Constants
2	Stadia Tacheometry

3	Tangential Tacheometry
4	Determination of Gradient of a Line by Tacheometry
5	Computation of Elements of a Simple Circular Curve
6	Setting Out of Simple Circular Curve by Offset from Long Chord
7	Setting Out of Simple Circular Curve Using a Single Theodolite
8	Temporary Setting of Total Station
9	Traversing Using Total Station
10	Survey in Prism Mode
11	Survey in Non-Prism Mode
12	Remote Height Measurement
13	Determination of Difference in Elevation and Distance Between Objects
14	Tacheometry Using Electronic Theodolite
15	Determination of Coordinates Using GPS

16	Determination of Area of a Plot Using Total Station (With and Without Shifting)
17	Contouring Using Total Station
18	Preparation of Contour Map
19	Setting Out and Staking Using Total Station
Content beyond the syllabus	
20	Conduct plane table survey and solve two point and three-point problems
4018-HYDRAULICS LAB	
Course Outcome	
CO1	Verify Bernoulli's theorem and determine the coefficient of Venturimeter and orifices, notches
CO2	Determine hydraulic coefficients of pipe friction's discharge of an open channel.
CO3	Study turbines, pumps and hydraulic ram.
S No	List of Experiments
1	Verification of Bernoulli's Theorem
2	Test on Venturimeter
3	Test on Orifices

4	Test on Notches
5	Test on Pipe Friction Apparatus
6	Test on Flow through Open Channel
7	Test on Turbines
8	Test on Centrifugal Pump
9	Test on Reciprocating Pump
10	Test on Hydraulic Ram
Content beyond the syllabus	
11	Study performance of pumps and turbines
4017-COMPUTER AIDED DRAFTING LAB	
Course Outcome	
CO1	Do the preliminary settings of CAD work sheet
CO2	Developing detailed 2D drawing
CO3	Develop detailed 3D drawing
CO4	Structural detailing using CAD
S No	List of Experiments

1	Preliminary Settings of CAD Worksheet
2	Drawing Simple Shapes
3	Editing Drawings
4	Dimensioning and Adding Text
5	2D Drawing of Simple Structures
6	2D Drawing of Single-Storeyed Building (Plan, Elevation & Section)
7	2D Drawing of Double-Storeyed Building (Plan, Elevation & Section)
8	Pictorial Drawing of Simple Structures
9	Generation of Different Views Including Perspective View
10	Isometric Drawing of Simple Buildings
11	Wireframe Modelling
12	Surface Modelling

13	Solid Modelling
14	3D Modelling of Simple Objects and Buildings
15	Rendering of 3D Models
16	Structural Detailing of Beams
17	Structural Detailing of Lintel with Sunshade
18	Structural Detailing of Staircase
19	Structural Detailing of Column with Footing
20	Structural Detailing of Slabs
21	Plotting Drawings with Title Block on Standard Paper Size
Content beyond the syllabus	
22	Building plan
5019-COMPUTER APPLICATION LAB	
Course Outcome	

CO1	Estimate the time required for completing the project using management software
CO2	Carryout the analysis and design of structures and report the details using a design software
CO3	Design the concrete mix for a given strength and workability using any available concrete mix design package
CO4	Prepare estimate of buildings using estimation package
S No	List of Experiments
1	Project Scheduling Using MS Project
2	Task Identification and Duration Estimation
3	Resource Assignment and Task Linking
4	Critical Path Analysis
5	Structural Analysis Using Design Software
6	Structural Design Using Design Software
7	Concrete Mix Design Using Concrete Mix Design Software
8	Concrete Mix Design Using Software
9	Surveying Problems Using Surveying/GIS Software
10	Digitization of Map and Linking Attribute Data

11	Data Tabulation and Graph Preparation Using Electronic Spreadsheet
12	Detailed Quantity Estimation
13	Rate Analysis
14	Preparation of Abstract of Cost Using Estimator Software
Content beyond the syllabus	
15	Auto CAD basic commands and simple drawing
5018-GEOTECHNICAL ENGINEERING LAB	
Course Outcome	
CO1	Determine the index properties of soil.
CO2	Determine the coefficient of permeability of soil and Evaluate OMC and MDD by compaction test And also Determine shear strength parameters and compressio
S No	List of Experiments
1	Specific Gravity Test of Soil
2	Water Content Test
3	Void Ratio and Porosity Determination
4	Sieve Analysis of Soil

5	Hydrometer Analysis
6	Core Cutter Test
7	Sand Replacement Test
8	Atterberg Limits Test (Liquid Limit, Plastic Limit, Shrinkage Limit & Plasticity Index)
9	Constant Head Permeability Test
10	Variable Head Permeability Test
11	Proctor Compaction Test
12	Direct Shear Test
13	Consolidation Test
Content beyond the syllabus	
14	Grain size analysis
6018- MATERIAL TESTING LAB	
Course Outcome	
CO1	determined the mechanical properties of mild steel and brass
CO2	determined the mechanical properties of timber, spring and brick
S No	List of Experiments

1	Tension Test on Mild Steel/Tor Steel Rod
2	Impact Test (Izod and Charpy)
3	Hardness Test (Brinell and Rockwell)
4	Torsion Test on Mild Steel and Brass Rods
5	Double Shear Test on Steel and Brass Rods
6	Deflection Test on Steel and Brass Beams
7	Bending Test on Wooden Beams
8	Compression Test on Wood
9	Spring Test (Open Coiled and Closed Coiled Helical Springs)
10	Compression Test on Clay Brick
11	Water Absorption Test on Clay Brick
Content beyond the syllabus	
12	Concrete cube test
13	Steel tension test
6019- ENVIRONMENTAL ENGINEERING LAB	

Course Outcome	
CO1	Determine the physical characteristics of water.
CO2	Determine the chemical characteristics of water
S No	List of Experiments
1	pH Test of Water Sample
2	Turbidity Test of Water Sample
3	Total Solids Test of Water Sample
4	Chloride Test of Water Sample
5	Alkalinity Test of Water Sample
6	Acidity Test of Water Sample
7	Total Hardness Test of Water Sample
8	Residual Chlorine Test of Water Sample
Content beyond the syllabus	
9	Hardness test
10	BOD and COD test
1007-Applied Chemistry Lab	
Course Outcome	

CO1	Quantitatively analyse solutions accurately.
CO2	Standardize EDTA and analyse the hardness of water
CO3	Determine the pH of solutions using different techniques.
CO4	Apply the principles of electrochemistry in quantitative analysis.
S No	List of Experiments
1	Preparation of Standard Solution of Oxalic Acid
2	Standardization of HCl using Standard Sodium Carbonate
3	Estimation of NaOH using Standard HCl
4	Strength of KOH using Standard Oxalic Acid
5	Standardization of EDTA using ZnSO ₄
6	Hardness of Water using EDTA
7	pH Meter
8	Universal Indicator pH Test Paper
9	Conductivity using Conductometer
10	Verification of First Law of Electrolysis
11	Measurement of EMF using Daniel Cell

1008-Introduction to IT Systems Lab**Course Outcome**

CO1

Utilize the basic functions and features of computer, Operating System and Internet applications.

CO2

Make use of Stand-alone and Cloud-based office tools to prepare documents, spreadsheets and presentations.

CO3

Develop algorithms and flowcharts for solving simple problems.

CO4

Develop Python programs to solve simple problems.

S No**List of Experiments**

1

Demonstrate basic functions of Computer, hardware, ports/interfaces

2

Operating system functions, file & directory management

3

Use web browsers, search engines, email

4

Features of OpenOffice

5

OpenOffice Writer

6

OpenOffice Calc

7

OpenOffice Impress

8

Cloud office tools

9

Algorithms and flowcharts

10

Python I/O and arithmetic

11	if/else programs
12	Iterative constructs
13	Open-ended project
006-Applied Physics Lab	
Course Outcome	
CO1	Select appropriate measuring tools and make measurements with accuracy and precision.
CO2	Apply and illustrate the concepts of mechanics and properties of matter through experiments
CO3	Experiment with lens, prism and glass slab to realize the basic laws of ray optics.
CO4	Make use of V- I characteristics of conductors and semiconductors to determine the resistance of materials.
S No	List of Experiments
1	Vernier Calipers: To determine the volume of a spherical/cylindrical body and a test tube
2	Screw Gauge: To determine the diameter of a wire, solid ball and thickness of glass plate
3	Spherometer: To determine the radius of curvature of a spherical surface
4	Mercury Thermometer: To measure room temperature and temperature of a hot bath
5	Hookes Law: To determine the force constant of a spring
6	Stokes Law: To determine the coefficient of viscosity of a liquid
7	Parallelogram Law of Forces
8	Moment Bar: To determine the mass of a body

9	U-Tube Apparatus: To determine the relative density of a liquid
10	Flywheel: To determine the moment of inertia
11	Simple Pendulum: To determine acceleration due to gravity
12	Resonance Column: To determine the velocity of sound in air
13	Cantilever: To determine the time period of oscillation
14	Convex Lens: To determine focal length and power by u-v method
15	Snells Law: To verify the laws of refraction
16	Ohms Law: To verify V-I characteristics
17	Laws of Resistances: Series and Parallel Combination
18	Semiconductor Diode: To draw V-I characteristics and determine knee voltage
19	Potentiometer: To determine internal resistance/comparison of EMFs
20	Meter Bridge: To determine specific resistance of a wire
2008-Communication Skills in English Lab	
Course Outcome	
CO1	Use words, phrases and sentences accurately and with correct pronunciation in real life situations
CO2	Listens to and comprehends the substance and central idea of simple narratives and descriptions.
CO3	Use apt language functions while making statements, asking questions, giving instructions, and reporting events.
CO4	Narrate simple experiences and series of events to convey its essence and intention and present ideas coherently, confidently and with clarity in debates, discussions

S No	List of Experiments
1	Listen to the correct pronunciation of words including stress and accent
2	Comprehend the meaning of words, phrases and sentences and use them in real-life situations
3	Listen to simple narratives, conversations and descriptions
4	Understand the gist/central idea of narratives and descriptions and convert them into various discourses
5	Role-play a typical workplace situation using proper language functions
6	Speak with ease using the language functions needed for different situations
7	Speak about simple experiences and events with correct grammar
8	Take part in debates and discussions confidently and convey the intended meaning effectively
2009-Engineering Workshop Practice	
Course Outcome	
CO1	Identify the safety precautions, tools and devices required to make carpentry joints
CO2	Make use of various tools, machines, instruments and power tools used in the Fitting shop to make fitting joints
CO3	Make use of various tools, machines, instruments and power tools used in the Welding shop to make welding joint.
CO4	Utilize different sheet metal tools and measuring instruments to make sheet metal joints.
CO5	Make use of various tools and accessories to practice electrical wiring, motor connection and soldering
S No	List of Experiments
1	Explain safety precautions, demonstrate wood working tools/equipment and power tools

2	Demonstrate wood working processes – Marking, Planning, Cutting, Chiseling and Grooving
3	Construct an open halved joint (T Joint/Cross Halved Joint)
4	Explain safety precautions and demonstrate fitting shop tools, machines and power tools
5	Demonstrate fitting operations – Measuring, Marking, Cutting and Filing
6	Construct simple fitting joints (L Joint/T Joint/V Joint)
7	Explain safety precautions and demonstrate welding tools and protective devices
8	Demonstrate arc welding machine and practice welding
9	Construct straight line welding and butt joint welding
10	Explain safety precautions and demonstrate sheet metal tools
11	Demonstrate sheet metal operations – Cutting, Bending and Edging
12	Construct simple sheet metal joints
13	Explain safety precautions and demonstrate electrical wiring tools and accessories
14	Wire one lamp controlled by one switch (conduit wiring)
15	Staircase wiring and single/three-phase induction motor connection with DOL starter
16	Demonstrate soldering and fabricate a simple electrical/electronic circuit

2029-Engineering Mechanics Lab	
Course Outcome	
CO1	Identify the force systems for given conditions by applying the basics of mechanics.
CO2	Determine unknown forces of different engineering systems.
CO3	Infer center of gravity and mass moment of inertia.
CO4	Determine strains in mutually perpendicular directions under axial tension. Determine the co-efficient of friction on a plane through
S No	List of Experiments
1	Identify various apparatus related to Engineering Mechanics
2	Determination of resultant of concurrent force system using force table (Law of Polygon)
3	Determination of resultant of concurrent force system graphically
4	Determination of resultant of parallel force system graphically
5	Verify Lamis theorem by finding forces in various members of jib crane
6	Determine support reactions for simply supported beam

7	Obtain support reactions of beam using graphical method by drawing link polygon
8	Determination of centroid of different laminae
9	Determination of mass moment of inertia of flywheel and shaft
10	Verify the law of moments using a bell crank lever
11	Determination of strain under tensile loading
12	Determination of coefficient of friction between two surfaces on a horizontal plane
13	Determination of coefficient of friction between two surfaces on an inclined plane
14	Open-ended experiment
2019- BASIC SURVEYING LAB	

Course Outcome		
CO1	Plot land area using principles of chain survey and plane table survey	
CO2	Plot land area by compass survey.	
CO3	Determine level difference between stations in the field	
CO4	Sketch longitudinal and cross profiles.	
S No	List of Experiments	CO
1	Measurement of Distance Between Two Intervisible Survey Stations Using Tape	1
2	Determination of Area of an Open Field Using Tape and Cross Staff Survey	1
3	Plotting an Area by Plane Table Survey – Radiation Method	1
4	Plotting an Area by Plane Table Survey – Intersection Method	1
5	Plotting an Area by Radiation Method Using Tape and Compass	2
6	Determination of Inaccessible Distances Using Compass and Tape	2
7	Plotting a Closed Traverse Using Tape and Compass	2
8	Determination of Level Difference by Simple Levelling	3
9	Determination of Reduced Levels by Rise and Fall Method	3
10	Determination of Reduced Levels by Height of Instrument (HI) Method	3
11	Fly Levelling with Double Check Using Dumpy Level/Auto Level and Levelling Staff	4
12	Plotting Longitudinal Profile for Road Alignment	4
Content beyond the syllabus		
13	Area calculation trapezoidal and Simpson	2

3015- CONCRETE TECHNOLOGY LAB**Course Outcome**

CO1

Determine different properties of cement

CO2

Determine the physical properties of fine aggregate

CO3

Determine the physical properties of coarse aggregate

CO4

Prepare concrete of desired compressive strength and specification

S No**List of Experiments****C**

1

Determination of Fineness of Cement (Sieve Test) and Specific Gravity

2

Determination of Standard Consistency, Initial Setting Time and Final Setting Time of Cement

3

Determination of Soundness and Compressive Strength of Cement

4

Determination of Silt Content in Sand

5

Determination of Bulking of Sand

6

Determination of Bulk Density of Fine Aggregate

7

Determination of Water Absorption of Fine Aggregate

8

Determination of Fineness Modulus of Fine Aggregate by Sieve Analysis

9

Determination of Bulk Density of Coarse Aggregate

10

Determination of Water Absorption of Coarse Aggregate

11

Determination of Fineness Modulus of Coarse Aggregate by Sieve Analysis

12

Determination of Workability of Concrete by Slump Cone Test and Compacting Factor Test

13

Preparation of Concrete Mix of a Particular Grade

14	Determination of Compressive Strength of Concrete for 7 and 28 Days	
15	Demonstration of Non-Destructive Testing (NDT) Equipment	
Content beyond the syllabus		
16	Concrete mix with fly ash	3
3016- SURVEYING LAB		
Course Outcome		
CO1	Prepare contour maps using leveling instrument.	
CO2	Measure the horizontal angle using theodolite	
CO3	Measure the vertical angle using theodolite	
CO4	Perform traversing using theodolite and prepare plans	
S No	List of Experiments	C
1	Taking Spot Levels and Preparing a Contour Map	
2	Temporary Adjustments of Theodolite	
3	Measurement of Horizontal Angles by Repetition Method	
4	Measurement of Horizontal Angles by Reiteration Method	
5	Prolonging a Line Using Theodolite	
6	Measurement of Bearing of a Line Using Theodolite	
7	Determination of Difference in Elevation and Distance Between Two Stations by Measuring Vertical and Horizontal Angles (Single Station Method)	
8	Determination of Difference in Level and Horizontal Distance Between Two Points by Observation from the Ends of a Baseline	
9	Determination of Elevation of a Tall Object (Base Accessible) Using Theodolite	

10	Determination of Elevation of a Tall Object (Base Inaccessible) Using Theodolite	
11	Theodolite Traversing and Recording Observations	
12	Computation of Included Angles, Latitude and Departure, and Preparation of Gale's Traverse Table	
13	Plotting the Traverse and Determining the Area	
Content beyond the syllabus		
14	Simple curve rankine methode	3
3017- CONSTRUCTION MATERIALS LAB		
Course Outcome		
CO1	Perform setting out of a building and demonstrate brick masonry	
CO2	Perform the plumbing works and bar bending	
CO3	Carry out the painting works on different surfaces	
CO4	Execute the electrical wiring works	
S No	List of Experiments	C
1	Measure dimensions of 10 bricks and find average dimensions, weight and density. Perform field tests- dropping striking and scratching by nail and correlate the result obtained	
2	Setting out a small building in field	
3	Identify various layers and types of soil in foundation pit by visiting at least 3 construction sites in different location of city and prepare report consisting photograph and samples.	
4	Construct one brick thick and one and half brick thick wall corner in English bond and Flemish bond.	
5	Construct one brick thick wall T-junction, one brick thick pier in English bond and one and a half brick thick pier in English bond and Flemish bond	
6	Identify and sketching of tools and fittings in plumbing and sanitary wares	

7	Perform thread cutting on G I pipe and PVC pipes 20mm and 25mm	
8	Carryout fitting of pipes, special, taps, shower connect different types of water traps. Installation of closets, wash Bains, flushing cisterns, flushing valves	
9	Identifying the different types of flooring tiles such as vitrified tiles, ceramic tiles, glazed tiles, mosaic tiles, anti-skid tiles, chequered tiles, paving blocks and prepare report about the specification	
10	Preform bar bending for hooks, stirrups, and crank bars	
11	Perform white washing and colour washing	
12	Perform painting with enamel and emulsion paints	
13	Performs single phase wiring one lamp controlled by one switch and one lamp controlled by two switches.	
14	Perform connections to plug and socket DP and TP main switch, MB and ELCB, earthing lightning arrester	

Content beyond the syllabus

15	Testing of cements and fine aggregate and coarse aggregate	1
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3018- BUILDING DRAWING AND ESTIMATION LAB

Course Outcome

CO1	Gain knowledge of basic principles of building drawing and to estimate the quantity of woodwork and concrete (elements of buildings).
CO2	Apply principles of building planning and prepare line plans by following the building rules
CO3	Sketch service plans
CO4	Prepare submission drawings

S No

List of Experiments

1	Conventions and Symbols for Building Materials, Structural Elements, Sanitary and Electrical Installations (as per IS 962)
2	Sketching and Estimation of Strip Footing, Wall Footing with Steps and RCC Column Footing

3	Sketching and Estimation of RCC Combined Footing, Dog-Legged RCC Stair and Quarter-Turn RCC Stair
4	Drawing the Plan of a Tiled Roof Showing All Members of Gable and Hipped End
5	Drawing the Elevation of a Steel Truss
6	Sketching Line Plans for Residential Buildings (Minimum Three Rooms with WC, Bath and Staircase)
7	Sketching Line Plans for Public Buildings – School Building, Hostel or Library
8	Sketching Line Plans for Public Buildings – Function Hall or Restaurant
9	Sketching Line Plans for Primary Health Centre, Bank or Library
10	Sketching Plumbing Layout Showing Water Supply and Sanitary Fixtures of a Residential Building
11	Sketching Electrical Layout Showing Electrical Fixtures and Control Points of a Residential Building
12	Sketching Fire Safety Plan and Evacuation Route for a High-Rise Building Floor
13	Sketching HVAC Layout for One Floor of a shopping mall
14	Preparation of Submission Drawings of Buildings (Open-Ended Experiment)
Content beyond the syllabus	
15	Preparation of Submission Drawings of Buildings using software
3019- CAD LAB	

Course Outcome	
CO1	Develop geometric figures using various commands
CO2	Apply preliminary settings of CAD work sheet and develop plan of various buildings
CO3	Develop elevation and section of various type of buildings with detailing
CO4	Develop rain water harvesting, septic tank drawing and service plan of the building
S No	List of Experiments
1	Creating an Electronic Worksheet by Setting Limits, Units, etc., and Saving the Drawing
2	Drawing Simple Geometric Figures
3	Annotation and Modification of Drawings Using CAD Commands
4	Development of Plans of Single-Storeyed and Multi-Storeyed Buildings
5	Development of Elevation Views of Single-Storeyed and Multi-Storeyed Buildings
6	Development of Sectional Views of Single-Storeyed and Multi-Storeyed Buildings
7	Detailing of Building Components such as Doors, Windows and Roof Trusses
8	Development of Detailed Drawing of Rainwater Harvesting System
9	Development of Detailed Drawing of Septic Tank
10	Development of Service Plan of a Building
Content beyond the syllabus	

11	Development a Plan of a Building using Auto CAD
4016- ADVANCED SURVEYING LAB	
Course Outcome	
CO1	Determine heights and distances by tacheometry
CO2	Set out circular curve on field
CO3	Apply Total station in field survey works. Applying
CO4	Apply GPS survey in field works .
S No	List of Experiments
1	Determination of Stadia Constants of a Tacheometer
2	Determination of Horizontal Distance and Elevation of Objects by Stadia Tacheometry
3	Determination of Distance and Elevation of Objects by Tangential Tacheometry
4	Determination of Gradient of a Line Joining Two Points by Stadia and Tangential Methods
5	Setting Out of a Simple Circular Curve
6	Temporary Setting of Total Station
7	Preparation of Site Plan by Traversing Using Total Station
8	Determination of Gradient, Difference in Height and Distance Between Inaccessible Points Using Total Station

9	Plotting of Contour Plans Using Total Station
10	Determination of Coordinates (Latitude and Longitude) of a Station Using GPS
4017- HYDRAULICS AND IRRIGATION LAB	
Course Outcome	
CO1	Verify Bernoulli's Theorem
CO2	Determine coefficients for venturimeter, orifice and notch.
CO3	Sketch irrigation structures and culverts
CO4	Familiarize with local irrigation structures and practices
S No	List of Experiments
1	Verification of Bernoulli's Theorem Using Bernoulli's Apparatus
2	Calibration of Venturimeter for Measurement of Discharge in a Pipe
3	Calibration of Orifice for Measurement of Discharge Through a Tank
4	Measurement of Discharge Through an Open Channel Using a Triangular Notch
5	Measurement of Discharge Through an Open Channel Using a Rectangular Notch
6	Sketching the Cross Section of an Earth Dam and Masonry Dam Showing Component Parts

7	Sketching the Views of a Canal Drop Showing Component Parts
8	Sketching the Views of an Aqueduct Showing Component Parts
9	Sketching the Views of a Surplus Escape Showing Component Parts
10	Sketching the Views of a Weir Showing Component Parts
11	Sketching the Views of a Tank Sluice with Tower Head
12	Sketching a Canal Section and Estimating the Quantity of Material Required for Lining
13	Drawing a Labelled Sketch of a Culvert (Without Splayed Wing Wall)
14	Study of Local Irrigation Structures and Practices (Open-Ended Project)
4018- ESTIMATION AND COSTING LAB	
Course Outcome	
CO1	Identify the basic principles for estimation and costing of Civil Engineering works
CO2	Prepare detailed estimate for infrastructure works using spreadsheet
CO3	Prepare abstract of estimate for construction projects using spreadsheet.
CO4	Prepare valuation certificates and statements of a real and a landed property and fix rent of properties- existing government building
S No	List of Experiments

1	Preparation of List of Items and Units for Detailed Estimate from a Given Drawing
2	Preparation of Report on Market Rates of Materials, Labour Wages and Hire Charges of Tools and Equipment
3	Study of DSR Items and Specifications Using PRICE Software
4	Preparation of Detailed Estimate of a 1 km Road (CC Road and WMM) from Given Drawings
5	Preparation of Detailed Estimate of a Well from Given Drawings
6	Preparation of Detailed Estimate of a Small Septic Tank and Soak Pit from Given Drawings
7	Preparation of Detailed Estimate of a Steel Roof Truss
8	Preparation of Rate Analysis and Recording in Measurement Book (MB)
9	Preparation of Bill of Quantities from Actual Measurements
10	Preparation of Detailed Estimate, Abstract of Estimate, Valuation Certificate and Rent Fixation for a Property (Open-Ended Experiment)
Content beyond the syllabus	
11	Preparation of Detailed Estimate of retaining walls
4019- GEOTECHNICAL ENGINEERING LAB	

Course Outcome	
CO1	Determine physical and index properties of soil.
CO2	Estimate the permeability and shear strength of soil.
CO3	Illustrate the procedure for conducting consolidation test and field methods of determination of bearing capacity.
CO4	Illustrate various compaction methods for soil stabilization.
S No	List of Experiments
1	Determination of Water Content of Soil by Oven Drying Method
2	Determination of Specific Gravity of Soil by Pycnometer Method
3	Determination of Dry Unit Weight of Soil by Core Cutter Method
4	Determination of Dry Unit Weight of Soil by Sand Replacement Method
5	Determination of Liquid Limit, Plastic Limit and Plasticity Index of Soil
6	Determination of Shrinkage Limit of Soil
7	Determination of Grain Size Distribution of Soil by Wet and Dry Sieve Analysis
8	Determination of Grain Size Distribution of Fine-Grained Soil by Hydrometer Analysis
9	Classification of Soil by Visual Inspection and Field Tests
10	Determination of Coefficient of Permeability by Constant Head Test
11	Determination of Coefficient of Permeability by Falling Head Test
12	Determination of Shear Strength of Soil by Direct Shear Test
13	Determination of Unconfined Compressive Strength of Soil by Unconfined Compression Test
14	Determination of Coefficient of Consolidation-by-Consolidation Test

15	Study and Report on Plate Load Test
16	Study and Report on Standard Penetration Test (SPT)
17	Determination of Maximum Dry Density (MDD) and Optimum Moisture Content (OMC) by Standard Proctor Test
18	Determination of California Bearing Ratio (CBR) Value in the Field
5017- TRANSPORTATION ENGINEERING LAB	
Course Outcome	
CO1	Perform different tests on aggregates for its suitability as road construction material.
CO2	Perform different tests on bituminous material for its suitability as road construction.
CO3	Prepare reports of defects and remedial measures of existing roads.
CO4	Prepare reports of defects and remedial measures of existing railway track.
S No	List of Experiments
1	Sketching Standard Cross Sections of Expressways, Freeways, NH/SH and MDR/ODR Roads
2	Flakiness and Elongation Index Test on Aggregates
3	Angularity Number Test on Aggregates
4	Aggregate Impact Test
5	Los Angeles Abrasion Test on Aggregates
6	Aggregate Crushing Test
7	Softening Point Test on Bitumen
8	Penetration Test on Bitumen
9	Flash and Fire Point Test on Bitumen

10	Ductility Test on Bitumen
11	Visual Inspection of Roads for Identifying Defects and Drainage Conditions and Suggesting Remedial Measures
12	Preparation of Photographic Report on Road Construction Activities
13	Preparation of Photographic Report on Road Repairs, Maintenance and Drainage Improvements
14	Model Study / Site Visit of Railway Track, Fixtures, Fasteners, Points, Crossings and Yards
15	Preparation of Photographic Report on Railway Fixtures, Fasteners, Points, Crossings and Yards
16	Preparation of Photographic Report on Railway Track Defects, Repairs and Maintenance Measures
Content beyond the syllabus	
	Preparation of Photographic Report on airport run way
5018- STRUCTURAL ENGINEERING LAB	
Course Outcome	
CO1	To illustrate the concept of limit state design and detailing of RCC beams and slabs.
CO2	To illustrate the concept of limit state design and detailing of RCC columns, footings and stairs.
CO3	To illustrate the concept of limit state design and detailing of tension and compression steel members.
S No	List of Experiments
1	Sketching Cross Section, Strain Diagram and Stress Diagram for a Singly Reinforced Section
2	Sketching Cross Section, Strain Diagram and Stress Diagram for a Doubly Reinforced Section
3	Determination of Sectional Properties and Detailing of a Singly Reinforced Beam with Bar Bending Schedule

4	Determination of Sectional Properties and Detailing of a One-Way Slab with Bar Bending Schedule
5	Reinforcement Detailing of a Two-Way Slab (Corners Held Down and Not Held Down) with Bar Bending Schedule
6	Study of IS 456 Provisions for Design of Columns
7	Reinforcement Detailing of Circular and Square Columns with Bar Bending Schedule
8	Determination of Sectional Properties and Detailing of an Isolated Column Footing with Bar Bending Schedule
9	Drawing Plan and Longitudinal Section of Dog-Legged and Open-Well Staircases
10	Site Visit and Preparation of Report on Reinforcement Detailing of Beams, Columns, Staircases and Footings with Bar Bending Schedule
11	Detailing of a Cantilever Retaining Wall with Bar Bending Schedule
12	Study of IS 800 Provisions for Design of Compression Members
13	Sketching Single and Double Lacing of Built-Up Columns
14	Sketching Battening of a Built-Up Column
15	Preparation of Report on IS 800 Provisions for Design of Lacing and Battening
16	Sketching Elevation and Cross Section of a Plate Girder
17	Sketching Beam-to-Column Connection
18	Sketching Elevation and Plan of a Gusseted Base of a Column
5019- ADVANCED CADD LAB	

Course Outcome	
CO1	Develop detailed 3D drawing of objects
CO2	Develop detailed 3D drawing of buildings
CO3	Apply 3D rendering and shading
CO4	Apply animation effects using 3D visualization software
S No	List of Experiments
1	Applying CAD Commands to Develop Simple 3D Shapes
2	Development of Simple 3D Objects and Obtaining Different Views
3	Development of Building Wireframe Modelling
4	Development of 3D Views of Buildings
5	Setting Standard Paper Size and Title Block Using Model Space and Paper Space
6	Development of Simple 3D Objects with Rendering
7	Development of Building Models with Rendering
8	Applying Basic Commands and Obtaining a Rendered Model
9	Modification of Rendered Images and Applying Animation Effects to the Model
6017- COMPUTER APPLICATION LAB	
Course Outcome	
CO1	Identify the task and duration and estimate the time required for completing a project using management software
CO2	Carry out the analysis and design of structures and prepare the detailing using a design software
CO3	Prepare the mix proportions for concrete with given strength and workability

CO4	Prepare the detailed estimate of a building using an estimation package
S No	List of Experiments
1	Identification of Tasks and Their Duration Using Project Management Software
2	Assignment of Resources and Linking of Tasks
3	Estimation of Project Completion Time
4	Identification of Critical Path
5	Structural Analysis Using Structural Analysis and Design Software
6	Design of Structures Using Structural Design Software
7	Preparation of Ductile Detailing Using Design Software
8	Preparation of Material Property Tables for Concrete Mix Design
9	Concrete Mix Design for Given Strength and Workability Using Mix Design Software
10	Detailed Quantity Calculations Using Estimation Software
11	Preparation of Conveyance Statement Using Software Packages
12	Preparation of Detailed Estimate and Bill of Quantities for a Building Using Software Packages

6018- MATERIAL TESTING LAB**Course Outcome**

CO1

Identify salient features of stress strain curve of mild steel and tor steel bars.

CO2

Compare compressive strength of various masonry blocks such as laterite, burnt bricks, solid and hollow concrete blocks, flyash blocks, Autoclaved Aerated Concrete (AAC) blocks.

CO3

Compare any three metals based on hardness, toughness shear strength and modulus of elasticity.

CO4

Compute flexural and compressive strength of wood.

S No**List of Experiments**

1

Study of Universal Testing Machine (UTM) and Its Components

2

Tension Test on Mild Steel

3

Tension Test on Tor Steel

4

Water Absorption Test on Bricks/Tiles

5

Compressive Strength Test on Dry and Wet Bricks

6

Compressive Strength Test on Laterite Blocks

7

Compressive Strength Test on Hollow Concrete Blocks

8

Compressive Strength Test on Solid Concrete Blocks

9

Compressive Strength Test on Fly Ash Blocks and AAC Blocks

10

Compressive Strength Test on Paving Tiles

11

Charpy Impact Test on Metals

12	Izod Impact Test on Metals
13	Single/Double Shear Test on Metals
14	Hardness Test on Metals
15	Deflection Test on Metals for Determination of Modulus of Elasticity
16	Compression Test on Timber Along and Across the Grain
17	Flexural Test on Timber Beam
18	Open-Ended Experiment on Material Testing
6019- PUBLIC HEALTH ENGINEERING LAB	
Course Outcome	
CO1	Determine chemical properties of water and ensure quality by performing tests
CO2	Determine dissolved solids as per BIS.
CO3	Determine the amount of impurities in sewage by testing for BOD and COD
CO4	Construct the line diagram of water pipeline system for a locality.
S No	List of Experiments
1	Determination of pH Value of Water
2	Determination of Turbidity of Water
3	Determination of Chloride Content in Water

4	Determination of Alkalinity of Water
5	Determination of Total Hardness of Water
6	Determination of Residual Chlorine in Water
7	Determination of Dissolved Oxygen in Water
8	Determination of Optimum Coagulant Dose by Jar Test
9	Determination of Suspended Solids, Dissolved Solids and Total Solids in Water
10	Determination of Biochemical Oxygen Demand (BOD) of Sewage
11	Determination of pH Value of Sewage
12	Determination of Suspended Solids, Dissolved Solids and Total Solids in Sewage
13	Determination of Dissolved Oxygen in Sewage
14	Determination of Chemical Oxygen Demand (COD) of Sewage
15	Sketching of Various Valves Used in Water Supply Pipelines
16	Sketching of One-Pipe and Two-Pipe Plumbing Systems

2.2.4 Quality of Students Projects and Report Writing (35)

A. Identification of projects and allocation methodology (3)

A coordinator is designated to oversee and coordinate the project work of students.

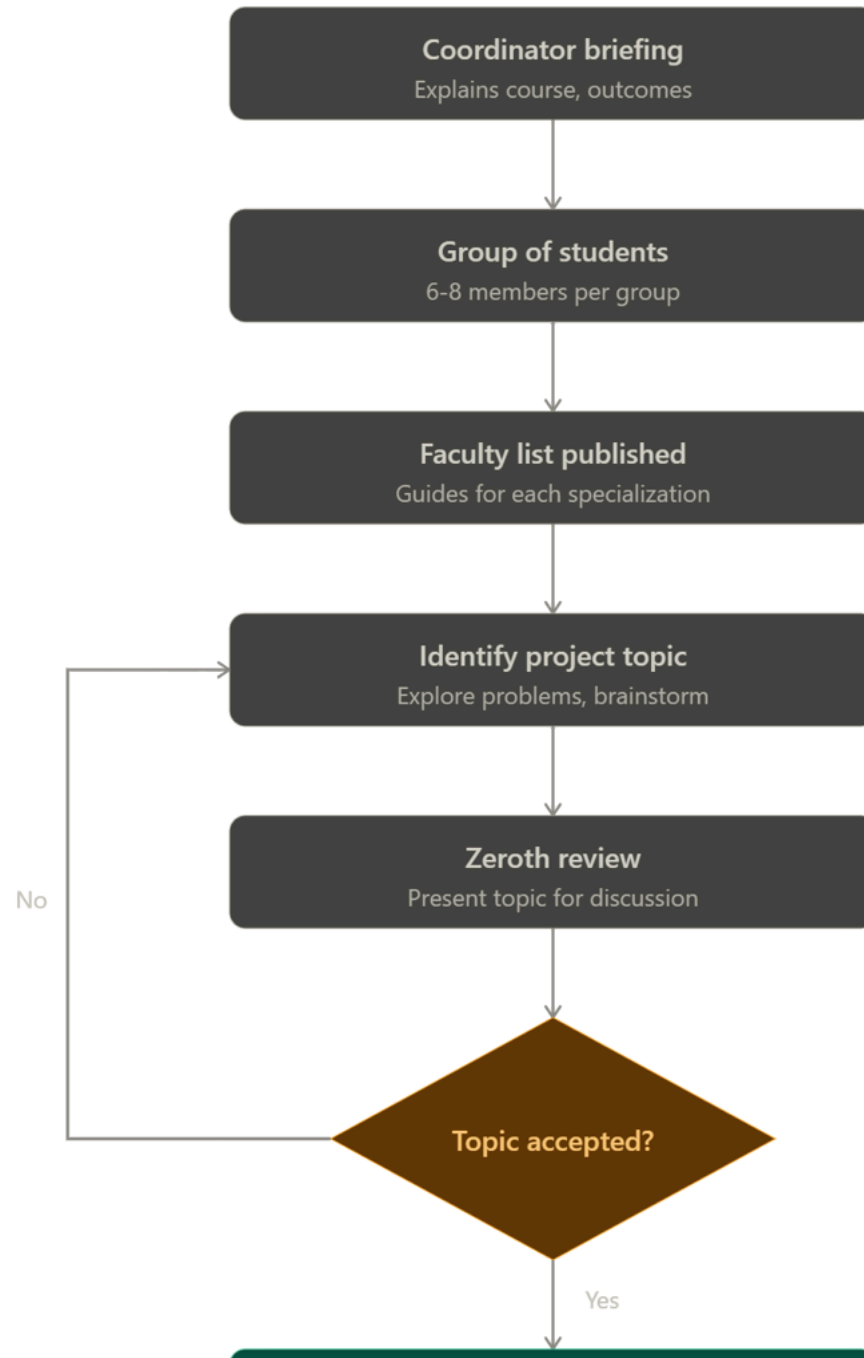
At the start of the course, students are given a briefing and general orientation through interactive sessions conducted by internal and external resource persons. These sessions cover:

- The importance and need for project work
- The expected outcomes of the project and seminar
- How to search for and select project topics

- How to define a problem statement
- How to conduct a literature survey and design a methodology
- How to draw inferences using various assessment tools and methods
- How to document the study
- The importance of publishing the work

In the 5th semester, students are divided into groups of maximum 6 members.

Grouping is done based on students capabilities, involvement, academic history, and place of residence



Guide assigned
Project guide allotted to group

Figure 2.18 Identification of projects and allocation methodology

- Students are informed about the faculty's areas of expertise across various specializations to guide project work.
- Students search for socially relevant topics.
- Students brainstorm topics with peers and faculty.
- A project guide and topic are allotted to each project group.

Table 2.43 Details of project guides and suggested titles (2020 – 2023 Batch)

Sl.No	Faculty Name	Designation	Qualification	Specialization
1	Lalitha P K	HOD	M. Tech	Construction Engineering and Management
2	Sreethu M B	Lecturer	M. Tech	Computer Aided Structural Engineering
3	Udhayan K S	Lecturer	B. Tech	Civil Engineering
4	Syama Murali	Lecturer	B. Tech	Civil Engineering
5	Neethu P Davis	Lecturer	B. Tech	Civil Engineering
6	John Peter C Jose	Lecturer	B. Tech	Civil Engineering

Sl No	Name of Faculty	Titles
1	Lalitha P K	• Insights from bibliometric and topic modeling analyses • Green engineering as solution for sustainable transportation and infrastructure • Design and Estimation of shopping mall
2	Sreethu M B	• Seismic Analysis of RCC Buildings • Design and Estimation of Village Office • Self-Compacting Concrete – Mix Design and Performance
4	Syama Murali	• Hydraulic Bascule Bridge • Traffic Volume Study at a Major Junction • Water Quality Assessment of Local Water Sources

5	Neethu P Davis	• Cable Stayed Rotating Bridge. • Comparative Study of Foundation Types • Watershed Management Study
6	John Peter C Jose	• Water Treatment Plant • Comparative Study of Bituminous Mixes • Behavior of Fiber Reinforced Concrete

Table 2.44 Details of project guides and suggested titles (2021 – 2024 Batch)

Sl. No	Faculty Name	Designation	Qualification	Specialization
1	Lalitha P K	HOD	M. Tech	Construction Engineering and Manage
2	Neethu P Davis	Lecturer	B. Tech	Civil Engineering
3	Udhayan K S	Lecturer	B. Tech	Civil Engineering
4	Sreethu M B	Lecturer	M. Tech	Computer Aided Structural Engineer
5	Naveen Pradeep	Lecturer	B. Tech	Civil Engineering

Sl No	Name of Faculty	Titles
1	Lalitha P K	Pump Performance Analysis Polypropylene Fiber Reinforced Concrete Detailed Estimate of G+1 Building
2	Neethu P Davis	Concrete Block with Paper pulp Building Design using STAAD Pro Storm Water Drainage System Design
3	Udhayan K S	Recycled concrete Soil Stabilization using Lime, Cement, or Fly Ash Grey Water Treatment and Reuse

4	Naveen Pradeep	Comparative Study of Bituminous Mixes Partial Replacement of Cement using Fly Ash or GGBS Floating House
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Table 2.45 Details of project guides and suggested titles (2022 – 2025 Batch)

Sl. No	Faculty Name	Designation	Qualification	Speciali
1	Lalitha P K	HOD	M Tech	Construction Engineeri
2	Neethu P Davis	Lecturer	B Tech	Civil Engi
3	Asha Thankappan	Lecturer	B Tech	Civil Engi
4	Silpa Mohan K	Lecturer	M Tech	Environmental
5	Naveen Pradeep	Lecturer	B Tech	Civil Engi

Sl No	Name of Faculty	Titles
1	Lalitha P K	Analysis and design of an office building Traffic Volume Study at a Major Junction Rainwater Harvesting System Design for a College Campus
2	Neethu P Davis	Plastic Waste Utilization in Road Construction Recycled aggregate in concrete Bearing Capacity Study
3	Asha Thankappan	Stabilization of clayey soil using coconut coir Low-Cost Sustainable Housing Soil Stabilization Using Industrial Waste
4	Silpa Mohan K	Comparative Study on the Compressive Strength of Refractory Bricks Concrete Block with Paper pulp Building Design using STAAD Pro

Table 2.46 Details of project guides and suggested titles (2023 – 2026 Batch)

Sl.No	Faculty Name	Designation	Qualification	Specialization
1	Lalitha Pk	HOD	M. Tech	Construction Engineering and Managem
2	Neethu P Davis	Lecturer	B. Tech	Civil Engineering
3	Asha Thankappan	Lecturer	B. Tech	Civil Engineering
4	Silpa Mohan K	Lecturer	M. Tech	Environmental Engineering
5	Naveen Pradeep	Lecturer	B. Tech	Civil Engineering
Sl No	Name of Faculty	Titles		
2	Neethu P Davis	Polypropylene Fiber Reinforced Concrete Detailed Estimate of G+1 Building Partial Replacement of Fine Aggregates Using Vermiculite		
3	Asha Thankappan	Smart City Low-Cost Sustainable Housing Continuous Beam Analysis		
4	Silpa Mohan K	Design Of Staircase Steel Roof Truss Design Turbidity Removal Using Natural Coagulants		
5	Naveen Pradeep	Analysis And Design of a Building Comparative Study of OPC, PPC And PSC Experimental Study on Beam Deflection		

B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs (5)

Table 2.47 Details of student projects and their relevance to POs and PSOs (2020 – 2023 Batch)

Group No	Project Guide	Project Titles	List of Students	Relev
1	Lalitha Pk	Design and Estimation of a Shopping Mall	K P S Prabhu	PO1, PO2, PO3
			Sreerag P B	
			Dheeraj K R	
			Krishnaprakash T P	
			Aswin P S	
			Sushik P S	
			Sarangi V S	
2	Sreethu M B	Design And Estimation of Village Office	Anjana N S	PO1, PO2, PO3
			Delvin K J	
			Gayathridevi P G	
			Hima Shaju	
			Lighinsha Shajan	
			Roshan Roy	
			Vidhya K V	
3	Syama Murali	Hydraulic Bascule Bridge	Anjaly B J	PO1, PO2, PO3

			Aaromal P A	
			Alwin Joy	
			Ashwin V S	
			Livin C L	
			Rahul Ramachandran	
4	Neethu P Davis	Cable Stayed Rotating Bridge	Adith Ashok	PO1, PO2, PO3
			Rahul V U	
			Saketh Jayachandran	
			Sreelakshmi M P	
			Sreeshma V S	
			Steji Anto	
			Sukanya P S	
5	John Peter C Jose	Water Treatment Plant	Aiswarya	PO1, PO2
			Aleena Jaison	
			Alex Joopy	
			Godwin Biju	
			Gopika M S	
			Nidhin P S	
			Visakh V S	

Table 2.47 Details of student projects and their relevance to POs and PSOs (2021 – 2024 Batch)

Group No	Project Guide	Project Titles	List of Students	Releva
1	Naveen Pradeep	Floating House	Kiran M S	PO1, PO2, PO
			Edwin P Raji	
			Dilna Mariya	
			Navya A S	
			Midhun M N	
			Mohamed Jahansha K	
2	Neethu P Davis	Concrete Block with Paper pulp	Praveena P P	PO1, PO2,
			Adithkrishna E G	
			Jyothika M T	
			Sahal Saleem	
			Dhanush K D	
			Ajin Siddique K s	
3	Lalitha P K	Polypropylene Fiber Reinforced Concrete	Sarath T S	PO1, PO2,
			Aloysious Jacob	
			Ephy Babu T	
			Abdul Ahad T B	
			Dijo Davis	
			Anjana P S	
			Aghad N S	

			Angel k R	
4	Udayan K S	Recycled concrete	Manceesha M M	PO1, PO2,
			Harikrishnan A S	
			Stephen N V	
			Mirash K J	
			Aswindas T P	

Table 2.47 Details of student projects and their relevance to POs and PSOs (2022 – 2025 Batch)

Group No	Project Guide	Project Titles	List of Students	Relevance to
1	Lalitha P K	Analysis and design of an office building	Anagha Chandran T	PO1, PO2, PO3, PO5, PO6
			Anjana K S	
			Archana R	
			Gadha V G	
			Jees Kumar T S	
			Mohamed Rouf A A	
			Shone Baby	
			Sreehari R P	
2	Neethu P Davis	Recycled aggregate in concrete	Athul T S	PO1, PO2, PO3, PO4, PO5
			Kashinath Surendran	
			Vishnu U N	
			Ajith T V	

			Anand T V	
			Ananya Thilak	
			Ganga Narayanan	
			Jitheesh K Rajan	
3	Asha Thankappan	Stabilization of clayey soil using coconut coir	Ardra P M	PO1, PO2, PO3, PO4, PO5
			Aswathy Thankappan	
			Devapriya T S	
			Hrithika Santhosh	
			Mariya Shaju	
			Meenakshi K S	
4	Naveen Pradeep	Township Design	Akash M S	PO1, PO2, PO3, PO5, PO6
			Akshay V S	
			Amalkrishna C R	
			Arjun V J	
			Ashik P Jose	
			Febin Jacob	
			Sooraj P J	
			Akshay P Jacob	
5	Silpa Mohan K	Comparative Study on the Compressive Strength of Refractory Bricks	Abhiram Krishna M M	PO1, PO2, PO3, PO4, PO5
			Ajay Krishna P K	

		Alan Antony
		Ashik Wilson
		Athul P Murali
		Athulkrishna P L
		Sandeep P S
		Sreyas Krishna I B

Table 2.47 Details of student projects and their relevance to POs and PSOs (2023 – 2026 Batch)				
Group No	Project Guide	Project Titles	List of Students	Relevance to P
1	Asha Thankappan	Smart City	Nelen P S	PO1, PO2, PO3, PO5, PO7
			Joshwin Joy	
			Aswell Baiju	
			Anurag P P	
			Adithyan V	
			K S Midhun	
			Rahul C	
2	Silpa Mohan K	Turbidity removal using natural coagulants	Stalin K A	PO1, PO2, PO3, PO4, PO
			Krishnanjali T S	
			Karthik Krishna K J	
			Shaheen A S	
3	Neethu P Davis	partial replacement of fine aggregates using vermiculite	Vishnu Sunil P	PO1, PO2, PO3, PO4, PO

			Joyal James	
			Aneesha K A	
			Sreekanth C S	
			Siya Mariya	
			Robin Roy	
			Mohammed Omar K A	
			Meghna S Prabhu	
			Adarsh K G	
4	Naveen Pradeep	Analysis and Design of a Building		PO1, PO2, PO3, PO5, PO6
			Adithya Gopakumar	
			Anliya Shaju	
			Muhammed Rizwan	

C. Process for monitoring and evaluation (5)

Revision 2021

The Major Project undertaken by students is monitored and evaluated through a structured, two-tier mechanism comprising Continuous Internal Assessment (CIA) and End Semester Examination (ESE). This dual process ensures that the st while also being subjected to a rigorous, criteria-based summative evaluation at the end of the project (ESE). Together, these mechanisms provide a holistic assessment of the students technical competence, consistency of effort, and overall p

Continuous Internal Assessment (CIA) — Monitoring Process

As per clause 11.2.5 of SITTTTR curriculum of 2021 revision, the CIA of the Major Project is computed out of 75 marks distributed across three components:

Table 2.48 Continuous Internal Assessment (CIA) – Major Project

Component	Tool Used	Weightage	Guideline
Summative	Major project evaluation by the department	40%	As per the format specified in the handbook
Formative	Weekly activity report (diary)	40%	Weekly diary maintained and submitted to the concerned faculty in-charge; signed diary submitted to

			the department at project completion
Attendance & Punctuality	—	20%	As per the concerned organizations norms

Formative Monitoring (Weekly Tracking)

- Each student is assigned a Faculty Guide/Mentor who is responsible for tracking day-to-day progress.
- Students are required to maintain a project diary, recording the tasks performed, technical challenges faced, and learning outcomes achieved during each week.
- The diary is reviewed and signed weekly by the faculty in-charge to authenticate the entries and provide continuous feedback.
- At periodic intervals (e.g., fortnightly or monthly), the faculty in-charge assesses the diary for regularity, depth of work recorded, and adherence to the proposed project timeline.
- On completion of the project, the duly signed diary is submitted to the department as documentary evidence of continuous engagement, which is used to award the formative component of marks.

Summative Internal Evaluation

- A departmental evaluation committee (comprising the Head of Department, project coordinator, and guide) reviews the overall major project work.
- Evaluation is conducted as per the format prescribed in the handbook, typically covering the projects technical content, methodology, and progress against the defined milestones.
- This evaluation is conducted at a scheduled internal review (mid-semester and/or pre-final review) to assess whether the project is progressing satisfactorily.

Attendance & Punctuality Monitoring

- Attendance is monitored as per the norms of the organization where the project is being carried out (in-house department lab or industry/external organization).
- Punctuality in reporting, adherence to working hours, and regularity of presence are recorded by the supervising authority (faculty guide or organizational mentor) and communicated to the department.

End Semester Evaluation (ESE) — Evaluation Process

As per clause 11.3.4 of SITTTTR curriculum of 2021 revision, the ESE of the Major Project is jointly conducted by an Internal Examiner and an External Examiner.

Table 2.49 Evaluation Criteria and Weightage – Major Project

Sl. No.	Criteria Evaluated
1	Development of Prototype/Model
2	Usage of Modern Tool/Technology
3	Presentation (slides, delivery)
4	Innovativeness
5	Viva Voce
6	Individual Contribution
7	Group Activity
8	Project Report
Total	

Process Flow of ESE

1. Demonstration of Prototype/Model: Students demonstrate the working prototype/model developed, which is jointly assessed for functionality, completeness, and alignment with the proposed objectives (20%).
2. Assessment of Tools/Technology Used: Examiners evaluate the appropriateness and currency of the tools, platforms, or technologies employed in executing the project (10%).
3. Presentation: Each student/team presents the project through structured slides, assessed on clarity, organization, and quality of delivery (15%).
4. Innovativeness: The originality and novelty of the approach or solution is evaluated (5%).
5. Viva Voce: An oral examination is conducted to test the students conceptual understanding, technical depth, and ability to defend design choices (15%).
6. Individual Contribution: In team-based projects, each members specific contribution is assessed separately to ensure fair, individualized grading (15%).
7. Group Activity/Teamwork: Coordination, collaboration, and division of work among team members is evaluated (10%).
8. Project Report: The written project report is assessed for technical content, structure, documentation quality, and adherence to the prescribed format (10%).
9. Consolidation of Marks: Marks awarded independently by the Internal and External Examiners across all criteria are consolidated (typically averaged) to arrive at the final ESE score.

Table 2.50 Rubrics for first review presentation – Revision 2021

Criteria	Very Good	Good	Satisfactory	
1. Clear Introduction, and Scope of Study (5)	A highly engaging and crystal-clear introduction that effectively communicates the projects purpose and context, capturing the audiences attention from the start. Clearly defines and articulates the projects scope, outlining both what will be covered and what will not be covered. The boundaries are explicitly and effectively communicated. (5)	A very good introduction that clearly states the purpose and context of the project, setting a strong foundation for the presentation. Defines the scope of the study, covering the key aspects to be addressed in the project. The boundaries are well-established, with minor room for improvement. (4)	A satisfactory introduction that provides basic information about the projects purpose and context, though lacking some engagement. Partially defines the scope, with some important aspects not clearly outlined. The boundaries are somewhat unclear, leading to potential confusion. (3)	An introduction that engagement, making grasp the projects pu of the scope is uncle for the audience to u boundaries. (2)
2. Clarity in problem statement and conciseness of objectives (5)	Excellent clarity in problem statement, precise and concise objectives and advancing scientific knowledge (5)	Excellent clarity in problem statement, precise and concise objectives (4)	Clarity in problem statement, objective are defined but not precise (3)	Problem definition i clearly defined (2)
3. Cites good quality literature (5)	Min 7 references, of which 50% are published later than 2020 (5)	Min 5 references, of which 50% are published later than 2020 (4)	Min 4 references, of which 50% are published later than 2020 (3)	Min 3 references, of than 2020 (2)
4. Very clear methodology, articulated using technical terms indicating all steps and tools (5)	Excellent description of methodology with all steps and required tools mentioned (5)	Very good description of methodology with steps and required tools mentioned (4)	Good description of methodology with steps and required tools mentioned (3)	Description of metho identified, but not ab
5. Progress of work (5)	According to the completion of work			
6. Logical Presentation slides (5)	Slides are error-free and logically presented and uses sufficient number diagrams and illustrations (5)	Slides are error-free and logically present with some amount of diagram and illustrations. (4)	Slides contain a few errors and logical presentation to some extent (3)	Slides contain a lot c progression (2)
7. Question and Answer Sessions (5)	Speakers respond accurately and appropriately to audience questions and comments. (5)	Speakers respond to most questions accurately and appropriately (4)	Speakers have difficulty responding clearly and accurately to audience questions (3)	Answers only a few
8. Fluency, audibility and body language (5)	Speakers are fluent on their topic, audible and appropriate gestures (5)	fluent on their topic, and require minimal referral to notes and audible .(4)	Often rely on referral material and audible (3)	often speaking in inc on notes, and with di
9. Overall presentation impact (5)	Leaves a lasting and highly positive impression, making the presentation memorable and impactful (5)	Leaves a positive impression, with the presentation being memorable. (4)	Leaves a neutral impression; the presentation lacks strong memorability (3)	Leaves a somewhat 1 memorability and in
10. Project report (5)	Exceptional depth, insight, and thoroughness in presenting content. Demonstrates an outstanding	Proficient depth and insight in presenting content. Demonstrates a solid understanding of the subject	Competent depth and understanding in presenting content. Provides a satisfactory grasp of the subject	Limited depth and u content. Demonstrat

	understanding of the subject matter. Exceptional organization, structure, and coherence. Information flows logically, and the report is exceptionally easy to follow. Exceptional clarity in expression, with concise and precise language. Ideas are articulated exceptionally well. (5)	matter. Proficient organization and structure, making the report easy to follow. Information flows logically. Proficient clarity in expression, using clear and precise language. Ideas are articulated well. (4)	matter. Competent organization and structure, with some improvements needed for better flow. Competent clarity in expression, with some areas (3)	subject matter. Limit making the report so
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Table 2.51 Rubrics for second review presentation – Revision 2021

Criteria	Very Good	Good	Satisfactory	
1. Assessment of appropriateness of chosen tools and techniques (experimental/analytical) in addressing the objectives of study based on preliminary results (6)	Novel experimental/ analytical tools or techniques (own contribution to its development) is being employed and the tools and techniques adopted is seen to be the most appropriate and efficient in addressing the stated objectives completely.(6)	Tools and techniques used are the appropriate ones and development in the form of in-house experimental setup / computational tool, though the technique is already available. The tools/ technique adequate to address the stated objectives completely (5)	The state-of-the-art tools and techniques (though already available i.e. no contribution to tools or techniques) which is observed to the appropriate ones, being used and is expected to fully address all the stated objectives (4)	A well-esta scientific c research, w least 80% c
2. Progress in Experimental / analytical investigations consistent with the articulated problem statement and objectives of study (10)	Substantial progress, consistent with the problem statement and objectives made and Approx. 60% of overall work completed (10)	Good progress, consistent with the problem statement and objectives made and Approx. 50% of overall work completed (8)	Progress, consistent with the problem statement and objectives made but progress is satisfactory only i.e. Approx. 35% (1/3rd) of overall work completed (6)	Work prog statement,
3. Sustained interaction with outside world for acquiring additional and relevant data, or additional literature, leading to improved research attending conferences, site visit, data addition, literature addition, interaction with local bodies/state level and national level organizations (4)	Recent interactions with outside world resulted inclusion of improved / additional data and (or) improvement in methodology / tools and techniques through review of more recent literature- with a possibility of knowledge addition. Or presentation in conferences (4)	Recent interactions with outside world in the form of certain field visits or inclusion of recent literature which led to a visible improvement in problem statement and refined methodology or participation in conference(s) (3)	Recent interactions with outside world in the form of certain field visits or inclusion of recent literature which led to a slight improvement in problem statement and methodology (2)	Recent inte form of ce recent liter problem st
4. Progress of work (5)	According to the completion of work			
5. Logical Presentation slides (5)	Slides are error-free and logically presented and uses sufficient number diagrams and illustrations (5)	Slides are error-free and logically present with some amount of diagram and illustrations.(4)	Slides contain a few errors and logical presentation to some extent (3)	Slides cont progression
6. Question and Answer Sessions (5)	Speakers respond accurately and appropriately to audience questions and comments.(5)	Speakers respond to most questions accurately and appropriately(4)	Speakers have difficulty responding clearly and accurately to audience questions (3)	Answers on confidence
7. Fluency, audibility and body language (5)	Speakers are fluent on their topic, audible and appropriate gestures (5)	fluent on their topic, and require minimal referral to notes and audible .(4)	Often rely on referral material and audible(3)	often spea often rely c gestures (2
8. Overall presentation impact (5)	Leaves a lasting and highly positive impression, making the presentation memorable and impactful (5)	Leaves a positive impression, with the presentation being memorable. (4)	Leaves a neutral impression; the presentation lacks strong memorability (3)	Leaves a so lacking me
9. Project report (5)	Exceptional depth, insight, and thoroughness in presenting content. Demonstrates an	Proficient depth and insight in presenting content. Demonstrates a solid understanding of the subject	Competent depth and understanding in presenting content. Provides a satisfactory	Limited de content. De

	outstanding understanding of the subject matter. Exceptional organization, structure, and coherence. Information flows logically, and the report is exceptionally easy to follow. Exceptional clarity in expression, with concise and precise language. Ideas are articulated exceptionally well. (5)	matter. Proficient organization and structure, making the report easy to follow. Information flows logically. Proficient clarity in expression, using clear and precise language. Ideas are articulated well. (4)	grasp of the subject matter. Competent organization and structure, with some improvements needed for better flow. Competent clarity in expression, with some areas (3)	the subject structure, r to follow. (
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Table 2.52 Rubrics for final review presentation – Revision 2021

Criteria	Very Good	Good	Satisfactory	
1. work resulted in scientific advancement in the state of the art (scientific information or experimental / analytical/numerical technique or research data of substantial use to peers) (15)	Research resulted in improvement in current scientific knowledge or work resulted in development of a novel methodology/ technique (experimental / computational) and can lead to publication of international standards (15)	Using well established tools a systematic research work carried out by approaching the problem from a different perspective but did not resulted in any new scientific knowledge and can lead to publication of national standards (12)	Using established tools and techniques the work resulting in reliable data which could be of substantial use to peers. Possible publication in proceedings of a reputed international conference. (8)	Using established redid a reported same (4)
2. The articulated problem statement and objectives were properly addressed and the quantum of work was sufficient for the award of diploma in civil engineering (15)	Total addressal of the problem statement initially articulated and full achievement of defined objectives observed in thesis report. Also the quantum of work sufficient enough for the award of diploma in civil engineering (12-15)	The initial problem statement addressed but all the objectives stated initially (Review I and II) could not be achieved. (Say > 85 % achieved). But quantum of work sufficient enough for the award of diploma in civil engineering (10)	Curtailed initial problem statement observed. But the research work could do enough justice to the revised problem statement, but could not achieve the revised objectives to a full extent. Quantum of work still sufficient for the award of diploma in civil engineering (8)	Work couldnt d statement and a objectives too is satisfactory only
3. The tools and techniques (experimental/analytical) used in the present study were appropriate enough for the complete addressal of the problem statement and objectives (15)	Original contribution to the tools or techniques used for addressing the problem and the same was totally adequate for addressing the problem statement and objectives (12-15)	No original contribution to techniques but tools (experimental or computational tools developed inhouse) which were adequate enough, used for carrying out research work. (10)	No original contribution to neither tools nor techniques but used the existing ones which was adequate enough for complete addressal of the problem. (8)	The chosen too address the prob partially (> 60%
4. Contribution of the outcome of work in addressing a problem of social relevance (at international/national / local) (15)	The research addressed a problem of social relevance and came up with a total or partial solution to the problem (12-15)	The research addressed a problem of social relevance, but could not suggest a solution, but developed adequate tools and techniques (or relevant test results) which could contribute to finding of a solution in future (10)	The research addressed a problem of social relevance, but now new contribution to tools techniques of solutions achieved. Still work validated some of earlier findings (8)	Problem of soci outcome not of
5. Logical Presentation slides (10)	Slides are error-free and logically presented and uses sufficient number diagrams and illustrations (10)	Slides are error-free and logically present with some amount of diagram and illustrations.(7)	Slides contain a few errors and logical presentation to some extent (5)	Slides contain a progression(3)
6. Question and Answer Sessions (10)	Speakers respond accurately and appropriately to audience questions and comments.(10)	Speakers respond to most questions accurately and appropriately(7)	Speakers have difficulty responding clearly and accurately to audience questions (5)	Answers only a (3)
7. Fluency, audibility and body language (5)	Speakers are fluent on their topic, audible and appropriate gestures (5)	fluent on their topic, and require minimal referral to notes and audible .(4)	Often rely on referral material and audible(3)	often speaking rely on notes, ai

8. Overall presentation impact (5)	Leaves a lasting and highly positive impression, making the presentation memorable and impactful (5)	Leaves a positive impression, with the presentation being memorable. (4)	Leaves a neutral impression; the presentation lacks strong memorability (3)	Leaves a somewhat memorability at
9. Project report (10)	Exceptional depth, insight, and thoroughness in presenting content. Demonstrates an outstanding understanding of the subject matter. Exceptional organization, structure, and coherence. Information flows logically, and the report is exceptionally easy to follow. Exceptional clarity in expression, with concise and precise language. Ideas are articulated exceptionally well. (10)	Proficient depth and insight in presenting content. Demonstrates a solid understanding of the subject matter. Proficient organization and structure, making the report easy to follow. Information flows logically. Proficient clarity in expression, using clear and precise language. Ideas are articulated well. (7)	Competent depth and understanding in presenting content. Provides a satisfactory grasp of the subject matter. Competent organization and structure, with some improvements needed for better flow. Competent clarity in expression, with some areas (5)	Limited depth a content. Demonstrates subject matter. Limited making the report

Revision 2015

- Project work is continuously monitored by the supervisor from fifth semester onwards who regulates them to attain the correct project outcome.
- Project work involves six reviews. Each review consists of presentation and viva sessions
- The project review is arranged by the project coordinator and the progress of the work is assessed by the project committee comprising of project coordinator, project guide and Head of Section.

The review evaluation is done according to the following pattern:

- Zeroth evaluation is the project proposal evaluation. It is done in fifth semester. Topic and guide allocation is done based on the zero presentation (R00) and no marks are awarded for it.
- First Interim evaluation (R01) is done at the end of the fifth semester in which the title of project, literature review, Objectives and preliminary data collection and work plan are evaluated.
- Second Interim evaluation (R02) is done in the sixth semester and it evaluates the methodology, project execution and involvement of group members.
- An end semester evaluation (R03) is done in sixth semester. Individual contribution, final results or solution, preparation of prototypes if any, inferences from the project are evaluated. The status of the project dissemination is also evaluated.
- Project Report Evaluation (R04) evaluates the report based on compliance to the format, logical organization of the technical content and level completion of the document with references.
- Final Project Evaluation is done by an external faculty assigned by the Controller of technical examinations. It is done through the course viva.

Table 2.52 Rubrics for Project Evaluation

Rubric	Activity	Evaluation Marks	Weight
R01	Interim Evaluation of project	50	
R02	End Semester Project Evaluation	50	
R03	Project Report Evaluation	50	
R04	Final Project Evaluation	50	

Table 2.53 Rubrics for Interim Project Evaluation

Category	A	B	C
Regular and systematic working culture (5)	Timely submission with updated project diary and regular interaction with project guide. (4-5)	Timely submission with updated project diary and irregular interaction with project guide. (2-3)	Late submissions with project diary not proper interaction with project guide (1)
Study of the existing system and feasibility of project proposal (10)	Submission of interim report in time with more than 8 quality journals/ articles to support the topic (8-10)	Submission of interim report in time with 6-8 quality journals/articles to support the topic (5-7)	Late Submission of interim report with 4-6 quality journals/articles to support the topic (2-4)
Problem definition and analysis (5)	Detailed explanation of the purpose and need of the project. Clearly defined objectives with well listed specific objectives (4-5)	Detailed explanation of the purpose and need of project. Objectives moderately defined and moderately listed specific objectives (2-3)	Moderate explanation of the purpose and need of project. Objectives moderately defined and incompletely listed specific objectives (1)
Methodology of problem design (10)	Appropriate Division of problem into modules. Proper selection of tools and design methodology (8-10)	Division of problem into modules and Selection of tools and design methodology are somewhat appropriate (5-7)	Division of problem into modules not in a proper manner. Tools and design methodology not clearly defined (1-4)
Planning of project execution & involvement in group (10)	Time framework properly defined and executed. Sufficient and effective communication among peers (8-10)	Time framework properly defined but execution lags. Sufficient and effective communication among peers (5-7)	Time framework properly defined but execution lags. Sufficient and effective communication among peers (1-4)
Presentation (10)	Excellent Clarity in presentation. Excellent understanding of subject. Excellent use of visual and communication facilities. Excellent defending of questions. (8-10)	Good Clarity in presentation. Good understanding of subject. Good use of visual and communication facilities. Good defending of questions. (5-7)	Average Clarity in presentation. Average understanding of subject. Average use of visual and communication facilities. Average defending of questions. (2-4)

Table 2.54 Rubrics for End Semester Project Evaluation

Category	A	B	C
Regular and systematic working culture (10)	Timely submission with updated project diary and regular interaction with project guide. Regular corrections and updates (8-10)	Timely submission with updated project diary and irregular interaction with project guide. Corrections and updates lack sometimes (5-7)	Late submissions with project diary not proper interaction with the project guide. Corrections and updates irregular (2-4)
Project Demonstration and completion level (10)	Project demonstrated very well. Well defined output achieved (8-10)	Project demonstration and completion is to moderate level (5-7)	Project demonstration and completion is to average level (1-4)
Presentation with Technical knowledge and awareness (20)	Excellent Clarity in presentation. Excellent understanding of subject. Excellent use of visual and communication facilities. Excellent defending of questions. (16-20)	Good Clarity in presentation. Good understanding of subject. Good use of visual and communication facilities. Good defending of questions. (10-15)	Average Clarity in presentation. Average understanding of subject. Average use of visual and communication facilities. Average defending of questions. (4-9)
Outreach of the project through contests or paper presentation (10)	Preparation of a good durable project model and Submission of the paper/ project for conference or for any contest and won meritorious prizes (10)	Preparation of a good durable project model and Submission of the paper/ project for conference or for any contest and participation in it. (7-9)	Preparation of a good durable project model and Submission of the paper/ project for conference or for any contest and no participation in it. (1-6)

Table 2.55 Rubrics for Project Report Evaluation

Category	A	B	C
Report format and logical organization (10)	Project Report is adhering to the specified format. Writing is logical and well organized. No spelling and grammar mistakes. (8-10)	Project Report is not fully adhering to the specified format. Writing is logical and well organized. Less spelling and grammar mistakes. (5-7)	Project Report is not well adhering to the specified format. Writing is logical and well organized. A lot of spelling mistakes. (2-4)
Description of concepts and technical details (20)	Complete explanation of key concepts, strong description of technical requirements of the project. (16-20)	Explanations and descriptions of key concepts and technical knowledge of the project need some more elaborations and supports. (10-15)	Insufficient explanations of key concepts and description of technical details (4-9)
Level of completion and references (20)	Results are presented in good manner, well summarized and concluded. Future extension is included. Sufficient references are included. (16-20)	Results are presented in satisfactorily, summarized and concluded. Future extension is included. References are included. (10-15)	Average presentation of results and conclusions. Results are not conclusive. References are not included. (4-9)

Table 2.56: Rubrics for Final Project Evaluation

Category	A	B	C
Consistent self-motivation and self-determination (10)	Student is continuously self-driven and has high degree of determination (8-10)	Student is mostly self-driven and has good determination (5-7)	Student lacks self-motivation and determination. (2-4)
Implementation of project (20)	Project satisfies all the initially defined objectives to highest degree of satisfaction (16-20)	Project satisfies the objectives to lesser degree of satisfaction (10-15)	Project is completed but do not satisfy all the objectives. (4-9)
Future Scope and relevant contribution to society or environment (20)	Outcome of the project is highly relevant and is able to solve a social or environment problem (16-20)	Outcome of the project is relevant and is able to solve a social or environment problem to some extent. (10-15)	Outcome of the project is not fully helpful to solve social or environmental issues. (4-9)

D. Process to assess individual and team performance (5)

Individual and collective contributions of project group members are assessed separately by the project guide and the project evaluation committee. The guide evaluates each student's contribution through continuous interaction with the group. In turn, the committee assesses individual and collective contribution during project reviews, where each group member presents the project's progress followed by a technical discussion. Based on this presentation and discussion, every student's involvement and individual contribution are assessed as per the rubrics defined for project evaluation.

Figure 2.19 Sample group list

NIRMALA INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING
MAJOR PROJECT GROUP DETAILS

GROUP NO.	SL. NO.	NAME OF STUDENT	NAME OF GUIDE
I	1	Nelen P S	MRS. ASILA THIANKAPPAN
	2	Joshwin Joy	
	3	Aswell Baiju	
	4	Anurag P P	
	5	Adithyan V	
II	1	K S Midhun	MS. SILPA MOHAN K
	2	Rahul C	
	3	Stalin K A	
	4	Krishnanjali T S	
	5	Karthik Krishna K J	
	6	Shaheen A S	
III	1	Vishnu Sunil P	MRS. NEETHU P DAVIS
	2	Joyal James	
	3	Aneesha K A	
	4	Sreekanth C S	
	5	Siya Maria	
	6	Robin Roy	
IV	1	Mohammed Omar K A	MR. NAVEEN PRADEEP
	2	Megha S Prabhu	
	3	Adarsh K G	
	4	Adithya Gopakumar	
	5	Anliya Shaju	
	6	Muhammed Rizwan	

E. Quality of deliverable, working prototypes (12)

Table 2.57 Minor Project – Prototype List

Batch	Name of students	Reg. No	Project Title	POs
2021-2024 Batch				
1	Kiran M S	2101010611	Modelling of Nirmala Institute Building	PO1, PO2, PO3, PO4, PO6, P
	Edwin P Raji	2101010609		
	Dilna Mariya	2101010608		
	Navya A S	2101010616		

	Midhun M N	2101010612		
	Mohamed Jahansha K	2101010614		
	Praveena P P	2101010617		
	Adithkrishna E G	2101013165		
	Jyothika M T	2101013172		
	Sahal Saleem	2101010619		
	Dhanush K D	2101010607		
	Ajin Siddique K s	2101010603		
2	Sarath T S	2101013174	Modelling of Pamban Bridge	PO1, PO2, PO3, PO4, PO5, PO6
	Aloysious Jacob	2101013166		
	Ephy Babu T	2101010610		
	Abdul Ahad T B	2101010601		
	Dijo Davis	2101013169		
	Anjana P S	2101010604		
	Aghad N S	2101010602		
	Angel k R	2101013168		
	Maneesha M M	2101013173		
	Harikrishnan A S	2101013170		
	Stephen N V	2101010621		
	Mirash K J	2101010613		

	Aswindas T P	2101010606		
2022-2025 Batch				
1	Anagha Chandran T	2201011858	Landscaping At Nutmeg Cafe	PO1, PO2, PO3, PO4, PO5, PO6
	Anjana K S	2201011859		
	Archana R	2201011860		
	Gadha V G	2201013246		
	Jees Kumar T S	2201013248		
	Mohamed Rouf A A	2201013250		
	Shone Baby	2201013251		
	Sreehari R P	2201013252		
	Athul T S	2201011867		
	Kashinath Surendran	2201011873		
	Vishnu U N	2201011883		
	Ajith T V	2201013242		
	Anand T V	2201013244		
	Ananya Thilak	2201013245		
	Ganga Narayanan	2201013247		
	Jijeesh K Rajan	2201013249		
	Ardra P M	2201011861		
	Aswathy Thankappan	2201011865		

	Devapriya T S	2201011869		
2	Hrithika Santhosh	2201011872	Modelling of Taj Mahal	PO1, PO2, PO3, PO4, PO5, PO6
	Mariya Shaju	2201011876		
	Meenakshi K S	2201011877		
	Akash M S	2201011853		
	Akshay V S	2201011854		
	AmalKrishna C R	2201011857		
	Arjun V J	2201011862		
	Ashik P J	2201011863		
	Febin Jacob	2201011871		
	Sooraj P J	2201011881		
	Akshay P Yacob	2201013243		
	Abhiram Krishna M M	2201011850		
	Ajay Krishna P K	2201011852		
	Alan Antony	2201011855		
	Ashik Wilson	2201011864		
	Athul P Murali	2201011866		
	Athulkrishna P L	2201011868		
	Sandeep P S	2201011879		
	Sreyas Krishna I B	2201011882		

1

Nelen P S	2301013221
Joshwin Joy	2301010403
Aswell Baiju	2301010401
Anurag P P	2301010400
Adithyan V	2301010395
K S Midhun	2301013220
Rahul C	2301010410
Stalin K A	2301010417
Krishnanjali T S	2301010406
Karthik Krishna K J	2301010405
Shaheen A S	2301010413
Vishnu Sunil P	2301010419
Joyal James E	2301010404
Aneesha K A	2301010398
Sreekanth C S	2301010416
Siya Mariya	2301010414
Robin Roy	2301013222
Mohammed Omar K A	2301010409
Meghna S Prabhu	2301010407

Skywalk At Trissur

PO1, PO2, PO3, PO4, PO5, PO6

	Adarsh K G	2301010393	
	Adithya Gopakumar	2301010394	
	Anliya Shaju	2301010399	
	Muhammed Rizwan	2201011878	

F. Papers published /Awards/ Recognition received by projects at State/ National level (5)

Table 2.58 Details of papers published		
Sl No	Title of the paper	Link of the paper
1	RECYLED AGGREGATE IN CONCRETE	https://www.scribd.com/document/1057988447/Scientific-Journal-Paper-RCA
2	TURBIDITY REMOVAL BY NATURAL COAGULANT	https://www.scribd.com/document/1057992555/Academic-Publishing-Journal-Turbidity
3	PARTIAL REPLACEMENT OF FINE AGGREGATE WITH VERMICULITE IN CONCRETE	https://www.scribd.com/document/1058002004/Partial-Replacement-of-Fine-Aggregate-With-Verm
4	SMART CITY - THE FUTURISTIC CITY	https://www.scribd.com/document/1058005097/Smartcity-Futuristic-City
5	TOWNSHIP	https://www.scribd.com/document/1057994935/Township-Journal
6	STABILIZATION OF CLAYEY SOIL USING COCONUT COIR	https://www.scribd.com/document/1058005709/Soil-Stabilization-Journal
7	COMPARATIVE STUDY ON THE COMPRESSIVE STRENGTH OF REFRACTORY BRICKS	https://www.scribd.com/document/1058007532/Nirmala-Civil-Engineering-Journal
8	STRUCTURAL ANALYSIS AND DESIGN OF A THREE STOREY AND A SINGLE STOREY BUILDING	https://www.scribd.com/document/1057992473/Structural-Journal
9	ANALYSIS AND DESIGN OF AN OFFICE BUILDING	https://www.scribd.com/document/1059010556/Lodge-Building-Journal-No-Date

Table 2.59 Award received by State / National level

Sl. no.	Academic Year	Student Name	Date	Event
1	2021 – 2022	Jyothika M T	17.02.2023	National Level Online Technical Paper Presentation Contest – Civil I Millennium – CENM2023 organized by Govt. Polytechnic Co
2	2021 – 2022	Kiran M S	17.02.2023	National Level Online Technical Paper Presentation Contest – Civil I Millennium – CENM2023 organized by Govt. Polytechnic Co
3	2021 – 2022	Angel k R	17.02.2023	National Level Online Technical Paper Presentation Contest – Civil I Millennium – CENM2023 organized by Govt. Polytechnic Co
4	2022 – 2023	Ardra P M	17.02.2023	National Level Online Technical Paper Presentation Contest – Civil I Millennium – CENM2023 organized by Govt. Polytechnic Co
5	2022 – 2023	Ajay Krishna P K	17.02.2023	National Level Online Technical Paper Presentation Contest – Civil I Millennium – CENM2023 organized by Govt. Polytechnic Co
6	2022 – 2023	Mariya Shaju	17.02.2023	National Level Online Technical Paper Presentation Contest – Civil I Millennium – CENM2023 organized by Govt. Polytechnic Co
7	2022 – 2023	Anjana K S	17.02.2023	National Level Online Technical Paper Presentation Contest – Civil I Millennium – CENM2023 organized by Govt. Polytechnic Co

2.2.5 Industry Interaction and Industry Internship/Training (30)

A. Industry supported Labs (2)

Table 2.60 Details of virtual labs

Details of Virtual Lab Courses			
Sl. No	Name of course	List of Experiment	Virtual Lab with link
1	Material Testing Lab	1. Brinell hardness Test	Strength of Material Lab https://sm-nitk.vlabs.ac.in/-area-civil-engineeri
2	Environmental Engineering Lab	1. Determine dissolved solids as per BIS	Environmental Engineering Lab https://eel-nitk.vlabs.ac.in/-area-civil-engineer
3	Transportation Engineering Lab (5017) - Rev 2021	1. Crushing Value of Aggregate	Transportation Engineering Lab https://ts-nitk.vlabs.ac.in/area
		2.Impact Test on Aggregate	
		3.Los Angeles Abrasion Test on Aggregate	
		4.Ductility Test on Bitumen	
		5.Softening Point Test on Bitumen	
		6.Penetration Test on Bitumen	
		7.Specific Gravity Test on Bitumen	
4	Public Health Engineering Lab (6019) – Rev 2021	1. Determine dissolved solids as per BIS	Environmental Engineering Lab https://eel-nitk.vlabs.ac.in/-area-civil-engineer

B. Delivery of appropriate Course work by Industry experts (5)

Table 2.61 Courses by industry experts

Sl No	Date – Month– Year	Name of the Event	
CAY 2025-2026			
1	06-02-2026	Workshop on AutoCAD for Civil Engineering Drawings	
2	23-01-2026	Workshop on Project Planning using Primavera/MS Project	
3	12-01-2026	Expert Talk and Workshop	
4	08-12-2025	Training on Building Information Modelling (BIM)	
5	15-07-2025	Seminar on Total Station Survey	
6	22-07-2025	Integrated Civil Engineering Council Program	
CAYm1 2024-2025			
1	19-02-2025	Training on Building Information Modelling (BIM)	
2	05-02-2025	Career Guidance Workshop	
3	10-12-2024	Workshop on Project Planning using Primavera/MS Project	
4	28-10-2024	Expert Talk and Workshop	
5	28-09-2024	Industry Expert Talk and Workshop	

6	03-09-2024	Workshop on the Topic of Construction Industry Scope and Challenges	
CAYm2 2023-2024			
1	25-03-2024	Integrated Civil Engineering Council Program	
2	02-03-2024	Project Exhibition and Auto Expo	
3	13-02-2024	Total Station Survey Camp	
4	10-01-2024	Workshop on AutoCAD for Civil Engineering Drawings	
5	06-12-2023	Workshop on Project Planning Using Primavera/MS Project	
CAYm3 2022-2023			
1	23-02-2023	Career Guidance Workshop	
2	24-01-2023	Industry Talk and Workshop	
3	04-01-2023	Workshop on Civil Career Opportunities and Real Time Experience	
4	15-12-2022	Workshop on AutoCAD for Civil Engineering Drawings	

C. Industrial visits/tours for students (3)

Table 2.62 Details of industrial visits

Sl.No	Academic Year	Tot
1	CAY:2025-26	
2	CAY:2024-25	
3	CAYm1:2023-24	
4	CAYm2:2022-23	

Table 2.63 List of Industrial Visits

Sl.No	Year/Sem	Date(s)	No. of Students	
CAY 2025-2026				
1	II/IV & III/VI	26/02/2026	41	
2	II/III & III/V	15/09/2025	35	Bt
3	II/IV &III/VI	13/02/2025	61	I
CAYm1 2024-2025				
1	II/III & III/V	25/11/2024	63	
2	II/IV & III/VI	02/02/2024	60	Che

CAYm2 2023–2024				
1	II/III & III/V	9/2/2024	72	
2	II/IV & III/VI	8/09/2023	69	
CAYm3 2022–2023				
1	II/III & III/V	23/09/2022	81	
2	II/IV & III/VI	10/03/2023	80	Bt

D. Industrial training/ internship (5)

Table 2.64 Details of internships				
Sl.No	Year	No of Students	Name Of The Company	Period
CAY 2025- 2026				
1	II	12	Pie Builders & Developers	12-05-2025 To 27-05-2025
2	III	21	Proud Homes Private Limited, Builders and Interiors	06-05-2025 To 31-05-2025
3	III	2	Archon Engineers	05-05-2025 To 02-06-2025
% of Students completed internship= <u>No of students completed internship</u> = <u>35</u> = 100%				
		Total no of students	35	

CAY m1 2024-2025				
4	II	7	CN Construction Company Pvt. Ltd	23-05-2024 To 11-06-2024
5	II	8	Arrow Construction	23-05-2024 To 11-06-2024
6	II	7	Madeckal Construction	25-05-2024 To 11-06-2024
7	III	26	Pie Builders and Developers	03-06- 2024 TO 23-06-2024
8	III	6	Land Development Corporation. Ltd	03-06-2024 TO 22-06-2024
9	III	8	Cn Construction Company Pvt. Ltd	04-06- 2024 TO 24-06- 2024
% of Students completed internship= $\frac{\text{No of students completed internship}}{\text{Total no of students}} = \frac{62}{62} = 100\%$				
CAY m2 2023-2024				
10	II	29	Nirmala College of Engineering Technology and Management	03-05-2023 TO 19-05-2023
11	III	29	Holy Blue Interio	03-05- 2023 TO 31-05-2023
% of Students completed internship= $\frac{\text{No of students completed internship}}{\text{Total no of students}} = \frac{58}{58} = 100\%$				

Total no of students				58
CAY m3 2022-2023				
12	II	20	TDLC	03-05-2022 TO 17-05-2022
13	III	39	Crivitz Endeavor	19-09-2022 TO 30-09-2022
14	III	10	Nirmithi Kendra Thrissur	18-09-2022 TO 30-09-2022
15	III	1	Arch Consultants and Engineers Pvt .Ltd	19-09-2022 TO 30-09-2022
% of Students completed internship= $\frac{\text{No of students completed internship}}{\text{Total no of students}} = \frac{70}{70} = 100\%$				
Total no of students				70

E. Post training/ internship Assessment (10)

After completing the industrial training, students have to submit a report about the functioning of the industry they visited and their learning experience. Viva voce is conducted for each student as part of evaluation. The internships as mentioned in AICTE INTERNSHIP POLICY: GUIDELINES & PROCEDURES. The main purpose of writing daily is to cultivate the habit of documenting and to encourage the students to search for details. It develops the students' thought day-to-day account of the observations, impressions, information gathered and suggestions given, if any. It should contain the sketches & drawings related to the observations made by the students. The daily training diary should be signed by the student working. The diary should also be shown to the Faculty Mentor visiting the industry from time to time and got ratified on the day of his visit. Student's Diary and Internship Report should be submitted by the students along with attendance sheet immediately after the completion of the training. It will be evaluated on the basis of the following criteria:

- Regularity in maintenance of the diary.
- Adequacy & quality of information recorded.
- Drawings, sketches and data recorded.
- Thought process and recording techniques used.
- Organization of the information.

Internship Report

After completion of Internship, the student should prepare a comprehensive report to indicate what he has observed and learnt in the training period. The student may contact Industrial Supervisor/ Faculty Mentor/TPO for assigning special to will also help to a great extent in writing the industrial report since much of the information has already been incorporated by the student into the daily diary. The training report should be signed by the Internship Supervisor, TPO and Faculty

- 1. Originality.
- 2. Adequacy and purposeful write-up.
- 3. Organization, format, drawings, sketches, style, language etc.
- 4. Variety and relevance of learning experience.
- 5. Practical applications, relationships with basic theory and concepts taught in the course.

Assessment of Internship I and Internship II

Internship I & II shall be assessed by ESE only. The ESE shall be conducted by the concerned faculty. Award of marks for Internship for a maximum mark of 75, shall be based on criteria as follows:

Table 2.65 Marking criteria of Internship

Sl. No.	Criteria	Weightage (%)
1	Presentation by the student at the end of the internship	20%
2	Daily Activity Report	10%
3	Comprehensive report on Internship	30%
4	Relevant Internship Certificate from the concerned department	30%
5	Attendance and Punctuality	10%

F. Contribution to Community related projects/activities (5)

Table 2.66 Contribution to community related projects / activities

Batch	Name of students	Project title	Effectiveness
2023-2026 Batch			
	Nelen P S		Enhances planning, design, modelling and practical problem-solving skills in civil engineering
	Joshwin Joy		
	Aswell Baiju		

Anurag P P
Adithyan V
K S Midhun
Rahul C
Stalin K A
Krishnanjali T S
Karthik Krishna K J
Shaheen A S
Vishnu sunil P
Joyal James
Aneesha K A
Sreekanth C S
Siya Mariya
Robin Roy
Mohammed Omar K A
Meghna S Prabhu
Adarsh K G
Adithya Gopakumar
Anliya Shaju
Muhammed Rizwan

1

Anagha Chandran T

Anjana K S

Archana R

Gadha V G

Jees Kumar T S

Mohamed Rouf A A

Shone Baby

Sreehari R P

Athul T S

Kashinath Surendran

Vishnu U N

Ajith T V

Anand T V

Ananya Thilak

Ganga Narayanan

Jitheesh K Rajan

Ardra P M

Aswathy Thankappan

Devapriya T S

Landscaping At Nutmeg Cafe

Improves students' skill in landscape planning, site development and sustainable campus beautification

2	Hrithika Santhosh	Analysis of River Water Quality and Pollution Control Strategies at Kalady Region	Enhances students’ skills in water quality assessment, pollution analysis and environmental protection for sustainable community development
	Mariya Shaju		
	Meenakshi K S		
	Akash M S		
	Akshay V S		
	AmalKrishna C R		
	Arjun V J		
	Ashik P Jose		
	Febin Jacob		
2021-2024 Batch			
1	Kiran M S	Planning, Design and Analysis of a Hospital Building	Develops practical skills in planning, structural design and preparation of healthcare infrastructure
	Edwin P Raji		
	Dilna Mariya		
	Navya A S		
	Midhun M N		
	Mohamed Jahansha K		
	Praveena P P		
	Adithkrishna E G		
	Jyothika M T		
	Dhanush K D		

2	Dijo Davis	Eco friendly green restaurant	Enhances students' Knowledge in sustainable building design, ecofriendly construction, and green infrastructure planning
	Anjana P S		
	Aghad N S		
	Angel k R		
	Maneesha M M		
	Harikrishnan A S		
	Stephen N V		
	Mirash K J		
	Aswindas T P		

2.2.6 Information Access Facilities and Student Centric Learning Initiatives (15)

A. Availability of facilities & Effective Utilization; *specify the facilities, materials and scope for self-learning, Webinars, NPTEL Podcast, MOOCs etc* (10)

Lecture Methods

The traditional lecture method continues to form the foundation of classroom instruction, wherein faculty members deliver structured content through explanation, illustration, and discussion. To make this method more effective, faculty use interactive questioning to ensure two-way communication rather than passive listening. Lecture plans are typically mapped to course outcomes (COs), and faculty maintain lecture schedules and coverage records, which can be cited as evidence.

Digital Library

The institution provides access to a **Digital Library** to support teaching, learning, research, and self-learning. It enables students and faculty to access e-books, e-journals, online databases, and other digital learning resources through a **anytime, anywhere access to academic resources**.

Use of ICT for Learning

Information and Communication Technology is integrated across the teaching-learning process to enhance comprehension and engagement. Faculty use LCD projectors, digital content, simulations, animations, and subject-specific software/tools and repositories (SWAYAM, NPTEL, MOOCs), and digital assignment submission, thereby making learning more flexible and learner-centric. Percentage of ICT-enabled classrooms and faculty participation in ICT-based teaching can be quantified.

Collaborative Learning

Collaborative learning strategies such as group discussions, peer teaching, think-pair-share activities, and team-based projects are employed to develop critical thinking, communication, and interpersonal skills among students. This method is used to construct knowledge together, resolve problems collectively, and learn from diverse perspectives.

Induction Program for Freshers (Teachers)

A structured induction/orientation program is conducted for newly recruited faculty to familiarize them with the institutions vision, mission, academic policies, teaching-learning frameworks, examination systems, and use of ICT tools.

Google Classroom

Google Classroom is used as a Learning Management System (LMS) to streamline communication between faculty and students. It facilitates sharing of study materials, assignment distribution and submission, announcements, and online ass

Project-Based Learning

Students are engaged in mini and major projects that require them to apply theoretical knowledge to solve real-world or industry-relevant problems. This method fosters research aptitude, teamwork, time management, and practical ski presentations, and viva-voce, and can be linked to employability and outcome-based education (OBE) frameworks.

Seminar

Seminars are conducted where students research a topic independently and present their findings before peers and faculty. This method builds presentation skills, subject depth, confidence, and the ability to handle questions/discussion documented as supporting evidence.

Self-Learning Resources

Institutions provide access to e-books, digital libraries (e.g., NDLI, DELNET), recorded lectures, and open educational resources (OERs) to promote autonomous learning beyond classroom hours. This method nurtures self-directed learning on individual capability and interest.

ICT-Enabled Delivery Methods

This encompasses the systematic utilization of technology-enhanced tools such as Learning Management Systems, virtual classrooms (Zoom/Google Meet/MS Teams), multimedia content, and online assessment platforms to deliver curriculum content accessibility, and richer, more engaging pedagogy compared to conventional chalk-and-talk methods.

Smart Classrooms

Smart classrooms are equipped with interactive whiteboards/smart boards, LCD projectors, audio-visual systems, and internet connectivity to create an immersive and technology-enabled learning environment. These facilities allow faculty to making abstract or complex topics easier to visualize and understand.

Webinars and Online Sessions

The institution organizes webinars, guest lectures, and online sessions featuring industry experts, alumni, and academicians to expose students to current industry trends, emerging technologies, and career guidance beyond the regular curriculum.

B. Student Centric Learning Initiatives & Effective Implementation (5)

1. Departmental Library

The department maintains a dedicated library housing a comprehensive collection of textbooks, reference books, and subject-specific resources aligned with the curriculum across all semesters. In addition to prescribed textbooks, the library explore advanced concepts, competitive examination preparation material, and topics of personal academic interest. This localized library within the department reduces dependency on the central library, offers easier and quicker access to students. Books are issued to students through a systematic register/log maintained by the department, ensuring accountability and traceability of resources. This initiative is particularly effective for students who need quick reference materials.

2. Videos (Multimedia-Based Learning)

Recognizing that different students grasp concepts better through different modes of learning, the department incorporates multimedia resources — including text, audio, images, animations, videos, and interactive content — as a complementary effective for demonstrating processes, mechanisms, and abstract concepts that are difficult to convey through lecture alone. This blended approach caters to diverse learning styles (visual, auditory, and kinaesthetic learners), improves retention of videos as part of course delivery, either during class or through platforms like Google Classroom for self-paced viewing.

3. NPTEL Videos

The department actively encourages students to access NPTEL (National Programme on Technology Enhanced Learning) video lectures as part of its online and blended learning strategy. NPTEL, being a joint initiative of IITs and IISc, disciplines, giving students exposure to teaching styles and depth of content beyond the classroom. This is considered one of the most significant developments in contemporary education, democratizing access to premier institutional c directed to specific playlists relevant to their curriculum, such as:

- https://youtu.be/CsKddkggwVv?list=PLyqSpQzTE6M_SM0Lrnzk2dJFwElh0Ebhu
- <https://youtu.be/89Ck2QkwTX4>

Faculty may also integrate NPTEL certification courses as add-on credit options, further strengthening students subject expertise and resume value.

4. Wi-Fi Campus

The entire campus is Wi-Fi enabled with high-speed internet connectivity, ensuring students have seamless access to online resources, digital libraries, e-content, and learning platforms from anywhere within the campus — classrooms, lit other ICT-based and student-centric initiatives (NPTEL access, Google Classroom, online assessments, multimedia learning, and self-learning resources), as it removes connectivity as a barrier to digital learning. Uninterrupted inter communication with faculty outside class hours.

2.2.7 New Initiatives for embedding Professional Skills (15)

A. Employability skill enhancement Initiatives and effective implementation (8)

Innovation and Entrepreneurship Development Cell (IEDC)

The institute has established a well-functioning Innovation and Entrepreneurship Development Cell (IEDC) with the objective of fostering an entrepreneurial mindset and innovative thinking among students. The cell regularly organi interprofessional and cross-functional skills that go beyond the boundaries of a single discipline, preparing students to collaborate effectively in diverse, real-world professional environments.

In addition to knowledge-based sessions, the IEDC places strong emphasis on experiential learning by conducting hands-on sessions, where students are given a dedicated platform to learn, practice, and refine new skills under expert guidanc business model development, pitching techniques, and startup fundamentals, thereby nurturing an innovation-driven culture on campus.

Through structured mentoring, exposure to industry practices, and opportunities for practical application, the IEDC plays a pivotal role in encouraging students to think beyond conventional career paths and consider entrepreneurship and in invited, student participation numbers, and outcomes (such as student startups, prototypes, or business plans developed) serve as strong evidence for this initiative.

Career Guidance Training Program

To support students in making informed career decisions, the institute organizes a structured Career Guidance Training Program for every batch of students, typically conducted during the second year or final year of their studies. This timing the job market or pursuing higher education.

The program is designed to equip students with essential career-readiness skills, including resume/CV building, interview techniques, group discussion strategies, aptitude and reasoning preparation, and awareness of industry expectations counselors, or industry professionals, helping students identify suitable career paths based on their individual strengths, interests, and academic background.

This initiative reflects the institutes commitment to holistic student development, ensuring that academic learning is complemented by practical career preparedness, ultimately improving placement outcomes and better equipping studen records, session schedules, resource person details, and feedback forms typically serve as documentary evidence for this activity.

Table 2.67 Employability skill enhancement initiatives

Sl. No	Name of the Event	Date-Month-Year	
1	Skill development training program	19-01-2022	Er. Saja M. Tecl

2	Total Station Survey Workshop	15-07-2025	Er. Anis Heritag
3	Civil Engineering Industry Talk	28-10-2024	Mr. Ath Managi
4	Expert Talk and Workshop	12-01-2026	Mr. Ath Managi
5	Training On Building Information Modelling (Bim)	08-12-2025	Er. Saja M. Tecl

B. Personality development related Initiatives & effective implementation (7)

Sl. No.	Academic Year	Total Personality Development Sessions Conducted
1	2025–26	3
2	2024–25	4
3	2023–24	2
4	2022–23	2
5	2021–22	1
6	2020–21	1

Table 2.68 Number of personality development sessions conducted

Table 2.69 List of personality development programs conducted

Sl. No.	Academic Year	Name of Personality Development Programme	
2025-26			
1	2025-26	Communication Skills	Mr. James Thazhathu
2	2025-26	Aptitude Training	Mr. Jojo T Antony
3	2025-26	Soft Skills & Group Discussion Mock	Mr. Jojo T Antony
2024-25			
1	2024-25	Aptitude Training	Mr. Jojo T Antony
2	2024-25	Soft Skills & Group Discussion Mock	Mr. Jojo T Antony
3	2024-25	Communication Skills	Mr. Minoor Manmadhan
4	2024-25	Personality Development and Motivation	Mr. Poullose T. O.
2023-24			
1	2023-24	Aptitude Training	Mr. Jojo T Antony
2	2023-24	Soft Skills & Group Discussion Mock	Mr. Jojo T Antony
2022-23			
1	2022-23	Aptitude Training	Mr. Jojo T Antony
2	2022-23	Soft Skills & Group Discussion Mock	Mr. Jojo T Antony
2021-2022			
1	2021-2022	Motivational Speaker	Mr. Jubin Kodiyamkunne
2020-2021			
1	2020-2021	Asian, Solidarity economic commission coordinator	Mr. Ebin Kanivayalil

2.2.8 Co-curricular & Extra Curricular Activities (10)

Table 2.70 Number of participants in Co-curricular and Extracurricular activities

Sl. No.	Academic year	No. of students Participated (Co-Curricular)	
1	2025-2026	21	
2	2024-2025	19	
3	2023-2024	13	
4	2022-2023	9	
5	2021	11	

Table 2.71 Details of Co-Curricular activities

CAY 2025-2026			
Sl.No	Name of Student	Event Description	Event Level (Inter- Institute/State/National)
1	Adarsh K G	Workshop	Inter Institute
	Adithya Gopakumar		
	Joshwin Joy		
	Joyal James E		
	Krishnanjali T S		
	Meghna S Prabhu		

	Muhammed Omar K A		
	Rahul C		
2	Joyal James E	Technical Quiz	National
3	Joyal James E	Project Expo	Institute
	Krishnanjali Ts		
	Meghna S Prabhu		
	Rahul C		
4	Nelen P S	Workshop	National
5	Muhammed Riswan	Workshop	State
6	Siya Mariya	Debate Competition	Institute
7	Vishnu Sunil P	Model Making Competition	Institute
8	Joshwin Joy	Cad Drafting Competition (Autocad)	Institute

9	Joyal James E	Webinar	State
10	Rahul C	Workshop	Inter Institute
	Krishnanjali Ts		
	Aneesha K A		
	Meghna S Prabhu		
	Nelen Ps		
	Muhammed Riswan		
11	Mohamed Omar K A	Bridge Design Competition	Institute
12	Stalin K A	Survey Camp	Institute
13	K. S. Midhun	Model Making Competition	Institute
14	Adarsh K G	Workshop	State
	Adithya Gopakumar		
	Joshwin Joy		
	Krishnanjali T S		

	Mohammed Omar K A		
	Nelen Ps		
15	Mohammed Rouf A A	Mega Campus Quiz 2025	Inter Institute
16	Aswell Baiju	Bridge Design Competition	Institute
17	Karthik Krishna K J	Survey Camp	Institute
18	Shaheen A S	Bridge Design Competition	Institute
19	Nelen P S	Survey Camp	Institute
20	Adarsh K G	Paper Presentation	Inter Department
21	Meghna.S.Prabhu	Paper Presentation	Inter Department
CAY m1 2024-2025			
S. No .	Name of the Student	Event Description	Event Level (Inter-Institute / State/National)
1	Ajay Krishna P K	Webinar	State
	Anagha Chandran T		
	Gadha V G		

	Sreehari K P		
	Sandeep P S		
2	Akshay V S	Workshop	State
	Athul Murali		
	Athul Krishna P L		
3	Ajay Krishna P K	Seminar	Institute
4	Abhiram Krishna	Workshop	State
5	Ajay Krishna P K	Online Quiz	National
	Athulkrishna P L		
	Archana R		
	Devapriya T S		
	Hrithika Santhosh		
	Ajith T V		
	Meenakshi Ks		
6	Ajaykrishna P K	Webinar	State
	Akshay V S		
	Athul T S		
	Devapriya T S		
	Sooraj P J		

	Ganga Narayanan		
	Kasinath Surendran		
	Gadha V G		
7	Anagha Chandran T	Debate	State
	Archana R		
	Ardra P M		
8	Anagha Chandran T	Workshop	Inter Institute
	Anjana K S		
	Archana R		
9	Shone Bobby	Mega Campus Quiz	Institute
10	Vishnu U N	Tech Fest	Institute
11	Sreehari K P	Innovation Challenge)	Institute
12	Jijesh K Rajan	Project Exhibition	Institute
13	Anjana K S	Technical Summit	State
14	Vishnu U N	Paper Presentation	Inter Department
15	Ajith T V	Group Discussion	Inter Department

16	Gadha V G	Seminar	Inter Department
17	Sreehari K P	Survey Camp	Inter Department
18	Anand T V	Model Making Competition	Inter Department
19	Ajaykrishnan. P.K	Group Discussion	Inter Department

CAY m2 2023-2024

S. No	Name Of The Student	Event Description	Event Level (Inter-Institute / State/National)	
1	Navya A S	Project Presentation	Inter Department	Nirmala
	Dilna Mariya			
	Kiran M S			
2	Sarath T S	Mix Design training& Cube Testing Competition	Inter Institute	Scm
	Dijo Davis			
	Aloysious Jacob			

3	Maneesha M M	Online Quiz	National	Ministry Of Elec
	Jyothika M T			
	Harikrishnan A S			
4	Jack Thommi	Quiz Competition	National	In
	Anjana P S			
5	Stephen N V	Technical Quiz	State	(
	Praveena P P			
6	Ajaykrishnan. P.K	Building Design Competition	Inter Institute	Scm
7	Stephen N V	Workshop	State	(
	Praveena P P			
	Dilna Mariya			
8	Anjana P S	Online Quiz	National	
9	Stephen N V	Seminar	State	(
	Praveena P P			
	Ephy Babu T			
	Dilna Mariya			

10	Archana R	Building Design Competition	Inter Institute	Scm
11	Athul T S	Seminar Presentation	Inter Department	Nirma
12	Shone Bobby N	Paper Presentation	Inter Department	Nirma
13	Sreyes Krishna I B	Seminar	Inter Department	Nirma

CAY m3 2022-2023

S. No	Name of the Student	Event Description	Event Level (Inter-Institute State/ National)	
1	Midhun M N	Workshop	State	Core Inst
	Aghad N S			
	Angel K R			
	Midhun M N			
	Dhanish K D			
	Aswindas T P			
2	Praveena P P	Seminar	Inter Department	Nirmala In
3	Midhun M N	Quiz Competition	Inter Department	Nirmala In

4	Stephen N V	Debate	Inter Department	Nirmala In
5	Adithkrishna E G	Essay Writing Competition	Inter Department	Nirmala In
6	Jyothika M M	Quiz Competition	Inter Department	Nirmala In
7	Aswindas T P	Essay Writing Competition	Inter Department	Nirmala In
8	Aswindas T P	Webinar	State	Core Inst
	Angel K R			
	Dhanish K D			
	Midhun M N			
	Mirash K J			
9	Amritha K	Project Presentation	Inter Department	Nirmala In
CAY m4 2021-2022				
S. No	Name Of The Student	Event Description	Event Level (Inter-Institute State/National)	
1	Aswin P S	Online Quiz	Inter Department	Nirmala In

2	Visakh V S	Poster Presentation Competition (Online)	Inter Department	Nirmala In
3	Deeraj K R	Online Quiz	Inter Department	Nirmala In
4	Sarangi V S	Online Debate	Inter Department	Nirmala In
5	Vidhya K V	Online Debate	Inter Department	Nirmala In
6	Aromal P A	Online Quiz	Inter Department	Nirmala In
7	Aswin P S	Poster Presentation Competition (Online)	Inter Department	Nirmala In
8	Sushik P S	Cad Design Competition (Online)	Inter Department	Nirmala In
9	Visakh V S	Cad Design Competition (Online)	Inter Department	Nirmala In
10	Anjana N S	Webinar	State	Core Insti
11	Ramsana P.A	Workshop (Online)	State	Core Insti
	Sarangi.V.S			
	Sumayya P S			
	Rahul Ramachandran			
	Anjana N S			

			Gayathridevi P G							
			Sushik P S							
			Nidhin P S							
			Hima Shaju							
			Aiswarya							
			Aleena Jaison							
			Gopika M S							
			K P S Prabhu							
			Nidhin P S							
			Visakh V S							
			Aaromal P A							

Table 2.72 Details of extra-curricular activities

CAY 2025-2026				
S. No	Name of the Student	Event Description	Event Level (Inter- institute / State/National)	
1	Adarsh K.G	Blood Donation Camp	State	Dept. Of Trans
	Adithya Gopakumar			
	Anurag P.P			

	Joyal James			
	Karthik Krishna			
2	Aswell Baiju	E- Football (Techfest Genezis 2k26)	Institution	Govt. Po
	Sreekanth C.S			
3	Anliya Shaju	Nadanpattu	Inter -Institute	
4	Aneesha K A	Fashion Show (Freshers Day Celebration, HOLA)	Inter -Institute	
	Anliya Shaju			
5	Ridha N R	NSS Camp conducted at RUP School Meloor	Institution	
	Akshaya Siji			
	Gopika S			
	Amaya V			
CAY m1 2024-2025				
1	Abhiram Krishna M M	KAPA 4 TH Thrissur Bodybuilding & Physique Championship 2025(55 K G)	State	Thrissu
2	Abhiram Krishna M M	Natural Mr. Kerala Championship 24-25	State	
3	Abhiram Krishna M M	Inter House Cricket	Inter -Institute	
	Ashik Wilson			
4	Anagha Chandran	Mega Thiruvathira	Inter -Institute	
	Anjana K. S			
	Archana.R			

	Ardra P.M			
	Aswathy Thankappan			
	Hrithika Santhosh			
	Mariya Shaju			
5	Nandhana V S	NSS Camp conducted at RUP School Meloor	Institution	
	Kannan M.S			
	Athulkrishna U A			
	Aishani			
6	AthulKrishna P S	Social Service @ meloor Gramapanchayath, Choondal Grama Panchayath	Institution	
	Kashinath Surendran			
	Sreyes Krishna			
	Athul T. S			
	Sreehari K.P			
	Gadha V G			
	Ajith T .V			
	Anand T. V			
	Ganga Narayanan			
7	Anagha Chandran	Fashion Show (Freshers Day Celebration, HOLA)	Inter -Institute	
	Anjana K S			
	Archana .R			

	Deva Priya T.s			
	Hrithika Santhosh			
	Jeeskumar T.S			
	Ashik Wilson			
8	Krishnanjali T. S	Logo Designing	Inter -Institute	
9	Rahul C	Volunteer @ Dept Association Inaguration Programme	Institution	
10	Ardra P.M	Throwball	Inter -Institute	
	Aswathy Thankappan			
	Athul Krishna P.L			
	Deva Priya T.S			
	Mariya Shaju			
	Meenakshi K.S			
	Ajith T.V			
	Anand T.V			
11	Arjun V.J	football	Inter -Institute	
	Sreyes Krishna			
	Vishnu U N			
	Akshay P Yacob			

12	Aswathy Thankappan	Freshers day (HOLA) Stall Making	Inter -Institute	
	Athul Krishna P.L			
	Sandeep P.S			
	Shone Bobby			
	Ashik Wilson			
13	Sandeep P.S	Blood Donation	State	
	Jijesh .K. Rajan			
14	Anjana P S	Income Tax Quiz, conducted by income tax department, CBDT, Govt of India	National	
CAY M2 2023-2024				
1.	Aneesha K A	Thiruvathira	Inter -Institute	
	Anliya Shaju			
	Meghana S Prabu			
	Anjana K. S			
	Mariya Shaju			
	Deva Priya T.S			
	Hrithika Santhosh			
	Meenakshi K.S			
2	Anagha Chandran T	NSS state level leadership training Camp.	State	Govt. Poly
	Anjana K. S			
3	Anjana K. S	NSS Adventure Camp		Gov

			State	
4	Anagha Chandran. T	Patriotic Song	Inter -Institute	
	Archana. R			
	Ardra P.M			
	Aswathy Thankappan			
	Gadha V.G			
	Ganga Narayanan			
5	Kashinath Surendran	Tech Fest	Institution	
	Vishnu U N			
	Jijeesh .K. Rajan			
	Sreehari K P			
	Mohamed Rouf A.A			
	Ajith T.V			
6	Sandeep P. S	Seminar Presentation	Institution	
	Sreyes Krishna			
7	Sreyes Krishna	Single Dance (boys)	Inter -Institute	NCETM
8	Vishnu U N	Cartoon Drawing	Inter -Institute	
9	Ajith T.V	Blood Donation	District	Govt .
10	Gadha V. G	Poem Recitation in malayalam	Inter -Institute	

11	Gadha V. G	Light Music	Inter -Institute	
12	Jijeesh .K. Rajan	Treasure hunt	Inter -Institute	
	Mohamed Rouf A.A			
	Shone Bobby			
13	Ashik Wilson	Water Colouring	Inter -Institute	
14	Ashik Wilson	Sports 1500m boys	Inter -Institute	
15	Ashik Wilson	Sports 4 x 400 relay boys	Inter -Institute	
16	Ashik Wilson	Sports 3000m boys	Inter -Institute	
17	Ashik Wilson	Sports 800m boys	Inter -Institute	
18	Ashik Wilson	District level 5000m	District	
19	Ashik Wilson	Chess	Inter -Institute	
20	Ashik Wilson	5000m (men) 63 rd Kerala state polytechnic athletics Championship 23-24	State	A

21	Ajin Siddique	Social Service @ meloor Gramapanchayath, Choondal Grama Panchayath	Institution	
	Dhanush K D			
	Mirash K J			
	Midhun M N			
	Kiran M S			
	Aslam K R			
	Sahal Saleem			
	Sharook K A			
	Adith Krishna E G			
	Aghad N S			
	Aswin Das			
	Rakhil Raman			
	Edwin P Raji			
	Stephen N V			
22	Aslam K R	Mappilappattu, on Arts day Dhwanika	Inter -Institute	
23	Sarath T S	Blood Donation	District	Govt .
CAY m3 2022-2023				
1	Athul Krishna P. L	Mime	Inter -Institute	
	Vishnu U N			
2	Ashik Wilson	Football	Inter -Institute	

	Abhinav K B			
	Vyshnav M.D			
	Edwin			
3	Aghad N S	A Training on Defensive Driving, Conducted by Honda Motorcycle& Scooter India Pvt. Ltd	Institution	
	Ajin Siddique K S			
	Danush K.D			
	Mirash K J			
	Muhammed Jehansha K			
	Aloysious Jacob			
	Dijo Davis			
	Aslam K R			
4	Ashik Wilson	Sports 5000m (men) 62 nd Kerala state polytechnic college Games	State	
5	Ashik Wilson	Sports 1500m (men) 62 nd Kerala state polytechnic college Games	State	
6	Aslam	Group Song, on Arts day DhwaniKa	Inter -Institute	
7	Dilna Mariya	Paining- Oil Colour in the Kerala state polytechnic college kalolsavam	state	Sree Narayana Po
8	Muhammed Jehansha	Football on sports day	Inter -Institute	
9	Amritha K	Poetry Writing-Eng in the Kerala State Polytechnic College Kalolsavam 22-23	State	Sree Narayana Po
10	Amritha K	Short Story – English in Arts day DhwaniKa 23	Inter -Institute	

11	Sree Lakshmi M P	High Jump on Sports Day 22-23	Inter -Institute	
CAYm4 2021-2022				
1	Aghad N S	Mime on Arts Festival	Inter -Institute	
	Ajin Siddique K S			
	Danush K.D			
	Sahal Saleem			
	Sharook K A			
2	Praveena P.P	Kadha Rachana in Arts Festival 21-22	Inter -Institute	

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (100)

Define the Program specific outcomes

PSO1	To understand, read, draw & interpret drawings of c
PSO2	To apply the laboratory investigations, code of prac

3.1 Establish the correlation between the courses and the POs and PSOs (20)

3.1.1 Course Outcomes (SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses) (5)

Note : Number of Outcomes for a Course is expected to be 3 to 5.

Course Name :

C1 03

Course Year :

2022-25

Course Name	Statements
C1 03.1	Apply laws of mechanics in rocket propulsion and recoil of gun.
C1 03.2	Apply concepts of circular motion and rotational motion
C1 03.3	Make use the concepts of energy, power, work, temperature and friction to solve problems
C1 03.4	Use the theorems of fluid dynamics in atomizer and airfoil

Course Name :

C1 15

Course Year :

2022-25

Course Name	Statements
C1 15.1	Compute area of land by using principles of chain and plane table survey
C1 15.2	Determine bearings and angles by compass survey
C1 15.3	Compute the level difference and gradient using principles of leveling
C1 15.4	Plot longitudinal section and cross sections of surfaces

Course Name :

C2 02

Course Year :

2022-25

Course Name	Statements
C2 02.1	Make use of contour maps for volume computation
C2 02.2	Apply Theodolite survey in field.
C2 02.3	Outline the working principles and applications of electronic theodolite and total station.
C2 02.4	Summarize the applications of Remote sensing, GPS and GIS in survey works.

Course Name :

C2 15

Course Year :

2022-25

Course Name	Statements
C2 15.1	Understand the principles and procedure for estimation and costing of Civil Engineering works
C2 15.2	Carryout the rate analysis of different items associated with construction projects
C2 15.3	Prepare detailed estimates for infrastructure projects
C2 15.4	Assess the property value and fix rent

Course Name :

C3 05

Course Year :

2022-25

Course Name	Statements
C3 05.1	Summarize the components of various transportation systems and collection of traffic data.
C3 05.2	Identify the various material tests and construction methods of road.
C3 05.3	Illustrate the geometrical design features of roadways and railways
C3 05.4	Outline the different modes of transportation and importance of bridge and tunnel

Course Name :

C3 16

Course Year :

2022-25

Course Name	Statements
C3 16.1	Outline the factors affecting durability of buildings and role of maintenance
C3 16.2	Analyze the common defects in building components
C3 16.3	Summarize the common defects in building services, its causes preventive and remedial measures
C3 16.4	Outline retrofitting, restoration and conservation of building and heritages

3.1.2 CO-PO matrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 1st to 6th semester) (5)

1 . course name : C203

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C103.1	3 ▾	3 ▾	1 ▾	2 ▾	- ▾	- ▾	1 ▾
C103.2	3 ▾	3 ▾	2 ▾	2 ▾	- ▾	- ▾	1 ▾
C103.3	3 ▾	3 ▾	2 ▾	2 ▾	2 ▾	- ▾	1 ▾
C103.4	3 ▾	3 ▾	2 ▾	2 ▾	2 ▾	- ▾	1 ▾
Average	3.00	3.00	1.75	2.00	2.00	0.00	1.00

2 . course name : C215

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C115.1	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾
C115.2	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾
C115.3	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾
C115.4	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾
Average	3.00	2.00	1.00	3.00	0.00	0.00	0.00

3 . course name : C302

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C202.1	3 ▾	3 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾
C202.2	3 ▾	3 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾
C202.3	3 ▾	- ▾	3 ▾	3 ▾	3 ▾	- ▾	3 ▾
C202.4	3 ▾	- ▾	3 ▾	3 ▾	3 ▾	- ▾	3 ▾
Average	3.00	3.00	2.00	3.00	3.00	0.00	3.00

4 . course name : C315

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C215.1	3 ▾	- ▾	2 ▾	- ▾	- ▾	- ▾	1 ▾
C215.2	3 ▾	2 ▾	2 ▾	1 ▾	- ▾	- ▾	1 ▾
C215.3	3 ▾	- ▾	2 ▾	1 ▾	- ▾	- ▾	1 ▾
C215.4	3 ▾	3 ▾	2 ▾	1 ▾	- ▾	3 ▾	1 ▾
Average	3.00	2.50	2.00	1.00	0.00	3.00	1.00

5 . course name : C405

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C305.1	3 ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	1 ▾
C305.2	2 ▾	1 ▾	- ▾	3 ▾	- ▾	- ▾	1 ▾
C305.3	2 ▾	- ▾	1 ▾	2 ▾	3 ▾	- ▾	1 ▾
C305.4	2 ▾	1 ▾	- ▾	- ▾	3 ▾	1 ▾	1 ▾
Average	2.30	1.50	1.00	2.50	3.00	1.00	1.00

6 . course name : C416

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C316.1	2 ▾	1 ▾	1 ▾	- ▾	- ▾	- ▾	1 ▾
C316.2	2 ▾	1 ▾	1 ▾	- ▾	1 ▾	- ▾	- ▾
C316.3	2 ▾	3 ▾	1 ▾	2 ▾	- ▾	- ▾	3 ▾
C316.4	2 ▾	1 ▾	1 ▾	- ▾	- ▾	- ▾	- ▾
Average	2.00	1.50	1.00	2.00	1.00	0.00	2.00

1 . Course Name : C203

Course	PSO1	PSO2
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C103.1	-	▼	-	▼
C103.2	-	▼	-	▼
C103.3	-	▼	-	▼
C103.4	-	▼	-	▼
Average	0.00		0.00	

2 . Course Name : C215

Course	PSO1	PSO2
C115.1	3	2
C115.2	3	2
C115.3	2	3
C115.4	3	2
Average	2.75	2.25

3 . Course Name : C302

Course	PSO1	PSO2
C202.1	3	2
C202.2	2	3
C202.3	2	2
C202.4	2	3
Average	2.25	2.50

4 . Course Name : C315

Course	PSO1	PSO2
C215.1	2	3
C215.2	2	3
C215.3	2	3
C215.4	2	3
Average	2.00	3.00

5 . Course Name : C405

Course	PSO1	PSO2
C305.1	2	2
C305.2	1	3

C305.3	3	▼	3	▼
C305.4	2	▼	2	▼
Average	2.00		2.50	

6 . Course Name : C416

Course	PSO1	PSO2
C316.1	2	3
C316.2	3	2
C316.3	2	3
C316.4	3	2
Average	2.50	2.50

3.1.3 - A Program level Course-PO matrix of all courses INCLUDING first year courses (10)

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C101	1.50	2.25	1.00	1.25	1.00	2.50	2.25
C102	3.00	3.00	1.50	1.50	0.00	0.00	1.00
C103	3.00	3.00	1.75	2.00	2.00	0.00	1.00
C104	3.00	2.50	1.75	1.50	2.67	1.00	1.00
C105	3.00	2.50	2.25	2.25	1.00	0.00	1.00
C106	3.00	3.00	1.75	3.00	2.50	1.00	1.00
C107	2.50	2.50	1.75	2.75	1.00	1.75	2.00
C108	1.00	1.25	1.00	0.00	3.00	2.25	3.00
C109	3.00	2.00	1.67	1.00	3.00	2.50	2.67
C110	3.00	2.75	1.75	1.00	0.00	0.00	1.00
C111	3.00	2.80	1.50	1.30	1.50	0.00	1.70
C112	3.00	3.00	1.75	3.00	1.25	1.00	1.00
C113	1.00	1.75	1.00	0.00	1.00	2.50	2.25
C114	3.00	2.80	2.80	3.00	2.60	2.00	1.00
C115	3.00	2.00	1.00	3.00	0.00	0.00	0.00
C116	3.00	2.00	1.25	3.00	1.00	1.00	1.00
C117	3.00	2.50	2.00	1.75	1.50	0.00	1.00

C118	3.00	3.00	2.00	3.00	1.25	0.00	0.00
C201	1.75	2.00	1.75	1.25	2.25	2.25	2.25
C202	3.00	3.00	2.00	3.00	3.00	0.00	3.00
C203	2.50	2.50	3.00	0.00	0.00	3.00	0.00
C204	1.00	2.00	1.50	0.00	2.34	0.00	3.00
C205	2.75	2.75	1.00	0.00	0.00	2.00	1.00
C206	2.00	1.00	3.00	3.00	1.00	0.00	2.00
C207	3.00	3.00	0.00	3.00	0.00	0.00	0.00
C208	0.00	0.00	0.00	3.00	1.00	2.50	1.75
C209	3.00	1.00	1.50	1.75	0.00	1.00	0.00
C210	0.00	0.00	0.00	3.00	1.00	1.50	1.00
C211	1.75	2.50	2.25	1.50	3.00	2.00	2.25
C212	3.00	2.75	2.25	2.75	2.75	2.75	2.25
C213	3.00	2.25	2.00	2.00	2.00	1.00	0.00
C214	3.00	2.00	1.50	0.00	0.00	0.00	2.00
C215	3.00	2.50	2.00	1.00	0.00	3.00	1.00
C216	2.00	2.00	1.00	3.00	0.00	0.00	1.00
C217	3.00	2.00	1.00	3.00	1.00	1.00	3.00
C218	3.00	2.50	2.00	0.00	0.00	3.00	1.00
C219	2.00	2.00	2.00	3.00	0.00	0.00	1.00
C301	1.67	1.67	1.00	2.33	2.00	2.33	3.00
C302	2.00	2.20	1.40	1.60	2.00	2.00	1.80
C303	3.00	2.00	1.50	0.00	2.50	3.00	1.30
C304	1.00	0.00	3.00	1.00	0.00	0.00	1.00
C305	2.30	1.50	1.00	2.50	3.00	1.00	1.00
C306	2.67	2.00	2.00	1.00	3.00	0.00	1.00
C307	2.50	1.00	2.00	1.34	2.00	0.00	1.00
C308	2.50	1.34	1.67	1.00	0.00	0.00	1.00
C309	2.25	2.00	1.50	3.00	1.00	1.50	2.00
C310	3.00	2.00	1.00	3.00	1.00	1.00	1.00
C311	0.00	0.00	0.00	3.00	0.00	1.00	1.00
C312	2.25	2.25	2.25	1.50	2.25	2.50	2.75

C313	1.00	1.67	1.00	0.00	2.67	2.25	2.00
C314	2.00	2.20	2.20	2.20	2.00	2.70	2.30
C315	3.00	3.00	3.00	0.00	0.00	0.00	0.00
C316	2.00	1.50	1.00	2.00	1.00	0.00	2.00
C317	2.50	2.00	2.00	1.00	2.00	1.00	1.50
C318	1.00	2.00	1.00	0.00	3.00	0.00	2.00
C319	0.00	2.00	0.00	3.00	3.00	0.00	3.00
C320	1.25	0.00	1.00	2.00	3.00	0.00	1.00
C321	1.25	1.00	2.00	2.00	2.00	0.00	1.00
C322	3.00	3.00	3.00	3.00	0.00	3.00	1.50
C323	2.50	1.50	0.00	3.00	0.00	2.00	2.00
C324	2.50	1.00	0.00	3.00	0.00	0.00	1.50
C325	2.50	2.60	2.33	2.00	2.25	2.67	2.17

3.1.3 - B Program level Course-PSO matrix of all courses INCLUDING first year courses

Course	PSO1	PSO2
C101	0	0
C102	1	0
C103	0	0
C104	0	0
C105	2	0
C106	0	0
C107	1	0
C108	0	0
C109	1.34	2
C110	0	2.5
C111	0	1.3
C112	1	2
C113	0	0
C114	0	0
C115	2.75	2.25

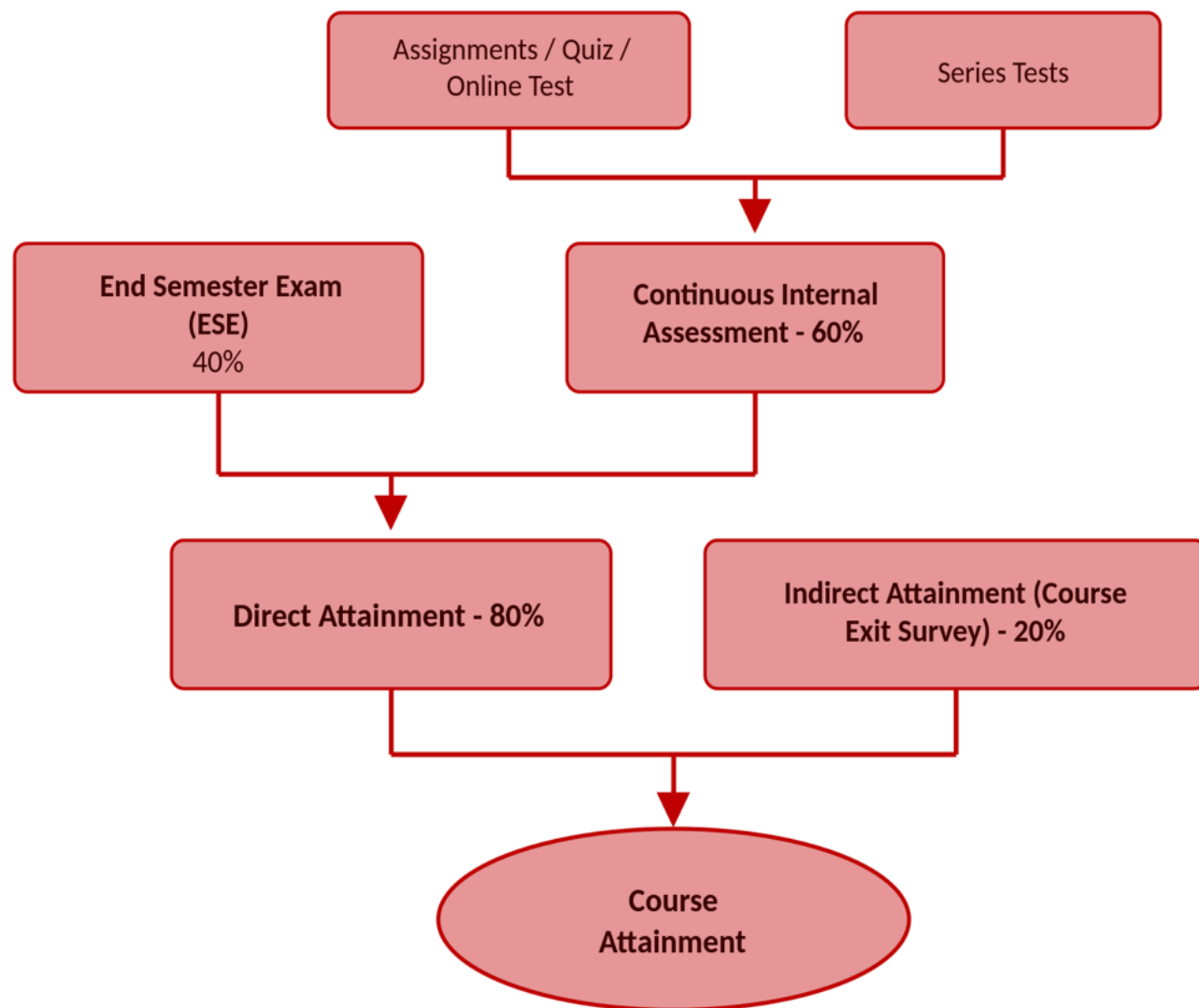
C116	2.75	2.25
C117	1.75	2.5
C118	1.75	2.5
C201	1	1.25
C202	2.25	2.5
C203	1.5	2.75
C204	2.25	2.25
C205	2.25	2.75
C206	1.25	3
C207	3	2.5
C208	1.75	2.5
C209	3	2.5
C210	3	2.75
C211	0	0
C212	1	1.75
C213	2	3
C214	2	3
C215	2	3
C216	3	2.5
C217	1.75	2.5
C218	2	3
C219	1.5	3
C301	1	1.67
C302	1	1.6
C303	1.5	2.3
C304	2.5	3
C305	2	2.5
C306	2.5	1.75
C307	1.75	3
C308	2	1
C309	1.5	3
C310	2.67	2.33

C311	2.5	2.75
C312	1	1.5
C313	1	1
C314	1.3	1.8
C315	2.5	2.75
C316	2.5	2.5
C317	0	1
C318	0	0
C319	0	0
C320	1	2.5
C321	0	0
C322	2	3
C323	1	3
C324	1.5	2.75
C325	1.67	2

3.2 Attainment of Course Outcomes (40)

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10)

Course Outcome (CO) attainment in the Diploma in Civil Engineering programme is evaluated through two complementary routes: a Direct Attainment method, based on students academic performance, and an Indirect Attainment method. A combination of both routes, calculated as summarized below and detailed in the sections that follow.



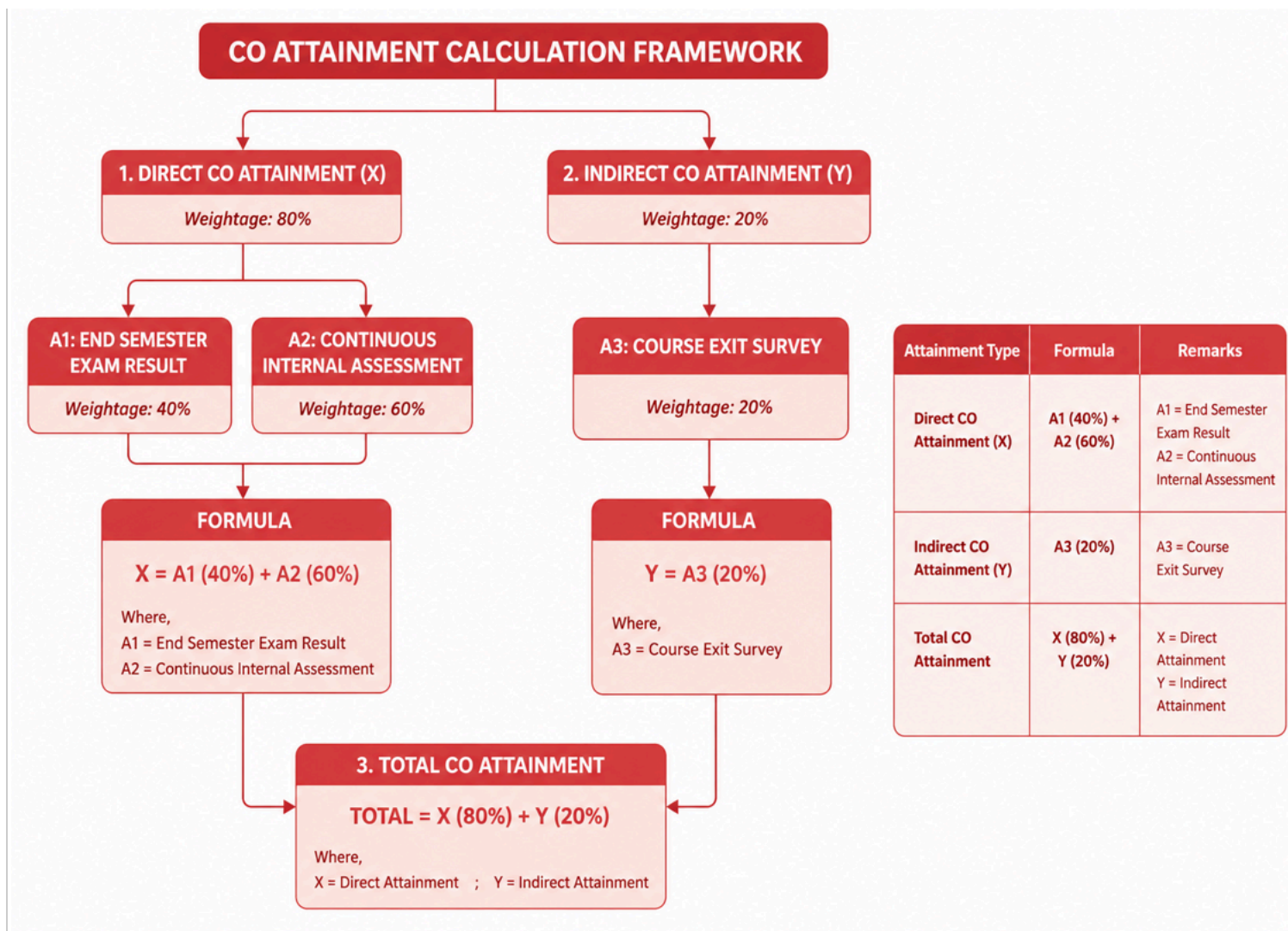
Assessment flow

The attainment of a Course Outcome is built up in the following stages:

- Continuous Internal Assessment (CIA) is derived from Series Tests (minimum two) and Assignments (minimum two), supplemented by tools such as quizzes, online tests and technical discussions. Threshold: 50% for Series Tests and /
- The End Semester Examination (ESE) is conducted by the State Board of Technical Education as per the prescribed curriculum.
- CIA and ESE together constitute Direct Attainment, weighted 60% and 40% respectively.
- A Course Exit Survey, administered for every course facilitator, constitutes Indirect Attainment.
- Direct Attainment (80%) and Indirect Attainment (20%) are combined to give the final Course Attainment.

Table 3.7 CO attainment – Weightage Criteria

Component	Basis
Direct Attainment (X)	End Semester Examination (A1) + Continuous Internal Assessment (A2)
• End Semester Examination (A1)	Conducted by State Board of Technical Education
• Continuous Internal Assessment (A2)	Series Tests, Assignments, Lab work, Open ended project
Indirect Attainment (Y)	Course Exit Survey (A3)
Total CO Attainment	X (80%) + Y (20%)



Attainment level criteria

Attainment levels (1, 2 or 3) are assigned to each course based on the percentage of students crossing the defined threshold, as tabulated below:

Table 3.8 Direct attainment level criteria – End semester examination

Attainment Level	Criterion
Level 3	60% or more of the total students score more than E grade in the ESE

Level 2	50% – 60% of the total students score more than E grade in the ESE
Level 1	40% – 50% of the total students score more than E grade in the ESE

Table 3.9 Direct attainment level criteria – Continuous internal assessment

Attainment Level	Criterion
Level 3	60% or more of the total students score more than 50% marks in the CIA (Excluding the weightage for internal assessment)
Level 2	50% – 60% of the total students score more than 50% marks in the CIA (Excluding the weightage for internal assessment)
Level 1	40% – 50% of the total students score more than 50% marks in the CIA (Excluding the weightage for internal assessment)

Table 3.10 Indirect attainment level criteria – Course Exit Survey

Attainment Level	Criterion
Level 3	60% or more of the total students score more than 50% rating in the Course Exit Survey
Level 2	50% – 60% of the total students score more than 50% rating in the Course Exit Survey
Level 1	40% – 50% of the total students score more than 50% rating in the Course Exit Survey

Revision 2015

Weightage for internal assessment of different courses are mentioned below:

Internal assessment for theory courses

The maximum marks awarded for internal continuous assessment and end of semester examinations shall be 50 and 100 respectively, totaling to 150. The weightage awarded for internal assessment marks shall be as follows:

Table 3.10 Internal assessment for theory courses – Revision 2015

Sl. No.	Component	Weightage (%)
1	Test Papers	50
2	Assignments	30
3	Attendance	20

Internal assessment for practical courses

Internal continuous assessment and end of semester practical examinations have 1:1 weightage, with 50 marks allotted for internal continuous assessment and 50 marks for End of Semester examinations. The weightage for internal continuous

Table 3.11 Internal assessment for theory courses – Revision 2015

Sl. No.	Component	Weightage (%)
1	Observation Note / Rough Record	20
2	Fair Record (timely submission, accuracy, neatness)	20
3	Attendance	20
4	Test	40

Internal assessment for drawing courses

Table 3.12 Internal assessment for drawing courses – Revision 2015

Sl. No.	Component	Weightage (%)
1	Submission of completed drawing sheets	40
2	Test	40
3	Attendance	20

Assessment of end semester examinations

Assessment of theory courses

The theory courses shall be assessed through end of semester examinations, conducted by the State Board of Technical Education, Kerala. The Duration of the end of semester examination shall be 3 hours. The grading system is given below.

Table 3.13 Grading system of end semester examination – Revision 2015

Sl. No.	Range of Marks (%)	Grades	Description
1	90 and above	S	Outstanding
2	[80 – 90)	A	Excellent
3	[70 – 80)	B	Very Good
4	[60 – 70)	C	Good

5	[50 – 60)	D	As
6	[40 – 50)	E	Satisfactory
7	Below 40	F	Unsatisfactory

Assessment of practical courses

- An external examiner and an internal examiner, appointed by the State Board of Technical Education, shall conduct the End of Semester examinations of practical courses.
- No candidate shall be allowed to attend the End of Semester Practical Examinations unless he/she produces certified record of the laboratory/workshop/Project.
- Award of marks in the End of Semester practical examinations (except Project) shall be as follows:

Table 3.14 End semester assessment of practical courses – Revision 2015

Sl. No.	Component	Weightage (%)
1	Fair Record	10
2	Viva Voce	20
3	Procedure & Tabulation	30
4	Conduct of Experiment	20
5	Result & Inference	20

Assessment of seminar

Table 3.15 End semester assessment of seminar– Revision 2015

Sl. No.	Component	Weightage (%)
1	Relevance of Topic	10
2	Collection of Materials	20
3	Presentation (slides, delivery)	40
4	Question / Answer / Discussion	10
5	Seminar Report	10
6	Attendance	10

Assessment of project work

Table 3.16 End semester assessment of project work – Revision 2015

Sl. No.	Component	Weightage (%)
1	Development of Prototype / Model	20
2	Usage of Modern Tool / Technology	10
3	Presentation (slides, delivery)	15
4	Innovativeness	5
5	Viva	15
6	Individual Contribution	15
7	Group Activity	10
8	Project Report	10

Revision 2021**Internal assessment**

Table 3.17 Continuous internal assessment of theory courses – Revision 2021

Assessment Type	Tool	Weightage (%)
Summative	Series Test	
Formative	Assignments / Class Work	
Formative	Attendance	

Table 3.18 Continuous internal assessment of practical courses – Revision 2021

Assessment Type	Tool	Weightage (%)
Summative	Lab Examination	
Formative	Lab Work	

Formative	Open-Ended Experiment / Micro-Project	
Formative	Attendance	

Table 3.19 Continuous internal assessment of minor project– Revision 2021

Sl. No.	Criteria	Weightage (%)
1	Applying 5S concept of lean manufacturing in laboratories	10
2	Involvement in maintenance of tools / equipment	10
3	Applying calibration procedures for measuring / test instruments	10
4	Open-ended project solving problems of social significance / daily tasks	40
5	Report	20
6	Viva	10

Table 3.20 Continuous internal assessment of major project– Revision 2021

Types of assessment	Tools	
Summative	Major project evaluation by the department	
Formative	Weekly activity report	
Attendance		

Table 3.21 Continuous internal assessment of seminar– Revision 2021

Sl. No.	Criteria	Weightage (%)
1	Relevance of Topic	10
2	Literature Survey	10
3	Presentation (slides, delivery)	50

4	Interaction / Discussion	10
5	Seminar Report	10
6	Attendance	10

Table 3.22 Continuous internal assessment of Internship I & II – Revision 2021

Sl. No.	Criteria	Weightage (%)
1	Presentation at the End of Internship	20
2	Daily Activity Report	10
3	Comprehensive Report on Internship	30
4	Relevant Internship Certificate from Concerned Department	30
5	Attendance and Punctuality	10

Assessment of End Semester Examination (ESE)

Assessment for Theory Courses

The theory courses shall be assessed through ESE conducted by the CTE/Institution. The duration of the examination shall be 3 hours unless otherwise specified in the scheme. Question paper shall be prepared based on all modules of the syllabus. The duration of the Exam is 3 hours.

Table 3.23 Grading system of end semester examination – Revision 2021

Sl. No.	Range of Marks (%)	Grades	Description
1	90 and above	S	Outstanding
2	[80 – 90)	A	Excellent
3	[70 – 80)	B	Very Good
4	[60 – 70)	C	Good
5	[50 – 60)	D	Average
6	[40 – 50)	E	Satisfactory

7	Below 40	F	Unsa
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Assessment for Practical Courses

An internal examiner and external examiner shall conduct ESE of practical courses. The external examiner shall be appointed by the CTE.

Table 3.24 Assessment for practical course – Revision 2021

Sl. No.	Component	Weightage (%)
1	Fair Record	10
2	Viva Voce	20
3	Procedure & Tabulation	30
4	Conduct of Experiment	20
5	Result & Inference	20

Assessment for Major Project

Table 3.25 Assessment for major project course – Revision 2021

Sl. No.	Component	Weightage (%)
1	Development of Prototype / Model	20
2	Usage of Modern Tool / Technology	10
3	Presentation (slides, delivery)	15
4	Innovativeness	5
5	Viva	15
6	Individual Contribution	15
7	Group Activity	10
8	Project Report	10

3.2.2 Record the attainment of Course Outcome of all courses with respect to set attainment levels (30)

Table 3.26 CO- Attainment for All subjects (2022-2025 Batch)						
Sl No	Dte Course Code	Sar Course Code	Course Name	Direct		Co Attainment Direct (80%)
				Internal (60%)	External (40%)	
1	1001	C101	Communication Skills In English	3.00	3.00	3.00
2	1002	C102	Mathematics 1	3.00	2.00	2.60
3	1003	C103	Applied Physics 1	3.00	1.00	2.20
4	1004	C104	Applied Chemistry	3.00	1.00	2.20
5	1005	C105	Engineering Graphics	3.00	3.00	3.00
6	1007	C106	Applied Chemistry Lab	3.00	3.00	3.00
7	1008	C107	Introduction To It Systems Lab	3.00	3.00	3.00
8	1009	C108	Sports And Yoga	3.00	3.00	3.00
9	2001	C109	Environmental Science	3.00	3.00	3.00
10	2002	C110	Mathematics Ii	3.00	3.00	3.00
11	2003	C111	Applied Physics Ii	3.00	3.00	3.00
12	2006	C112	Applied Physics Lab	3.00	3.00	3.00
13	2008	C113	Communication Skills In English Lab	3.00	3.00	3.00
14	2009	C114	Engineering Workshop Practice	3.00	3.00	3.00

15	2011	C115	Basic Surveying	3.00	2.00	2.60
16	2019	C116	Basic Surveying Lab	3.00	3.00	3.00
17	2021	C117	Engineering Mechanics	3.00	1.00	2.20
18	2029	C118	Engineering Mechanics Lab	3.00	3.00	3.00
19	3009	C201	Internship I	-	3.00	3.00
20	3011	C202	Advanced Surveying	3.00	2.00	2.60
21	3012	C203	Concrete Technology	3.00	3.00	3.00
22	3013	C204	Building Construction And Construction Materials	3.00	2.00	2.60
23	3014	C205	Theory Of Structures	3.00	1.00	2.20
24	3015	C206	Concrete Technology Lab	3.00	3.00	3.00
25	3016	C207	Surveying Lab	3.00	3.00	3.00
26	3017	C208	Construction Materials Lab	3.00	3.00	3.00
27	3018	C209	Building Drawing And Estimation Lab	3.00	3.00	3.00
28	3019	C210	Cad Lab	3.00	3.00	3.00
29	4001	C211	Community Skills In Indian Knowledge System	3.00	3.00	3.00
30	4009	C212	Minor Project	-	3.00	3.00
31	4011	C213	Geotechnical Engineering	3.00	3.00	3.00
32	4012	C214	Hydraulics And Irrigation Engineering	3.00	3.00	3.00
33	4013	C215	Estimating & Costing	2.25	3.00	2.55
34	4016	C216	Advanced Surveying Lab	3.00	3.00	3.00
35	4017	C217	Hydraulics And Irrigation Engineering Lab	3.00	3.00	3.00

36	4018	C218	Estimating And Costing Lab	3.00	3.00	3.00
37	4019	C219	Geotechnical Engineering Lab	3.00	3.00	3.00
38	5008	C301	Seminar	-	3.00	3.00
39	5009	C302	Internship Ii	-	3.00	3.00
40	5011	C303	Construction Management And Safety Engineering	3.00	3.00	3.00
41	5012	C304	Design Of Steel And Rcc Structures	3.00	3.00	3.00
42	5013	C305	Transportation Engineering	3.00	3.00	3.00
43	5014A	C306	Habitat Technology	3.00	3.00	3.00
44	5017	C309	Transportation Engineering Lab	3.00	3.00	3.00
45	5018	C310	Structural Engineering Drawing Lab	3.00	3.00	3.00
46	5019	C311	Advanced Cad Lab	3.00	3.00	3.00
47	6001	C312	Entrepreneurship And Startup	3.00	3.00	3.00
48	6002	C313	Indian Constitution	3.00	3.00	3.00
49	6009	C314	Major Project	3.00	3.00	3.00
50	6011 B	C316	Building Maintenance And Services	3.00	3.00	3.00
51	6017	C322	Computer Application Lab	3.00	3.00	3.00
52	6018	C323	Material Testing Lab	3.00	3.00	3.00
53	6019	C324	Public Health Engineering Lab	3.00	3.00	3.00
54	6032 B	C326	Energy Conservation & Management	3.00	3.00	3.00

3.3 Attainment of Program Outcomes and Program Specific Outcomes (40)

3.3.1 Describe assessment tools and processes used for assessing the attainment of each POs and PSOs as mentioned in Annexure 1 (10)

The assessment methods for PO/PSO attainment of POs and PSOs are:

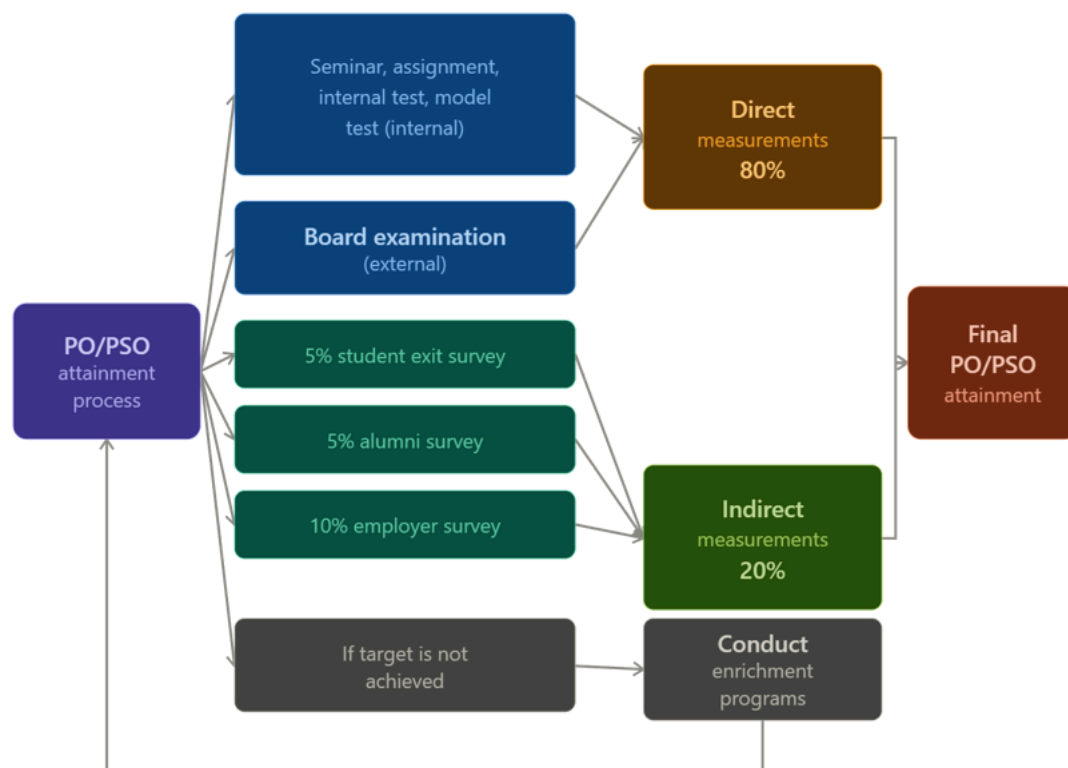
- Direct method
- Indirect method

Direct Method

For all courses, direct attainment method involves the assessment of students through examinations (Both Internal and Board).

Indirect Method

Indirect attainment method is determined based on survey among Employer, Alumni and Students Exit Survey.



3.3.2 Provide results of evaluation of each PO & PSO (30)

	PO Attainment
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Course	PO1	PO2	PO3	PO4	PO5
C101	1.5	2.25	1	1.25	1
C102	2.6	2.6	1.3	1.3	0
C103	2.20	2.20	1.28	1.47	1.47
C104	2.20	1.83	1.28	1.10	1.96
C105	3	2.50	2.25	2.25	1
C106	3	3	1.75	3	2.5
C107	2.5	2.5	1.75	2.75	1
C108	1	1.25	1	0	3
C109	3	2	1.67	1	3
C110	3	2.75	1.75	1	0
C111	3	2.75	1.50	1.25	1.50
C112	3	3	1.75	3	1.25
C113	1	1.75	1	0	1
C114	3	2.80	2.80	3	2.60
C115	2.60	1.73	0.87	2.60	0
C116	3	2	1.25	3	1
C117	2.20	1.83	1.47	1.28	1.10
C118	3	3	2	3	1.25
C201	1.75	2	1.75	1.25	2.25
C202	2.6	2.6	1.73	2.6	2.6

C203	2.5	2.5	3	0	0
C204	0.87	1.73	1.30	0	2.02
C205	2.02	2.02	0.73	0	0
C206	2	1	3	3	1
C207	3	3	0	3	0
C208	0	0	0	3	1
C209	3	1	1.5	1.75	0
C210	0	0	0	3	1
C211	1.75	2.5	2.25	1.5	3
C212	3	2.75	2.25	2.75	2.75
C213	3	2.25	2	2	2
C214	3	2	1.5	0	0
C215	2.55	2.20	1.7	0.87	0
C216	2	2	1	3	0
C217	3	2	1	3	1
C218	3	2.5	2	0	0
C219	2	2	2	3	0
C301	1.67	1.67	1	2.33	2
C302	2	2.2	1.4	1.6	2
C303	3	2	1.5	0	2.5
C304	1	0	3	1	0
C305	2.25	1.33	1	2.50	3
C306	2.67	2	2	1	3
C309	2.25	2	1.5	3	1
C310	3	2	1	3	1
C311	0	0	0	3	0
C312	2.25	2.25	2.25	1.50	2.25
C313	1	1.67	1	0	2.67
C314	2	2.17	2.17	2.2	2
C316	2	1.5	1	2	1

C322	3	3	3	3	0
C323	2.5	1.5	0	3	0
C324	2.5	1	0	3	0
C326	3	0	3	3	3

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5
Direct Attainment	2.39	2.12	1.69	2.25	1.86
InDirect Attainment	2.55	2.27	2.43	2.33	2.34
PO Attainment	2.42	2.15	1.84	2.27	1.96

PSO Attainment

Course	PSO1	
C101	0	0
C102	0.87	0
C103	0	0
C104	0	0
C105	2	0
C106	0	0
C107	1	0
C108	0	0
C109	1.33	2
C110	0	2.5
C111	0	1.25
C112	1	2
C113	0	0
C114	0	0
C115	2.38	1.95
C116	2.75	2.25
C117	1.28	1.83
C118	1.75	2.50

C201	1	1.25
C202	1.95	2.17
C203	1.5	2.75
C204	1.95	1.95
C205	1.65	2.02
C206	1.25	3
C207	3	2.5
C208	1.75	2.5
C209	3	2.5
C210	3	2.75
C211	0	0
C212	1	1.75
C213	2	3
C214	2	3
C215	1.70	2.55
C216	3	2.5
C217	1.75	2.5
C218	2	3
C219	1.5	3
C301	1	1.67
C302	1	1.60
C303	1.5	2.25
C304	2.50	3.00
C305	2	2.50
C306	2.5	1.75
C309	1.5	3
C310	2.67	2.33
C311	2.50	2.75
C312	1	1.5
C313	1	1
C314	1.33	1.83
C316	2.50	2.50

C322	2	3
C323	1	3
C324	1.5	2.75
C326	0	0

PSO Attainment Level

Course	PSO1	
Direct Attainment	1.79	2.32
InDirect Attainment	2.34	2.59
PSO Attainment	1.90	2.37

4 STUDENTS' PERFORMANCE (200)

Intake Information:

Table 4.1

Item	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23
Sanctioned intake strength of the program((N)	60	60	60	60
Total number of students, admitted through state level counseling (N1)	21	12	13	15
Number of students, admitted through Institute level quota (N2)	7	3	19	24
Number of students, admitted through Lateral Entry (N3)	0	7	3	11
Total number of students admitted in the programme(N1 + N2 + N3)	28	22	35	50

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successful	
		I year	
2025-26	28	0	0
2024-25	22	3	0
2023-24	35	5	5

2022-23 (LYG)	50	13	17
2021-22 (LYGm1)	36	6	7
2020-21 (LYGm2)	60	11	15

Table 4.3

Year of entry	Total No of students admitted in the program(N1 + N2 + N3)	Number of students who have succes [Total of with B:	
		I year	
2025-26	28	0	0
2024-25	22	12	0
2023-24	35	21	22
2022-23 (LYG)	50	33	40
2021-22 (LYGm1)	36	21	30
2020-21 (LYGm2)	60	38	52

4.1 Enrolment Ratio (20)

	N (From Table 4.1)	N1 + N2 (From Table 4.1)	
2025-26	60	28	46.67
2024-25	60	15	25.00
2023-24	60	32	53.33

Average [(ER1 + ER2 + ER3) / 3] : 41.67

Assessment : 0.00

4.2 Success Rate in the stipulated period of the program (60)

4.2.1 Success rate without backlogs in any year of study (40)

Item	Last Year Graduate (2022-23)	Last Year Graduate Minus 1 Batch (2021-22)
Total Number of students (X) (admitted through state level counseling + admitted through Institute on Level quota + admitted through Lateral entry) (N1 + N2 + N3)	50.00	36.00
Number of students who have graduated without backlogs in the stipulated period (Y)	16.00	7.00
Success Index [$SI = Y / X$]	0.32	0.19

Average SI [$(SI1 + SI2 + SI3) / 3$] : 0.25

Assessment [$40 * \text{Average SI}$] : 10.00

4.2.2 Success rate in stipulated period (20)

Item	Latest Year of Graduation, LYG (2022-23)	Latest Year of Graduation minus 1, LYGm1 (2021-22)
Total Number of students (X) (admitted through state level counseling + admitted through Institute on Level quota + admitted through Lateral entry) (N1 + N2 + N3)	50.00	36.00
Number of students who have passed in the stipulated period (Y)	25.00	14.00
Success Index [$SI = Y / X$]	0.50	0.39

Average SI [$(SI1 + SI2 + SI3) / 3$]: 0.39

Assessment [$20 * \text{Average SI}$] : 7.73

4.3 Academic Performance in First Year (25)

Academic Performance	2024-25 (CAYm1)	2023-24 (CAYm1)
Mean of CGPA or mean percentage of all successful students(X)	5.50	5.06
Total number of successful students(Y)	12.00	21.00

Totalnumber of students appeared in the examination(Z)	15.00	32.00
API [$X*(Y/Z)$]:	4.40	3.32

Average API [$(AP1 + AP2 + AP3)/3$] : 4.16

Assessment [$2.5 * \text{AverageAPI}$] : 10.39

4.4 Academic Performance in Second Year (20)

Academic Performance	2023-24(CAYm2)	2022-23(CAYm2)
Mean of CGPA or mean percentage of all successful students(X)	5.60	6.20
Total number of successful students (Y)	22.00	40.00
Total number of students appeared in the examination (Z)	24.00	44.00
API [$X * (Y/Z)$]	5.13	5.64

Average API [$(AP1 + AP2 + AP3)/3$] : 5.52

Assessment [$2.0 * \text{AverageAPI}$] : 11.03

4.5 Academic Performance in Final Year (15)

Academic Performance	2022-23 (LYG)	2021-22 (LYG)
Mean of CGPA or mean percentage of all successful students(X)	7.92	7.82
Total number of successful students(Y)	25.00	14.00
Totalnumber of students appeared in the examination(Z)	40.00	30.00
API [$X*(Y/Z)$]:	4.95	3.65

Average API [$(AP1 + AP2 + AP3)/3$] : 3.70

Assessment [$1.5 * \text{AverageAPI}$] : 5.54

4.6 Placement and Higher Studies (40)

Item	2022-23 (Last Year Graduate,LYG)	2021-22 (Last Year Graduate Minus 1 Batch,LYGm1)
Total No of Final Year Students(N)	40.00	30.00
No of students placed in the companies or government sector(X)	32.00	25.00
No of students admitted to higher studies (Y)	2.00	1.00
No. of students turned entrepreneur in the respective field of engineering/technology (Z)	0.00	0.00
Placement Index $[(1.25 * X) + Y + Z] / N$:	1.05	1.08

Average Placement $[(P1 + P2 + P3)/3]$: 1.04

Assessment $[40 * \text{Average Placement}]$: 41.60

Provide the placement data in the below mentioned format with the name of the program and the assessment year (separately for CAYm1, CAYm2 and CAYm3):

Program Name : Civil Engineering

Assessment Year : 2024-25 (CAYm1)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	ABHIRAMKRISHNA M M	2201011850	CISAT	
2	AJAYKRISHNA P K	2201011852	RAMCO CEMENTS	
3	AKSHAY V S	2201011854	RAMCO CEMENTS	
4	ANAGHA CHANDRAN T	2201011858	CISAT	
5	ANJANA K S	2201011859	HITACHIASTEMO	
6	ARCHANA R	2201011860	HITACHASTEMO	
7	ARDRA P M	2201011861	CISAT	
8	ASHIK P J	2201011863	CISAT	
9	ASHIK WILSON	2201011864	RAMCO CEMENTS	
10	ASWATHY THANKAPPAN	2201011865	CISAT	
11	ATHUL T S	2201011867	CISAT	
12	ATHULKRISHNA P L	2201011868	RAMCO CEMENTS	
13	DEVAPRIYA T S	2201011869	CISAT	
14	FEBIN JACOB	2201011871	RAMCO CEMENTS	

15	HRITHIKA SANTHOSH	2201011872	CISAT	
16	KASHINATH SURENDRAN	2201011873	CISAT	
17	MARIYA SHAJU	2201011876	CISAT	
18	MEENAKSHI K S	2201011877	CISAT	
19	SANDEEP P S	2201011879	RAMCO CEMENTS	
20	SOORAJ P J	2201011881	CISAT	
21	SREYAS KRISHNAN I B	2201011882	RAMCO CEMENTS	
22	VISHNU U N	2201011883	RAMCO CEMENTS	
23	AJITH T V	2201013242	CISAT	
24	AKSHAY P YACOB	2201013243	RAMCO CEMENTS	
25	ANAND T V	2201013244	RAMCO CEMENTS	
26	ANANYA THILAK	2201013245	CISAT	
27	GADHA V G	2201013246	CISAT	
28	GANGA NARAYANAN	2201013247	CISAT	
29	JEESKUMAR T S	2201013248	RAMCO CEMENTS	
30	MOHAMED ROUF A A	2201013250	CISAT	
31	SHONE BOBBY N	2201013251	RAMCO CEMENTS	
32	SREEHARI V P	2201013252	RAMCO CEMENTS	

Assessment Year : 2023-24 (CAYm2)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	ABDUL AHAD T B	2101010601	WIPRO (Selected)	
2	AGHAD N S	2101010602	WIPRO (Selected)	
3	ANJANA P S	2101010604	CISAT	
4	ASLAM K R	2101010605	CISAT	
5	ASWINDAS T P	2101010606	WIPRO (Selected)	
6	DILNA MARIYA	2101010608	WIPRO (Selected)	
7	EDWIN P RAJI	2101010609	RAMCO CEMENT	
8	KIRAN M S	2101010611	CISAT	
9	MIRASH K J	2101010613	CISAT	
10	MOHAMED JAHANSHA K	2101010614	WIPRO (Selected)	
11	NAVYA A S	2101010616	WIPRO (Selected)	
12	PRAVEENA P P	2101010617	CISAT	

13	RAKHIL RAMAN	2101010618	RAMCO CEMENTS	
14	SAHAL SALEEM	2101010619	CISAT	
15	SHAROOK K A	2101010620	CISAT	
16	ADITHKRISHNA E G	2101013165	RAMCO CEMENTS	
17	ALOYSIOUS JACOB	2101013166	WIPRO (Selected)	
18	AMRITHA K	2101013167	CISAT	
19	ANGEL K R	2101013168	WIPRO (Selected)	
20	DIJO DAVIS	2101013169	RAMCO CEMENTS	
21	HARIKRISHNAN A S	2101013170	WIPRO (Selected)	
22	JACK THOMMI	2101013171	CISAT	
23	JYOTHIKA M T	2101013172	CISAT	
24	MANEESHA M M	2101013173	WIPRO (Selected)	
25	SARATH T S	2101013174	WIPRO (Selected)	

Assessment Year : 2022-23 (CAYm3)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	ANJALY B J	19012611	CISAT	
2	AAROMAL P A	20010351	RAMCO CEMENTS	
3	ADITH SURESH	20010352	RAMCO CEMENTS	
4	ALEX JOOPY	20010354	CISAT	
5	AMAL BABU	20010356	CISAT	
6	AMALJO	20010357	CISAT	
7	ANJANA N S	20010359	CISAT	
8	ASHWIN V S	20010362	RAMCO CEMENTS	
9	ASWIN P S	20010364	RAMCO CEMENTS	
10	ATHULKRISHNA K B	20010367	RAMCO CEMENTS	
11	DHEERAJ K R	20010369	RAMCO CEMENTS	
12	GAYATHRIDEVI P G	20010370	CISAT	
13	GODWIN BIJU	20010371	RAMCO CEMENTS	
14	LIGHINSHA SHAJAN	20010373	CISAT	
15	NIMESH K S	20010377	CISAT	
16	RAHUL RAMACHANDRAN	20010378	RAMCO CEMENTS	
17	RAHUL V U	20010379	CISAT	

18	RAMSANA P A	20010380	CISAT	
19	SAKETH JAYACHANDRAN	20010381	RAMCO CEMENTS	
20	SARANGI V S	20010383	CISAT	
21	SREELAKSHMI M P	20010384	CISAT	
22	SREESHMA V S	20010385	CISAT	
23	STEJI ANTO	20010386	CISAT	
24	SUKANYA P S	20010387	CISAT	
25	SUMAYYA P S	20010388	CISAT	
26	VISAKH V S	20010391	CISAT	
27	ADITH ASHOK	20013821	RAMCO CEMENTS	
28	AISWARYA	20013822	CISAT	
29	AKSHAY SUDARSANAN	20013823	RAMCO CEMENTS	
30	ALEENA JAISON	20013824	CISAT	
31	ARUN RAJ K R	20013825	RAMCO CEMENTS	
32	DELVIN K J	20013827	RAMCO CEMENTS	
33	HIMA SHAJU	20013829	CISAT	
34	K P S PRABHU	20013830	RAMCO CEMENTS	
35	KRISHNAPRAKASH T P	20013831	CISAT	
36	NIDHIN P S	20013832	RAMCO CEMENTS	
37	ROSHIN ROY	20013833	CISAT	
38	SREERAG P B	20013834	RAMCO CEMENTS	
39	SUSHIK P S	20013836	RAMCO CEMENTS	
40	VIDHYA K V	20013837	CISAT	

4.7 Professional Activities (20)

4.7.1 Professional societies/ student chapters and organizing technical events (10)

A. Availability of Professional Societies/Chapters & Relevant activities (5)

The International Association of Engineers (IAENG) is a non-profit, international, learned society for engineers and computer scientists, founded in 1968. Originally established as a private-club network for its founding members, IAENG has grown to become a global community of engineers and computer science professionals worldwide. Its Secretariat Office is based in Hong Kong, and it serves a global community with well over 140,000 members spanning more than 100 countries.

IAENGs core mission is to promote cooperation among professionals across engineering disciplines and to cultivate an environment conducive to advancing technology through the free exchange of information and ideas. In line with this widely referenced journal, Engineering Letters, and cooperates with established academic publishers such as Springer, the American Institute of Physics, and World Scientific Publishing on the IAENG Transactions on Engineering Technology. This membership coverage for its entire student body. Every student is enrolled as an IAENG Member, giving the whole student community free and continuous access to IAENGs journals, conference publications, and IAENG News, along with exposure.

This blanket membership ensures that professional-society engagement is not limited to a select few but is available uniformly across all departments and batches, supporting the institutions broader objective of exposing students to professional society.

Date: 18 July 2024

To Whom It May Concern:

Official Letter for the IAENG Membership

Member Name: AJAYKRISHNAN. P.K

Member Number: 2201011852 (since 18 July 2024)

IAENG is a non-profit international association for the engineers and the computer scientists. IAENG has been found by a group of engineers and computer scientists from over thirty different countries. Our goals are to promote the co-operation between the professionals in various fields of the engineering and to cultivate an environment for the advance and development of the technology. Our objectives include:

- Promoting the interactions between the engineers;
- Advancing the application of engineering techniques from the academics to the industry;
- Facilitating the exchange of information and ideas among the engineers and scientists freely.

This letter is to certify that the above person is an IAENG member. For the information about IAENG Membership, please visit our website
<http://www.iaeng.org/membership.html>

If you have any question, you are very welcome to contact us at any time.

Best regards,
IAENG Secretariat
International Association of Engineers (IAENG)
<http://www.iaeng.org>
Email: member@iaeng.org



B. Number, quality of engineering events (5)

Table 4.12 List of engineering events			
Sl No	Date – Month– Year	Name of the Event	
CAY 2025-2026			
1	06-02-2026	Workshop on AutoCAD for Civil Engineering Drawings	
2	23-01-2026	Workshop on Project Planning using Primavera/MS Project	
3	12-01-2026	Expert Talk and Workshop	
4	08-12-2025	Training on Building Information Modelling (BIM)	
5	15-07-2025	Seminar on Total Station Survey	
6	22-07-2025	Integrated Civil Engineering Council Program	
CAYm1 2024-2025			
1	19-02-2025	Training on Building Information Modelling (BIM)	
2	05-02-2025	Career Guidance Workshop	

3	10-12-2024	Workshop on Project Planning using Primavera/MS Project	
4	28-10-2024	Expert Talk and Workshop	
5	28-09-2024	Industry Expert Talk and Workshop	
6	03-09-2024	Workshop on the Topic of Construction Industry Scope and Challenges	
CAYm2 2023-2024			
1	25-03-2024	Integrated Civil Engineering Council Program	
2	02-03-2024	Project Exhibition and Auto Expo	
3	13-02-2024	Total Station Survey Camp	
4	10-01-2024	Workshop on AutoCAD for Civil Engineering Drawings	
5	06-12-2023	Workshop on Project Planning Using Primavera/MS Project	
CAYm3 2022-2023			
1	23-02-2023	Career Guidance Workshop	

2	24-01-2023	Industry Talk and Workshop	
3	04-01-2023	Workshop on Civil Career Opportunities and Real Time Experience	
4	15-12-2022	Workshop on AutoCAD for Civil Engineering Drawings	

4.7.2 Publication of technical magazines, newsletters, etc. (5)

A. Quality & Relevance of the contents and Print Material (3)

At the institution level, the college maintains a structured print communication system covering all departments, comprising a Newsletter published twice a year and a Technical Magazine published annually, both curated to ensure quality, relevance, and timeliness.

Newsletter (Bi-annual)

Published twice a year, the institutional newsletter compiles activities and highlights from across all departments for that semester — guest lectures, workshops, seminars, industrial visits, student achievements, faculty accomplishments, placements, and updates from every department into a single publication, it gives students, faculty, parents, and visitors a unified view of institutional progress each semester, keeping content timely and broadly relevant to the entire campus community.

Technical Magazine (Annual)

Published once a year, the technical magazine draws contributions from students and faculty across all departments — technical articles, project and research summaries, papers on emerging technologies, and industry-trend write-ups. It showcases the research output of the whole college rather than a single department, and gives students across disciplines a common platform to develop technical writing and research communication skills.

Quality Assurance

Content submitted by individual departments is routed through an institution-level editorial/advisory committee (typically comprising faculty coordinators from each department) before printing. This central review checks for technical accuracy, relevance, and quality across all content from different departments rather than varying quality issue to issue or department to department.

Relevance

Topics are aligned with the institutions overall academic calendar, ongoing student projects, placement/industry activity, and current technology trends across disciplines — so the material stays meaningful to a cross-departmental readership.

Together, the bi-annual newsletter and annual technical magazine give the institution a consistent, college-wide print presence that documents activity across all departments, showcases combined student and faculty output, and reinforces an institutional commitment to technical communication.

B. Participation of Students from the program (2)

Table 4.13 Participation of students from the program

Sl. No.	Name of the Student	Participation Details	Newsletter / Technical Magazine
1.	Gopika M S	Editorial Board Members	Newsletter – Vol.1; Issue.1
2.	K P S Prabhu	Editorial Board Members	Newsletter – Vol.1; Issue.1
3.	Roshan Roy	Editorial Board Members	Newsletter – Vol.1; Issue.1
4.	Vidhya K V	Editorial Board Members	Newsletter – Vol.1; Issue.1
5.	Anjana N S		Newsletter – Vol.1; Issue.1
6.	Dheeraj K R		Newsletter – Vol.1; Issue.1
7.	Gayathridevi P G		Newsletter – Vol.1; Issue.1
8.	Saketh Jayachandran		Newsletter – Vol.1; Issue.1
9.	Samini Sasi		Newsletter – Vol.1; Issue.1
10.	Steji Anto		Newsletter – Vol.1; Issue.1
11.	Stephen N V		Newsletter – Vol.1; Issue.1

12.	Aslam K R		Newsletter – Vol.1; Issue.1
13.	Edwin P Raji		Newsletter – Vol.1; Issue.1
14.	Kiran M.S		Newsletter – Vol.1; Issue.1
15.	Mohamed Jahansha K		Newsletter – Vol.1; Issue.1
16.	Rakhil Raman		Newsletter – Vol.1; Issue.1
17.	Sharook K A		Newsletter – Vol.1; Issue.1
18.	Amritha.K	Editorial Board Members	Newsletter – Vol.2; Issue.1
19.	Jyothika M T	Editorial Board Members	Newsletter – Vol.2; Issue.1
20.	Maneesha .M .M	Editorial Board Members	Newsletter – Vol.2; Issue.1
21.	Sarath T S	Editorial Board Members	Newsletter – Vol.2; Issue.1
22.	Navya A.S		Newsletter – Vol.2; Issue.1
23.	Sahal Saleem		Newsletter – Vol.2; Issue.1
24.	Adithkrishna E G		Newsletter – Vol.2; Issue.1
25.	Jack Thommi		Newsletter – Vol.2; Issue.1
26.	Navya A.S		Newsletter – Vol.2; Issue.1
27.	Sahal Saleem		Newsletter – Vol.2; Issue.1
28.	Ephy Babu T		Newsletter – Vol.2; Issue.1
29.	Ashik P J		Newsletter – Vol.2; Issue.1
30.	Athul T S		Newsletter – Vol.2; Issue.1
31.	Devapriya T S		Newsletter – Vol.2; Issue.1

33	Akshay V S		Newsletter – Vol.2; Issue.1
33.	Febin Jacob		Newsletter – Vol.2; Issue.1
34.	Ajaykrishnan. P.K	Editorial Board Members	Newsletter – Vol.3; Issue.1
35.	Anagha Chandran.T	Editorial Board Members	Newsletter – Vol.3; Issue.1
36.	Anjana K S	Editorial Board Members	Newsletter – Vol.3; Issue.1
37.	Archana R	Editorial Board Members	Newsletter – Vol.3; Issue.1
38.	Ardra P M		Newsletter – Vol.3; Issue.1
39.	Ashik Wilson		Newsletter – Vol.3; Issue.1
40.	Aswathy Thankappan		Newsletter – Vol.3; Issue.1
41.	Athulkrishna P L		Newsletter – Vol.3; Issue.1
42.	Hrithika Santhosh		Newsletter – Vol.3; Issue.1
43.	Mariya Shaju		Newsletter – Vol.3; Issue.1
44.	Adarsh K G		Newsletter – Vol.3; Issue.1

45.	Aneesha K A		Newsletter – Vol.3; Issue.1
46.	Anurag P P		Newsletter – Vol.3; Issue.1
47.	Karthik Krishna K J		Newsletter – Vol.3; Issue.1
48.	Stalin K A		Newsletter – Vol.3; Issue.1
49.	Anliya Shaju		Newsletter – Vol.3; Issue.1
50.	Krishnanjali T S		Newsletter – Vol.3; Issue.1
51.	Meghna.S.Prabhu		Newsletter – Vol.3; Issue.1
52.	Ajaykrishnan. P.K	Editorial Board Members	Newsletter – Vol.4; Issue.1
53.	Anagha Chandran.T	Editorial Board Members	Newsletter – Vol.4; Issue.1
54.	Anjana K S	Editorial Board Members	Newsletter – Vol.4; Issue.1
55.	Archana R	Editorial Board Members	Newsletter – Vol.4; Issue.1
56.	Akshay V S		Newsletter – Vol.4; Issue.1

57.	Alan Antony		Newsletter – Vol.4; Issue.1
58.	Ashik P J		Newsletter – Vol.4; Issue.1
59.	Ashik Wilson		Newsletter – Vol.4; Issue.1
60.	Devapriya T S		Newsletter – Vol.4; Issue.1
61.	Febin Jacob		Newsletter – Vol.4; Issue.1
62.	Hrithika Santhosh		Newsletter – Vol.4; Issue.1
63.	Mariya Shaju		Newsletter – Vol.4; Issue.1
64.	Meenakshi K.S		Newsletter – Vol.4; Issue.1
65.	Akshay V S		Newsletter – Vol.4; Issue.1
66.	Gadha V G		Newsletter – Vol.4; Issue.1
67.	Ganga Narayanan		Newsletter – Vol.4; Issue.1
68.	Ajith T V		Newsletter – Vol.4; Issue.1

69.	Anand T V		Newsletter – Vol.4; Issue.1
70.	Ananya Thilak		Newsletter – Vol.4; Issue.1
71.	K. S. Midhun	Editorial Board Members	Newsletter – Vol.5; Issue.1
72.	Nelen . P . S	Editorial Board Members	Newsletter – Vol.5; Issue.1
73.	Mohamed Omar K A	Editorial Board Members	Newsletter – Vol.5; Issue.1
74.	Rahul C	Editorial Board Members	Newsletter – Vol.5; Issue.1
75.	Joshwin Joy		Newsletter – Vol.5; Issue.1
76.	Joyal James E		Newsletter – Vol.5; Issue.1
77.	Karthik Krishna K J		Newsletter – Vol.5; Issue.1
78.	Krishnanjali T S		Newsletter – Vol.5; Issue.1
79.	Meghna.S.Prabhu		Newsletter – Vol.5; Issue.1
80.	Shaheen A S		Newsletter – Vol.5; Issue.1

81.	Siya Mariya		Newsletter – Vol.5; Issue.1
82.	Sreekanth C S		Newsletter – Vol.5; Issue.1
83.	Robin Roy		Newsletter – Vol.5; Issue.1
84.	Lincy A B		Newsletter – Vol.5; Issue.1
85.	Afsal V A		Newsletter – Vol.5; Issue.1
86.	Aishani T M		Newsletter – Vol.5; Issue.1
87.	Aman Krishna .P .R		Newsletter – Vol.5; Issue.1
88.	Anusha B		Newsletter – Vol.5; Issue.1

4.7.3 Participation in inter-institute / state/national events by students of the program of study (5)

Table 4.14 Details of Co-Curricular activities

CAY 2025-2026			
SL.No	Name of Student	Event Description	Event Level (Inter- Institute/State/National)

1	Adarsh K G	Workshop	Inter Institute
	Adithya Gopakumar		
	Joshwin Joy		
	Joyal James E		
	Krishnanjali T S		
	Meghna S Prabhu		
	Muhammed Omar K A		
	Rahul C		
2	Joyal James E	Technical Quiz	National
3	Joyal James E	Project Expo	Institute
	Krishnanjali Ts		
	Meghna S Prabhu		
	Rahul C		
4	Nelen P S	Workshop	National
5	Muhammed Riswan	Workshop	State
6	Siya Mariya	Debate Competition	Institute

7	Vishnu Sunil P	Model Making Competition	Institute
8	Joshwin Joy	Cad Drafting Competition (Autocad)	Institute
9	Joyal James E	Webinar	State
10	Rahul C	Workshop	Inter Institute
	Krishnanjali Ts		
	Aneesha K A		
	Meghna S Prabhu		
	Nelen Ps		
	Muhammed Riswan		
11	Mohamed Omar K A	Bridge Design Competition	Institute
12	Stalin K A	Survey Camp	Institute
	K. S. Midhun	Model Making Competition	Institute

13			
14	Adarsh K G	Workshop	State
	Adithya Gopakumar		
	Joshwin Joy		
	Krishnanjali T S		
	Mohammed Omar K A		
	Nelen Ps		
15	Mohammed Rouf A A	Mega Campus Quiz 2025	Inter Institute
16	Aswell Baiju	Bridge Design Competition	Institute
17	Karthik Krishna K J	Survey Camp	Institute
18	Shaheen A S	Bridge Design Competition	Institute
19	Nelen P S	Survey Camp	Institute
20	Adarsh K G	Paper Presentation	Inter Department
21	Meghna.S.Prabhu	Paper Presentation	Inter Department

S. No .	Name of the Student	Event Description	Event Level (Inter-Institute / State/National)
1	Ajay Krishna P K	Webinar	State
	Anagha Chandran T		
	Gadha V G		
	Sreehari K P		
	Sandeep P S		
2	Akshay V S	Workshop	State
	Athul Murali		
	Athul Krishna P L		
3	Ajay Krishna P K	Seminar	Institute
4	Abhiram Krishna	Workshop	State
5	Ajay Krishna P K	Online Quiz	National
	Athulkrishna P L		
	Archana R		
	Devapriya T S		
	Hrithika Santhosh		
	Ajith T V		

	Meenakshi Ks		
6	Ajaykrishna P K	Webinar	State
	Akshay V S		
	Athul T S		
	Devapriya T S		
	Sooraj P J		
	Ganga Narayanan		
	Kasinath Surendran		
	Gadha V G		
7	Anagha Chandran T	Debate	State
	Archana R		
	Ardra P M		
8	Anagha Chandran T	Workshop	Inter Institute
	Anjana K S		
	Archana R		
9	Shone Bobby	Mega Campus Quiz	Institute
10	Vishnu U N	Tech Fest	Institute
11	Sreehari K P	Innovation Challenge)	Institute
12	Jijesh K Rajan	Project Exhibition	Institute

13	Anjana K S	Technical Summit	State
14	Vishnu U N	Paper Presentation	Inter Department
15	Ajith T V	Group Discussion	Inter Department
16	Gadha V G	Seminar	Inter Department
17	Sreehari K P	Survey Camp	Inter Department
18	Anand T V	Model Making Competition	Inter Department
19	Ajaykrishnan. P.K	Group Discussion	Inter Department

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S. No .	Name Of The Student	Event Description	Event Level (Inter-Institute / State/National)	
1	Navya A S	Project Presentation	Inter Department	Nirma
	Dilna Mariya			
	Kiran M S			

2	Sarath T S	Mix Design training & Cube Testing Competition	Inter Institute	Sem
	Dijo Davis			
	Aloysious Jacob			
3	Maneesha M M	Online Quiz	National	Ministry Of Elec
	Jyothika M T			
	Harikrishnan A S			
4	Jack Thommi	Quiz Competition	National	In
	Anjana P S			
5	Stephen N V	Technical Quiz	State	(
	Praveena P P			
6	Ajaykrishnan. P.K	Building Design Competition	Inter Institute	Scm
7	Stephen N V	Workshop	State	(
	Praveena P P			

	Dilna Mariya			
8	Anjana P S	Online Quiz	National	
9	Stephen N V	Seminar	State	
	Praveena P P			
	Ephy Babu T			
	Dilna Mariya			
10	Archana R	Building Design Competition	Inter Institute	Scm
11	Athul T S	Seminar Presentation	Inter Department	Nirma
12	Shone Bobby N	Paper Presentation	Inter Department	Nirma
13	Sreyes Krishna I B	Seminar	Inter Department	Nirma

CAY m3 2022-2023

S. No	Name of the Student	Event Description	Event Level (Inter-Institute State/ National)	
1	Midhun M N	Workshop	State	Core Inst
	Aghad N S			
	Angel K R			
	Midhun M N			

	Dhanish K D			
	Aswindas T P			
2	Praveena P P	Seminar	Inter Department	Nirmala In
3	Midhun M N	Quiz Competition	Inter Department	Nirmala In
4	Stephen N V	Debate	Inter Department	Nirmala In
5	Adithkrishna E G	Essay Writing Competition	Inter Department	Nirmala In
6	Jyothika M M	Quiz Competition	Inter Department	Nirmala In
7	Aswindas T P	Essay Writing Competition	Inter Department	Nirmala In
8	Aswindas T P	Webinar	State	Core Inst
	Angel K R			
	Dhanish K D			
	Midhun M N			
	Mirash K J			
9	Amritha K	Project Presentation	Inter Department	Nirmala In

CAY m4 2021-2022

S. No	Name Of The Student	Event Description	Event Level (Inter-Institute State/National)	
1	Aswin P S	Online Quiz	Inter Department	Nirmala In
2	Visakh V S	Poster Presentation Competition (Online)	Inter Department	Nirmala In
3	Deeraj K R	Online Quiz	Inter Department	Nirmala In
4	Sarangi V S	Online Debate	Inter Department	Nirmala In
5	Vidhya K V	Online Debate	Inter Department	Nirmala In
6	Aromal P A	Online Quiz	Inter Department	Nirmala In
7	Aswin P S	Poster Presentation Competition (Online)	Inter Department	Nirmala In
8	Sushik P S	Cad Design Competition (Online)	Inter Department	Nirmala In
9	Visakh V S	Cad Design Competition (Online)	Inter Department	Nirmala In
10	Anjana N S	Webinar	State	Core Inst

11	Ramsana P.A			Workshop (Online)	State	Core Inst
	Sarangi.V.S					
	Sumayya P S					
	Rahul Ramachandran					
	Anjana N S					
	Gayathridevi P G					
	Sushik P S					
	Nidhin P S					
	Hima Shaju					
	Aiswarya					
	Aleena Jaison					
	Gopika M S					
	K P S Prabhu					
	Nidhin P S					
	Visakh V S					
	Aaromal P A					

Table 2.72 Details of extra-curricular activities

CAY 2025-2026				
S. No	Name of the Student	Event Description	Event Level (Inter- institute / State/National)	

1	Adarsh K.G	Blood Donation Camp	State	Dept. Of Trans
	Adithya Gopakumar			
	Anurag P.P			
	Joyal James			
	Karthik Krishna			
2	Aswell Baiju	E- Football (Techfest Genezis 2k26)	Institution	Govt. Po
	Sreekanth C.S			
3	Anliya Shaju	Nadanpattu	Inter -Institute	
4	Aneesha K A	Fashion Show (Freshers Day Celebration, HOLA)	Inter -Institute	
	Anliya Shaju			
5	Ridha N R	NSS Camp conducted at RUP School Meloor	Institution	
	Akshaya Siji			
	Gopika S			
	Amaya V			
CAY m1 2024-2025				
1	Abhiram Krishna M M	KAPA 4 TH Thrissur Bodybuilding & Physique Championship 2025(55 K G)	State	Thrissur
2	Abhiram Krishna M M	Natural Mr. Kerala Championship 24-25	State	
3	Abhiram Krishna M M	Inter House Cricket	Inter -Institute	

	Ashik Wilson			
4	Anagha Chandran	Mega Thiruvathira	Inter -Institute	
	Anjana K. S			
	Archana.R			
	Ardra P.M			
	Aswathy Thankappan			
	Hrithika Santhosh			
	Mariya Shaju			
5	Nandhana V S	NSS Camp conducted at RUP School Meloor	Institution	
	Kannan M.S			
	Athulkrishna U A			
	Aishani			
6	AthulKrishna P S	Social Service @ meloor Gramapanchayath, Choondal Grama Panchayath	Institution	
	Kashinath Surendran			
	Sreyes Krishna			
	Athul T. S			
	Sreehari K.P			
	Gadha V G			
	Ajith T .V			
	Anand T. V			

	Ganga Narayanan			
7	Anagha Chandran	Fashion Show (Freshers Day Celebration, HOLA)	Inter -Institute	
	Anjana K S			
	Archana .R			
	Deva Priya T.s			
	Hrithika Santhosh			
	Jeeskumar T.S			
	Ashik Wilson			
8	Krishnanjali T. S	Logo Designing	Inter -Institute	
9	Rahul C	Volunteer @ Dept Association Inaguration Programme	Institution	
10	Ardra P.M	Throwball	Inter -Institute	
	Aswathy Thankappan			
	Athul Krishna P.L			
	Deva Priya T.S			
	Mariya Shaju			
	Meenakshi K.S			
	Ajith T.V			
	Anand T.V			

11	Arjun V.J	football	Inter -Institute	
	Sreyes Krishna			
	Vishnu U N			
	Akshay P Yacob			
12	Aswathy Thankappan	Freshers day (HOLA) Stall Making	Inter -Institute	
	Athul Krishna P.L			
	Sandeep P.S			
	Shone Bobby			
	Ashik Wilson			
13	Sandeep P.S	Blood Donation	State	
	Jijesh .K. Rajan			
14	Anjana P S	Income Tax Quiz, conducted by income tax department, CBDT, Govt of India	National	
CAY M2 2023-2024				
1.	Aneesha K A	Thiruvathira	Inter -Institute	
	Anliya Shaju			
	Meghana S Prabu			
	Anjana K. S			
	Mariya Shaju			
	Deva Priya T.S			
	Hrithika Santhosh			

	Meenakshi K.S			
2	Anagha Chandran T	NSS state level leadership training Camp.	State	Govt. Poly
	Anjana K. S			
3	Anjana K. S	NSS Adventure Camp	State	Gov
4	Anagha Chandran. T	Patriotic Song	Inter -Institute	
	Archana. R			
	Ardra P.M			
	Aswathy Thankappan			
	Gadha V.G			
	Ganga Narayanan			
5	Kashinath Surendran	Tech Fest	Institution	
	Vishnu U N			
	Jijeesh .K. Rajan			
	Sreehari K P			
	Mohamed Rouf A.A			
	Ajith T.V			
6	Sandeep P. S	Seminar Presentation	Institution	
	Sreyes Krishna			
7	Sreyes Krishna	Single Dance (boys)	Inter -Institute	NCETM

8	Vishnu U N	Cartoon Drawing	Inter -Institute	
9	Ajith T.V	Blood Donation	District	Govt .
10	Gadha V. G	Poem Recitation in malayalam	Inter -Institute	
11	Gadha V. G	Light Music	Inter -Institute	
12	Jijeesh .K. Rajan	Treasure hunt	Inter -Institute	
	Mohamed Rouf A.A			
	Shone Bobby			
13	Ashik Wilson	Water Colouring	Inter -Institute	
14	Ashik Wilson	Sports 1500m boys	Inter -Institute	
15	Ashik Wilson	Sports 4 x 400 relay boys	Inter -Institute	
16	Ashik Wilson	Sports 3000m boys	Inter -Institute	
17	Ashik Wilson	Sports 800m boys	Inter -Institute	
18	Ashik Wilson	District level 5000m	District	
19	Ashik Wilson	Chess	Inter -Institute	

20	Ashik Wilson	5000m (men) 63 rd Kerala state polytechnic athletics Championship 23-24	State	A
21	Ajin Siddique	Social Service @ meloor Gramapanchayath, Choondal Grama Panchayath	Institution	
	Dhanush K D			
	Mirash K J			
	Midhun M N			
	Kiran M S			
	Aslam K R			
	Sahal Saleem			
	Sharook K A			
	Adith Krishna E G			
	Aghad N S			
	Aswin Das			
	Rakhil Raman			
	Edwin P Raji			
	Stephen N V			
22	Aslam K R	Mappilappattu, on Arts day Dhwanika	Inter -Institute	
23	Sarath T S	Blood Donation	District	Govt .

CAY m3 2022-2023

1	Athul Krishna P. L	Mime	Inter -Institute	
	Vishnu U N			
2	Ashik Wilson	Football	Inter -Institute	
	Abhinav K B			
	Vyshnav M.D			
	Edwin			
3	Aghad N S	A Training on Defensive Driving, Conducted by Honda Motorcycle& Scooter India Pvt. Ltd	Institution	
	Ajin Siddique K S			
	Danush K.D			
	Mirash K J			
	Muhammed Jehansha K			
	Aloysious Jacob			
	Dijo Davis			
	Aslam K R			
4	Ashik Wilson	Sports 5000m (men) 62 nd Kerala state polytechnic college Games	State	
5	Ashik Wilson	Sports 1500m (men) 62 nd Kerala state polytechnic college Games	State	
6	Aslam	Group Song, on Arts day Dhwani	Inter -Institute	
7	Dilna Mariya	Paining- Oil Colour in the Kerala state polytechnic college kalolsavam	state	Sree Narayana Po
8	Muhammed Jehansha	Football on sports day	Inter -Institute	

9	Amritha K	Poetry Writing-Eng in the Kerala State Polytechnic College Kalolsavam 22-23	State	Sree Narayana Po
10	Amritha K	Short Story – English in Arts day Dhwani 23	Inter -Institute	
11	Sree Lakshmi M P	High Jump on Sports Day 22-23	Inter -Institute	
CAYm4 2021-2022				
1	Aghad N S	Mime on Arts Festival	Inter -Institute	
	Ajin Siddique K S			
	Danush K.D			
	Sahal Saleem			
	Sharook K A			
2	Praveena P.P	Kadha Rachana in Arts Festival 21-22	Inter -Institute	

5 FACULTY INFORMATION AND CONTRIBUTIONS (150)

Name	University Degree	Area of Specialization	Contribution to the program(% load)			Research Paper Publications	Faculty receiving Ph.D/M.Tech during the Assessment year	Current Designation	Initial Date of Joining	Associ Type
			CAY (2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)					
LALITHA P K	M.Tech	Construction Engineering and Management	100	100	100			HOD	07/04/2021	Regula
SILPA MOHAN K	M.Tech	Environmental Engineering	100	100	0			Lecturer	17/06/2024	Regula
ASHA THANKAPPAN	B.Tech	Civil Engineering	100	100	0			Lecturer	10/06/2024	Regula
NAVEEN PRADEEP	B.Tech	Civil Engineering	100	100	88			Lecturer	16/06/2023	Regula
NEETHU P DAVIS	B.Tech	Civil Engineering	88	88	100			Lecturer	09/02/2021	Regula
SREETHU M B	M.Tech	Computer Aided Structural Engineering	0	0	100			Lecturer	10/06/2019	Regula
UDHAYAN K S	B.Tech	Civil Engineering	0	0	100			Lecturer	05/01/2021	Regula
DILNA GEORGE	B.Tech	Civil Engineering	40	40	40			Lecturer	01/03/2023	Regula
AISWARYA P S	M.Tech	Computer Aided Process Design	12	0	0			Lecturer	05/06/2024	Regula
SEETHAL C R	M.Tech	Computer Science	50	0	0			HOD	05/06/2024	Regula
KIRAN C A	B.Tech	Mechanical Engineering	17	17	0			Lecturer	04/04/2024	Regula
SANTHI S NATH	M.Sc	Physics	50	50	50			HOD	25/05/2023	Regula
NAVYA T G	M.Sc. (Chemistry)	Chemistry	50	50	50			Lecturer	05/06/2023	Regula
JESBIN JOSEPH	MA (English)	English Language and Literature	50	0	0			Lecturer	02/06/2025	Regula
ATHIRA MOHAN	B.Tech	Electronics Engineering	0	12	0			Lecturer	27/10/2022	Regula
ANN MERIN P JAMES	B.Tech	Computer Engineering	0	50	17			Lecturer	06/02/2023	Regula
GIMSHY JOJO	M.Sc (Maths)	Mathematics	50	50	50			Lecturer	01/07/2019	Regula
HRIDYA K J	MA (English)	English Language and Literature	0	50	0			Lecturer	11/09/2023	Regula
JISHU JOHN	MA (English)	English Language and Literature	0	0	50			Lecturer	17/07/2019	Regula
SUMY THOMAS	B.Tech	Electrical and Electronics Engineering	0	0	12			Lecturer	01/06/2023	Regula
SOJAN O THOMAS	B.Tech	Mechanical Engineering	0	0	17			Lecturer	26/09/2022	Regula
VINEESH T S	M.Phil	Physical Education	17	17	17			Lecturer	05/06/2023	Regula

5.1 Student-Faculty Ratio (SFR) (25)

Year	N	F
2025-26(CAY)	192	8.24
2024-25(CAYm1)	192	8.24
2023-24(CAYm2)	192	7.91

Average SFR : 23.62

Assesement SFR : 25

5.1.1. Provide the information about the regular and contractual faculty as per the format mentioned below:

	Total number of regular faculty in the department	Total numb
2025-26(CAY)	12	0
2024-25(CAYm1)	12	0
2023-24(CAYm2)	12	0

5.2 Faculty Qualification (25)

5.2.1 Faculty Qualification Index (20)

	X	Y	F	$FQ = 2 \times [(10X + 5Y) \div 15]$
2025-26	3	5	8.00	16.25
2024-25	2	6	8.00	15.50
2023-24	2	6	8.00	15.50

Average Assessment : 15.75

5.2.2 Availability of Faculty/principal of that discipline with PhD. Qualification (5)

Availability of Faculty/principal of that discipline with PhD. Qualification ? :

NO

5.3 Faculty Retention (20)

Description	2024-25 (CAYm1)
No of Faculty Retained	7
Total No. of Required Faculty	9
% of Faculty Retained	78

Average : 72.22

Assessment Marks : 10.00

5.4 Faculty as participants in Faculty development/training activities conducted by other organizations (30)

Name of the faculty	Max 5 Per Faculty		
	2022-23 (CAYm3)	2023-24 (CAYm2)	2024-25 (CAYm1)
ASHA THANKAPPAN	0.00	0.00	5.00
DILNA GEORGE	0.00	5.00	5.00
LALITHA P K	5.00	5.00	4.00
NAVEEN PRADEEP	0.00	5.00	4.00
NEETHU P DAVIS	4.00	4.00	4.00
SILPA MOHAN K	0.00	0.00	5.00

SREETHU M B	5.00	4.00	0.00
UDHAYAN K S	4.00	5.00	0.00
SYAMA MURALI	5.00	0.00	0.00
JOHN PETER C JOSE	5.00	0.00	0.00
Sum	28.00	28.00	27.00
RF = Number of Faculty required to comply with 25:1 SFR as per 5.	7.68	7.68	7.68
Assessment $[6*(Sum / 0.5RF)]$ (Marks limited to 30)	30.00	30.00	30.00

Average assessment over 3 years (Marks limited to 30): 30.00

5.4. a. Organized/ Conducted FDPs and STTP by this department at State / National Level (12)

Academic Year	FDP Topic	Date	No. of Days	Resource Person	No.Of Faculty Participated
CAY 2025-2026	Geographic Information Systems	15-16 December, 2025	2	Dr. Jayalakshmi C . T	12
	<i>Recent Trends and Innovations in Concrete Technology</i>	4-5 August, 2025	2	Dr. Anitha Jacob	12
CAY m1(2024-2025)	Building Information Modeling	8-9 January, 2025	2	Gulf Tech	15
	Plastic Waste Management	17-18 July, 2024	2	Dr. Meera V	11

Sl. No	Assessment Year	Date	Company Name	Consultancy Details	Total Amount (₹)	
1	CAY (2025-26)	14-08-2025	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	Cube Compression Test	1200	Testing cc
2	CAY (2025-26)	18-12-2025	The Centre for Science and Technology for Rural Development , Ayyanthole, Thrissur	Cement Fineness & Consistency Test	1600	Eva
3	CAY M1 (2024-25)	15-05-2024	St. Marys Hollow Bricks, Koratty	Compression Test of Bricks	1800	Laborat
4	CAY M1 (2024-25)	18-11-2024	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	Cement Soundness Test	1400	
5	CAY M2 (2023-24)	08-06-2023	St. Antonys Hollow Bricks, Karukutty	Compression Test of Bricks	1600	
6	CAY M2 (2023-24)	11-10-2023	Koratty Builders	Soil Moisture Content Test	1000	
7	CAY M2 (2023-24)	15-12-2023	Maria Hollow Bricks, Angamaly	Water Absorption Test	1700	
8	CAY M3 (2022-23)	16-06-2022	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	Compression Test of Concrete Blocks	1800	
9	CAY M3 (2022-23)	22-09-2022	The Centre for Science and Technology for Rural Development , Ayyanthole, Thrissur	Sieve Analysis	1000	
C. Manufacturing Contracts (2)						

Sl. No	Assessment Year	Date	Company Name	Manufacturing Contract	Total Amount
1	CAY (2025-26)	23-04-2026	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	Supply of Hollow Concrete Bricks	42000
2	CAY (2025-26)	18-08-2025	Merit Constructions, Angamaly	Precast Kerb Stones	46500
3	CAY (2025-26)	15-12-2025	United Builders, Kodakara	RCC Cover Slabs	39500
4	CAY M1 (2024-25)	13-09-2024	JK Constructions, Chalakudy	Concrete Drain Covers	33200
5	CAY M1 (2024-25)	19-11-2024	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	RCC Lintels	35600
6	CAY M2 (2023-24)	23-08-2023	Galaxy Precast Solutions, Kodakara	Precast Concrete Kerbs	43800
7	CAY M2 (2023-24)	14-12-2023	Trinity Concrete Products, Mala	Solid Concrete Blocks	39400
8	CAY M3 (2022-23)	20-09-2022	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	Interlocking Paver Blocks	47800
D. Testing Contracts (2)					
Sl No	Assessment Year	Date	Company Name	Testing Details	Total Amount
1	CAY (2025-26)	28-07-2026	Holy Family Concrete Blocks, Chalakudy	Compression Test of Concrete Blocks	100
2	CAY (2025-26)	18-12-2025	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	Cement Fineness & Consistency Test	1500
3	CAY M1 (2024-25)	15-05-2024	Holy Family Concrete Blocks, Chalakudy	Compression Test of Bricks	1500
4	CAY M1 (2024-25)	12-09-2024	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	Sieve Analysis	1700
5	CAY M2 (2023-24)	08-06-2023	St. Marys Hollow Bricks, Koratty	Compression Test of Bricks	800

6	CAY M2 (2023-24)	11-10-2023	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	Soil Moisture Content Test	700	Particle
7	CAY M3 (2022-23)	16-06-2022	St. Marys Hollow Bricks, Koratty	Compression Test of Concrete Blocks	1200	Particle
8	CAY M3 (2022-23)	22-09-2022	Viya Builders Pvt. Ltd, FACT Nagar, Thripunithara	Sieve Analysis	1000	Particle

5.6 Faculty Performance Appraisal and Development System (FPADS) (30)

A. A well-defined FPADS instituted for all the assessment years (5)

1. Purpose

This report documents the faculty appraisal process followed by the institution. The process defines how appraisal information moves from the faculty member through the Head of Department (HOD) and the principal, and how the outcome

2. Process Overview

The process follows a linear review sequence culminating in a single decision point, with a feedback loop that returns underperforming cases to the start of the cycle. The stages are summarized below.

Step	Stage	Description
1	Form submission	The faculty member completes the appraisal form, attaches the required supporting proofs, and submits it
2	Report consolidation	The HOD consolidates the appraisal forms of the department into a single evaluation report and submits it
3	Principal review	The Principal reviews the consolidated report and forwards observations back to the HOD for any remedia
4	Performance decision	A judgment is made on whether the faculty members performance meets the required standard.

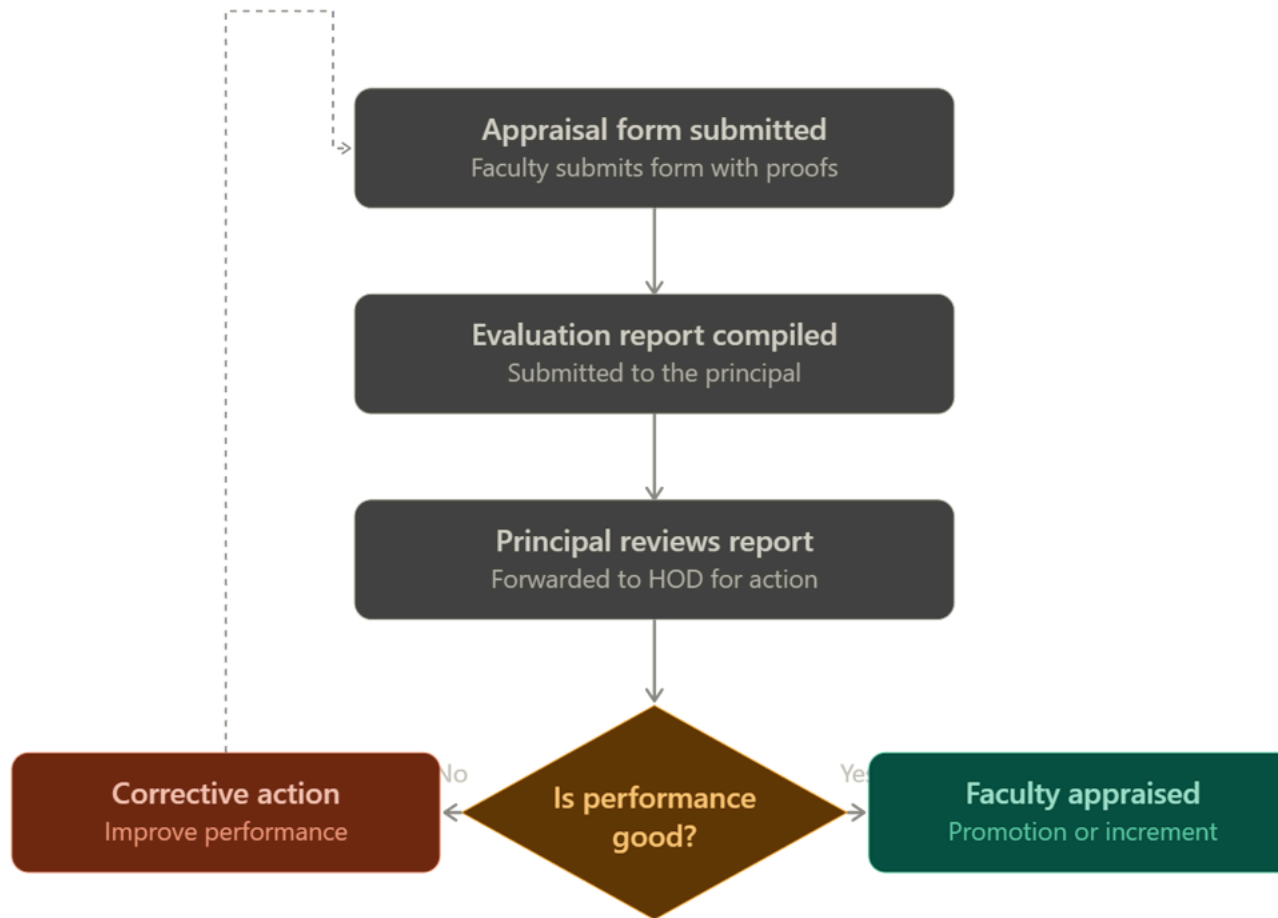
3. Decision Outcomes

If performance is not satisfactory (No): Corrective actions are identified to improve the faculty members performance. These actions feed back into the cycle, and the faculty member re-enters the process at the form-submission stage in the

If performance is satisfactory (Yes): The faculty member is appraised positively, which may result in promotion, increment, awards, or other forms of recognition.

4. Roles and Responsibilities

- Faculty member: prepares and submits the appraisal form with supporting evidence.
- HOD: consolidates departmental appraisal data, forwards it to the Principal, and implements remedial actions when required.
- Principal: reviews the consolidated evaluation report and directs follow-up action.



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B. Its implementation and effectiveness (15)



NIRMALA COLLEGE OF ENGINEERING TECHNOLOGY AND MANAGEMENT

Chalakudy

FACULTY APPRAISAL FORM

A.GENERAL INFORMATION

Sl. No.	Particulars	DETAILS
1	Academic Year	
2	Name of Faculty Member	
3	Employee ID	
4	Designation	
5	Department	
6	Date of Joining the Institution	
7	Highest Qualification	
8	Specialization	
9	Nature of Appointment (Regular/Contract/Guest)	
10	Aadhaar Number (Optional, if applicable)	
11	Mobile Number	
12	Official Email ID	
13	Total Teaching Experience	
14	Experience in the Present Institution	
15	Industrial Experience	

16	No.s of Subjects/Courses Handled During the Academic Year	
17	Additional Responsibilities Assigned	
18	Mentor Batch/Class Assigned	
19	Reporting Officer (HoD)	
20	Reviewing Officer (Principal)	

B TEACHING LEARNING ACTIVITIES

Sl. No.	Performance Indicator	Assessment Criteria	Maximum Marks	Self-Assessment	HoD Assessment	Remarks
1	Course Allocation	Number of theory/laboratory courses handled	5	3		
2	Lesson Planning	Preparation and timely submission of lesson plans/course plans	5	4		
3	Syllabus Coverage	Completion of syllabus as per academic schedule	10	10		
4	Teaching Methodology	Use of innovative teaching methods, active learning, OBE practices	10	5		
5	ICT Integration	Use of LMS, smart classroom, simulations, multimedia, online resources	5	3		
6	Laboratory Instruction	Effective conduct of laboratory classes and practical demonstrations	5	5		
7	Course File Maintenance	Maintenance of course file, attendance, assessments, and records	5	5		
8	Continuous Internal Evaluation	Timely conduct of tests, assignments, quizzes, and evaluation	10	8		
9	Result	Analysis of	10	8		

	Analysis	student performance and implementation of remedial measures				
10	Student Feedback	Performance based on student feedback analysis	15 >90%=15,>80%=10,>70%=5 , <70%=0, (need action taken)	10		
11	Slow Learner &	Conduct of remedial classes,	5	4		

	Advanced Learner Support	mentoring, enrichment activities				
12	Academic Mentoring	Regular mentoring and counselling of assigned students	5	3		
13	Question Paper Setting & Evaluation	Quality of question papers, valuation, and timely submission of marks	5	4		
14	Academic Discipline	Punctuality, regularity, attendance, and adherence to academic calendar	5 , >90%=5,>80%=4,>70%=3, <70%=0, (need action taken)	3		
Total			100	75		

C STUDENT DEVELOPMENT

Sl. No.	Activity	Maximum Score	Self Score	HoD Score	Remarks
1	Course Planning & Lesson Plan	5	4		
2	Syllabus Coverage	5	5		
3	Teaching Methodology & ICT Tools	10	8		
4	Laboratory Instruction	5	5		
5	Course File Maintenance	5	4		
6	Student Performance/Result Analysis	10	6		
7	Student Feedback	10, >90%=10,>80%=8,>70%=5, <70%=0, (need action taken)	0		

	Total	50	32 (64%)		
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D. RESEARCH ,INNOVATION AND PROFESSIONAL DEVELOPMENT DEVELOPMENT

Activity	Maximum Score			Remarks
Research Publications	5	3		
Patents/Consultancy		0		
FDPs/Workshops Attended	5	4		
NPTEL/MOOCs/Certifications	5	3		
Industrial Training	5	5		

Total	25	15 (60%)		
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E .INSTITUTIONAL RESPONSIBILITIES

Activity	Maximum Score	Self Score	HoD Score	Remarks
Committee Responsibilities	5	5		
NBA/NAAC Activities	5	5		
Examination Duties	5	5		
Admission/Extension Activities	5	3		
Professional Ethics & Discipline	5	4		
Total	25	22 (88%)		

F.SUMMARY OF SCORES

Section	Maximum Marks	Self Score	HoD Recommendation
Teaching–Learning	100	75	
Student Development	50	32	
Research & Professional Development	25	15	
Institutional Responsibilities	25	22	
Grand Total	200	144(72%)	

Training Need Identified	Recommended Programme	Timeline

Score (%)	Performance Rating
90 – 100	Outstanding
80 – 89	Excellent
70 – 79	Good

60 – 69	Satisfactory
50 – 59	Fair
Below 50	Needs Improvement

Faculty Member	Head of Department	Principal
Signature: _____	Signature: _____	Signature: _____
Date: _____	Date: _____	Date: _____

Nirmala College of Engineering Technology and Management, Chalakudy, has implemented a structured Faculty Appraisal System to assess the performance, contribution, professional development, and institutional involvement of faculty information and evaluating faculty performance across multiple dimensions of academic and institutional responsibilities.

The appraisal framework is designed to assess faculty performance through four major areas:

1. Teaching–Learning Activities – 100 marks
2. Student Development – 50 marks
3. Research, Innovation and Professional Development – 25 marks
4. Institutional Responsibilities – 25 marks

Thus, the appraisal system has a total weightage of 200 marks. The final score is intended to provide an overall indication of faculty performance and to identify areas requiring further development and training. The form also provides for Department, and review by the Principal.

The major objectives of implementing the Faculty Appraisal System are:

- To assess the effectiveness of faculty members in teaching and learning activities.
- To monitor timely lesson planning and syllabus completion.
- To encourage innovative teaching methodologies and Outcome-Based Education practices.
- To evaluate the effective use of ICT and digital learning resources.
- To assess laboratory instruction and practical teaching.
- To ensure proper maintenance of academic and course-related records.
- To monitor continuous internal evaluation and student assessment practices.
- To analyse student performance and encourage remedial measures.
- To obtain and utilize student feedback for improving teaching effectiveness.
- To assess academic mentoring and student-support activities.
- To encourage research, publications, professional development, certifications, and industrial exposure.
- To assess faculty participation in institutional responsibilities such as NBA/NAAC activities, examination duties, admission-related activities, and committees.
- To identify individual training and professional development needs.
- To provide a structured basis for continuous improvement in faculty performance.

The form therefore goes beyond merely evaluating classroom teaching and incorporates academic, student-development, research, professional, and institutional contributions.

Structure of the Appraisal System

The first section of the form captures essential faculty information, including academic year, name, employee ID, designation, department, date of joining, qualification, specialization, nature of appointment, teaching experience, industrial officer, and reviewing officer.

This information establishes the professional profile of the faculty member and provides the context required for interpreting the appraisal results. The form specifically identifies the Head of Department as the Reporting Officer and the Principal as the Reviewing Officer.

Teaching–Learning Activities

Teaching–Learning Activities constitute the largest component of the appraisal system, with a maximum of 100 marks. This indicates that the institution gives primary importance to the quality and effectiveness of teaching.

The appraisal covers:

- Course allocation
- Lesson planning
- Syllabus coverage
- Teaching methodology
- ICT integration
- Laboratory instruction
- Course file maintenance
- Continuous internal evaluation
- Result analysis
- Student feedback
- Slow learner and advanced learner support
- Academic mentoring
- Question paper setting and evaluation
- Academic discipline

The assessment criteria are generally linked to observable academic activities such as timely preparation, completion of syllabus according to schedule, use of innovative teaching methods, ICT integration, maintenance of records, conduct of

This makes the teaching component relatively comprehensive because it considers both the process of teaching and the outcomes of teaching.

Student Development Component

The Student Development section carries 50 marks and evaluates the faculty members contribution to student learning and academic development.

The indicators include:

- Course planning and lesson planning
- Syllabus coverage
- Teaching methodology and ICT tools
- Laboratory instruction
- Course file maintenance
- Student performance/result analysis
- Student feedback

The inclusion of student performance and student feedback makes this component particularly important because it attempts to assess the effect of faculty practices from the learners perspective and through measurable academic outcomes.

The appraisal form also establishes performance thresholds for student feedback. For example, the student feedback score is linked to percentage performance, with higher feedback levels receiving higher marks and lower performance requiring an input for corrective action.

Research, Innovation and Professional Development

The third component carries 25 marks and encourages faculty members to continuously improve their professional and academic capabilities.

The areas considered are:

- Research publications
- Patents/consultancy
- FDPs and workshops
- NPTEL/MOOCs/certifications
- Industrial training

This section promotes a culture of continuous professional development and encourages faculty members to remain academically and professionally updated.

The inclusion of industrial training and online certifications alongside publications and patents provides scope for recognizing different forms of professional development.

Institutional Responsibilities

Institutional contribution is evaluated separately for a maximum of 25 marks.

The appraisal covers:

- Committee responsibilities
- NBA/NAAC activities
- Examination duties
- Admission/extension activities
- Professional ethics and discipline

This ensures that faculty contributions outside direct classroom teaching are also recognized. The section therefore supports a broader institutional perspective of faculty performance.

Implementation Mechanism

The appraisal system can be implemented as an annual performance review process linked to the academic year.

Step 1 – Collection of Faculty Information

At the beginning of the appraisal cycle, faculty members provide general information concerning their designation, experience, courses handled, mentoring responsibilities, and additional duties.

Step 2 – Self-Assessment

Faculty members review their performance against the specified indicators and enter their self-assessment scores.

This encourages faculty members to critically reflect on their own teaching, student-development activities, research and professional development, and institutional contributions.

Step 3 – Verification and Assessment by HoD

The Head of the Department reviews the self-assessment and evaluates the faculty member against the prescribed criteria.

The form specifically provides a separate column for HoD Assessment and Remarks. This provides an opportunity to validate the self-assessment and provide constructive observations.

Step 4 – Review by Principal

The Principal acts as the reviewing authority. The form identifies the Principal as the Reviewing Officer and provides space for final review/signature.

Step 5 – Consolidation of Scores

Scores from the four major components are consolidated to obtain the overall performance score out of 200.

Step 6 – Identification of Training Needs

The form provides a specific section for:

- Training Need Identified
- Recommended Programme
- Timeline

This creates a direct link between appraisal findings and faculty development planning.

Step 7 – Follow-up and Improvement

Identified deficiencies should be converted into specific improvement activities such as FDP participation, mentoring support, peer observation, training in ICT/innovative pedagogy, research guidance, or improvement of student-support practices.

A subsequent appraisal cycle can then be used to determine whether improvement has occurred.

Effectiveness from the Appraisal Form

The filled portion of the appraisal form provides an example of how the system can generate a performance profile.

The sample self-assessment records:

Appraisal Component	Maximum Marks	Sel
Teaching–Learning Activities	100	75
Student Development	50	32
Research & Professional Development	25	15
Institutional Responsibilities	25	22
Grand Total	200	144

The overall self-assessment score is 144 out of 200, equivalent to 72%. According to the rating scale provided in the form, a score between 70% and 79% falls under the “Good” performance category.

This demonstrates that the appraisal system is capable of producing a consolidated performance rating while simultaneously identifying strengths and areas requiring improvement.

Analysis of Teaching–Learning Effectiveness

The Teaching–Learning component has a self-assessment score of 75/100, or 75%.

Several indicators received relatively strong scores. Syllabus coverage received 10/10, laboratory instruction received 5/5, and course file maintenance received 5/5. Continuous internal evaluation and result analysis received 8/10 each.

These scores indicate satisfactory implementation of basic academic processes such as syllabus completion, laboratory instruction, record maintenance, student assessment, and result analysis.

However, teaching methodology received 5/10 and ICT integration received 3/5. These scores indicate scope for further strengthening innovative teaching practices, active learning, OBE practices, ICT-enabled teaching, simulations, multime

The appraisal mechanism is therefore effective in identifying not only whether teaching duties are being performed but also areas in which teaching practices can be improved.

Analysis of Student Development Effectiveness

The Student Development score is 32/50, or 64%.

The faculty member has recorded full or high scores in several academic-support activities, including syllabus coverage and laboratory instruction. However, student performance/result analysis received 6/10 and student feedback received 0/

The student feedback score is particularly significant because the appraisal framework explicitly links feedback performance with required action when the feedback level is below the prescribed threshold.

Therefore, the appraisal system effectively identifies student feedback as an area requiring attention and provides a basis for initiating corrective or developmental measures.

At the same time, the available form does not document the actual corrective action taken after the low feedback score. Hence, while the appraisal system successfully identifies the area for improvement, the available document alone does not

Analysis of Research and Professional Development

The Research, Innovation and Professional Development component has a score of 15/25, or 60%.

The sample assessment shows:

- Research Publications – 3/5
- Patents/Consultancy – 0
- FDPs/Workshops – 4/5
- NPTEL/MOOCs/Certifications – 3/5
- Industrial Training – 5/5

This indicates reasonable participation in professional development and industrial exposure. Industrial training has received the maximum score, while FDP/workshop participation is also relatively strong. However, the absence of a score in areas for further development.

The appraisal system is therefore useful for highlighting gaps in research and innovation activities and can support targeted faculty-development planning.

Analysis of Institutional Contribution

The Institutional Responsibilities component has the highest performance level among the four major sections, with a score of 22/25, or 88%.

The faculty member received:

- Committee Responsibilities – 5/5
- NBA/NAAC Activities – 5/5
- Examination Duties – 5/5
- Admission/Extension Activities – 3/5
- Professional Ethics and Discipline – 4/5

The score indicates strong involvement in institutional activities, particularly quality-assurance activities such as NBA/NAAC work and examination responsibilities.

This demonstrates that the appraisal system recognizes and records contributions that may not be reflected in classroom teaching alone.

The appraisal system has several significant strengths.

Comprehensive Evaluation

The system evaluates faculty performance from multiple dimensions rather than relying solely on teaching performance. Teaching, student development, research/professional development, and institutional responsibilities are all included.

Outcome-Oriented Assessment

Indicators such as syllabus coverage, result analysis, student feedback, and academic discipline introduce measurable outcomes into the assessment.

Recognition of Institutional Contribution

Faculty participation in NBA/NAAC activities, examinations, committees, and admission/extension activities is explicitly recognized.

Self-Reflection

The self-assessment component encourages faculty members to critically examine their own performance.

Supervisory Review

The inclusion of HoD assessment and Principal review provides a hierarchical verification mechanism.

Identification of Training Needs

The form provides a dedicated space for identifying training needs, recommending programmes, and specifying timelines. This is an important feature because it creates the possibility of converting appraisal results into faculty-development :

Defined Performance Rating

The system provides a clear rating scale:

- 90–100 – Outstanding
- 80–89 – Excellent
- 70–79 – Good
- 60–69 – Satisfactory
- 50–59 – Fair
- Below 50 – Needs Improvement

This facilitates interpretation of the final appraisal score.

14. Effectiveness of the Appraisal System

Based on the structure and the sample completed scores, the Faculty Appraisal System can be considered effective as a structured mechanism for performance assessment and identification of improvement areas.

Its effectiveness is evident in the following ways:

1. It covers the major dimensions of faculty performance.
2. It uses measurable indicators and maximum marks.
3. It enables individual performance to be quantified.
4. It identifies strengths and weaknesses at the activity level.
5. It incorporates student feedback and student performance.
6. It recognizes professional development and research activities.
7. It recognizes institutional contributions.
8. It provides for review by the HoD and Principal.
9. It provides a mechanism for identifying training needs.
10. It provides a performance rating that can be used for academic review and development planning.

C. Details of qualification up-gradation of faculty (10)

The institution encourages faculty members to upgrade their academic qualifications through the Quality Improvement Programme (QIP) and other recognized higher-education pathways. QIP, implemented by AICTE, is aimed at upgrading technical institutions to pursue higher qualifications, including M.E./M.Tech. and Ph.D. programmes. The institution facilitates faculty participation by providing necessary institutional support, permission/NOC, academic flexibility & qualifications are encouraged to utilize their enhanced expertise in teaching, research, curriculum development, mentoring, consultancy, innovation, and other academic activities. The effectiveness of the qualification-upgradation initiative for higher qualifications, improvement in research and publication activities, enhanced teaching practices, and greater contribution to institutional academic development.

6 FACILITIES AND TECHNICAL SUPPORT (100)

6.1 Availability of adequate, well equipped classrooms to meet the curriculum requirements (10)

Nirmala Institute of Technology is committed to creating a dynamic learning environment by providing modern infrastructure and reliable technical support that enrich the educational experience of its students. The institute emphasizes learning, and the practical application of knowledge.

To ensure that diploma engineering students develop the required technical competencies and professional skills, the institute continuously plans, implements, and evaluates its academic support systems. The key facilities available include:

- **Smart Classrooms:** Spacious and well-equipped classrooms fitted with LCD projectors, audio-visual aids, and other digital teaching resources to promote interactive and effective learning.
- **Engineering Drawing Halls:** Dedicated drawing halls designed to provide students with hands-on training in engineering graphics, technical drawing, and drafting techniques.
- **Tutorial Rooms:** Comfortable tutorial spaces that facilitate personalized mentoring, remedial coaching, and small-group academic discussions.
- **Multipurpose Hall:** A versatile hall used for seminars, technical workshops, guest lectures, cultural programs, and student development activities, fostering both academic and professional growth.

Nirmala Institute of Technology provides a comprehensive range of academic and student support services to foster intellectual growth, personal well-being, and overall development. The institute maintains a well-equipped library with learning resources authored by renowned Indian and international scholars, ensuring easy access to quality academic materials.

Each academic department is equipped with dedicated faculty rooms and discussion spaces where students, parents, and other stakeholders can interact with faculty members for academic guidance, mentoring, and counselling. The institute aims at development, and academic success.

To provide a healthy and sustainable learning atmosphere, **Nirmala Institute of Technology** maintains a clean, eco-friendly campus with abundant greenery, well-maintained surroundings, and access to safe drinking water. The institutes con
conductive environment for teaching, learning, and holistic development.

Room Description	Usage	Shared/ Exclusive	Area (Sq.m)	Required Adequacy as per norms (Sq. m)
Classroom	III CE	Exclusive	70	66
	II CE	Exclusive	70	66
	I CE	Exclusive	80	66
Drawing Hall	CE	Shared	160	140
Seminar Hall	All departments	Shared	133	74
Auditorium	All departments	Shared	430	400

A. Adequacy (10)

Nirmala Institute of Technology has well-established and adequately equipped laboratories that effectively support the practical requirements of the entire academic curriculum.

- The laboratories are provided with sufficient instruments, equipment, and resources to enable students to carry out practical sessions during:
 - Regular laboratory hours as per the academic timetable
 - Extended hours for additional practice, project development, and self-learning
- All practical experiments prescribed by the DTE curriculum are conducted according to the scheduled laboratory plan. In addition, advanced and application-oriented experiments are demonstrated to strengthen students practical knowl
- Laboratory equipment, tools, and consumable materials are systematically arranged in designated storage racks to ensure easy access for faculty members, laboratory staff, and students.
- Each laboratory is furnished with:
 - Informative display boards containing laboratory rules, safety instructions, and experiment details
 - Adequate furniture and infrastructure to provide a safe, organized, and comfortable working environment
- The laboratories remain accessible beyond regular working hours, encouraging students to undertake project work, innovation activities, and research-oriented learning under faculty guidance.

B. Quality of Labs/workshop (20)

Laboratory sessions in the Department are conducted with the explicit objective of ensuring the attainment of well-defined laboratory outcomes, which in turn map onto and contribute to the attainment of the Programme Outcomes (POs) at delivered, and evaluated not merely to build procedural familiarity with equipment, but to develop the specific competencies — measurement, testing, interpretation, teamwork, and reporting — that the corresponding course outcomes and PC

Infrastructure and Housekeeping

All laboratories in the Department are provided with good physical infrastructure: adequate floor area for the batch size handled, natural and artificial lighting sufficient for precision work, and proper ventilation appropriate to the nature o testing involves dust, heat, or chemical exposure). Electrical layouts, safety signage, and emergency provisions (first-aid kits, fire extinguishers, emergency shut-offs) are maintained as per institutional safety norms.

Housekeeping and workplace organisation in every laboratory follow the 5S methodology — Sort (Seiri), Set in Order (Seiton), Shine (Seiso), Standardize (Seiketsu), and Sustain (Shitsuke). Equipment, tools, and consumables are arra cleaning and inspection schedules are followed daily; and visual standards (floor markings, tags, colour codes) are used so that any deviation from the standard arrangement is immediately noticeable. Periodic 5S audits are conducted to susta

Equipment and Laboratory Manuals

Each laboratory is equipped with modern, industry-relevant equipment that is periodically upgraded in line with curriculum revisions and technological advancement in the respective area of Civil Engineering (e.g., materials testing, surveyi a well-written laboratory manual that lays out the objective, relevant theory, applicable codal provisions/standards, procedure, tabulation format, sample calculations, and viva-voce questions for each experiment, ensuring uniformity in the w

Experiment Workflow: Rough Record to Fair Record

A distinctive feature of the laboratory pedagogy in the Department is that students are encouraged to design the procedure for a given experiment on their own, for a stated objective, rather than being handed a ready-made step-by-step metl — a skill directly aligned with attainment of the higher-order Programme Outcomes relating to design, investigation, and engineering practice. The workflow followed is:

- **Pre-lab planning:** Before conducting the experiment, the student writes out the self-designed procedure, expected observations format, and relevant theory in the Rough Record.
- **Conducting and recording:** The experiment is performed, and the readings/observations are recorded and the results calculated in the Rough Record itself.
- **Faculty verification:** The completed Rough Record, including the procedure, observations, and calculations, is checked and verified by the course faculty for correctness before the student is permitted to proceed further.
- **Fair record submission:** Only after the Rough Record has been certified as correct does the student transcribe the verified work into the Fair Record, which is submitted formally in the subsequent laboratory class.

This two-stage record system ensures that errors in procedure, observation, or calculation are caught and corrected at the rough-work stage itself, so that the Fair Record represents accurate, faculty-verified work — while the requirement exercise.

Scheduling, Staffing, and Batch Size

Each laboratory operates according to a fixed schedule specified in the timetable of the respective semester, ensuring predictable and conflict-free access for every batch and course. Well-qualified technical staff are available in every lab to ensure proper upkeep. To maintain an appropriate faculty/staff-to-student ratio for hands-on, safety-sensitive work, each laboratory session accommodates a batch of 30 to 35 students, allowing adequate individual attention and equipment access per student.

Consultancy through the Material Testing Laboratory

The Material Testing Laboratory, beyond its academic role, is leveraged for consultancy activities: testing of building and paving materials (such as cement, aggregates, bricks, concrete, soil, and bituminous materials) is undertaken on request, converting its capability into an avenue of extension and income generation for the Department, while simultaneously exposing students and staff to real-world testing requests, quality standards, and client-driven timelines that go beyond the routine academic curriculum.

Registers for Equipment Tracking and Maintenance

To ensure accountability, traceability, and upkeep of laboratory assets, every laboratory maintains three categories of registers:

Register	Purpose	Responsibility
Equipment Issue Register	Records date, item, quantity, student/staff name and roll number, and return status for every tool or instrument issued for an experiment	Lab Instructor / Laboratory Assistant
Utility Register	Logs day-wise usage of major equipment (hours run, batch/experiment for which used) to track utilisation and load on critical machines	Lab In-charge
Equipment Maintenance Register	Records preventive and breakdown maintenance carried out, spare parts replaced, calibration dates, and the technician/agency involved	Lab In-charge / Maintenance Staff

Together, these registers provide a documented trail of who used which equipment and when, how heavily each major item is utilised, and what maintenance interventions have been carried out — supporting both day-to-day laboratory management and long-term asset lifecycle planning.

C. Technical Manpower support –Eligible and Adequate (10)

ODD SEMESTER

Sl. No.	Name of the Laboratory	Name of Technical Staff	Designation	Qualification
1	Concrete Technology Lab	Mrudula Baiju	Lab Instructor	Diploma

2	Surveying Lab	Mrudula Baiju	Lab Instructor	Diploma
3	Construction Materials Lab	Davis M J	Lab Instructor	Diploma
4	CAD Lab	Delphi Joy	Lab Instructor	B.Tech
5	Transportation Engineering Lab	Davis M J	Lab Instructor	Diploma
6	Advanced CAD Lab	Delphi Joy	Lab Instructor	B.Tech

EVEN SEMESTER

Sl. No.	Name of the Laboratory	Name of Technical Staff	Designation	Qualification
1	Advanced Surveying Lab	Mrudula Baiju	Lab Instructor	Diploma
2	Hydraulics and Irrigation Engineering Lab	E D Varghese	Workshop Superintendent	Diploma
3	Estimating and Costing Lab	Delphi Joy	Lab Instructor	B.Tech
4	Geotechnical Engineering Lab	Mrudula Baiju	Lab Instructor	Diploma
5	Computer Application Lab	Delphi Joy	Lab Instructor	B.Tech

6	Material Testing Lab (CE)	Davis M J	Lab Instructor	Diploma
7	Public Health Engineering Lab	Sini P O	Lab Instructor	B.Sc Chemistry

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment(Costing more than Rs.30,000)	Weekly utilization status(all the courses for which the lab is used)
1	Surveying Lab	20	Pentax Total Stat	6 periods per semester
2	Concrete Technology	20	Vibrator - Sieve Shaker	3 periods per semester
3	Material Testing Lab	20	Compression Test	3 periods per semester
4	Transportation Engineering	20	Ductility Testing Machine	3 periods per semester
5	Geotechnical Engineering	20	Sieve Shaker, Permeability	3 periods per semester
6	Construction Materials	20	Nil	3 periods per semester
7	CAD Lab	30	AutoCAD software	6 periods per semester
8	Estimating and Costing	30	Softwares	3 periods per semester
9	Public Health Engineering	30	BOD incubator	3 periods per semester
10	Computer Applications	30	Software (STAAD)	3 periods per semester

6.3 Additional facilities created for improving the quality of learning experience in laboratories (20)

A. Facilities (10)

S. No.	Facility Name	Details	Reason(s) for Creating Facility	Utilization	Areas in Which Students Are Expected to Have Enhanced Learning
1	Spring Testing Apparatus	Capacity:2.5KN	To study the mechanical performance of springs.	To measure the strength of spring materials	Strength of Materials
2	Torsion Testing Apparatus	Capacity:2000kg cm	To study the properties of materials or devices under stress caused by angular displacement	To determine the torsional strength of materials	Strength of Materials
3	Simple Torsion Pendulum	Specimen Diameter: 3–8 mm; Specimen Length: 600 mm	To determine the modulus of rigidity of the material using torsional oscillations.	Used to determine the modulus of rigidity of wires and study torsional oscillations.	Strength of Materials
4	Maxwells Reciprocal Theorem Test Apparatus	Beam Length: 1500 mm; Maximum Load Capacity: 20 kg	To verify Maxwells Reciprocal Theorem and study beam deflection.	Used to determine beam deflection and verify Maxwells Reciprocal Theorem experimentally.	Strength of Materials / Structural Mechanics
5	Mouthpiece Apparatus	Measuring Tank Capacity: 40 L; Supply Tank Capacity: 70 L	To determine the coefficient of discharge of different mouthpieces.	Used to determine the coefficient of discharge of mouthpieces under different	Hydraulics

				flow conditions.	
6	Orifice Apparatus	Measuring Tank Capacity: 40 L; Supply Tank Capacity: 70 L	To determine the coefficients of discharge, velocity and contraction of an orifice.	Used to study the flow characteristics of water through an orifice.	Hydraulics
7	Planimeter	Measuring Range: Up to 300 cm ² ; Least Count: 0.1 cm ²	To measure the area of irregular figures accurately.	Used for measuring areas of irregular plots and maps.	Surveying
8	Hand Level	Magnification: 10×; Working Range: Up to 100 m	To determine differences in elevation during field surveying.	Used for approximate leveling and transferring levels in field surveys.	Surveying
9	Clinometer	Measuring Range: 0°–90°; Least Count: 1°	To measure vertical angles and ground slopes.	Used for measuring slopes, gradients and vertical angles.	Surveying
10	Ceylon Ghat Tracer	Gradient Range: Adjustable (1 in 5 to 1 in 50)	To trace contour gradients for road and canal alignment.	Used for locating contour gradients in hill road and canal alignment surveys.	Surveying

B. Effective Utilization (5)

The additional facilities listed above have been strategically created to strengthen experiential learning in Strength of Materials, Hydraulics, and Surveying, and are utilized effectively across regular curriculum, project work, and skill enhance

The Spring Testing Apparatus, Torsion Testing Apparatus, Simple Torsion Pendulum, and Maxwells Reciprocal Theorem Test Apparatus are used every semester in the Strength of Materials laboratory, enabling all students of the batch to rigidity, and to experimentally verify theorems otherwise taught only analytically — thereby converting a purely theoretical topic into a hands-on, verifiable exercise and directly enhancing the PO relating to conducting investigations of comp

The Mouthpiece and Orifice Apparatus are utilized in the Hydraulics laboratory each semester to determine coefficients of discharge, velocity, and contraction under varying flow conditions, giving students repeated, quantitative exposure t through hydraulic structures.

The Planimeter, Hand Level, Clinometer, and Ceylon Ghat Tracer are used in the Surveying laboratory and are additionally deployed during field surveying camps and final-year project surveys (e.g., road alignment and site-levelling e learning.

Collectively, these facilities ensure that every student obtains hands-on exposure to standard testing and surveying instrumentation prescribed by the curriculum, while also supporting mini-projects, major projects, and field-based learning act

C. Relevance to POs/PSOs (5)

S.No.	Facility Name	Details	Reason for Creating Facility	Areas in Which Students Are Expected to Have Enhanced Learning	POs / PSOs
1	Spring Testing Apparatus	Capacity: 2.5 kN	Study mechanical performance and strength of springs	Strength of Materials	PO1, PO2, PO4, PSO2
2	Torsion Testing Apparatus	Capacity: 2000 kg-cm	Determine torsional strength of materials	Strength of Materials	PO1, PO2, PO4, PSO2
3	Simple Torsion Pendulum	Specimen Ø 3–8 mm; L=600 mm	Determine modulus of rigidity	Strength of Materials	PO1, PO2, PO4, PSO2
4	Maxwells Reciprocal Theorem Test Apparatus	Beam 1500 mm; 20 kg	Verify beam deflection theorem	Strength of Materials / Structural Mechanics	PO1, PO2, PO4, PSO2
5	Mouthpiece Apparatus	40 L measuring tank	Determine coefficient of discharge	Hydraulics	PO1, PO2, PO4, PO5, PSO2
6	Orifice Apparatus	40 L measuring	Determine flow	Hydraulics	PO1, PO2, PO4, PO5,

		tank	coefficients		PSO2
7	Planimeter	Range 300 cm ²	Measure irregular areas	Surveying	PO1, PO3, PO4, PSO1
8	Hand Level	10×; 100 m	Determine elevation differences	Surveying	PO1, PO3, PO4, PSO1
9	Clinometer	0°–90°	Measure slopes and vertical angles	Surveying	PO1, PO3, PO4, PO5, PSO1
10	Ceylon Ghat Tracer	Gradient 1 in 5–1 in 50	Trace contour gradients	Surveying	PO1, PO3, PO4, PO5, PSO1

Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have e
1	Spring Testing App	Capacity: 2.5 kN	Study mechanica	Being beyond the	Strength of Materials
2	Torsion Testing A	Capacity: 2000 k	Determine torsion	As an add-on fac	Strength of Materials
3	Simple Torsion P	Specimen Ø 3–8	Determine modul	Not part of the re	Strength of Materials
4	Maxwell's Recipr	Beam 1500 mm;	Verify beam defle	Being an addition	Being an additional facility be
5	Mouthpiece App	40 L measuring t	Determine coeffic	This facility, thoug	Hydraulics
6	Orifice Apparatus	40 L measuring t	Determine hydrai	Being outside the	Hydraulics
7	Planimeter	Range 300 cm ²	Measure irregula	As an additional f	Surveying
8	Hand Level	10×; 100 m	Determine elevat	Not included in th	Surveying
9	Clinometer	0°–90°	Measure slopes &	Being an add-on	Surveying
10	Ceylon Ghat Trac	Gradient 1 in 5–1	Trace contour gra	As a facility beyo	Surveying

6.4 Laboratories: Maintenance and overall ambience (10)

Laboratory Governance, Maintenance and Safety

Each laboratory in the Department functions under a clearly defined administrative and custodial structure, with adequate physical space, dedicated maintenance practices, and safety provisions, so that the facility remains both fully operation

Administrative Responsibility and Space Adequacy

Every laboratory is assigned a designated Lab-in-charge and a Custodian, whose names are displayed and maintained on record, fixing clear accountability for the day-to-day functioning, safety compliance, and asset management of that lab to accommodate the specified batch size of students, ensuring safe movement around machinery and unobstructed access to equipment during sessions. To support faculty engagement with laboratory work, laboratory faculty are provided with supervision, student consultation, and record verification.

Maintenance and Financial Support

Laboratory staff carry out regular, routine maintenance of equipment in all laboratories, supplemented by a structured annual maintenance exercise and annual stock verification to confirm the condition, count, and serviceability of all assets. For routine upkeep, the institution extends financial assistance to ensure that equipment is restored to working condition without delay, so that academic and consultancy activities are not disrupted.

Calibration Practices

Calibration of laboratory machinery is carried out through a two-tier approach depending on the criticality and end-use of the equipment:

Category of Equipment	Calibration Practice
Equipment used for consultancy testing	Calibrated externally by authorised calibrating agencies/firms, ensuring traceable, third-party-certified accuracy for results issued to Government and private clients
Equipment used for regular academic/teaching purposes	Calibrated in-house by laboratory staff against known standard/reference output values, on a periodic basis

This calibration regime is implemented within the broader housekeeping and quality discipline of the 5-S principle (Sort, Set in Order, Shine, Standardize, Sustain), which the laboratories follow as a laboratory standard. Safety instructions are included in the laboratory course, reinforcing safe and disciplined use of equipment.

Safety Provisions

Every laboratory is equipped with a display board (for safety instructions, standard operating procedures, and equipment-related notices), a first aid box, and a fire extinguisher, ensuring that basic safety and emergency-response provisions are in place.

Guidelines Implemented for Maintenance of Laboratories and Workshops

To ensure the sustained upkeep, safe operation, and accountable use of machinery and equipment, the following guidelines have been implemented across all laboratories and workshops:

- 1. Dress code compliance:** Students are permitted to enter the laboratories only when they are in proper dress code, as prescribed for safe laboratory practice.
- 2. Restricted and recorded equipment operation:** No student is permitted to operate any machinery or equipment without prior permission. Every instance of a student operating equipment is recorded in the Equipment Issue Register, and the equipment is returned only after verification.
- 3. Organised storage and stock recording:** All machinery and equipment are kept in a well-arranged manner within the laboratory and are recorded in the Equipment Stock Register, so that the inventory of assets is always current and verified.
- 4. Timely procurement planning:** Necessary purchase proposals for equipment and consumables are prepared and submitted whenever a requirement is identified, ensuring that laboratories are not left without essential items or spares.
- 5. Structured handling of minor repairs:** Minor repairs required for equipment are logged in the Breakdown Register and are attended to by the technical support staff, ensuring that small faults are addressed promptly before they escalate.

Collectively, this governance and maintenance framework — clear custodial responsibility, adequate infrastructure, disciplined calibration and 5-S practice, institutional financial backing for repairs, and a documented, permission-based equipment usage policy — ensures that the laboratory environment remains safe, functional, and available for uninterrupted student learning and consultancy activity.

6.5 Availability of computing facility in the department (10)

Sr. No	No Of Computer terminals	Students Computer Ratio	Details of Legal Software	Details of Networking
1	60	4:1	Excel with Price !	Systems are con!

6.6 Language lab (10)

The **Language Laboratory at Nirmala Institute of Technology** provides a modern, technology-enabled environment for developing effective communication skills.

It supports the **DTE curriculum** by conducting **Communicative English Practical** sessions for second-semester students.

The laboratory uses audio-visual aids and interactive language learning tools to improve listening, speaking, reading, and writing skills.

Students develop pronunciation, vocabulary, fluency, and overall communication competence through regular practice.

The Language Laboratory also enhances personality development, presentation skills, confidence, and professional etiquette, preparing students for higher studies and career opportunities.

Room description	Name of lab	Usage	Shared / exclusive	Available facilities
Language Lab	Communication Lab	To improve the communication skill & LSRW skills	Shared	Projector, Microphones, Computers with Internet facility

Sl.No	Skills	Description	No. of CDs
1	Vocabulary	Power Vocabulary	01
2	Spoken English	Spoken English, conversation and interview techniques practice	01
3	Speaking English	Basic and literary conversation better accent tutor	01
4	Presentation Skills	B.B.C. Beginner's English units	05

UTILIZATION (Activities conducted)

1. Audio Comprehension Exercises

Students listen to audio passages and complete comprehension exercises to improve listening and understanding.

2. Public Speaking Practice

Impromptu speeches are conducted to build confidence, fluency, and spontaneous communication skills.

3. Speech Enhancement

Activities focus on pronunciation, voice modulation, intonation, and clear articulation for effective communication.

4. Communication Practice

Students practice describing technical topics, departments, products, processes, and real-life situations.

5. Collaborative Learning Activities

Group discussions, role plays, presentations, and mock interviews are conducted to enhance teamwork and professional communication.

6. Language Development

Exercises include sentence construction, question framing, paragraph writing, and comprehension-based writing activities.

7. Employability Skill Development

Students receive training in resume preparation, interview etiquette, and workplace communication to improve employability.

7 CONTINOUS IMPROVEMENT (75)

7.1 Actions taken based on the resultsof evaluation of each of the POs and PSOs (25)

POs Attainment Levels and Actions for Improvement- (2024-25)

POs	Target Level	Attainment Level	Observations
PO 1 : Basic and Discipline specific knowledge			
PO 1	2.1	2.42	Target achieved. The attainment exceeds the target continue to provide students with a strong discipl
Action 1: Continue orientation and bridge classes at the commencement of the semester to strengthen the basic knowledge of first year students. Action 2: Continue technical talks by industry experts to give students an insight into current industrial trends and modern methods of construction. Action 3: Encourage senior students to mentor juniors in core fundamental subjects through peer-learning sessions			
PO 2 : Problem analysis			
PO 2	2.1	2.15	Target achieved, though the margin (0.05) is narrow across courses.
Action 1: Continue tutorial classes focused on codified standard methods of problem solving. Action 2: Introduce more onsite/industry-linked problems as assignments so that students analyse real, well-defined engineering problems. Action 3: Include a graded problem-analysis component in internal assessments of core engineering courses			
PO 3 : Design/ development of solutions			
PO 3	2.1	1.84	Target not achieved; the attainment falls short by of Structures (0.73), Basic Surveying (0.87), Commu (1.00), Transportation Engineering (1.00), Indian C
Action 1: Introduce short, open-ended design exercises (e.g. member/section design problems) in Theory of Structures and allied structural courses so that design ability is explicitly assessed. Action 2: Strengthen the design component of Minor and Major Projects with rubrics that separately evaluate the design/development-of-solutions outcome. Action 3: Conduct faculty development sessions on framing CO/PO-mapped design-based questions for theory courses currently showing low PO 3 weightage.			
PO 4 : Engineering Tools, Experimentation and Testing			
PO 4	2.1	2.27	Target achieved. Laboratory and testing-intensive c instruments and standard testing procedures
Action 1: Continue demonstration of modern engineering tools and software to enrich students' exposure to current industrial practice. Action 2: Continue onsite training in construction and testing facilities to provide hands-on experience with standard tests and measurements.			
PO 5 : Engineering practices for society, sustainability and environment			

PO 5	2.1	1.96	Target not achieved; the attainment falls short by Graphics (1.00), Communication Skills in English (1.00), Systems Lab (1.00), Concrete Technology Lab (1.00).
Action 1: Introduce sustainability and environmental-impact case studies/assignments in courses that currently have low or nil PO 5 mapping, such as Estimating & Costing and Hydraulics and Irrigation Engineering. Action 2: Continue and expand infrastructure/sustainability-linked projects and water-quality testing activities, extending them to a wider set of courses. Action 3: Sensitize course faculty of low-PO5 subjects to frame at least one course outcome that explicitly addresses societal, sustainability or ethical context.			

PO 6 : Project Management

PO 6	2.1	2.06	Target narrowly missed by 0.04. Courses with low PO 6 mapping are English (1.00), Transportation Engineering (1.00), Structural Engineering (1.00) and Advanced CAD Lab (1.00).
Action 1: Introduce team-based mini-assignments with defined roles and timelines in Geotechnical Engineering and Transportation Engineering to reinforce project-management skills. Action 2: Continue industrial visits and guest lectures on project scheduling, cost and time management, and extend them to laboratory courses with low PO 6 mapping. Action 3: Introduce peer-review and rotating leadership roles within laboratory batches to build team-management experience.			

PO 7 : Life-long learning

PO 7	2.1	1.79	Target not achieved; the attainment falls short by mapping in Applied Physics I (0.73), Applied Chemistry (0.87) and Mathematics I (0.87).
Action 1: Encourage students in first years to enroll in NPTEL/MOOC add-on courses relevant to Applied Physics, Applied Chemistry and Mathematics. Action 2: Motivate students to participate in paper presentation contests, technical quizzes and workshops linked to Theory of Structures and Estimating & Costing. Action 3: Introduce a library-journal/literature-review component as part of internal assessment in courses with low PO 7 articulation to inculcate self-learning habits early.			

PSOs Attainment Levels and Actions for Improvement- (2024-25)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : To understand, read, draw & interpret drawings of different Civil Engineering Systems.			
PSO 1	2.1	1.90	Target not achieved; the attainment falls short by 0.20. Courses with low PSO 1 mapping are English (1.00), Internship II (1.00), Minor Project (1.00), Structural Engineering (1.00) and Material Testing Lab (1.00). Drawing-instrumentation (1.00).
Action 1: Include a drawing/detailing component (interpretation of relevant structural, architectural or site drawings) as part of Internship and Project deliverables. Action 2: Enhance the Structural Engineering Drawing Lab and CAD Lab curricula with additional BIM-based drawing-interpretation exercises. Action 3: Introduce site-drawing reading exercises during internships, verified and certified by the internship mentor as evidence of PSO 1 attainment.			
PSO 2 : To apply the laboratory investigations, code of practice and software skills to plan, design and to prepare cost estimates			
PSO 2	2.1	2.37	Target achieved. Laboratory and estimation-oriented projects and assignments reinforced planning, design and quality-assessment skills.
Action 1: Continue industrial visits so that students understand real-time practical challenges, actual working conditions and ethical practices followed in the industry. Action 2: Continue involving students in minor repair and maintenance works of the department/college under technical staff supervision to reinforce quality-assessment skills.			

Items	Latest Passed out Batch (2022-23)	Latest Passed out Batch minus 1 (2021-22)	
Success Index (from 4.2.1)	0.32	0.19	0.23

7.3 Improvement in Placement and Higher Studies (10)

Items	Latest Passed out Batch (2022-23)	Latest Passed out Batch minus 1 (2021-22)	
Placement Index (from 4.6)	1.05	1.08	1.00

7.4 Improvement in Academic Performance in Final year (10)

Items	Latest Passed out Batch (2022-23)	Latest Passed out Batch minus 1 (2021-22)
Academic Performance Index (from 4.3)	4.95	3.65

7.5 Internal Academic Audits to Review Complete Academics & to Implement Corrective Actions on Continous Basis (10)

Items	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
Internal Academic Audits	2	2	2

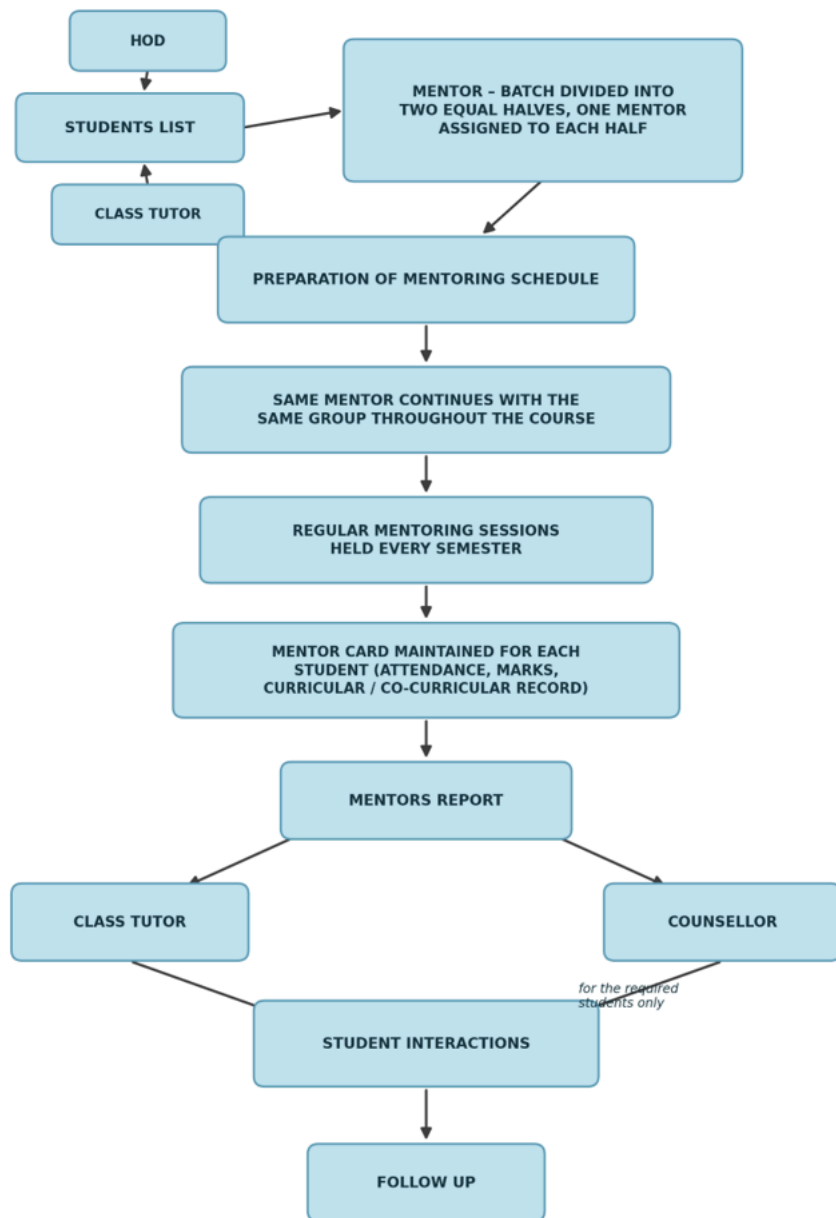
7.6 New Facility created in the Program (10)

Items	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
New Facility Created	1.Test Sieves 2.Λ	1.Flash and Fire .	1.Density bottle (

8 STUDENT SUPPORT SYSTEMS (50)

8.1 Mentoring system to help at individual level (10)

A structured mentoring system has been implemented in the department to provide academic, personal and professional support to students. Mentoring encourages students to take ownership of their own learning, helps them maximize their personal and professional goals. It also provides a channel through which personal difficulties can be shared in confidence, giving students psychological and emotional support alongside academic guidance, and helps them work towards a clear future. At the beginning of the course, the batch of students admitted to the department is divided into two equal halves, and one mentor is assigned to each half by the Head of the Department in consultation with the Class Tutor. The same mentor continues to guide the students throughout the course. This continuity allows the mentor to build a sustained understanding of each mentee's academic trajectory, strengths and areas needing support, rather than having to reassess the student afresh each semester. A Mentor Card is maintained for every student, in which the mentor records academic performance, attendance, and participation in curricular, co-curricular and extra-curricular activities over the course of the programme. Any behaviour that shows a lack of sensitivity, so that appropriate support can be extended. In the event a mentor is transferred or otherwise unavailable, the Head of the Department appoints a replacement mentor and hands over the mentee's mentor card, ensuring continuity of the mentoring process. Mentoring is carried out on a regular basis throughout every semester, generally scheduled so as not to interfere with regular class hours. During these sessions, the mentor reviews the mentee's attendance and academic performance, discusses any concerns, and provides guidance. Students are encouraged to approach their mentor freely, at any time, to report grievances or seek guidance. Based on the mentor card records, the mentor prepares a periodic report on each mentee, which is shared with the Class Tutor. Where a student's attendance, academic performance or general conduct requires additional attention, the matter is discussed with the Class Tutor. This ensures that students requiring extra support are identified early and receive timely, individual attention rather than being addressed only through the general mentoring cycle. Outcomes of the mentoring interactions are followed up over subsequent sessions to verify that corrective measures have had the intended effect, and the mentor card is updated accordingly, closing the loop between identification of a concern and its resolution.
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8.2 Feedback analysis and reward/ corrective measures taken, if any (10)

Feedback collected for all courses: YES/NO; Specify the feedback collection process; Average Percentage of students who participate; Specify the feedback analysis process; Basis of reward/ corrective measures, if any; Indices used for measurement and summary of the index values for all courses/teachers; Number of corrective actions taken.

A. Methodology being followed for feedback collection, analysis and its effectiveness (5)

Feedback Collection Procedure

1. Feedback is collected once every semester, towards the end of the semester, from all students of the class for every subject/faculty member handling the class.
2. The Student Feedback Form is used, capturing the Department, Year/Semester, Academic Year, Register Number and Name of the student, along with the list of subjects and the corresponding faculty for that semester.
3. Each student rates every subject/faculty member on 11 defined parameters:
 - Punctuality and Regularity
 - Accessibility and Availability
 - Encouragement of Student Interaction
 - Maintaining Discipline
 - Subject Knowledge
 - Teaching Methodology
 - Completion of Syllabus on Time
 - Tests and Evaluation
 - Professionalism
 - Extracurricular Activities
 - Overall Feedback
4. Each parameter is rated on a 5-point scale: 5 – Excellent, 4 – Very Good, 3 – Good, 2 – Satisfactory, 1 – Not Satisfactory.
5. Forms are filled and signed by students individually and collected by the Department / Class Tutor / Mentor for consolidation.

Scoring and Consolidation Methodology

Per-student subject score

For a given subject/faculty, the maximum obtainable score per student is 11 parameters $\times$ 5 = 55. The students total score is the sum of the ratings awarded across all 11 parameters.

Consolidated subject/faculty score

The consolidated score for a subject/faculty is obtained by averaging the total scores given by all students of the class who submitted feedback for that subject:

$$\text{Average Score} = (\text{Sum of total scores given by all students}) \div (\text{Number of students who responded})$$

Feedback percentage

The consolidated score is converted to a percentage against the maximum possible score of 55:

$$\text{Feedback (\%)} = (\text{Average Score} \div 55) \times 100$$

Parameter-wise analysis

In addition to the overall percentage, the average rating obtained on each of the 11 individual parameters is computed separately. This parameter-wise break-up is used to pinpoint the specific areas of concern for a faculty member, rather than

Threshold and Identification of Concerned Cases

1. A subject/faculty whose consolidated feedback percentage (Section 3.3) is below 80% is flagged as a case requiring corrective action.
2. Within a flagged case, individual parameters scoring below 80% of their own maximum (i.e., an average rating below 4 out of 5) are identified as the specific areas needing improvement.
3. The consolidated feedback report, along with the list of flagged faculty/subjects and the corresponding weak parameters, is compiled by the Class Tutor/Mentor and submitted to the Head of the Department.

Action Taken Procedure

1. The Head of the Department reviews the consolidated feedback report and the list of flagged cases.
2. The concerned faculty member is informed of the feedback results and called for a one-to-one discussion with the HoD.
3. The specific parameters found weak are discussed, and the faculty members own inputs on the possible reasons are noted.
4. Corrective measures are jointly identified, drawing from the following standard set as applicable to the flagged parameters:
 - Improving interaction and communication with students
 - Adopting more student-centred and effective teaching methods
 - Conducting regular doubt-clearing sessions and additional academic support
 - Proper planning to ensure timely completion of the syllabus
 - Conducting regular tests, assignments and evaluations
 - Greater availability and accessibility to students outside regular class hours
5. A reasonable implementation period (typically the following semester/cycle) is set for the corrective measures to take effect.
6. The Head of the Department carries out continuous monitoring and follow-up of the improvement measures during the implementation period.
7. The outcome is verified against the feedback percentage obtained in the next feedback cycle for the same faculty member, and the case is closed only when the score is sustained at or above 80%.
8. Every case — the discussion, measures suggested, and follow-up outcome — is logged in the Record of Corrective Measures (Section 6) for audit and accreditation purposes.

B. Record of corrective measures taken (5)

Record of Corrective Measures on Student Feedback

Sl. No.	Academic Year / Sem	Faculty Name	Subject	Feedback (%)	Parameters Below Threshold	Corrective Measures Suggested	Date of Discussion	Follow-up Feedback (%)	Status / HoD Remarks
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

A detailed report will prepare using this table format.

8.3 Feedback on facilities (5)

A. Student feedback on facilities, analysis and corrective action taken (5)

Methodology (Feedback Collection Process)

- Feedback form circulated to all students of the batch at the end of every semester, covering 9 standard facility criteria (Lab/infrastructure, Department resource, Computer & Internet, Sports, Soft-skill development, Library, Placement & Career Guidance, Health & Safety, and Environmental Sustainability).
- Each criterion rated on a 5-point scale: 5 – Excellent, 4 – Good, 3 – Average, 2 – Below Average, 1 – Poor. A reason column is filled by the student wherever a rating below 3 is given.
- Forms are collected through the class mentor/class committee representative and handed over to the department feedback coordinator.

- Responses are consolidated criterion-wise into a master sheet (number of students choosing each rating, per criterion).
- The consolidated sheet is placed before the Department Advisory Committee / IQAC for review along with the analysis and proposed corrective actions.

Weighted Average Score (WAS) Method

For each criterion, a single representative score is computed from the distribution of responses using the formula:

$$WAS = \Sigma (\text{Rating} \times \text{No. of students who gave that rating}) \div \text{Total no. of respondents (N)}$$

This is repeated for every criterion, giving a WAS out of 5 per facility. Illustration:

Criterion	No. rated 5	No. rated 4	No. rated 3	No. rated 2	No. rated 1	Total Responses (N)	WAS = $\Sigma(\text{rating} \times \text{freq})/N$
e.g. Computer & Internet	18	10	2	0	0	30	$(18 \times 5 + 10 \times 4 + 2 \times 3)/30 = 4.53$

Each criterion's WAS is compared against a threshold to decide whether corrective action is required:

WAS Range	Interpretation	Action Level
4.50 – 5.00	Excellent	No action needed; maintain current standard.
3.50 – 4.49	Good	Minor improvement; include in annual upgrade plan.
2.50 – 3.49	Average	Corrective action required within the semester.
Below 2.50	Poor / Unsatisfactory	Urgent corrective action; report to management/IQAC immediately.

Once a criterion is flagged (WAS below 3.50, or a significant %age of low ratings), the department selects from the following category-wise corrective actions and records the action taken, responsible person, and target date:

Facility Category	Common Gaps Reported	Possible Corrective Actions
College Infrastructure – Lab & other facilities	Outdated equipment; inadequate seating/working space; poor maintenance.	Prepare equipment upgradation proposal; raise maintenance requisition to Estate/Maintenance section; schedule periodic lab audits.
Department Resource	Shortage of reference material, tools, or consumables.	Departmental budget reallocation; procurement request through HOD; annual resource-need survey before budgeting.

Facility Category	Common Gaps Reported	Possible Corrective Actions
Computer & Internet	Low bandwidth, insufficient systems, frequent downtime.	Bandwidth upgrade with ISP; add systems/access points; AMC for hardware; dedicated IT support slot.
Sports Facilities	Limited equipment, ground/court maintenance, timing constraints.	Sports equipment replenishment; coordinate with Physical Education dept. for ground upkeep; flexible slot scheduling.
Soft Skill Development	Low frequency of sessions, limited trainer exposure.	Increase frequency of soft-skill/personality development sessions; invite external trainers; tie sessions to placement calendar.
Library – Books & Access	Insufficient copies, outdated editions, limited access hours.	Procure additional titles/editions based on syllabus; extend library hours during exams; digital/e-book access.
Placement Assistance	Fewer companies visiting, inadequate pre-placement training.	Strengthen T&P cell outreach; add mock interview/aptitude sessions; industry-institute interaction.
Transport Facility	Route coverage, timing, overcrowding.	Review routes with transport committee; add/adjust bus timings; feedback-based route rationalisation.
Drinking Water	Insufficient water points, purifier maintenance.	Install additional purifier-cum-cooler units; AMC for filter replacement; periodic water-quality testing.

Feedback of facilities

Department: Civil Engineering

Batch: 2023 - 2025

Academic Year: 2023 – 24

Semester / year: 3rd/2023

Dear student,

We request to kindly provide your valuable feedback related to facilities which are available to you in our college. This will be helpful to us in enhancing the existing facilities in necessary.

Please (✓) in the relevant cell

Criteria	5	4	3	2	1	Give reason if less than 3
College infrastructure – Lab & other facilities	✓					
Department Resource	✓					
Computer & internet		✓				
Sports Facilities	✓					
Soft skill development	✓					
Adequacy of books in library and easier access	✓					
Providing assistance for placements	✓					
Adequacy of transport facility provided by college	✓					
Drinking water provided		✓				
Any other comments & suggestions:						
1. NIL						
2. .						
3.						

The facility is managed jointly at two levels — the Institution level (Training & Placement Cell) and the Department level (Department Placement Coordinator and Career Guidance Coordinator) — to ensure that department-specific requirements and higher-studies drives. A Faculty Coordinator for Placement & Training and a Faculty Coordinator for Career Guidance/Higher Studies are nominated within the department every academic year. They work as the interface between the T&P Cell and the Department.

The following placement-support activities are conducted for final-year and pre-final-year students:

1. Registration and profiling of eligible students with the T&P Cell, including academic record and skill-set details.
2. Pre-placement training covering quantitative aptitude, logical reasoning, verbal ability, and group discussion practice.
3. Resume/CV preparation workshops and mock interview sessions conducted by faculty and invited industry professionals.
4. Soft-skills and personality development sessions, including communication skills and workplace etiquette.
5. Coordination of on-campus and off-campus placement drives, technical/HR interview scheduling, and offer-letter tracking.
6. Maintenance of a placement database recording company-wise participation, offers, and packages for every batch.

The Department maintains active interaction with industry to strengthen practical exposure and placement readiness of students:

1. Memoranda of Understanding (MoUs) with construction, infrastructure, and consultancy organisations for training, internship and collaborative activities.
2. Mandatory/optional internships and in-plant training arranged with construction sites, consultancy firms, government departments (PWD, Irrigation, etc.) and material-testing laboratories.
3. Industrial visits to construction sites, ready-mix concrete plants, treatment plants, and infrastructure projects as part of the curriculum.
4. Guest lectures and expert talks by practising engineers and industry professionals on current practices, codes, and emerging technologies.
5. Industry-sponsored/industry-defined projects and problem statements offered to final-year students.
6. Participation of industry representatives in curriculum feedback, guest evaluation of project work, and value-added certificate courses.

Career Guidance and Placement Training Sessions - Civil Engineering

No.	Date	Topic	Name of Resource Person	Semester
1	25-11-2022	Overview of the Placement Cell	Mr. Jojo Antony	Civil S5
2	12-02-2022	Guidelines for Placement Process	Mr. Jojo Antony	Civil S5
3	12-09-2022	How to Create a Resume	Mr. Jojo Antony	Civil S5
4	16-12-2022	Improving Your Resume	Mr. Jojo Antony	Civil S5
5	22-12-2022	Verbal and Numerical Aptitude Practice	Mr. Jojo Antony	Civil S5
6	01-09-2023	Thinking and Reasoning Skills	Mr. Jojo Antony	Civil S5
7	16-01-2023	Group Discussion Practice	Mr. Jojo Antony	Civil S5
8	21-01-2023	JAM (Just a Minute) Practice	Ms. Remadevi Ramakrishnan	Civil S5
9	23-01-2023	Guidance and Motivation for a Successful Career after Diploma	Dr. Brijesh George John	Civil S5
10	30-01-2023	Interview Preparation Tips	Mr. Jojo Antony	Civil S6
11	02-09-2023	Mock Interview Practice	Placement Team	Civil S6
No.	Date	Topic	Name of Resource Person	Semester
1	18-10-2023	Induction Program for 1st Year students	Mr. Jojo Antony	Civil S1
2	11-01-2023	Goal-Oriented Thinking and Introduction of Placement cell	Mr. Jojo Antony	Civil S5
3	11-08-2023	Enhancing Aptitude and Logical Reasoning Skills	Ms. Remadevi Ramakrishnan	Civil S5

4	15-11-2023	Realizing the Importance of Education	Mr. Polouse T.O.	Civil S5
5	22-11-2023	Leadership Qualities and Strategic Thinking	Mr. Jojo Antony	Civil S5
6	27-11-2023	Motivational Boost & Exam Stress Management (Half Day)	Dr. Sanju Dhamodharan	Civil S1
7	29-11-2023	Positive Mind set and Goal-Driven Approach	Dr. Sanju Dhamodharan	Civil S5
8	12-04-2023	Effective Resume Writing and Career Profiling	Mr. Jojo Antony	Civil S5
9	12-11-2023	Group Discussion -Practice	Mr. Jojo Antony	Civil S5
10	15-12-2023	Exploring Career Paths After Diploma	Ms. Remadevi Ramakrishnan	Civil S5
11	19-12-2023	Empowerment and Professional Pathways Guidance	Dr. Brijesh George John	Civil S5
12	01-03-2024	Interview Skills and Face-to-Face Preparation	Mr. Jojo Antony	Civil S5
13	01-10-2024	Your Role in Building a Sustainable Future	Ms. Tessy Lawrence	Civil S5
14	17-01-2024	Mock Interview Practice Sessions	Mr. Jojo Antony	Civil S5
15	24-01-2024	Mock Interview Practice Sessions	All placement Team	Civil S5
No.	Date	Topic	Name of Resource Person	Semester
1	19-11-2024	How to think to achieve your goals and a brief session about NCSS	Mr. Jojo Antony	Civil S1
2	25-11-2024	Application Development Training	Mr. Minoor Manmadhan	Civil S5
3	25-11-2024	Know yourself	Ms. Neethu Balakrishnan	Civil S5
4	25-11-2024	Mind power and goal setting	Ms. Thara Mathew	Civil S5
5	25-11-2024	Build and brand your personality	Mr. Minoor Manmadhan	Civil S5
6	29-11-2024	Value of education	Dr. Sanju Dhamodharan	Civil S5
7	29-11-2024	Aptitude test skills	Mr. Akhilesh A.	Civil S5
8	30-11-2024	Inspiration & Exam Relief (Half Day)	Dr. Sanju Dhamodharan	Civil S1
9	12-04-2024	Empowerment of personal skills	Mr. Minoor Manmadhan	Civil S5
10	12-04-2024	Leadership and insight	Ms. Neethu Balakrishnan	Civil S5
11	12-04-2024	Attitude and goal setting	Mr. Jojo Antony	Civil S5
12	12-07-2024	Resume Building	Mr. Jojo Antony	Civil S5
13	12-11-2024	Personality development	Mr. Minoor Manmadhan	Civil S5
14	12-11-2024	Relationship	Ms. Thara Mathew	Civil S5
15	12-11-2024	Self esteem	Ms. Neethu Balakrishnan	Civil S5
16	18-12-2024	Go beyond the limit	Mr. Minoor Manmadhan	Civil S5
17	18-12-2024	Job opportunities after diploma	Mr. Jojo Antony	Civil S5
18	18-12-2024	Personal Interview	Ms. Neethu Balakrishnan	Civil S5
19	01-03-2025	Goal setting and motivation	Dr. Brijesh George	Civil S5
20	01-07-2025	Your Contribution to Sustainable Industries	Ms. Radha Unikrishnan	Civil S5
21	14-01-2025	Mock Interview	NCSS Team	Civil S5
No.	Date	Topic	Name of Resource Person	

1	23-01-2023	Guidance and Motivation for a Successful Career after Diploma	Dr. Brijesh George John
No.	Date	Topic	Name of Resource Person
1	27-11-2023	Motivational Boost & Exam Stress Management (Half Day)	Dr. Sanju Dhamodharan
2	19-12-2023	Empowerment and Professional Pathways Guidance	Dr. Brijesh George John
No.	Date	Topic	Name of Resource Person
1	30-11-2024	Inspiration & Exam Relief (Half Day)	Dr. Sanju Dhamodharan

Career Guidance and Placement Training Sessions (2024 – 2025):

No.	Date	Topic	Name of Resource Person	Semester
1	19-11-2024	How to think to achieve your goals and a brief session about NCSS	Mr. Jojo Antony	Chemical S1
2	26-11-2024	Application Development Training	Mr. Minoor Manmadhan	Chemical S5
3	26-11-2024	Know yourself	Ms. Neethu Balakrishnan	Chemical S5
4	26-11-2024	Mind power and goal setting	Ms. Thara Mathew	Chemical S5
5	26-11-2024	Build and brand your personality	Mr. Minoor Manmadhan	Chemical S5
6	29-11-2024	Value of education	Dr. Sanju Dhamodharan	Chemical S5
7	29-11-2024	Aptitude test skills	Mr. Akhilesh A.	Chemical S5
8	30-11-2024	Inspiration & Exam Relief (Half Day)	Dr. Sanju Dhamodharan	Chemical S1
9	12-05-2024	Empowerment of personal skills	Mr. Minoor Manmadhan	Chemical S5
10	12-05-2024	Leadership and insight	Ms. Neethu Balakrishnan	Chemical S5
11	12-05-2024	Attitude and goal setting	Mr. Jojo Antony	Chemical S5
12	12-09-2024	Resume Building	Mr. Jojo Antony	Chemical S5
13	12-12-2024	Personality development	Mr. Minoor Manmadhan	Chemical S5
14	12-12-2024	Relationship	Ms. Thara Mathew	Chemical S5
15	12-12-2024	Self esteem	Ms. Neethu Balakrishnan	Chemical S5
16	19-12-2024	Go beyond the limit	Mr. Minoor Manmadhan	Chemical S5
17	19-12-2024	Job opportunities after diploma	Mr. Jojo Antony	Chemical S5
18	19-12-2024	Personal Interview	Ms. Neethu Balakrishnan	Chemical S5
19	01-03-2025	Goal setting and motivation	Dr. Brijesh George	Chemical S5
20	01-06-2025	Your Contribution to Sustainable Industries	Mr. Radhakrishnan G.(FACT)	Chemical S5
21	14-01-2025	Mock Interview	NCSS Team	Chemical S5

No.	Date	Topic	Name of Resource Person	Semester
1	18-11-2024	How to think to achieve your goals and a brief session about NCSS	Mr. Jojo Antony	Electrical & Electronics S1
2	22-11-2024	Application Development Training	Mr. Minoor Manmadhan	Electrical & Electronics S5
3	22-11-2024	Know yourself	Ms. Neethu Balakrishnan	Electrical & Electronics S5
4	22-11-2024	Mind power and goal setting	Ms. Thara Mathew	Electrical & Electronics S5
5	22-11-2024	Build and brand your personality	Mr. Minoor Manmadhan	Electrical & Electronics S5
6	28-11-2024	Value of education	Dr. Sanju Dhamodharan	Electrical & Electronics S5
7	28-11-2024	Aptitude test skills	Mr. Akhilesh A.	Electrical & Electronics S5
8	30-11-2024	Inspiration & Exam Relief (Half Day)	Dr. Sanju Dhamodharan	Electrical & Electronics S1
9	12-03-2024	Empowerment of personal skills	Mr. Minoor Manmadhan	Electrical & Electronics S5
10	12-03-2024	Leadership and insight	Ms. Neethu Balakrishnan	Electrical & Electronics S5
11	12-07-2024	Resume Building	Mr. Jojo Antony	Electrical & Electronics S5
12	12-10-2024	Personality development	Mr. Minoor Manmadhan	Electrical & Electronics S5
13	12-10-2024	Relationship	Ms. Thara Mathew	Electrical & Electronics S5
14	12-10-2024	Self esteem	Ms. Neethu Balakrishnan	Electrical & Electronics S5
15	17-12-2024	Go beyond the limit	Mr. Minoor Manmadhan	Electrical & Electronics S5
16	17-12-2024	Job opportunities after diploma	Mr. Jojo Antony	Electrical & Electronics S5
17	17-12-2024	Personal Interview	Ms. Neethu Balakrishnan	Electrical & Electronics S5
18	01-02-2025	Goal setting and motivation	Dr. Brijesh George	Electrical & Electronics S5
19	01-03-2025	Goal setting and motivation	Dr. Brijesh George	Electrical & Electronics S5
20	01-07-2025	Your Contribution to Sustainable Industries	Mr. Sunil Joseph (Sark Cables)	Electrical & Electronics S5
21	14-01-2025	Mock Interview	NCSS Team	Electrical & Electronics S5

No.	Date	Topic	Name of Resource Person	Semester
1	20-11-2024	How to think to achieve your goals and a brief session about NCSS	Mr. Jojo Antony	Automobile S1
2	27-11-2024	Application Development Training	Mr. Minoor Manmadhan	Automobile S5
3	27-11-2024	Know yourself	Ms. Neethu Balakrishnan	Automobile S5
4	27-11-2024	Mind power and goal setting	Ms. Thara Mathew	Automobile S5
5	27-11-2024	Build and brand your personality	Mr. Minoor Manmadhan	Automobile S5
6	29-11-2024	Aptitude test skills	Mr. Akhilesh A.	Automobile S5
7	30-11-2024	Value of education	Dr. Sanju Dhamodharan	Automobile S5
8	30-11-2024	Inspiration & Exam Relief (Half Day)	Dr. Sanju Dhamodharan	Automobile S1
9	12-06-2024	Empowerment of personal skills	Mr. Minoor Manmadhan	Automobile S5

10	12-06-2024	Leadership and insight	Ms. Neethu Balakrishnan	Automobile S5
11	12-06-2024	Attitude and goal setting	Mr. Jojo Antony	Automobile S5
12	12-09-2024	Resume Building	Mr. Jojo Antony	Automobile S5
13	13-12-2024	Personality development	Mr. Minoor Manmadhan	Automobile S5
14	13-12-2024	Relationship	Ms. Thara Mathew	Automobile S5
15	13-12-2024	Self esteem	Ms. Neethu Balakrishnan	Automobile S5
16	20-12-2024	Go beyond the limit	Mr. Minoor Manmadhan	Automobile S5
17	20-12-2024	Job opportunities after diploma	Mr. Jojo Antony	Automobile S5
18	20-12-2024	Personal Interview	Ms. Neethu Balakrishnan	Automobile S5
19	01-02-2025	Goal setting and motivation	Dr. Brijesh George	Automobile S5
20	01-06-2025	Your Contribution to Sustainable Industries	Dr.Davis George (Eddy Current)	Automobile S5
21	14-01-2025	Mock Interview	NCSS Team	Automobile S5

No.	Date	Topic	Name of Resource Person	Semester
	130-11-2024	Inspiration & Exam Relief (Half Day)	Dr. Sanju Dhamodharan	Computer Engineering S1

No.	Date	Topic	Name of Resource Person	Semester
	127-11-2023	Motivational Boost & Exam Stress Management (Half Day)	Dr. Sanju Dhamodharan	Computer Engineering S1
	219-12-2023	Empowerment and Professional Pathways Guidance	Dr. Brijesh George John	Computer Engineering S5

No.	Date	Topic	Name of Resource Person	Semester
1	23-01-2023	Guidance and Motivation for a Successful Career after Diploma	Dr. Brijesh George John	Computer Engineering S5

Placement Data:

Chemical Engineering 2022-25

S.no.	Name of the student placed	Enrollment no.	Employer
1	LAVIN VARGHESE	2201070079	MAHLE ANAND
2	ASHMITH T R	2201070072	MAHLE ANAND
3	JEROM N B	2201070076	DEVI INDUSTRIES
4	KRISHNAROOP A D	2201070203	DEVI INDUSTRIES
5	JERIN JAMES	2201070075	MAHLE ANAND
6	KIRAN SHJO	2201070077	MAHLE ANAND
7	SAYANTH C K	2201070085	MAHLE ANAND
8	AKSHAY A S	2201070067	MAHLE ANAND
9	ABHIKRISHNA C S	2201070062	MAHLE ANAND

Chemical Engineering 2023-26

S.no.	Name of the student placed	Enrollment no.	Employer1	Employer2
1	Abhiram K J	2301070002	Arjuna Naturals	MRF
2	Austin V. Paul	2301070008	Arjuna Naturals	Nil
3	Avnish T. S	2301070009	Arjuna Naturals	MRF
4	E. J. Soorya	2301070011	Arjuna Naturals	Nil
5	Edwin Lalu	2301070012	MRF	Nil
6	Gautham Anand	2301070013	Arjuna Naturals	Nil
7	Jerin Varghese	2301070017	MRF	Nil
8	Joyal P. J	2301070018	Arjuna Naturals	Nil
9	Mikhil Kumar	2301070019	Arjuna Naturals	Nil
10	Muhammed Irfan	2301070024	Anand Group	Nil
11	Muhammed Swalih	2301070025	MRF	Arjuna Naturals
12	Nandana	2301070026	Mahle Anand	Nil
13	Neeraj	2301070027	MRF	Arjuna Naturals
14	Sony Cheriakutty	2301070030	MRF	Arjuna Naturals
15	Suryakrishnan	2301070031	Arjuna Naturals	Nil
16	Fathima B.	2301070100	Joyson Anand	Nil
17	Adwaith Jayason	2301070246	Arjuna Naturals	Nil
18	Aquilin Lincon	2301070247	Anand	Nil
19	Godwin	2301070248	Arjuna Naturals	Nil

Chemical Engineering 2021-24

S.no.	Name of the student placed	Enrollment no.	Employer
1	ABHINAV K B	2101070002	WIPRO
2	ASIRVADH P	2101070013	WIPRO
3	SREERAM K G	2101070025	WIPRO
4	SUDEV K SUDHAKARAN	2101070026	WIPRO
5	AMEYA CRISTO	2101070240	WIPRO

Electrical and Electronics Engineering 2021-24

S.no.	Name of the student placed	Enrollment no.	Employer
1	DENCIL	2101033251	JK TYRE
2	JOYAL	2101030670	JK TYRE

3	SOURAV	2101033259JK TYRE
4	DEENAS DAVIS	2101033250JK TYRE
5	ARJUN KRISHNA	2101033249JK TYRE
6	SREERAM	2101033260JK TYRE
7	AMAL P JOY	2101033247WIPRO
8	SIVAJITH K RAMESH	2101033258WIPRO
9	ANAL ANTONY	2101030649WIPRO
10	ALEX M VARGHESE	2101033245WIPRO
11	MELWIN CM	2101030673WIPRO
12	EBIN SHYJAN	2101033242JK TYRE
13	FERNANDO JOBY	2101033252JK TYRE
14	AKSHAY	2101033244JK TYRE
15	ABHISHEK JIJO	2101033241JK TYRE
16	STEEVO POLY	2101030684JK TYRE
17	JEROME K J	2101030667JK TYRE
18	ELJO OPPEN	2101030661JK TYRE
19	AJITH	2101030643JK TYRE
20	ADARSH	2101030642JK TYRE

Electrical and Electronics Engineering 2022-25

S.no.	Name of the student placed	Enrollment no.	Employer1	Employer2
1	DHEERAJ CM	2201032032	GABRIEL	Nil
2	Nithin KM	2201032041	Suzlon India Ltd.	RESMI INDUSTRIES
3	ANEESH MA	2201032023	Suzlon India Ltd.	RESMI INDUSTRIES
4	RIGWED AS	2201033264	Suzlon India Ltd.	RESMI INDUSTRIES
5	KAILAS TA	2201033263	Suzlon India Ltd.	RESMI INDUSTRIES
6	ATHUL TJ	2201033258	Suzlon India Ltd.	RESMI INDUSTRIES
7	GOKUL SAJEEV	2201033260	GABRIEL	RESMI INDUSTRIES
8	JOBIN PS	2201033262	RESMI INDUSTRIES	LG BROS
9	ADHITH V A	2201032015	Ceetel Technologies	Nil
10	ADHI KS	2201032014	Ceetel Technologies	LG BROS
11	JOJI JOHNY	2201032039	LG BROS	Nil
12	ABHINAV	2201032013	LG BROS	Nil
13	AABEL JOSE	2201032010	LG BROS	Nil
14	ALBIN BIJU	2201032019	LG BROS	Nil
15	GOWTHU KRISHNA	2201032035	LG BROS	Nil
16	ASHIN SHAJI	2201032028	LG BROS	Nil

Electrical and Electronics Engineering 2023-26

S.no.	Name of the student placed	Enrollment no.	Employer1	Employer2	Employer3
1	EDWIN SHOJAN	2301030293	MRF	ANAND GROUP	PAVIZHAM RICE
2	DIBIN SHIBU	2301030292	MRF	ANAND GROUP	ASOK LEYLAND
3	GOUTHAMKRISHNA K S	2301033344	ANAND GROUP	INDOMIM	Nil
4	ATHUL P RAJU	2301030286	MRF	ANAND GROUP	Nil
5	ATHUL KRISHNAN C A	2301030285	MRF	ANAND GROUP	Nil

6	AMARNATH K R	2301030282MRF	ANAND GROUP	Nil
7	JESWIN T J	2301030296MRF	ANAND GROUP	Nil
8	FRAJO E J	2301030294MRF	Nil	Nil
9	JIBIN JOISON	2301030297ANAND GROUP	Nil	Nil
10	SANANTH P S	2301033348ANAND GROUP	INDOMIM	PAVIZHAM RICE
11	TIKSON VARGHESE	2301033350ANAND GROUP	INDOMIM	PAVIZHAM RICE
12	ABHINAND C M	2301030273ANAND GROUP	INDOMIM	Nil
13	SHELVIN BABU	2301033349ANAND GROUP	INDOMIM	PAVIZHAM RICE
14	SACHU P S	2301030305ANAND GROUP	INDOMIM	Nil
15	JESTIN TENSON	2301030295ANAND GROUP	INDOMIM	Nil
16	ADHIL P G	2301030277ANAND GROUP	INDOMIM	Nil
17	ATHULKRISHNA M A	2301033343ANAND GROUP	INDOMIM	Nil
18	AASHJO JOSEPH	2301030271TAFE	Nil	Nil
19	ABINAV M M	2301030274TAFE	Nil	Nil
20	CHRISTY JOSH Y	2301030288TAFE	Nil	Nil
21	SREEBHUVANESH P R	2301030308TAFE	Nil	Nil
22	ABIN K P	2301033338TAFE	Nil	Nil
23	ALEX VARGHESE	2301033340TAFE	Nil	Nil
24	ANANDHU KRISHNAN E S	2301033341TAFE	Nil	Nil
25	ROSHIK KISHORE	2301033347TAFE	Nil	Nil
26	VIMALKRISHNA C B	2301033351TAFE	PAVIZHAM RICE	Nil

Automobile Engineering 2022-2025

S.no.	Name of the student placed	Enrollment no.	Name of the Employer
1	MUHAMMED AJMAL	2201051257	GABRIEL
2	ANANDU HARIDAS	2201051228	Suzlon India Ltd.
3	MUHAMMED ISMAIL	2201051255	Suzlon India Ltd.
4	LEON BENNY	2201051253	Suzlon India Ltd.
5	EBIN JOY	2201051240	Suzlon India Ltd.
6	JOYAL JOSE	2201051250	Suzlon India Ltd.

7	JAKSON J PULLEN	2201051245	Suzlon India Ltd.
8	SANJO P SAJAN	2201051264	Suzlon India Ltd.
9	HAREESH KRISHNA	2201051241	Suzlon India Ltd.
10	AMRITHAKRISHNA P M	2201051227	Suzlon India Ltd.
11	DELVIN DAVY	2101050287	LG BROS
Automobile Engineering 2021-2024			
S.no.	Name of the student placed	Enrollment no.	Name of the Employer
1	Aibel Seby	2101050274	WIPRO
2	Alan Polachan	2101050276	WIPRO
3	Anjo Peter	2101050280	WIPRO
4	Anson K R	2101050281	Nippon Toyota
5	Athul P A	2101050283	WIPRO
6	Ahtulkrishna A R	2101050284	WIPRO
7	Dean Davis Chirakkal	2101050286	WIPRO
8	Ganeshkumar KB	2101050289	WIPRO
9	Issac Davis	2101050290	WIPRO
10	Jeevan Joshy	2101050291	POPULAR JCB
11	Joshwel Joy	2101050293	WIPRO
12	Kochuvarkey C S	2101050294	WIPRO
13	Manu VM	2101050296	TATA
14	Mijo Jose	2101050297	WIPRO
15	Muhammed Aslam Japhar	2101050298	WIPRO
16	Muhammed Midhlaj TM	2101050303	WIPRO
17	Nijo John	2101050304	HYUNDAI
18	Noel Anto Kattukaran	2101050305	WIPRO
19	Rohin Shaju	2101050307	WIPRO

20	Shamij PM	2101050311	WIPRO
21	Sherin K Santhosh	2101050312	WIPRO
22	Ujwal Ram PS	2101050315	WIPRO
23	Ullas KU	2101050316	WIPRO
24	Vimal PV	2101050317	WIPRO
25	Viswajith PJ	2101050320	WIPRO
26	Vivek Ts	2101050321	WIPRO
27	Akhil VA	2101051745	J K TYRES
28	Bharathkrishna CB	2101051746	WIPRO
29	Delson KD	2101051748	LG BROS
30	Dibin Varghese	2101051749	JK TYRES
31	Muahmmmed Farhan	2101051751	TATA
32	Sreerag KS	2101051753	JK TYRES
33	Gokul PV	2101051754	POPULAR JCB

Computer Engineering 2023-2026

S.no.	Name of the student placed	Enrollment no.	Name of the Employer
1	NELEN MATHEW	2301133606	INDO MIM, GJ INFO TECH
2	JISMON CS	2301133605	GJ INFO TECH
3	MUHAMMED SALIH P S	2301132980	MRF
4	DHEERAJ JAYAN	2301132972	GJ INFO TECH
5	FARZEEN AHAMED T.S I	2301132973	NDO MIM
6	AJO JOSHY	2301132962	INDO MIM

The placement for the Civil Engineeirng and Mechanical Engineering programmes were mentioned in Criteria 4.

The Innovation and Entrepreneurship Development Cell (IEDC) of Nirmala Institution was constituted following a formal notice circulated among all the affiliated colleges. Students were selected from each campus, based on demonstrated all the colleges were subsequently consolidated to officially constitute a unified IEDC panel for the entire institution.

The IEDC functions under the guidance of Industrial Extension Officers/Nodal Officers nominated in coordination with the Kerala Startup Mission, along with the institutions IEDC Coordinator and faculty team

Sl. No.	Date	Programme / Activity	Venue	Academic Year
1	6 January 2025	IEDC Panel Formation – college-level selection of panelists and constitution of the unified institution panel	Across affiliated colleges	2024-2025
2	14 January 2025	Planning meeting for the common IEDC inauguration; panelists briefed on IEDC activities	Nirmala Institute of Technology	2024-2025
3	28 January 2025	Seminar, Inaugural and Orientation Programme – “Innovation Ecosystem, IEDC Opportunities and Industrial Safety” (Resource Person: Mr. Radhakrishnan G.)	Seminar Hall, NIT	2024-2025

IEDC Road Map for the Year 2025 - 2026

Stage	Activity	Details	Outcome
1	Orientation	• To all Second Year students • Batch size maximum 100 • Should be over in two days	• All students are aware of the innovation ecosystem, way to take part in that, needs and benefit of participating.
2	Ideation	• Batch size maximum 50 to 60 • Two batches (total count 100 to 120) • Form a team of maximum 4 in a batch • Assist the teams to innovate	• Team formation • Teams with potential innovations

Stage	Activity	Details	Outcome
3	Structuring and Design	• Select 25 teams based on idea, teamwork, innovation, feasibility and social relevance • Assist them in completing design • Assist them in preparing project proposal	• Innovators ready with proposals to apply for funding • Target – 10 funded projects
4	Intellectual Property Rights Session	• Orientation on patenting process • Encouraging students to apply for patents	• Target – five patent applications
5	Prototyping & Market Readiness	• Identification of products with market potential • Market readiness • Product launch	• Target – two market-ready products
6	Legal Process	• Session given to targeted teams • Startup company registration	• Target – two startup companies

Anticipated Benefits

To Students

- Soft Skill Development
- Communication enhancement
- Team Work
- Improved presentation skills
- Improvement in Engineering Skills
- Funded Projects
- Patents
- Elevated CV

To Institution

- Funded Projects
- Innovation Ecosystem
- Societal interaction
- Patents
- Better position in NIRF, ARIIA and accreditation, including Autonomy application

9 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (75)

9.1 Organization, Governance and Transparency (25)

9.1.1 State the Vission and Mission of the Institute (5)

Vision :

To be a premier polytechnic, moulding technically skilled and ethically driven learners making impactful contributions to the sustainable development of society

Mission :

M1: To foster technical skills and creativity by embracing innovative practices in the teaching learning process M2: To support the overall personality development of students through the promotion of holistic education M3: To attain optimum shape individuals into ethical professionals and responsible citizens with a dedication to lifelong learning

9.1.2 Governing body, administrative setup, functions of various bodies, define rules procedures, recruitment and promotional policies (5)

Nirmala Institute of Technology (NIT) is a constituent institution of the Nirmala Institutions, one of the pioneering educational groups in Kerala. Nirmala Institutions began their journey in 1954 with the vision of moulding responsible citizens. Over the decades, the management has expanded into various domains of higher education and currently serves thousands of students through its institutions offering globally recognized undergraduate and postgraduate programmes in Engineering, Management, and Law. It has also established Nirmala College of International Studies to provide guidance and professional support for students aspiring to pursue higher education abroad. Nirmala Institute of Technology was established in 2018 as a self-financing Polytechnic College with the objective of providing quality technical education to students, particularly those from rural and economically weaker sections of society. It offers programmes in Engineering, Civil Engineering, and Chemical Engineering—with an approved intake of 60 students in each programme. To meet the growing demand for technical education and industry requirements, the institute introduced Electrical and Electronics Engineering in 2023. At present, the institution offers six Diploma programmes, each with an approved intake of 60 students, catering to the diverse needs of aspiring diploma engineers. The institute is situated at Kunnappilly, Chalakudy, Thrissur District, in a serene and eco-friendly environment surrounded by lush green nutmeg plantations. The peaceful campus provides an ideal atmosphere for academic excellence, and the institution primarily serves students from nearby villages, many of whom belong to economically disadvantaged families and are first-generation learners. By charging only the fee prescribed by the Government of Kerala, the institute ensures accessibility for all students. The institution follows a student-centric approach by adopting Outcome-Based Education (OBE), innovative teaching-learning practices, modern laboratory facilities, industrial interaction, internships, project-based learning, and continuous assessment. It also focuses on holistic development, giving due attention to personality development, communication skills, leadership qualities, professional ethics, environmental awareness, and community service through various co-curricular and extracurricular activities. Since its establishment, Nirmala Institute of Technology has successfully produced 6 batches of diploma graduates, many of whom are employed in reputed industries, government organizations, and multinational companies, while several others have pursued higher education. In line with its Vision and Mission, the institution continues to strive for academic excellence, industry relevance, innovation, and continuous quality improvement, thereby producing technically competent, ethically responsible, and socially committed diploma engineers. Composition and Functioning of the Board of Governors (BOG) The Board of Governors (BOG) of the institution is constituted in accordance with the norms prescribed by the All India Council for Technical Education (AICTE) and the Directorate of Technical Education (DTE), and in line with the Memorandum of Understanding (MoU) between the Government of Kerala and the Nirmala Institutions. It is the governing and policy-making body of the institution, entrusted with the overall responsibility of academic governance, administrative oversight, financial management, and infrastructure development. The Board comprises a balanced mix of representatives from the management, academia, industry, and regulatory bodies, ensuring that institutional decision-making benefits from diverse perspectives and domain expertise. The Chairman, elected by the Board, provides the overall strategic direction to the institution. The Vice-Chairperson, drawn from the management, assists the Chairman in policy formulation and institutional planning. The Principal, functioning as the ex-officio Member Secretary of the Board, is responsible for implementing Board decisions, and maintains records of proceedings. Recognizing the importance of regulatory alignment, a nominee of the DTE is included as a member to ensure that institutional policies and practices conform to statutory and regulatory requirements laid down by the government. To bridge the gap between academia and industry, industrial experts, senior professionals drawn from core sectors relevant to the institutions programmes, who provide valuable inputs on curriculum relevance, emerging technology trends, and employability requirements, and who often facilitate internships and placements for students. The Board also inducts eminent personalities from academia and society, such as retired professors, distinguished alumni, or professionals of repute, whose experience contributes to strengthening institutional vision, academic quality, and community service. The BOG typically meets at prescribed intervals (usually twice a year or as mandated by the affiliating/regulatory authority) to review academic performance, approve budgets and development plans, oversee compliance with accreditation requirements, and ensure the institution's adherence to regulatory norms. This diverse and structured composition ensures a system of checks and balances, transparent governance, and continuous improvement, thereby strengthening institutional accountability and quality assurance mechanisms.
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Functions & Responsibilities of BOG:

- Take all policy decisions with regard to smooth, cost effective and timely implementation of the institutional sub project
- Form, supervise and guide various committees required for project implementation and internal project monitoring
- Ensure overall faculty development
- Enable implementation of all academic and non-academic institutional reforms
- Ensure proper utilization of project fund and timely submission of Financial Management Reports (FMR) and Utilization Certificates
- Ensure compliance with the agreed procedures for procurement of goods, works and services and financial management
- Monitor progress in the carrying out of all the proposed project activities, resolve bottlenecks, and enable the institution to achieve targets for all key indicators
- The Board of Governor's sittings will be convened by the secretary as often as necessary but, not less than once in a year

Organizational Structure

Chairman:

The Chairman is the highest authority of the Institution and represents the Management / Trust/ Society. The Chairman provides visionary leadership, policy direction, and strategic oversight for the institution to ensure academic excellence, f

I. Policy Planning and Governance

- 1.The Chairman shall define the vision, mission, and long-term strategic goals of the institution in alignment with national educational policies and societal needs.
- 2.He/she shall ensure that the institution functions in accordance with the rules and regulations of AICTE, NBA, affiliating Board/University, Government authorities, and statutory bodies.
- 3.The Chairman shall appoint the Principal and key administrative positions as per norms and monitor their performance periodically.
- 4.He/she shall provide policy-level guidance for the introduction of new programs, expansion of existing programs, and infrastructural development.
- 5.The Chairman shall preside over Governing Body / Trust meetings and approve major academic, administrative, and financial decisions.
- 6.He/she shall ensure the availability of adequate financial resources for academic activities, infrastructure, faculty development, and student welfare.
- 7.The Chairman shall approve institutional policies, including academic regulations, service rules, financial policies, and quality assurance frameworks.
- 8.He/she shall promote a culture of quality, accountability, transparency, and ethical governance.

II. Monitoring and Review

- 1.The Chairman shall periodically review the overall performance of the institution, including academic results, accreditation status, admissions, placements, and financial health.
- 2.He/she shall review reports submitted by the Principal regarding institutional development, compliance, and achievements.
- 3.The Chairman shall monitor the progress of NBA accreditation, AICTE approvals, and other statutory inspections and provide necessary support.
- 4.He/she shall ensure corrective measures are initiated based on inspection reports, audit findings, and accreditation feedback.

III. Financial Responsibilities

- 1.The Chairman shall approve the annual institutional budget and major capital expenditures.
- 2.He/she shall ensure proper financial planning and resource mobilization for sustainable institutional growth.
- 3.The Chairman shall oversee audit compliance, statutory financial reporting, and utilization of funds.
- 4.He/she shall authorize major procurements, construction projects, and infrastructural investments.

IV. Academic and Institutional Development

- 1.The Chairman shall encourage academic excellence, innovation, research culture, and industry collaboration.
- 2.He/she shall support initiatives related to faculty development programs, student scholarships, training, placement, and entrepreneurship.

3.The Chairman shall facilitate collaboration with industry, professional bodies, and external agencies.

4.He/she shall ensure that the institution maintains a student-centric and inclusive academic environment.

V. General Responsibilities

1.The Chairman shall represent the institution in official, legal, and statutory matters.

2.He/she shall ensure that the institution upholds discipline, ethical standards, and social responsibility.

3.The Chairman shall provide guidance and support to the Principal and Management team for effective administration.

Vice-Chairperson

The Vice-Chairperson functions as a senior member of the management, working closely with the Chairman and the Principal to ensure smooth institutional functioning across administrative, academic, and human resource domains.

Administrative Responsibilities

- Oversees the day-to-day administrative functioning of the institution and ensures implementation of Board decisions and policies.
- Reviews and approves administrative budgets, procurement proposals, and expenditure within delegated financial powers.
- Monitors compliance with statutory and regulatory requirements (AICTE, DTE, university/board affiliation norms) and ensures timely submission of returns, applications for approval/renewal, and accreditation documentation.
- Coordinates between various departments and administrative offices to streamline institutional processes and resolve inter-departmental issues.
- Represents the institution, in coordination with the Chairman, in interactions with regulatory bodies, government departments, and external agencies.

Academic Responsibilities

- Supports the Principal in monitoring academic planning, including academic calendar preparation, curriculum implementation, and examination schedules.
- Reviews academic performance indicators (pass percentage, attainment levels, feedback outcomes) and guides corrective action planning in consultation with department heads.
- Facilitates resource allocation for academic development activities such as faculty development programmes, workshops, seminars, and research initiatives.
- Promotes and monitors industry-institute interaction, guest lectures, value-added courses, and other initiatives that enhance academic quality and employability.
- Reviews accreditation (NBA/NAAC) preparedness and provides guidance on institutional quality assurance processes.

Employee-Related Responsibilities

- Oversees recruitment, appointment, and service matters of teaching and non-teaching staff in line with regulatory norms and management policy.
- Reviews staff performance appraisal systems, service records, and career advancement/promotion matters.
- Addresses employee grievances escalated beyond departmental level and ensures a fair and transparent redressal mechanism.
- Approves leave, service conditions, and welfare measures for employees, ensuring compliance with applicable labour and service regulations.
- Guides policies related to staff training, capacity building, and professional development to strengthen institutional human resources.

Director (Student Experience)

The Director (Student Experience) is entrusted with the overall responsibility of ensuring a safe, well-equipped, and conducive campus environment that supports student learning, wellbeing, and holistic development, with specific focus on i

Infrastructure Responsibilities

- Oversees planning, development, and maintenance of physical infrastructure, including classrooms, laboratories, workshops, library, hostels, and common amenities.
- Coordinates with the administration for timely upgradation of infrastructure in line with regulatory (AICTE/DTE) norms and accreditation requirements.
- Monitors upkeep of civil, electrical, and mechanical utilities, ensuring uninterrupted availability of essential services (power, water, internet, sanitation).
- Reviews infrastructure utilization and recommends expansion or modernization based on academic and co-curricular needs.
- Ensures compliance with building safety codes, fire safety norms, and accessibility provisions (including facilities for differently-abled students).

Student Experience Responsibilities

- Oversees initiatives aimed at enhancing overall student life on campus, including hostel facilities, canteen/cafeteria services, sports and recreational facilities, and common student spaces.
- Coordinates student support services such as counselling, mentoring facilitation, grievance redressal, and welfare schemes.
- Works with student affairs/cultural committees to promote extracurricular, co-curricular, and sports activities that contribute to holistic student development.
- Monitors and acts on student feedback related to campus facilities and quality of life, ensuring corrective measures are implemented.
- Liaises with academic departments and placement cells to ensure infrastructure and support services align with student academic and career needs.

Security Responsibilities

- Oversees campus security arrangements, including deployment and supervision of security personnel, CCTV surveillance systems, and access control mechanisms.
- Develops and implements protocols for visitor management, vehicle/parking regulation, and emergency response (fire, medical, disaster situations).
- Ensures a safe environment for students, particularly women students, in line with statutory requirements (such as Internal Complaints Committee/anti-ragging measures).
- Coordinates periodic safety audits, mock drills, and awareness programmes on campus safety and emergency preparedness.
- Maintains liaison with local law enforcement and civic authorities for coordinated security management as required.

Principal

The Principal is the Chief Academic and Administrative Officer of the Institution and is responsible for the overall planning, organization, coordination, supervision, and development of all academic, administrative, and support activities of the Institution, ensuring compliance with AICTE, NBA, State Board of Technical Education, and Government norms, and shall be accountable to the Management/Trust.

I. Planning and Administration

1. The Principal shall be responsible for the overall administration, academic governance, and day-to-day functioning of the Institution.
2. He/she shall act as the link between the Management, regulatory bodies, affiliating authorities, staff, students, and stakeholders.
3. The Principal shall ensure effective implementation of institutional vision, mission, and strategic plans.
4. He/she shall convene meetings of Heads of Departments, IQAC, statutory committees, and other academic bodies at regular intervals and ensure proper documentation of minutes and action taken reports.
5. The Principal shall plan academic calendars, monitor their implementation, and ensure adherence to the same.
6. He/she shall ensure the availability and optimal utilization of infrastructure, laboratories, library, ICT facilities, and learning resources.
7. The Principal shall supervise the preparation of teaching schedules, workload distribution, and timetables as per AICTE norms.
8. He/she shall approve faculty recruitment requirements and forward proposals to the Management as per statutory norms.
9. The Principal shall ensure maintenance of discipline, decorum, and academic ambience

within the campus.

10. He/she shall coordinate with external agencies for industry interaction, MoUs, training, internships, and placements.
11. The Principal shall ensure that co-curricular and extra-curricular activities are planned and conducted regularly.
12. He/she shall guide and monitor research, consultancy, innovation, and extension activities of the Institution.
13. The Principal shall supervise the preparation and submission of reports required by AICTE, NBA, DTE, and other authorities.
14. He/she shall ensure the effective functioning of all statutory and non-statutory committees of the Institution.
15. The Principal shall issue necessary administrative instructions, circulars, and orders for smooth institutional functioning.

II. Academic Leadership and Monitoring

1. The Principal shall ensure effective curriculum delivery and compliance with the prescribed syllabus of the affiliating body.
2. He/she shall monitor teaching–learning processes, academic performance, and outcome attainment.
3. The Principal shall review syllabus coverage, lesson plans, and instructional practices periodically through H.O.Ds.
4. He/she shall ensure conduct of internal assessments, model examinations, and Board/University examinations as per norms.
5. The Principal shall analyze academic results department-wise and initiate corrective and preventive actions for improvement.

6. He/she shall promote student-centric learning practices, mentoring, counseling, and remedial coaching.
7. The Principal shall ensure faculty development programs, workshops, seminars, and training programs are conducted regularly.
8. He/she shall encourage innovative teaching practices, ICT usage, and continuous academic improvement.

III. Review and Follow-Up Action

(a) Daily Review

1. The Principal shall monitor attendance of students and staff and ensure continuity of academic activities.
2. He/she shall ensure alternate arrangements for classes in case of faculty absence.
3. The Principal shall address grievances and issues escalated by H.O.Ds at the institutional level.

(b) Periodical Review

1. The Principal shall conduct monthly and semester-wise academic reviews with H.O.Ds.
2. He/she shall review internal assessment performance, attendance trends, and mentoring outcomes.
3. The Principal shall evaluate faculty performance and recommend improvement measures where necessary.
4. He/she shall ensure parent–teacher interaction mechanisms are in place for academic monitoring.

IV. Financial and Resource Management

1. The Principal shall prepare and submit the Institutional Budget to the Management for approval.
2. He/she shall ensure optimal and transparent utilization of financial resources as per approved budget.
3. The Principal shall oversee procurement, maintenance, and utilization of equipment and consumables.
4. He/she shall monitor sponsored projects, grants, and funded programs and ensure compliance with agency norms.
5. The Principal shall authorize financial transactions as per institutional policy.

V. Personal Management and Discipline

1. The Principal shall be the appointing and recommending authority for staff as per Management policies.
2. He/she shall ensure performance appraisal, counseling, and professional development of faculty and staff.
3. The Principal shall enforce service rules, conduct rules, and disciplinary procedures for staff and students.
4. He/she shall issue warnings, memos, or disciplinary actions as required in consultation with Management.
5. The Principal shall ensure grievance redressal mechanisms for students and staff functions effectively.

VI. Accreditation, Compliance, and Quality Assurance

1. The Principal shall act as the Chairperson/Head of IQAC and ensure continuous quality improvement.

2. He/she shall oversee NBA, NAAC, AICTE, and DOTE accreditation and compliance activities.
3. The Principal shall ensure systematic documentation, data maintenance, and record verification for audits and inspections.
4. He/she shall coordinate inspection visits, accreditation peer team visits, and statutory audits.

VII. Student Welfare and Development

1. The Principal shall ensure effective functioning of mentoring, counseling, career guidance, and placement cells.
2. He/she shall promote student discipline, ethics, and holistic development.
3. The Principal shall oversee hostel administration, sports, NSS, NCC, and cultural activities.
4. He/she shall ensure equal opportunity, inclusiveness, and student safety on campus.

VIII. Preparation Before the Commencement of the Academic Year/Semester

Before the start of every academic year/semester, the Principal shall ensure that:

The Head of the Department (H.O.D) plays a crucial role in the academic, administrative, and developmental activities of the department. The H.O.D is responsible for the overall planning, coordination, and smooth functioning of all departm

I. Planning And Administration

1. The H.O.D shall report to the Principal on all academic and administrative matters concerning the department.
2. He/she shall ensure the smooth and effective functioning of the department and act as the controlling officer for all staff and students within the department.
3. The H.O.D shall conduct meetings with faculty and non-teaching staff at least once a fortnight. The minutes, discussions, and resolutions of such meetings shall be properly recorded, and a copy of the report shall be submitted to the P
4. The H.O.D shall obtain the goals and action plans from all staff members at least one week before the commencement of each semester and monitor the implementation of the same.
5. He/she shall prepare and submit the details of faculty and staff requirements for every academic year to the Principal on or before 31st March.
6. The H.O.D shall ensure the availability of all necessary infrastructural facilities for the effective functioning of teaching and non-teaching staff in the department.
7. He/she shall obtain the official copy of the syllabus from the Administrative Coordinator and communicate the same to the faculty members concerned.
8. The H.O.D shall convene a meeting on the day following the last working day of the semester to allocate subjects to staff members for the upcoming semester.
9. He/she shall arrange for the repair and maintenance of furniture and other equipment in the department through the Administrative Officer and make necessary arrangements for the purchase of additional items as required.
10. The H.O.D shall ensure that the class timetable is prepared within one week after the last working day of the semester and communicated to the faculty members promptly.
11. He/she shall ensure that all subjects and laboratory courses are allotted to faculty members and that no subject remains untaught.
12. The H.O.D shall appoint senior faculty members as Class Advisors for every class under the department.
13. He/she shall prepare brochures, leaflets, and other promotional materials to facilitate campus interviews and placement activities for students.
14. The H.O.D shall ensure that meaningful co-curricular activities such as seminars, guest lectures, workshops, and industrial visits are regularly organized.

15. The H.O.D shall plan and coordinate all educational tour programs of the department. The number of days for such tours shall be restricted as per the following norms:

Year of Study Number of Working Days Permitted

First Year	1 Day
Second Year	2 Days
Third Year	3 Days

Only final-year students may be permitted to prefix or suffix holidays, but the total number of tour days (including holidays) shall not exceed six days.

16. The H.O.D shall fix suitable dates to conduct periodical tests for the students of the department.
17. He/she shall recommend students of the department for hostel accommodation and monitor the discipline and behavior of the hostel students belonging to the department.
18. The H.O.D shall prepare in advance all documents, reports, and write-ups required for submission to inspection commissions or visiting accreditation teams.
19. He/she shall prepare a monthly report of departmental activities and submit the same to the Principal before the 2nd of every month.
20. The H.O.D shall ensure that at least two faculty members are available in the department during vacation periods to attend to departmental work.
21. The H.O.D shall arrange department-level in-service programs and training sessions for faculty and non-teaching staff to enhance their skills, including computer literacy.
22. All important departmental documents shall be handed over personally to the Principal's office to avoid loss or misplacement.
23. The H.O.D shall convene meetings of Class Advisors once a fortnight to discuss common issues related to students and evolve strategies to address them effectively.
24. The H.O.D shall provide effective leadership by setting clear objectives and targets at the beginning of each semester and ensuring that these goals are successfully achieved by the end of the term.
25. The H.O.D shall foster a positive academic environment, encourage teamwork, and ensure that all departmental activities align with the institution's vision and mission.

II. Review and Follow-Up Action

The Head of the Department (H.O.D) shall be responsible for the continuous review, monitoring, and follow-up of all academic and administrative activities of the department. The review shall be carried out on a daily and periodical basis as

(a) Daily Review

1. The H.O.D shall ensure 100% attendance of students every day and immediately review any cases of absenteeism.
2. The H.O.D shall ensure that alternate arrangements are made for classes when staff members are on leave or official duty (O.D.).

3. He/she shall resolve any issues or grievances raised by staff or students at the departmental level, if possible. If required, the matter shall be referred to the Director or Principal for appropriate action and resolution at the earliest.

(b) Periodical Review

1. The H.O.D shall periodically monitor and review the syllabus coverage of each faculty member as recorded in the syllabus coverage register.
2. He/she shall announce in advance the schedule for periodical tests for the students of the department.
3. The H.O.D shall ensure that all monthly, model, and assessment tests are properly conducted and that answer scripts are evaluated and returned to students within three days of the last examination. The marks shall be entered in the de
4. He/she shall ensure that progress reports are sent to parents, along with remarks from the class advisors, after every monthly or model test.
5. The H.O.D shall identify weak and bright students and take appropriate remedial or enrichment measures to ensure better academic performance.
6. He/she shall hold discussions with the Class Advisors regarding the performance of students immediately after each periodical test.
7. The H.O.D shall take necessary action to correct irregularities in student attendance and motivate students to maintain consistent attendance.
8. He/she shall monitor the weekly attendance percentage of all students in the department.
9. The H.O.D shall evaluate the performance of the faculty members at the end of every semester and arrange suitable improvement or training programs when necessary.

III. Academic Responsibilities

1. The H.O.D is authorized to sanction all types of leave for students.
2. He/she is authorized to sanction leave up to three days for faculty members and up to six days for non-teaching staff. Leave exceeding this limit shall be recommended to the Principal for approval.
3. The H.O.D may sanction On-Duty (O.D.) leave for one day for faculty members for official or academic purposes.
4. He/she shall analyze the results of all University and Board examinations to ensure 100% pass percentage and take corrective actions wherever required.
5. The H.O.D shall nominate student and staff representatives for various departmental committees.
6. He/she shall monitor the behavior and discipline of students belonging to the department in the hostel.
7. The H.O.D is authorized to issue memos or disciplinary notices to students or staff members within the department whenever necessary.

IV. Monetary Responsibilities

1. The H.O.D shall prepare and submit a draft departmental budget (including requirements for equipment, consumables, and library books) for the upcoming financial year to the Principal by 31st January each year for approval and san
2. He/she shall ensure that the allocated budget is utilized effectively and only for the approved purposes.
3. The H.O.D shall periodically inform funding agencies about the progress of any ongoing sponsored or funded projects in the department.
4. The H.O.D is authorized to operate the imprest account of the department. The imprest amount shall be determined periodically by the Principal.

V. General Responsibilities

1. The H.O.D shall attend all college functions and official programs, as the overall accountability of the department—its personnel, functioning, and performance—rests with him/her.
2. The H.O.D shall maintain a Departmental Grievance Committee to resolve student and staff grievances objectively and promptly.
3. He/she must obtain a written explanation from staff members arriving late and forward it to the Principal. Three such instances shall be treated as equivalent to a half-day of Casual Leave (C.L.).
4. The H.O.D is responsible for the overall development and performance of all staff members through continuous counseling, evaluation, and performance appraisal.

VI. Preparation before the Commencement of the Academic Year/Semester

Before the start of every academic year or semester, the H.O.D shall ensure that the following activities are completed:

- a. All subjects are allotted to faculty members, ensuring that no subject is left untaught.
 - b. Lesson and instruction plans are prepared for every subject, clearly indicating chapters, tutorials, seminars, and tests as per the timetable.
 - c. Verify that all textbooks and reference books required as per the University syllabus are available in the library and certified by faculty.
 - d. Semester tasks and objectives are assigned to each staff member.
 - e. Class Teachers are assigned responsibility for infrastructure, materials, and the proper conduct of classes.
 - f. Mentor appointments are finalized, and the list of mentors with their allotted students is submitted to the Director/Principal.
 - g. A class-wise seating and mentoring plan is displayed on notice boards, and individual student files with background information are maintained both in the department and office.
 - h. Class Teachers shall have personal files maintained under the supervision of the H.O.D.
 - i. A proper review pattern shall be designed for evaluating staff performance, and records shall be maintained in departmental files.
 - j. The H.O.D shall finalize departmental tasks for the semester, including result analysis, extra coaching, industrial visits, association activities, seminars, workshops, mentoring, counseling, publication efforts, and staff recruitment details.
 - k. Lab manuals (in bound form) shall be prepared for all laboratories. The H.O.D shall ensure that all concerned faculty members are familiar with the experiments.
 - l. All laboratory equipment shall be installed, checked, and maintained in good working condition.
 - m. The Administrative Manual with institutional policies shall be kept updated and accessible to all staff members. Each faculty member should be familiar with its contents.
 - n. The College Calendar shall be distributed to all students before the commencement of the semester.
- a) Academic calendar and institutional action plans are finalized and circulated.
 - b) Faculty deployment, workload distribution, and subject allocation are approved.
 - c) Infrastructure, laboratories, library resources, and ICT facilities are ready for use.
 - d) Committees are reconstituted and roles are clearly defined.
 - e) Mentoring and counseling structures are finalized.
 - f) Institutional targets, KPIs, and quality benchmarks are communicated to all departments.
 - g) Compliance requirements of AICTE, NBA, and affiliating bodies are verified.
- E. Responsibilities of the Faculty

I. General

Faculty members are expected to be role models to students in all aspects, including punctuality, discipline, conduct and dress code. They must uphold the dignity of the teaching profession and set a high standard of integrity and commitment.

II. Academic Responsibilities

1. After subject allotment, every faculty member shall obtain the official copy of the syllabus for the assigned subject(s) from the Head of the Department (H.O.D) in person.

2. Each faculty member shall prepare a detailed lecture schedule, considering the number of actual working days available in the semester, and submit it to the H.O.D for approval at least ten (10) days prior to the commencement of class.
3. Faculty members shall complete the entire prescribed syllabus within the allotted working days.
4. Attendance for each class handled must be maintained in the personal attendance register of the faculty member, and the attendance slip must be submitted to the department office on the same day.
5. The syllabus for all periodical tests (monthly and model) shall be announced in advance. Question papers must be prepared accordingly and submitted to the H.O.D within one day after completion of the test. Evaluated answer sheets requiring improvement.
6. Faculty members shall make regular entries in the Syllabus Coverage Register every week.
7. They shall attend to any duties assigned by the H.O.D or the Principal from time to time.
8. Faculty members shall actively participate in internal and university examinations as assigned by the H.O.D.
9. They must enter the following particulars in the Assessment Register immediately after each class:
 - a. Attendance of students
 - b. Topics covered on that day
10. Faculty members must also maintain individual attendance registers accurately and consistently.
11. They are expected to voluntarily participate in all department and institutional activities that contribute to their personal and professional growth.
12. Faculty members shall assist the H.O.D in the overall development of the department, including:
 - a) Framing of timetables
 - b) Preparation of the departmental budget
 - c) Ordering of equipment and consumables
 - d) Development and maintenance of laboratories
 - e) Organizing student industrial visits, seminars, and other academic programs
- III. Powers of the Faculty
 1. Faculty members are empowered to issue warning letters or memos to students in consultation with the Class Advisor and with the approval of the H.O.D, whenever necessary.
 2. A faculty member shall mark a student absent in the following cases:
 - a. If the student arrives late to class
 - b. If the student fails to follow the prescribed dress code
 - c. If the student does not bring the required materials such as observation/record books, manuals, calculators, or drawing instruments

d. If the student disturbs the class or behaves in an undisciplined manner

3. Faculty members shall also issue memos to students who remain absent for examinations without prior permission from the H.O.D.

IV. Technical and Professional Responsibilities

1. Every faculty member must present at least one paper at a National Seminar or Conference, or publish a research article in a reputed journal each academic year to be eligible for an annual increment. They are also encouraged to write

2. Faculty members who are Lab In-charges shall prepare and maintain Lab Manuals for the practical subjects they handle.

3. Faculty members shall strictly adhere to college working hours and must not leave their classes free under any circumstances.

4. They shall not leave the department without making proper entries in the Movement Register

5. Personal visitors shall not be entertained during college hours. In exceptional cases, visitors may be met in the Visitors' Lounge near the Principal's office.

6. Faculty members must sign the attendance register maintained in the department office every day.

7. They shall participate in all college functions and activities and take an active role in

counseling and guiding students to achieve academic excellence and personal discipline.

F. Responsibilities of the Class Teacher

I. Academic Responsibilities

1. The Class Teacher shall also serve as one of the mentors for the class.

2. He/She shall monitor the proper engagement of all periods allotted to their respective classes.

3. He/She shall ensure the upkeep and cleanliness of the physical facilities in the classroom.

4. He/She shall arrange for the distribution of University mark statements to students as and when they are received.

5. He/She shall organize and supervise the conduct of monthly and model tests for the class.

6. He/She shall assist the Head of Department (H.O.D) in preparing the result analysis after each semester examination.

7. He/She shall plan industrial visits or study tours well in advance, obtain necessary permission from appropriate authorities, and make arrangements for transportation and accommodation.

8. He/She shall obtain written undertakings from students, accompanying staff, and parents before finalizing any tour arrangements or granting permission to leave for the tour.

9. He/She shall maintain the Master Register of the class and keep it safely in his/her custody.

10. The Class Teacher shall arrange for the distribution of student feedback forms twice per semester — once at the beginning and once at the end. The feedback shall cover the performance of faculty members teaching them and identify

Based on the feedback, the Class Teacher shall take remedial measures such as arranging extra classes, providing library support, offering individual guidance, and motivating students for better performance.

II. Powers of the Class Teacher

1. Upon receiving a complaint from any source regarding the misconduct or indiscipline of a student in his/her class, the Class Teacher shall personally investigate the matter and take necessary disciplinary action in consultation with the
2. He/She is empowered to issue warning letters or memos to students in consultation with the H.O.D, wherever applicable. A copy of such communication should be forwarded to the H.O.D for record.
3. The Class Teacher is authorized to sanction leave for students up to two days, provided the leave is not prefixed or suffixed with declared Institute holidays. For any other type of leave, he/she shall be the recommending authority to th

III. General Responsibilities

1. For every 20 students, one Class Teacher shall be nominated to guide and monitor the class for all three years of their study in the Institute.
2. The Class Teacher shall interact with the students at least once a week to understand their academic and personal concerns.
3. The Class Teacher must address and resolve student problems at his/her level wherever possible. If an issue requires higher-level attention, it shall be immediately referred to the H.O.D.
4. Students are encouraged to approach their Class Teacher at any time during working hours to discuss academic or personal issues requiring guidance.

G. Roles and Responsibilities of the Class Representative

Each class shall have a Class Representative (CR) chosen through consensus among the students, with the approval of the Class Advisor, Head of the Department (H.O.D), and the Principal.

1. The Class Representative shall act responsibly and bring due honor to the position entrusted to him/her by the fellow students, the Class Advisor, H.O.D, and the Principal
2. He/she shall represent the requirements, suggestions, and any other matters concerning the entire class related to academics, training, placement programs, and other student-related issues to the respective H.O.D.
3. The H.O.D shall review the issues presented in light of the institutional policies and previous decisions made by the Principal, and take appropriate action wherever necessary.
- a) If a matter requires a policy decision that affects the entire college, the Principal may discuss it in the Administrative Committee for further advice and then communicate the final decision to the concerned class.
4. Periodic meetings between the Class Representatives and the H.O.D shall be conducted. The agenda of these meetings shall be approved by the H.O.D, and only relevant matters and academic year plans shall be discussed.
5. The Class Representative shall guide the students of his/her class to follow the policies of the institute to ensure maximum benefit from the facilities and opportunities provided by the institution.
6. He/she shall assist in planning and organizing all institutional and departmental programs, functions, and visits of dignitaries.

H. Responsibilities of Hostel Officials and Staff Responsibilities of the Chief Warden

1. The Director/Principal shall appoint a Chief Warden to assist in the administration of the hostels.
2. The Director/Principal, as Chief Warden of Hostels, shall appoint one of the senior faculty members of the Institute or any other suitable person as Joint Chief Warden, who shall assist in the administration of both the Men's and Women's hostels.
3. The Chief Warden shall have supervisory powers over all hostel staff mentioned in the Hostel Administration Chart.
4. The Chief Warden shall coordinate the work of the Wardens by convening wardens' meetings twice a month and submitting the minutes of the meeting or any other report whenever required.
5. The Chief Warden shall recommend admission or dismissal of students in consultation with, or based on the reports submitted by, the H.O.Ds, Wardens, or the Hostel Administration Committee.

6. The Chief Warden shall recommend all hostel maintenance bills to the Chairman Warden for payment, subject to budget provisions.
7. The Chief Warden shall forward all monthly mess bills signed by the Resident Warden or Wardens in charge of the hostel messes.
8. The Chief Warden shall be responsible for preparing and submitting the monthly mess bills/statements to the Administrative Officer before the end of every month.
9. The Chief Warden shall arrange for the collection of mess fee arrears, whenever intimated by the Principal's office, with the help of the Resident Wardens or Wardens in charge of the messes.
10. The Chief Warden shall forward reports on the work of hostel staff under the control of the Resident Warden or Wardens of the hostel for necessary action.
11. The Chief Warden shall be responsible for sending reports on the work of hostel office staff whenever necessary.
12. The Chief Warden shall form Student Welfare Committees under the chairmanship of the Wardens of the hostels. He/She shall also convene sub-committees of students for various welfare activities and establish a cordial and harmoni

Chief Warden is Responsible for:

1. Hostel admissions/rejection of students, staff, etc.
2. Hostel budget operations.
3. Hostel accounts and payments (bills and certifications) in coordination with the Accounts Officer, Bursar, and other concerned authorities.
4. Room allocation through Wardens.
5. Discipline matters through Wardens/Hostel Administration Committee.
6. Services provided through officials and Wardens.

Responsibilities of the Warden

1. He/She shall frequently visit the hostel and interact with the students.
2. He/She shall ensure disciplined conduct among the inmates.
3. He/She shall promptly address any grievance or complaint from the inmates and take remedial steps in consultation with the Joint Chief Warden
4. He/She shall initiate disciplinary proceedings against misbehaving students according to the standard procedures.
5. He/She shall occasionally dine along with the students in the hostel mess and offer suggestions to the Mess Authorities/Joint Chief Warden for improving food quality.
- I. Responsibilities of the Librarian

The Librarian is responsible for the planning, organization, development, and effective utilization of library and information resources of the institution. The Librarian shall support teaching, learning, and research activities in accordance with

I. Planning and Administration

1. The Librarian shall plan, organize, and administer the Central Library and departmental libraries to support academic programs.

2. He/she shall ensure the availability of prescribed textbooks, reference books, journals, e-resources, and digital learning materials as per syllabus requirements.
3. The Librarian shall prepare and submit the annual library development plan to the Principal.
4. He/she shall maintain proper accession, classification, cataloguing, and circulation systems as per standard library practices.
5. The Librarian shall ensure library automation and effective use of library management software.
6. He/she shall ensure that the library remains open during prescribed working hours, including extended hours during examinations.
7. The Librarian shall coordinate with Heads of Departments for collection development based on faculty recommendations.
8. He/she shall ensure proper maintenance of library infrastructure, reading halls, furniture, and ICT facilities.
9. The Librarian shall maintain records of library usage statistics and submit periodic reports to the Principal.
10. He/she shall display library rules, usage guidelines, and operating hours prominently.

II. Review and Monitoring

1. The Librarian shall periodically review the adequacy and relevance of library resources.
2. He/she shall monitor issue–return records, overdue materials, and stock verification.
3. The Librarian shall conduct annual stock verification and submit reports to the Principal.
4. He/she shall ensure timely binding and preservation of books, journals, and documents.
5. The Librarian shall address user grievances related to library services.

III. Academic and Support Responsibilities

1. The Librarian shall assist faculty and students in identifying and accessing learning resources.
2. He/she shall organize library orientation programs for newly admitted students and faculty.
3. The Librarian shall promote reading habits, information literacy, and digital resource usage.
4. He/she shall support NBA / AICTE / accreditation documentation related to library facilities and usage.
5. The Librarian shall maintain records of question papers, project reports, and institutional publications.

IV. Financial Responsibilities

1. The Librarian shall prepare and submit the library budget annually to the Principal.
2. He/she shall ensure effective utilization of allocated funds for procurement of books, journals, and e-resources.
3. The Librarian shall maintain purchase records, invoices, and audit-ready documentation.

V. General Responsibilities

1. The Librarian shall be responsible for discipline and decorum within the library.
2. He/she shall supervise library support staff and ensure efficient service delivery.
3. The Librarian shall attend institutional meetings, inspections, and accreditation visits when required.
4. He/she shall continuously update knowledge through professional development programs.

VI. Preparation before the Commencement of the Academic Year / Semester

Before the commencement of every academic year or semester, the Librarian shall ensure that:

- a) Required textbooks and reference books as per the syllabus are available in adequate numbers.
- b) Faculty recommendations for books and journals are collected and processed.
- c) Library records, automation systems, and databases are updated.
- d) Library orientation schedules are prepared and communicated.
- e) Usage statistics and previous year reports are compiled and submitted.
- f) Library infrastructure and reading spaces are inspected and certified ready.

J. Responsibilities of the Physical Director

The Physical Director is responsible for the planning, organization, and promotion of physical education, sports, and fitness activities of the institution. The Physical Director shall ensure holistic student development in accordance with AICTE

I. Planning and Administration

1. The Physical Director shall plan and organize sports, games, physical training, and fitness programs for students.
2. He/she shall ensure the proper utilization and maintenance of playgrounds, gymnasiums, courts, and sports equipment.
3. The Physical Director shall prepare an annual sports activity calendar and submit it to the Principal for approval.
4. He/she shall coordinate inter-collegiate, zonal, district, state, and university-level sports events.
5. The Physical Director shall encourage maximum student participation in sports and physical activities.
6. He/she shall maintain records of sports achievements, participation, and awards.
7. The Physical Director shall ensure safety measures and discipline during sports activities.

II. Review and Monitoring

1. The Physical Director shall periodically review the performance and fitness levels of students.
2. He/she shall identify talented sportspersons and provide specialized coaching.
3. The Physical Director shall monitor the condition of sports facilities and equipment and recommend repairs or replacements.
4. He/she shall submit periodical activity and achievement reports to the Principal.

III. Academic and Co-Curricular Responsibilities

1. The Physical Director shall integrate physical education activities into the institutional co-curricular framework.
2. He/she shall organize intramural and extramural sports competitions.
3. The Physical Director shall promote health, wellness, yoga, and fitness awareness programs.
4. He/she shall support NBA / AICTE documentation related to sports and physical education activities.

IV. Financial Responsibilities

1. The Physical Director shall prepare and submit the sports budget annually to the Principal.
2. He/she shall ensure judicious utilization of sports funds.
3. The Physical Director shall maintain purchase, stock, and audit records for sports equipment.

V. General Responsibilities

1. The Physical Director shall ensure discipline, sportsmanship, and ethical conduct among students.
2. He/she shall supervise sports assistants and support staff.
3. The Physical Director shall accompany student teams for official sports events when required.
4. He/she shall attend institutional functions, inspections, and accreditation visits.

VI. Preparation before the Commencement of the Academic Year / Semester

Before the commencement of every academic year or semester, the Physical Director shall ensure that:

- a) Sports facilities and equipment are inspected, repaired, and certified fit for use.
- b) The sports calendar is finalized and communicated.
- c) Student teams and training schedules are planned.

- d) Records of previous achievements and participation are updated.
- e) Safety and first-aid arrangements are in place.

K. Responsibilities of the Laboratory Instructor

The Laboratory Instructor is responsible for the effective conduct, maintenance, safety, and support of laboratory classes in the department. The Laboratory Instructor shall assist faculty members in delivering practical instruction and shall en affiliating Board/University, and institutional norms. The Laboratory Instructor shall report to the Head of the Department.

I. Planning and Administration

1. The Laboratory Instructor shall assist the Head of the Department and concerned faculty members in the planning and execution of laboratory courses.
2. He/she shall ensure that laboratory classes are conducted as per the approved timetable and syllabus.
3. The Laboratory Instructor shall prepare the laboratory for each session by ensuring the availability of equipment, components, tools, consumables, and software.
4. He/she shall maintain laboratory manuals, experiment instructions, and demonstration materials.
5. The Laboratory Instructor shall ensure proper issue and return of tools, instruments, and components to students.
6. He/she shall maintain laboratory stock registers, equipment registers, and consumable records.
7. The Laboratory Instructor shall assist in the installation, calibration, and commissioning of laboratory equipment.
8. He/she shall ensure that the laboratory is kept clean, organized, and operational at all times.
9. The Laboratory Instructor shall support the faculty in conducting internal practical assessments and examinations.

II. Review and Monitoring

1. The Laboratory Instructor shall monitor the proper functioning of laboratory equipment and report faults or breakdowns immediately to the H.O.D.
2. He/she shall periodically verify the condition of tools, instruments, and safety equipment.
3. The Laboratory Instructor shall assist in periodical stock verification and submit reports to the H.O.D.
4. He/she shall ensure that damaged or obsolete equipment is reported for repair, replacement, or condemnation.
5. The Laboratory Instructor shall maintain records of laboratory usage and maintenance activities.

III. Academic and Technical Responsibilities

1. The Laboratory Instructor shall assist faculty members in demonstrating experiments and practical procedures.

2. He/she shall guide students in the proper handling of equipment and execution of experiments.
3. The Laboratory Instructor shall ensure that students follow laboratory discipline, safety rules, and standard operating procedures.
4. He/she shall verify that laboratory records, observation notes, and manuals are properly maintained by students.
5. The Laboratory Instructor shall assist in the evaluation of laboratory performance as directed by the faculty.
6. He/she shall support Outcome-Based Education (OBE) by maintaining relevant laboratory records and evidence.

IV. Safety and Maintenance Responsibilities

1. The Laboratory Instructor shall ensure strict adherence to laboratory safety norms, including the use of personal protective equipment (PPE).
2. He/she shall maintain first-aid kits, fire extinguishers, and emergency safety equipment in working condition.
3. The Laboratory Instructor shall report accidents or safety incidents immediately to the H.O.D and Principal.
4. He/she shall ensure proper shutdown procedures for electrical, mechanical, and electronic equipment after laboratory sessions.
5. The Laboratory Instructor shall assist in preventive maintenance schedules for laboratory equipment.

V. Financial and Record Responsibilities

1. The Laboratory Instructor shall assist the H.O.D in preparing requirements for laboratory equipment, consumables, and maintenance.
2. He/she shall ensure economical and judicious use of consumables.
3. The Laboratory Instructor shall maintain purchase records, stock issue registers, and audit-related documents.

VI. General Responsibilities

1. The Laboratory Instructor shall maintain discipline and decorum in the laboratory.
2. He/she shall assist during inspection visits, NBA / AICTE accreditation processes, and audits by providing required records and demonstrations.

L. Responsibilities of the Office Superintendent / Office Administration

The Office Superintendent is responsible for the efficient functioning of the administrative office, maintenance of records, correspondence, and statutory compliance of the institution. He/she shall work under the guidance of the Principal / C

I. Planning and Administration

1. The Office Superintendent shall supervise the day-to-day functioning of the administrative office.
2. He/she shall ensure proper maintenance of academic, administrative, and statutory records of the institution.
3. The Office Superintendent shall coordinate with departments for collection, verification, and submission of reports and data.
4. He/she shall ensure timely dispatch and receipt of official correspondence.
5. The Office Superintendent shall maintain service registers, attendance registers, leave records, and personal files of staff.
6. He/she shall assist the Principal in AICTE, NBA, DOTE, Board/University correspondence and submissions.
7. The Office Superintendent shall supervise office staff and attend to work allocation and discipline.

II. Review and Monitoring

1. He/she shall periodically review record maintenance and filing systems.
2. The Office Superintendent shall monitor timely completion of office work, including certificates, reports, and statements.
3. He/she shall ensure confidentiality and accuracy of official documents.

III. Academic and Examination Support

1. The Office Superintendent shall assist in admission procedures, examination registrations, and results processing.
2. He/she shall coordinate with the Examination Cell for Board / University examination-related activities.
3. The Office Superintendent shall ensure safe custody of question papers, answer scripts, and certificates.

IV. Financial and Record Responsibilities

1. He/she shall assist in salary preparation, bill processing, and financial documentation.
2. The Office Superintendent shall maintain audit-ready records and assist during inspections and audits.

V. General Responsibilities

1. He/she shall attend institutional inspections, accreditation visits, and audits.
2. The Office Superintendent shall ensure discipline, punctuality, and professionalism among office staff.

VI. Preparation before the Commencement of the Academic Year / Semester

- a) Update student and staff records

- b) Prepare admission and examination documentation
- c) Verify statutory compliance documents
- d) Ensure readiness of office systems and registers

M. Responsibilities of the Maintenance Supervisor

The Maintenance Supervisor is responsible for the upkeep, safety, and functionality of institutional infrastructure and utilities. He/she shall report to the Principal / Correspondent.

I. Planning and Administration

- 1. The Maintenance Supervisor shall ensure regular maintenance of buildings, classrooms, laboratories, hostels, and common facilities.
- 2. He/she shall oversee electrical, plumbing, water supply, sanitation, and civil maintenance works.
- 3. The Maintenance Supervisor shall maintain maintenance schedules and logs.
- 4. He/she shall coordinate with external agencies for repairs and servicing.
- 5. He/she shall ensure cleanliness and hygiene across the campus.

II. Review and Monitoring

- 1. The Maintenance Supervisor shall inspect facilities periodically
- 2. He/she shall report damages, safety hazards, or infrastructure issues to the Principal.
- 3. The Maintenance Supervisor shall ensure timely rectification of faults.

III. Safety and Compliance Responsibilities

- 1. He/she shall ensure fire safety, electrical safety, and structural safety measures.
- 2. The Maintenance Supervisor shall maintain first-aid kits, fire extinguishers, and emergency systems.
- 3. He/she shall support NBA / AICTE inspections related to infrastructure.

IV. Financial and Record Responsibilities

1. He/she shall assist in preparing maintenance-related budget estimates.
2. The Maintenance Supervisor shall maintain records of repairs, purchases, and service contracts.

V. General Responsibilities

1. He/she shall supervise maintenance staff and housekeeping personnel.
2. The Maintenance Supervisor shall ensure campus readiness during inspections and events.

VI. Preparation before the Commencement of the Academic Year / Semester

- a) Inspect buildings and utilities
- b) Complete repairs and painting
- c) Verify safety equipment
- d) Ensure cleanliness and sanitation

N. Responsibilities of the Transport In-charge

The Transport In-charge is responsible for the safe, efficient, and disciplined operation of institutional transport services. He/she shall report to the Principal / Correspondent.

I. Planning and Administration

1. The Transport In-charge shall plan and manage daily operation of college buses and vehicles.
2. He/she shall prepare transport routes, schedules, and student allocation lists.
3. The Transport In-charge shall ensure timely arrival and departure of vehicles.
4. He/she shall supervise drivers, conductors, and transport staff.
5. He/she shall ensure discipline and safety of students during travel.

II. Review and Monitoring

1. The Transport In-charge shall monitor vehicle condition and performance.
2. He/she shall maintain vehicle logbooks, fuel records, and attendance of transport staff.
3. The Transport In-charge shall report accidents, breakdowns, or violations immediately.

III. Safety and Compliance Responsibilities

1. He/she shall ensure that all vehicles have valid registration, insurance, fitness certificates, and permits.
2. The Transport In-charge shall ensure adherence to traffic rules and safety norms.
3. He/she shall conduct periodic safety awareness programs for drivers.

IV. Financial and Record Responsibilities

1. He/she shall assist in preparing transport budget estimates.
2. The Transport In-charge shall maintain repair, fuel, and service expense records.

V. General Responsibilities

1. He/she shall coordinate transport arrangements for industrial visits, tours, and sports events.
2. The Transport In-charge shall support inspection and accreditation documentation related to transport facilities.

VI. Preparation before the Commencement of the Academic Year / Semester

- a) Verify vehicle fitness and documents
- b) Finalize routes and schedules
- c) Assign drivers and staff
- d) Ensure safety and emergency readiness

College Committees:

For the effective administration of the Institute and hostel affairs, the following committees have been instituted in Nirmala Institute of Technology Polytechnic College:

1. Counseling and Career Guidance Committee
2. SC/ST Committee

3. Training and Placement Committee
4. Entrepreneurship Development Committee
5. Grievance Redressal Committee
6. Anti-Ragging Committee
7. Internal Compliance Committee (ICC)
8. Examination Committee
9. Library Advisory Committee
10. Alumni Association Committee
11. Hostel Committee
12. Sports Committee
13. Cultural Committee
14. NSS Activities Committee
15. IQAC (Internal Quality Assurance Cell) Committee

A) Committees' Objectives and Structure

1) Counselling and Career Guidance Committee

Objectives:

1. Provide Academic and Personal Counseling
Guide students in academic planning, study habits, and course selection.
Offer support for personal issues affecting learning.

2. Career Development Support
 - Conduct career awareness programs, seminars, and workshops.
 - Help students understand emerging career opportunities in various fields.
3. Higher Education Guidance
 - Provide information and support for admission into higher studies.
 - Organize sessions on entrance exams, scholarships, and application procedures.
4. Placement Orientation
 - Prepare students with resume writing, interview skills, and communication training.
 - Coordinate with the Training & Placement Cell.
5. Industry Interaction
 - Arrange guest lectures, industrial visits, and internships through industry experts.
 - Build strong industry–institution linkages.
6. Student Monitoring and Mentoring
 - Implement mentor–mentee system.
 - Track academic progress and counsel slow/fast learners.
7. Skill Development
 - Organize soft skills, leadership, teamwork, and personality development sessions.
 - Encourage students to take value-added courses.
8. Maintain Confidential Records
 - Keep records of counseling sessions, student issues, follow-ups, and action taken.
9. Promote Student Well-being
 - Create an emotionally supportive environment.
 - Identify students under stress and refer them to professional counseling when required.
10. Plan and Review Activities
 - Prepare annual action plan for counseling and career guidance activities.
 - Review activities periodically and improve the support system.
- 2) SC/ST Committee

Objectives:

The SC/ST Committee shall function to ensure the welfare of SC/ST students and staff and to maintain an inclusive, discrimination-free environment. The committee shall focus on the following areas:

1. Preventing any form of discrimination against SC/ST students and staff on campus.

2. Creating awareness about the rights and welfare schemes available for SC/ST communities.
3. Providing support, guidance, and grievance redressal for SC/ST students.
4. Monitoring and ensuring implementation of reservation policies as per government norms.
5. Organizing workshops, seminars, and orientation programs related to SC/ST welfare and empowerment.

Structure of the Committee:

The SC/ST Committee shall consist of the following members:

1. Convenor – A senior faculty member
2. Principal – Ex-officio Chairman
3. One Senior Faculty Member
4. One Female Faculty Member
5. One Non-teaching Staff Member
6. One Representative from Each Department (optional, based on institution policy)

The Principal shall nominate the Convenor of the SC/ST Committee. The Principal shall also nominate the remaining committee members for a period of three years.

Frequency of Meetings: Twice a year

- 3) Training and Placement Committee

Objectives:

1. To prepare final-year diploma students for interviews, group discussions, and job placements.
2. To arrange opportunities for students to face competitive examinations.
3. To organize special lectures on personality development and leadership skills.
4. To arrange the printing and distribution of placement brochures.

Structure:

1. Convenor – Training & Placement Officer
2. Members – One nominee from each department
3. Student Members – One nominee from each department

The Convenor will be nominated by the Principal for a period of six semesters.

The H.O.Ds will nominate faculty and student members (students for one year).

Frequency of Meetings: Twice a year

4) The Entrepreneurship Development Committee

Objectives:

The Entrepreneurship Development Committee shall periodically organize programs and activities to promote entrepreneurial skills among students in the following areas:

1. Creating awareness on entrepreneurship, startup culture, and innovation.
2. Conducting training programs on business planning, financial literacy, and marketing strategies.
3. Organizing workshops, seminars, and guest lectures by successful entrepreneurs and industry experts.
4. Providing guidance for idea development, incubation support, and startup registration.
5. Encouraging students to participate in state-level and national-level entrepreneurship competitions.
6. Coordinating with external agencies such as MSME, DIC, EDII, and incubation centers for student benefit.

Structure of the Committee:

The Entrepreneurship Development Committee shall consist of the following members:

1. IEDC Coordinator – A faculty member at Lecturer/Senior Lecturer level
2. Chairman (Entrepreneurship & Skill Development) – Ex-officio member
3. Placement Officer / Training Officer – Ex-officio member
4. One Male Faculty Member
5. One Female Faculty Member
6. One Non-teaching Staff Member
7. One Industry Expert (optional, based on availability)

The Principal shall nominate the EDC Coordinator. The nominated faculty member may attend entrepreneurship orientation or training programs conducted by agencies. The Principal shall also nominate the remaining committee members for

Frequency of Meetings: Twice a year

5) Grievance Redressal Committee

Objectives:

The Grievance Redressal Committee shall function to maintain a healthy, harmonious, and supportive environment in the college. Its objectives are:

1. To receive, address, and resolve grievances submitted by students, faculty, and staff.
2. To ensure transparency and fairness in handling complaints.
3. To prevent harassment, discrimination, and injustice within the campus.
4. To provide guidance and counseling for individuals seeking redressal.
5. To create awareness about the grievance redressal mechanism and encourage students to report issues without fear.
6. To recommend corrective actions to the Principal in cases requiring administrative intervention.

Structure of the Committee:

The Grievance Redressal Committee shall consist of the following members:

1. Convenor – A senior faculty member
2. Principal – Ex-officio Chairman
3. One Senior Faculty Member
4. One Female Faculty Member
5. One Non-teaching Staff Member
6. One Student Representative (if required and approved by Principal)

The Principal shall nominate the Convenor and other committee members. All members shall serve for a period of three years as per institutional norms.

Frequency of Meetings: Twice a year

6) Anti-Ragging Committee Objectives:

The Anti-Ragging Committee shall work to ensure a safe and ragging-free campus environment. Its objectives are:

1. To prevent, prohibit, and eliminate any form of ragging on campus.
2. To create awareness among students about the ill effects and legal consequences of ragging.
3. To monitor, supervise, and ensure strict compliance with anti-ragging regulations issued by AICTE/DoTE.
4. To take prompt action on any ragging complaint received from students, parents, or staff.
5. To maintain discipline and ensure a friendly academic atmosphere.
6. To coordinate with local authorities such as police and district administration when required.

Structure of the Committee:

The Anti-Ragging Committee shall consist of the following members:

1. Chairman – Principal
2. Convenor – Senior Faculty Member
3. One Senior Faculty Member
4. One Female Faculty Member
5. One Non-teaching Staff Member
6. One Parent Representative
7. One Student Representative (Final Year)
8. One Local Community Representative (optional)

The Principal shall nominate all members for a period of three years and shall ensure compliance with anti-ragging guidelines.

Frequency of Meetings: Twice a year

7. Internal Complaints Committee (ICC)

(As per POSH Act – Prevention of Sexual Harassment Act, 2013)

Objectives:

The Internal Complaints Committee shall function to ensure the safety and dignity of women on campus. Its objectives are:

1. To prevent and address sexual harassment in the workplace and campus environment.
2. To provide a confidential, accessible, and fair grievance mechanism for complainants.
3. To conduct inquiries and recommend appropriate actions on complaints received
4. To organize awareness programs for students and staff on gender sensitization and women's safety.
5. To ensure compliance with the POSH Act, 2013, and institutional policies.
6. To promote a secure, respectful, and inclusive environment for women.

Structure of the Committee:

The Internal Complaints Committee shall consist of the following members:

1. Presiding Officer – A senior woman faculty member
2. One Woman Faculty Member
3. One Male Faculty Member
4. One Non-teaching Staff Member
5. One External Member from NGO or legal field (as per POSH Act)

The Principal shall constitute the ICC for a period of three years. The Presiding Officer shall undergo training programs conducted by recognized agencies on women safety and the POSH Act.

Frequency of Meetings: Twice a year

8. Examination Committee Objectives:

The Examination Committee ensures the smooth and fair conduct of all internal and external examinations. Its objectives are:

1. To plan, schedule, and organize all examinations as per DoTE/Institution norms.
2. To ensure confidentiality and security of question papers and examination materials.
3. To prepare seating arrangements, invigilation charts, and hall supervision plans.
4. To monitor the examination process and prevent malpractice.
5. To coordinate with departments for proper conduct of practical and theory exams.
6. To maintain examination records, mark statements, and submit reports to the Principal.

Structure of the Committee:

1. Chief Superintendent – Principal
2. Examination Convenor – Senior Faculty Member
3. Hall Superintendent – One Senior Lecturer
4. Two Faculty Members (Male & Female)
5. One Non-teaching Staff Member

Frequency of Meetings: Twice a year

9. Library Advisory Committee Objectives:

1. To recommend books, journals, e-resources, and digital learning tools.

2. To ensure efficient library operations and student access.
3. To plan library development, modernization, and resource upgradation.
4. To frame rules for library usage and maintain discipline.
5. To support academic excellence through improved library services.

Structure of the Committee:

1. Chairman – Principal
2. Convenor – Librarian
3. One Senior Faculty Member
4. One Faculty Member from Each Department (optional)
5. One Student Representative
6. One Non-teaching Staff Member

Frequency of Meetings: Twice a year

10. Alumni Association Committee Objectives:

1. To strengthen the relationship between the institution and its alumni.
2. To collect alumni feedback for institutional development.
3. To organize alumni meets and networking events.
4. To encourage alumni contribution in training, placement, and guest lectures.
5. To maintain an updated alumni database.

Structure of the Committee:

1. Chairman – Principal
2. Convenor – Senior Faculty Member
3. One Faculty Member from Each Department
4. One Non-teaching Staff Member
5. Two Alumni Representatives

Frequency of Meetings: Twice a year

11. Hostel Committee Objectives:

1. To ensure safe, hygienic, and disciplined hostel functioning.
2. To monitor accommodation, food quality, and daily activities.
3. To resolve grievances of hostel students.
4. To maintain discipline and prevent misconduct.
5. To supervise wardens, mess staff, and hostel maintenance.

Structure of the Committee:

1. Chairman – Principal
2. Hostel Warden – Convenor
3. Deputy Warden – One Faculty Member
4. One Female Faculty Member
5. One Non-teaching Staff Member
6. Two Student Representatives

Frequency of Meetings: Twice a year

12. Sports Committee Objectives:

1. To promote sports and physical fitness among students.
2. To plan, organize, and supervise sports events and tournaments.
3. To maintain sports equipment and playground facilities.
4. To encourage student participation in inter-collegiate and district-level events.
5. To identify and train talented sports students.

Structure of the Committee:

1. Chairman – Principal
2. Convenor – Physical Director
3. One Senior Faculty Member
4. One Female Faculty Member
5. One Non-teaching Staff Member
6. Student Sports Representatives

Frequency of Meetings: Twice a year

13. Cultural Committee Objectives:

1. To plan and organize cultural programs, festivals, and college day events.
2. To identify and encourage student talents in music, dance, drama, and fine arts.
3. To promote cultural harmony and student engagement.
4. To coordinate with external cultural organizations for participation.
5. To maintain discipline and proper conduct during cultural activities.

Structure of the Committee:

1. Chairman – Principal
2. Convenor – Senior Faculty Member
3. One Male Faculty Member
4. One Female Faculty Member
5. One Non-teaching Staff Member
6. Student Cultural Representatives

Frequency of Meetings: Twice a year

14. NSS Activities Committee Objectives:

The NSS Officer shall periodically organize NSS programs to train students in the following areas:

1. Adult education
2. Creating public awareness on issues such as AIDS, health problems, family planning, etc.
3. Conducting ten-day camp programs to improve the living conditions of underprivileged people.

Structure of the Committee:

The NSS Committee shall consist of the following members:

1. NSS Officer – A faculty member at Lecturer level
2. Chairman (Extra-Curricular Activities) – Ex-officio member

3. Physical Director – Ex-officio member
4. One Male Faculty Member
5. One Female Faculty Member
6. One Non-teaching Staff Member

The Principal shall nominate the NSS Officer. The nominated faculty member shall apply to the NSS Coordinator, DTE, for an orientation program. The Principal shall also nominate other committee members for a period

Frequency of Meetings: Twice a year

15. IQAC (Internal Quality Assurance Cell) Committee Objectives:

1. To develop a system for consistent, conscious, and catalytic improvement in academic and administrative performance.
2. To ensure continuous internal quality monitoring in all departments.
3. To coordinate and document quality assurance initiatives across the institution.
4. To prepare and submit AQAR reports to statutory bodies.
5. To promote best practices for enhancing teaching–learning processes.
6. To organize seminars, workshops, and training programs related to quality improvement.

Structure of the Committee:

1. Chairman – Principal
 2. Coordinator – Senior Faculty Member
 3. Faculty Members from All Departments
 4. Administrative Representative
 5. Industry/Academia Expert (External Member)
 6. One Student Representative
- Frequency of Meetings: Twice a year

9.1.3 Decentralization in working and grievance redressal mechanism (5)

Clubs / Committees and Members – Academic Year 2025–2026

Sl. No.	Name of the Club/Committee	Name of Member	Designation
1	Academic/Advisory Committee	Julien Joseph E	Principal
2		Shajil K Vijayan	HOD, EEE
3		Lalitha P K	HOD, Civil
4		Harikrishnan T K	HOD, Mechanical
5		Santhi S Nath	HOD, Applied Science
6		Athira Mohan	Lecturer, EEE
7		Rahul R	Lecturer, Automobile
8	Internal Quality Assurance Cell (IQAC)	Julien Joseph E	Principal

Sl. No.	Name of the Club/Committee	Name of Member	Designation
9		Hrikrishnan T K	HOD, ME / IQAC Co-Ordinator
10		Silpa Mohan K	IQAC Advisor
11		Shaijil K Vijayan	HOD, EEE
12		Savin CP	HOD, CHE
13		Seethal C R	HOD, CT
14	Examination Monitoring Committee	Julien Joseph E	Principal / Chief Superintendent
15		Lalitha P K	HOD, Civil Engineering / Convenor
16		Hrikrishnan T K	HOD, Mechanical Engineering
17		Seethal C R	HOD, Computer Science
18		Savin C P	HOD, Chemical Engineering
19	Library Committee	Julien Joseph E	Principal / Chairman
20		Antoo K D	Librarian / Convenor
21		Shajil K Vijayan	HOD, Electrical & Electronics Engineering
22		Harikrishnan T K	HOD, Mechanical Engineering
23		Arya S	Lecturer, Chemical Engineering
24		Naveen Pradeep	Lecturer, Civil Engineering
25	PTA Executive Committee	Julien Joseph E	Principal
26		Riju P D	PTA President (Parent)
27		Annie Shaju	PTA Vice President (Parent)

Sl. No.	Name of the Club/Committee	Name of Member	Designation
28		Harikrishnan	Treasurer / HOD, ME
29		Jini	Parent
30		Suma K	Parent
31		Shajil K Vijayan	HOD, Electrical Engineering
32		Simi Varghese	Parent
33		Denny C D	Parent
34	Innovation and Entrepreneurship Development Cell (IEDC)	Harikrishnan T K	HOD, Mechanical Engineering / Nodal Officer
35		Athira Mohan	Lecturer, Electrical Engineering
36		Sini Mary Lona	Lecturer, Mechanical Engineering
37		Aiswarya P S	Lecturer, Chemical Engineering
38	Women Cell/SHE	Julien Joseph E	Principal / Chairperson
39		Lalitha	HOD, Civil / Co-ordinator
40		Asha Thankappan	Lecturer, Civil Engineering
41		Siny Mary Lona	Lecturer, Mechanical Engineering
42		Devika	Student Representative, Chemical Engineering
43		Saniya	Student Representative, Chemical
44		Lincy	Student Representative, Civil
45		Aishani	Student Representative, Civil
46	Anti-Ragging Committee	Julien Joseph E	Principal / Chairman

Sl. No.	Name of the Club/Committee	Name of Member	Designation
47		Harikrishnan T K	HOD, ME / Convenor
48		Gimshy Jojo	Lecturer, General Department
49		Naveen Pradeep	Lecturer, Civil Engineering
50		C A Kiran	Lecturer, Mechanical Engineering
51	SC/ST Committee	Seethal C R	HOD, CT / Convenor
52		Arya S	Lecturer, Chemical Engineering
53		Asha Thankappan	Lecturer, Civil Engineering
54		Sreeja Sreeram	Lecturer, Electronics Engineering
55		C A Kiran	Lecturer, Mechanical Engineering
56	Sexual Harassment / Internal Complaints Committee	Asha Thankappan	Lecturer, Chemical Engineering / Presiding Officer
57		Seethal C R	HOD, CT
58		Ancy	Lecturer, Applied Science
59		Siny Mary Lona	Lecturer, Mechanical Engineering
60		Gimshy Jojo	Lecturer, Applied Science
61	Grievance Redressal Cell	Shajil K Vijayan	HOD, Electronics / Co-ordinator
62		Santhi S Nath	HOD, Applied Science
63		Arya S	Lecturer, Chemical Engineering
64		Jeethu Jose	Lecturer, Electrical Engineering
65		E J Soorya	Student Representative, S3 Chemical

Sl. No.	Name of the Club/Committee	Name of Member	Designation
66		Kailas P M	Student Representative, S3 Mechanical
67		Prithwik P S	Student Representative, S3 Automobile
68	Alumni Association	Julien Joseph E	Principal
69		Lalitha P K	HOD, Civil
70		Gimshy Jojo	Lecturer, Applied Science
71		Sumi Sunil	Accountant
72		Harikrishnan T K	HOD, ME
73		Thomson	Student Representative, Mechanical
74		Don Joseph	Student Representative, Automobile
75		Akshay K S	Student Representative, Automobile
76		Omar	Student Representative, Civil
77		Alfred Joy	Student Representative, Mechanical
78	Governing Council	Sajeev Vattoly	Chairman
79		Daly Sajeev	Secretary
80		Julien Joseph E	Nominee – Principal, NIT
81		Prof. Dr. Shaju Nalkara Ouseph	Nominee – Principal, NCAS
82		Prof. Dr. Biju C V	Nominee – Principal, Engineering
83		SJD	Department of DTE, Polytechnic Stream

Sl. No.	Name of the Club/Committee	Name of Member	Designation
84		JD SITTR	Nominee
85		—	Industrial Expert

1. Introduction

The institution is committed to providing a safe, fair, and harassment-free environment for all students and employees. Towards this, it has constituted dedicated statutory and institutional bodies — the Grievance Redressal Cell, the Anti-Rag address specific categories of concerns through defined, transparent, and time-bound mechanisms. These committees function in accordance with the guidelines issued by AICTE, the University Grants Commission (UGC), the affiliating univ Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and the UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009.

2. Grievance Redressal Cell (GRC)

2.1 Objective

The Grievance Redressal Cell is constituted to provide students, faculty, and staff with an accessible and impartial platform to raise academic, administrative, and personal grievances, and to ensure their fair and timely resolution, thereby fost

2.2 Composition

Sl. No.	Designation on Committee	Representing
1	Chairperson	Principal / Senior faculty nominated by Principal
2	Convenor / Coordinator	Senior faculty member responsible for coordination and record-keeping
3	Faculty Members (2–3)	Representing different departments, ensuring broad representation
4	Student Representatives (2)	One from each stream/senior batch, nominated or elected
5	Administrative Staff Representative	Represents grievances related to administrative/non-teaching matters
6	External Member (optional)	Person of standing from outside the institution, for impartiality

2.3 Mechanism of Redressal

- Grievances may be submitted in writing (through a prescribed form/register) or through a dedicated grievance box/online portal maintained at accessible locations within the campus.
- Every grievance received is logged with a unique reference number and date of receipt for tracking purposes.

- The Convenor places the grievance before the Committee within a stipulated period (typically 3–7 working days) for preliminary review.
- The Committee examines the grievance, calls for clarifications or evidence if required, and may hear the concerned parties before arriving at a decision.
- Minor/routine grievances are resolved at the departmental level in the first instance; unresolved or serious grievances are escalated to the institutional-level Committee.
- A written resolution/response is communicated to the complainant within a defined timeframe (typically within 15 days of receipt).
- Strict confidentiality is maintained throughout the process, and no complainant is subjected to victimisation for raising a grievance in good faith.
- Records of all grievances, proceedings, and resolutions are maintained by the Convenor for institutional audit and accreditation purposes.
- An appeal mechanism is available to the Principal/Chairperson of the Board in cases where the complainant is not satisfied with the Committees resolution.

3. Anti-Ragging Committee and Anti-Ragging Squad

3.1 Objective

In compliance with UGC/AICTE Anti-Ragging Regulations, the institution has constituted an Anti-Ragging Committee and an Anti-Ragging Squad to prevent, monitor, and take strict action against any form of ragging within the campus, ho particularly freshers.

3.2 Composition

Sl. No.	Designation on Committee	Representing
1	Chairperson	Principal / Head of Institution
2	Anti-Ragging Squad Coordinator	Senior faculty member responsible for surprise checks and vigilance
3	Faculty Members	Representatives from each department/branch
4	Hostel Warden(s)	Representing hostel/residential student welfare
5	Representative of Local Police / Civil Administration	As mandated under UGC/AICTE Anti-Ragging Regulations
6	Parent Representatives (2)	Representing parents of students, as per regulatory norms
7	Student Representatives (Senior & Fresher)	One senior and one fresher student representative
8	Representative of Non-Teaching Staff	Representing support staff perspective
9	Representative of Media / NGO (optional)	For transparency, as recommended under regulatory guidelines

3.3 Mechanism of Redressal

- An anti-ragging affidavit is obtained from every student and parent/guardian at the time of admission, as mandated by regulatory authorities.
- The Anti-Ragging Squad conducts regular and surprise inspections of classrooms, hostels, canteens, and other common areas, particularly during the initial months of the academic year.
- Anti-ragging helpline numbers, complaint boxes, and notices displaying the provisions of law and disciplinary consequences are prominently displayed across the campus.

- Complaints of ragging may be reported directly to the Squad, Committee, or through the national anti-ragging helpline, and are treated as time-critical.
- On receipt of a complaint, the Squad conducts an immediate preliminary inquiry and reports findings to the Committee without delay.
- The Committee, upon verification, initiates disciplinary action as per institutional rules and applicable regulatory provisions, which may include suspension, expulsion, or reporting to law enforcement authorities in serious cases.
- Sensitisation and orientation programmes on anti-ragging policies are conducted for all new entrants at the commencement of every academic year.
- Compliance reports are periodically submitted to the affiliating university/DTE/AICTE as per regulatory reporting requirements.

4. Sexual Harassment (Internal) Committee

4.1 Objective

In accordance with the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, the institution has constituted an Internal Committee (IC) to prevent and address complaints of sexual harassment involving women on campus.

4.2 Composition

Sl. No.	Designation on Committee	Representing
1	Presiding Officer (Chairperson)	Senior woman faculty member, as mandated under the POSH Act, 2013
2	Faculty Members (2–3, majority women)	Representing different departments
3	Non-Teaching Staff Representative	Representing administrative/support staff
4	Student Representatives (Women)	Nominated/elected representatives from the student body
5	External Member	From an NGO or association committed to the cause of women, or a person familiar with issues of sexual harassment, as mandated under the POSH Act

4.3 Mechanism of Redressal

- Complaints may be submitted in writing to the Presiding Officer or any member of the Committee, within the statutory period prescribed under the Act (ordinarily within 3 months of the incident, extendable at the Committee's discretion).
- On receipt of a complaint, the Committee may attempt conciliation at the request of the complainant before proceeding to a formal inquiry, provided no monetary settlement is made the basis of such conciliation.
- Where a formal inquiry is warranted, the Committee conducts proceedings in a time-bound manner (inquiry to be completed within 90 days), ensuring principles of natural justice, confidentiality, and protection of the complainant from retaliation.
- Both parties are given a fair opportunity to be heard, and evidence/witnesses may be examined as necessary.
- On conclusion of the inquiry, the Committee submits its findings and recommendations to the management/Principal, who is required to act on the recommendations within the prescribed period.
- An annual report on the number and nature of complaints received and their disposal is compiled and submitted as per statutory requirements.
- Awareness programmes, workshops, and display of the institution's policy against sexual harassment are conducted periodically to promote a safe and informed campus environment.

1. Decentralization of Financial and Administrative Powers

To ensure timely execution of academic and infrastructural requirements, financial powers stand delegated to two levels of authority within the institution, each with a defined monthly sanctioning ceiling:

Authority	Monthly Ceiling	Annual Ceiling	Scope of Sanction
Principal	Rs. 1,00,000/-	Rs. 12,00,000/-	Day-to-day departmental needs: laboratory consumables, minor repairs, stationery, student activity support, contingencies
Finance Manager	Rs. 5,00,000/-	Rs. 60,00,000/-	Larger institutional/departmental needs: major equipment procurement, infrastructure works, AMCs, faculty development, library resources

Proposals within the Principals ceiling are approved directly at the Principals level on recommendation of the HOD; proposals exceeding this limit, or falling under capital/infrastructure heads, are routed to the Finance Manager for sanction v

2. Year-wise Utilization of Delegated Financial Powers

2.1 Assessment Year 2022-23

(a) Principals Fund (Ceiling: Rs. 12,00,000/- per annum)

Head of Expenditure	Amount Utilized	% of Ceiling
Laboratory consumables & minor equipment repair	Rs. 3,20,000/-	26.67%
Stationery & office supplies	Rs. 1,10,000/-	9.17%
Minor civil/electrical maintenance	Rs. 2,40,000/-	20.00%
Student activities & co-curricular support	Rs. 1,70,000/-	14.17%
Contingency / emergency purchases	Rs. 1,00,000/-	8.33%

Head of Expenditure	Amount Utilized	% of Ceiling
Total Utilized	Rs. 9,40,000/-	78.33%

(b) Finance Managers Fund (Ceiling: Rs. 60,00,000/- per annum)

Head of Expenditure	Amount Utilized	% of Ceiling
Major equipment procurement	Rs. 18,00,000/-	30.00%
Infrastructure development / renovation	Rs. 10,50,000/-	17.50%
Annual Maintenance Contracts (AMC)	Rs. 6,00,000/-	10.00%
Faculty development & training programmes	Rs. 4,50,000/-	7.50%
Library & digital resources	Rs. 5,00,000/-	8.33%
Contingency / miscellaneous	Rs. 2,50,000/-	4.17%
Total Utilized	Rs. 46,50,000/-	77.50%

2.2 Assessment Year 2023-24

(a) Principals Fund (Ceiling: Rs. 12,00,000/- per annum)

Head of Expenditure	Amount Utilized	% of Ceiling
Laboratory consumables & minor equipment repair	Rs. 3,60,000/-	30.00%
Stationery & office supplies	Rs. 1,20,000/-	10.00%
Minor civil/electrical maintenance	Rs. 2,70,000/-	22.50%
Student activities & co-curricular support	Rs. 2,00,000/-	16.67%
Contingency / emergency purchases	Rs. 1,10,000/-	9.17%

Head of Expenditure	Amount Utilized	% of Ceiling
Total Utilized	Rs. 10,60,000/-	88.33%

(b) Finance Managers Fund (Ceiling: Rs. 60,00,000/- per annum)

Head of Expenditure	Amount Utilized	% of Ceiling
Major equipment procurement	Rs. 20,50,000/-	34.17%
Infrastructure development / renovation	Rs. 12,00,000/-	20.00%
Annual Maintenance Contracts (AMC)	Rs. 6,80,000/-	11.33%
Faculty development & training programmes	Rs. 5,20,000/-	8.67%
Library & digital resources	Rs. 5,20,000/-	8.67%
Contingency / miscellaneous	Rs. 2,50,000/-	4.17%
Total Utilized	Rs. 52,20,000/-	87.00%

2.3 Assessment Year 2024-25

(a) Principals Fund (Ceiling: Rs. 12,00,000/- per annum)

Head of Expenditure	Amount Utilized	% of Ceiling
Laboratory consumables & minor equipment repair	Rs. 3,85,000/-	32.08%
Stationery & office supplies	Rs. 1,25,000/-	10.42%
Minor civil/electrical maintenance	Rs. 2,90,000/-	24.17%
Student activities & co-curricular support	Rs. 2,15,000/-	17.92%
Contingency / emergency purchases	Rs. 1,10,000/-	9.17%

Head of Expenditure	Amount Utilized	% of Ceiling
Total Utilized	Rs. 11,25,000/-	93.75%

(b) Finance Managers Fund (Ceiling: Rs. 60,00,000/- per annum)

Head of Expenditure	Amount Utilized	% of Ceiling
Major equipment procurement	Rs. 22,00,000/-	36.67%
Infrastructure development / renovation	Rs. 13,00,000/-	21.67%
Annual Maintenance Contracts (AMC)	Rs. 7,20,000/-	12.00%
Faculty development & training programmes	Rs. 5,80,000/-	9.67%
Library & digital resources	Rs. 5,30,000/-	8.83%
Contingency / miscellaneous	Rs. 2,50,000/-	4.17%
Total Utilized	Rs. 55,80,000/-	93.00%

3. Consolidated Summary — Trend Across Assessment Years

Assessment Year	Principal: Utilized	Principal: % Ceiling	FM: Utilized	FM: % Ceiling	Overall % Utilization
2022-23	Rs. 9,40,000/-	78.33%	Rs. 46,50,000/-	77.50%	77.64%
2023-24	Rs. 10,60,000/-	88.33%	Rs. 52,20,000/-	87.00%	87.22%
2024-25	Rs. 11,25,000/-	93.75%	Rs. 55,80,000/-	93.00%	93.13%

4. Observations

- Utilization of both the Principals and the Finance Managers delegated funds shows a consistent upward trend over the three assessment years, indicating improved financial planning and timely absorption of sanctioned funds.
- The largest share of the Finance Managers fund is consistently directed toward major equipment procurement and infrastructure development, reflecting sustained investment in laboratory and academic infrastructure.

- The Principals fund is utilized predominantly for laboratory consumables and minor maintenance, ensuring uninterrupted day-to-day functioning of the department.
- Overall utilization has risen from the earliest to the latest assessment year, demonstrating effective decentralization of financial powers and accountable fund management at both levels of sanctioning authority.

9.1.5 Transparency and availability of correct/unambiguous information in public domain (5)

A. Information on Policies, Rules, and Processes Available on the Website

The institution is committed to maintaining transparency in its academic and administrative functioning by ensuring that all relevant policies, rules, and procedures are made available in the public domain through its official website. This ensures up-to-date information without the need for direct institutional correspondence.

The following categories of information are hosted on the institutions website and updated periodically:

- **Academic policies and regulations** — admission procedures, eligibility criteria, fee structure, examination rules, attendance requirements, and academic calendar.
- **Institutional governance documents** — composition of the Board of Governors, organizational structure, and details of statutory approvals (AICTE, DTE, university affiliation).
- **Grievance and welfare mechanisms** — policies and procedures relating to the Grievance Redressal Cell, Anti-Ragging Committee, and Sexual Harassment (Internal) Committee, along with contact details of members.
- **Service rules and HR policies** — recruitment procedures, service conditions, and code of conduct applicable to faculty and staff.
- **Infrastructure and facility details** — information on laboratories, library resources, hostel facilities, and other campus amenities.
- **Placement and academic outcomes** — details of career guidance, industry interaction, and placement support services.

The website is maintained and periodically updated by a designated web administrator/IT cell in coordination with respective departments, ensuring that the information hosted remains current, accurate, and easily navigable. This proactive approach addresses individual inquiries for routine information.

B. Dissemination of Information about Students, Faculty, and Staff

In addition to policy-level disclosures, the institution ensures dissemination of specific information pertaining to its stakeholders through appropriate and accessible channels:

- **Student-related information** — admission status, academic performance, attendance records, and examination results are communicated through the website, notice boards, and individual student login portals wherever applicable.
- **Faculty-related information** — qualifications, designations, and departmental affiliations of faculty members are published on the website to ensure transparency in academic staffing.
- **Staff-related information** — organizational hierarchy and contact details of administrative staff are made available to facilitate ease of access for students and visitors.
- **Circulars and notifications** — relevant to students, faculty, and staff are displayed on notice boards and uploaded to the website/institutional communication portals in a timely manner.

This ensures that all stakeholders remain informed of matters directly affecting them, fostering an environment of openness and accountability within the institution.

9.2 Budget Allocation, Utilization, and Public Accounting at Institute level (10)

Summary of current financial year’s budget and actual expenditure incurred(for the institution exclusively)in the three previous financial years

Table 1 - CFYm1 2024-25

Total Income 22696982					Actual expenditure(till...): 19418804		
Fee	Govt.	Grants	Other sources(specify)	Others	Recurring including salaries	Non Recurring	Special Projects/Anyothe

22178681	0	0	518301	16802427	2616377	0
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Table 2 - CFYm2 2023-24

Total Income 19405750.25				Actual expenditure(till...): 27211906.22		
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyothe
19405750.25	0	0	0	22491027.22	4720879	0

Table 3 - CFYm3 2022-23

Total Income 27170827.11				Actual expenditure(till...): 21327744		
Fee	Govt.	Grants	Other sources(specify) Others	Recurring including salaries	Non Recurring	Special Projects/Anyothe
26502617.11	0	0	668210	21327744	0	

9.2.1 Adequacy of Budget Allocation (4)

9.2.1 Adequacy of budget allocation (4)									
S. No.	Items	Budgeted in 2025-2026	Actual exp 2025 -2026	Adequacy%	Budgeted in 2024-2025	Actual exp 2024 -2025	Adequacy%	Budgeted in 2023-2024 (Rounded)	Actual exp 2023 -2024
1	Infra structure (NR)	₹ 54,02,629.00	₹ 19,06,024.00	16.57%	₹ 28,78,014.00	₹ 26,16,377.00	13.90%	₹ 51,92,966.00	47,20,879.00
2	Mintenance Cost	₹ 5,10,855.00	₹ 4,25,713.00	1.57%	₹ 13,70,241.60	₹ 11,41,868.00	6.62%	₹ 98,79,126.82	82,32,605.68
3	Consumable materials	₹ 10,56,818.70	₹ 10,06,494.00	3.24%	₹ 15,29,464.65	₹ 14,56,633.00	7.39%	₹ 10,70,791.05	10,19,801.00
4	Salaries & Honorarium	₹ 1,40,87,393.25	₹ 1,34,16,565.00	43.20%	₹ 1,39,05,062.85	₹ 1,32,42,917.00	67.18%	₹ 1,21,12,105.95	1,15,35,339.00
5	Expenses on Seminar/Training Programs/Faculty development programs	₹ 1,00,556.50	₹ 91,415.00	0.31%	₹ 1,58,845.50	₹ 1,44,405.00	0.77%	₹ 44,111.10	40,101.00
6	Annual Events expenses	₹ 96,75,403.10	₹ 87,95,821.00	29.67%	₹ 31,284.00	₹ 28,440.00	0.15%	₹ 2,62,122.30	2,38,293.00
7	Travel expenses	₹ 25,222.05	₹ 24,021.00	0.08%	₹ 0.00	₹ 0.00	0.00%	₹ 0.00	0.00
8	Advertisement & Printing expenses	₹ 7,61,400.15	₹ 7,25,143.00	2.34%	₹ 7,34,175.75	₹ 6,99,215.00	3.55%	₹ 5,53,531.65	5,27,173.00
9	Annual Registration cost/Taxes	₹ 2,57,514.30	₹ 2,52,465.00	0.79%	₹ 33,607.98	₹ 32,949.00	0.16%	₹ 66,730.05	65,421.62
10	Water expenses	₹ 2,790.90	₹ 2,658.00	0.01%	₹ 0.00	₹ 0.00	0.00%	₹ 78,143.10	74,422.00
11	Power expenses	₹ 6,25,306.92	₹ 6,13,046.00	1.92%	₹ 0.00	₹ 0.00	0.00%	₹ 3,42,842.40	3,36,120.00
12	Security expenses	₹ 58,800.00	₹ 56,000.00	0.18%	₹ 58,800.00	₹ 56,000.00	0.28%	₹ 36,540.00	34,800.00
13	Others	₹ 42,421.50	₹ 38,565.00	0.13%	₹ 0.00	₹ 0.00	0.00%	₹ 4,25,646.10	3,86,951.00

TOTAL AMOUNT	₹ 3,26,07,111.37	₹ 2,73,53,930.00	100%	₹ 2,06,99,496.33	₹ 1,94,18,804.00	100%	₹ 3,00,64,656.52	₹ 2,72,11,906.30
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9.2.2 Utilization of allocated funds (4)

9.2.2 Utilization of allocated funds (4)								
S. No.	Items	Budgeted in 2025-2026	Actual Expenses in 2025 -2026	Budgeted in 2024-2025	Actual Expenses in 2024 -2025	Budgeted in 2023-2024 (Rounded)	Actual Expenses in 2023 -2024	Budgeted in 2022-2023
1	Infra structure (Non Recuring)	₹ 20,96,626.00	₹ 19,06,024.00	₹ 28,78,014.00	₹ 26,16,377.00	₹ 51,92,966.00	47,20,879.00	0
1	Mintenance Cost	₹ 5,10,855.60	₹ 4,25,713.00	₹ 13,70,241.60	₹ 11,41,868.00	₹ 98,79,126.82	82,32,605.68	₹ 65,93,086.80
2	Consumable materials	₹ 10,56,818.70	₹ 10,06,494.00	₹ 15,29,464.65	₹ 14,56,633.00	₹ 10,70,791.05	10,19,801.00	₹ 30,96,579.47
3	Salaries & Honorarium	₹ 1,40,87,393.25	₹ 1,34,16,565.00	₹ 1,39,05,062.85	₹ 1,32,42,917.00	₹ 1,21,12,105.95	1,15,35,339.00	₹ 1,01,30,633.12
4	Expenses on Seminar/Training Programs/Faculty development programs	₹ 1,00,556.50	₹ 91,415.00	₹ 1,58,845.50	₹ 1,44,405.00	₹ 44,111.10	40,101.00	₹ 0.00
5	Annual Events expenses	₹ 96,75,403.10	₹ 87,95,821.00	₹ 31,284.00	₹ 28,440.00	₹ 2,62,122.30	2,38,293.00	₹ 0.00
6	Travel expenses	₹ 25,222.05	₹ 24,021.00	₹ 0.00	₹ 0.00	₹ 0.00	0.00	₹ 0.00
7	Advertisement & Printing expenses	₹ 7,61,400.15	₹ 7,25,143.00	₹ 7,34,175.75	₹ 6,99,215.00	₹ 5,53,531.65	5,27,173.00	₹ 21,39,618.60
8	Annual Registration cost/Taxes	₹ 2,57,514.30	₹ 2,52,465.00	₹ 33,607.98	₹ 32,949.00	₹ 66,730.05	65,421.62	₹ 0.00
9	Water expenses	₹ 2,790.90	₹ 2,658.00	₹ 0.00	₹ 0.00	₹ 78,143.10	74,422.00	₹ 2,04,100.05
10	Power expenses	₹ 6,25,306.92	₹ 6,13,046.00	₹ 0.00	₹ 0.00	₹ 3,42,842.40	3,36,120.00	₹ 6,65,497.35
11	Security expenses	₹ 58,800.00	₹ 56,000.00	₹ 58,800.00	₹ 56,000.00	₹ 36,540.00	34,800.00	₹ 0.00
12	Others	₹ 42,421.50	₹ 38,565.00	₹ 0.00	₹ 0.00	₹ 4,25,646.10	₹ 3,86,951.00	₹ 4,44,287.71
	TOTAL AMOUNT	₹ 2,72,04,482.97	₹ 2,54,47,906.00	₹ 1,78,21,482.33	₹ 1,68,02,427.00	₹ 2,48,71,690.52	₹ 2,24,91,027.30	₹ 2,32,73,803.10
	Utilization		93.54%Utilization		94.28%Utilization		90.43%Utilization	

9.2.3 Availability of the audited statements on the institute's website (2)

The institute ensures transparency and accountability in its financial administration by making the **audited financial statements/audit reports** available on the official institute website. The audit statements are periodically updated and interested parties.

The availability of audit statements on the website demonstrates the institute’s commitment to **financial transparency, proper utilization of funds, accountability, and compliance with statutory requirements**. It also enables stakehold institution’s financial management practices.

The relevant audit statements can be accessed through the institute website under the appropriate section related to **Financial Statements/Audit Reports**.

9.3 Department Specific Budget Allocation, Utilization (5)

Table 1 :: CFY 2025-26

Total Budget 1624896.84		Actual expenditure (till...): 1512358.94	
Non Recurring	Recurring	Non Recurring	R
244668.6	1380228.24	222426	1

Table 2 :: CFYm1 2024-25

Total Budget 674808.32		Actual expenditure (till...): 626114.96	
Non Recurring	Recurring	Non Recurring	R
331017.5	343790.82	300925	3

Table 3 :: CFYm2 2023-24

Total Budget 2202526.09		Actual expenditure (till...): 2002296.90	
Non Recurring	Recurring	Non Recurring	R
689331	1513195.09	626665	1

Table 4 :: CFYm3 2022-23

Total Budget 164879.39		Actual expenditure (till...): 1527412.29	
Non Recurring	Recurring	Non Recurring	R
0	164879.39	0	1

9.3.1 Adequacy of Budget Allocation (2)

9.3.1 Adequacy of budget allocation (02)

INSTITUTE BUDGET UTILIZATION FOR FINANCIAL YEAR 2025-26

S.NO	PARTICULARS	ACTUAL EXPENSES INST. LEVEL	CIVIL				MECH		
			ACTUAL	Budget	utilization%	Adequacy %	ACTUAL	Budget	utiliza
	No.of Students	557	65				144		
1	Mintenance Cost	₹ 4,25,713.00	₹ 49,679.25	₹53,156.80	93%	3.85%	₹ 1,10,058.66	₹1,17,762.76	93%
2	Consumable materials	₹ 10,06,494.00	₹ 1,17,454.42	₹1,25,676.23	93%	9.11%	₹ 2,60,206.71	₹2,78,421.18	93%
3	Expenses on Seminar/Training Programs/Faculty development programs	₹ 91,415.00	₹ 10,667.82	₹11,414.57	93%	0.83%	₹ 23,633.32	₹25,287.65	93%
4	Annual Events expenses	₹ 87,95,821.00	₹ 10,26,442.31	₹10,98,293.27	93%	79.57%	₹ 22,73,964.50	₹24,33,142.01	93%
5	Travel expenses	₹ 24,021.00	₹ 2,803.17	₹2,999.39	93%	0.22%	₹ 6,210.10	₹6,644.80	93%
6	Water expenses	₹ 2,658.00	₹ 310.18	₹331.89	93%	0.02%	₹ 687.17	₹735.27	93%
7	Power expenses	₹ 6,13,046.00	₹ 71,540.38	₹76,548.20	93%	5.55%	₹ 1,58,489.45	₹1,69,583.71	93%
8	Security expenses	₹ 56,000.00	₹ 6,535.01	₹6,992.46	93%	0.51%	₹ 14,477.56	₹15,490.99	93%
9	Others	₹ 38,565.00	₹ 4,500.40	₹4,815.43	93%	0.35%	₹ 9,970.13	₹10,668.03	93%
	Total	₹ 1,10,53,733.00		₹13,80,228.24		100%	₹28,57,697.58	₹30,57,736.41	₹0.93

INSTITUTE BUDGET UTILIZATION FOR FINANCIAL YEAR 2024-25

S.NO	PARTICULARS	ACTUAL EXPENSES	CIVIL				MECH		
			ACTUAL	Budget	utilization%	Adequacy %	ACTUAL	Budget	utiliza
	No.of Students	626	72				138		
1	Mintenance Cost	₹ 11,41,868.00	₹ 1,31,333.06	₹1,38,845.31	95%	40.39%	₹ 2,51,721.70	₹2,66,120.18	95%
2	Consumable materials	₹ 14,56,633.00	₹ 1,67,536.06	₹1,77,119.13	95%	51.52%	₹ 3,21,110.79	₹3,39,478.33	95%
3	Expenses on Seminar/Training Programs/Faculty development programs	₹ 1,44,405.00	₹ 16,608.88	₹17,558.91	95%	5.11%	₹ 31,833.69	₹33,654.58	95%
4	Annual Events expenses	₹ 28,440.00	₹ 3,271.05	₹3,458.16	95%	1.01%	₹ 6,269.52	₹6,628.14	95%
5	Travel expenses	₹ 0.00	₹ 0.00	₹0.00	#DIV/0!	0.00%	₹ 0.00	₹0.00	#DIV,
6	Water expenses	₹ 0.00	₹ 0.00	₹0.00	#DIV/0!	0.00%	₹ 0.00	₹0.00	#DIV,
7	Power expenses	₹ 0.00	₹ 0.00	₹0.00	#DIV/0!	0.00%	₹ 0.00	₹0.00	#DIV,
8	Security expenses	₹ 56,000.00	₹ 6,440.89	₹6,809.31	95%	1.98%	₹ 12,345.05	₹13,051.18	95%

9	Others	₹ 0.00	₹ 0.00	₹0.00	#DIV/0!	0.00%	₹ 0.00	₹0.00	#DIV/0!
	Total	₹ 28,27,346.00		₹3,43,790.82		100%		₹6,58,932.41	
INSTITUTE BUDGET UTILIZATION FOR FINANCIAL YEAR 2023-24									
			CIVIL				MECH		
S.NO	PARTICULARS	ACTUAL EXPENSES	ACTUAL	Budget	utilization%	Adequacy %	ACTUAL	Budget	utiliza
	No.of Students	678	90				148		
1	Mintenance Cost	82,32,605.68	₹ 10,92,823.76	₹12,02,106.14	91%	79%	₹ 17,97,087.97	₹19,76,796.76	91%
2	Consumable materials	10,19,801.00	₹ 1,35,371.81	₹1,48,909.00	91%	10%	₹ 2,22,611.43	₹2,44,872.57	91%
3	Expenses on Seminar/Training Programs/Faculty development programs	40,101.00	₹ 5,323.14	₹5,855.46	91%	0%	₹ 8,753.61	₹9,628.97	91%
4	Annual Events expenses	2,38,293.00	₹ 31,631.81	₹34,795.00	91%	2%	₹ 52,016.76	₹57,218.44	91%
5	Travel expenses	0.00	₹ 0.00	₹0.00	0%	0%	₹ 0.00	₹0.00	0%
6	Water expenses	74,422.00	₹ 9,879.03	₹10,866.93	91%	1%	₹ 16,245.51	₹17,870.06	91%
7	Power expenses	3,36,120.00	₹ 44,617.70	₹49,079.47	91%	3%	₹ 73,371.33	₹80,708.46	91%
8	Security expenses	34,800.00	₹ 4,619.47	₹5,081.42	91%	0%	₹ 7,596.46	₹8,356.11	91%
9	Others	₹ 3,86,951.00	₹ 51,365.18	₹56,501.69	91%	4%	₹ 84,467.18	₹92,913.90	91%
	Total	₹ 1,03,63,093.68	₹ 13,75,631.90	₹ 15,13,195.09		100%	₹ 22,62,150.24	₹ 24,88,365.27	
9.3.1. Adequacy of Budget Allocation									
INSTITUTE BUDGET UTILIZATION FOR FINANCIAL YEAR 2022-23									
			CIVIL				MECH		
S.NO	PARTICULARS	ACTUAL EXPENSES	ACTUAL	Budget	utilization%	Adequacy %	ACTUAL	Budget	utiliza
	No.of Students	707	112				161		
1	Mintenance Cost	₹ 54,94,239.00	₹ 8,70,374.50	₹9,48,708.20	92%	57%	₹ 12,51,163.34	₹13,63,768.04	92%
2	Consumable materials	₹ 29,49,123.30	₹ 4,67,187.85	₹5,09,234.76	92%	31%	₹ 6,71,582.53	₹7,32,024.96	92%
3	Expenses on Seminar/Training Programs/Faculty development programs	₹ 0.00	₹ 0.00	₹0.00	0%	0%	₹ 0.00	₹0.00	0%
4	Annual Events expenses	₹ 0.00	₹ 0.00	₹0.00	0%	0%	₹ 0.00	₹0.00	0%
5	Travel expenses	₹ 0.00	₹ 0.00	₹0.00	0%	0%	₹ 0.00	₹0.00	0%

6	Water expenses	₹ 1,94,381.00	₹ 30,793.03	₹33,564.40	92%	2%	₹ 44,264.98	₹48,248.83	92%
7	Power expenses	₹ 6,33,807.00	₹ 1,00,405.07	₹1,09,441.53	92%	7%	₹ 1,44,332.29	₹1,57,322.19	92%
8	Security expenses	₹ 0.00	₹ 0.00	₹0.00	0%	0%	₹ 0.00	₹0.00	0%
9	Others	₹ 3,70,239.76	₹ 58,651.84	₹63,930.51	92%	4%	₹ 84,312.02	₹91,900.11	92%
	Total	₹ 96,41,790.06	₹ 15,27,412.29	₹ 16,64,879.39		100%	₹ 21,95,655.16	₹ 23,93,264.13	

9.3.2 Utilization of allocated funds (3)

9.3.2Utilization of Allocated funds (03).

INSTITUTE BUDGET UTILIZATION FOR FINANCIAL YEAR 2025-26

S.NO	PARTICULARS	ACTUAL EXPENSES	CIVIL			MECH		
			ACTUAL	Budget	utilization%	ACTUAL	Budget	utilization%
	No.of Students	557	65			144		
1	Mintenance Cost	₹ 4,25,713.00	₹ 49,679.25	₹53,156.80	93%	₹ 1,10,058.66	₹1,17,762.76	93%
2	Consumable materials	₹ 10,06,494.00	₹ 1,17,454.42	₹1,25,676.23	93%	₹ 2,60,206.71	₹2,78,421.18	93%
3	Expenses on Seminar/Training Programs/Faculty development programs	₹ 91,415.00	₹ 10,667.82	₹11,414.57	93%	₹ 23,633.32	₹25,287.65	93%
4	Annual Events expenses	₹ 87,95,821.00	₹ 10,26,442.31	₹10,98,293.27	93%	₹ 22,73,964.50	₹24,33,142.01	93%
5	Travel expenses	₹ 24,021.00	₹ 2,803.17	₹2,999.39	93%	₹ 6,210.10	₹6,644.80	93%
6	Water expenses	₹ 2,658.00	₹ 310.18	₹331.89	93%	₹ 687.17	₹735.27	93%
7	Power expenses	₹ 6,13,046.00	₹ 71,540.38	₹76,548.20	93%	₹ 1,58,489.45	₹1,69,583.71	93%
8	Security expenses	₹ 56,000.00	₹ 6,535.01	₹6,992.46	93%	₹ 14,477.56	₹15,490.99	93%
9	Others	₹ 38,565.00	₹ 4,500.40	₹4,815.43	93%	₹ 9,970.13	₹10,668.03	93%
	Total	₹ 1,10,53,733.00						

INSTITUTE BUDGET UTILIZATION FOR FINANCIAL YEAR 2024-25

S.NO	PARTICULARS	ACTUAL EXPENSES	CIVIL			MECH		
			ACTUAL	Budget	utilization%	ACTUAL	Budget	utilization%
	No.of Students	626	72			138		
1	Mintenance Cost	₹ 11,41,868.00	₹ 1,31,333.06	₹1,38,845.31	95%	₹ 2,51,721.70	₹2,66,120.18	95%
2	Consumable materials	₹ 14,56,633.00	₹ 1,67,536.06	₹1,77,119.13	95%	₹ 3,21,110.79	₹3,39,478.33	95%
3	Expenses on Seminar/Training Programs/Faculty development programs	₹ 1,44,405.00	₹ 16,608.88	₹17,558.91	95%	₹ 31,833.69	₹33,654.58	95%
4	Annual Events expenses	₹ 28,440.00	₹ 3,271.05	₹3,458.16	95%	₹ 6,269.52	₹6,628.14	95%
5	Travel expenses	₹ 0.00	₹ 0.00	₹0.00	0%	₹ 0.00	₹0.00	0%
6	Water expenses	₹ 0.00	₹ 0.00	₹0.00	0%	₹ 0.00	₹0.00	0%
7	Power expenses	₹ 0.00	₹ 0.00	₹0.00	0%	₹ 0.00	₹0.00	0%
8	Security expenses	₹ 56,000.00	₹ 6,440.89	₹6,809.31	95%	₹ 12,345.05	₹13,051.18	95%
9	Others	₹ 0.00	₹ 0.00	₹0.00	0%	₹ 0.00	₹0.00	0%
	Total	₹ 28,27,346.00						

INSTITUTE BUDGET UTILIZATION FOR FINANCIAL YEAR 2023-24

S.NO	PARTICULARS	ACTUAL EXPENSES	CIVIL			MECH		
			ACTUAL	Budget	utilization%	ACTUAL	Budget	utilization%
	No.of Students	678	90			148		
1	Mintenance Cost	82,32,605.68	₹ 10,92,823.76	₹12,02,106.14	91%	₹ 17,97,087.97	₹19,76,796.76	91%
2	Consumable materials	10,19,801.00	₹ 1,35,371.81	₹1,48,909.00	91%	₹ 2,22,611.43	₹2,44,872.57	91%
3	Expenses on Seminar/Training Programs/Faculty development programs	40,101.00	₹ 5,323.14	₹5,855.46	91%	₹ 8,753.61	₹9,628.97	91%
4	Annual Events expenses	2,38,293.00	₹ 31,631.81	₹34,795.00	91%	₹ 52,016.76	₹57,218.44	91%
5	Travel expenses	0.00	₹ 0.00	₹0.00	0%	₹ 0.00	₹0.00	0%
6	Water expenses	74,422.00	₹ 9,879.03	₹10,866.93	91%	₹ 16,245.51	₹17,870.06	91%
7	Power expenses	3,36,120.00	₹ 44,617.70	₹49,079.47	91%	₹ 73,371.33	₹80,708.46	91%
8	Security expenses	34,800.00	₹ 4,619.47	₹5,081.42	91%	₹ 7,596.46	₹8,356.11	91%
9	Others	₹ 3,86,951.00	₹ 51,365.18	₹56,501.69	91%	₹ 84,467.18	₹92,913.90	91%

Total			₹ 1,03,63,093.68	₹ 13,75,631.90	₹ 15,13,195.09		₹ 22,62,150.24	₹ 24,88,365.27
INSTITUTE BUDGET UTILIZATION FOR FINANCIAL YEAR 2022-23								
S.NO	PARTICULARS	ACTUAL EXPENSES	CIVIL	Budget	utilization%	MECH	Budget	utilization%
	No.of Students	707	112			161		
1	Mintenance Cost	₹ 54,94,239.00	₹ 8,70,374.50	₹9,48,708.20	92%	₹ 12,51,163.34	₹13,63,768.04	92%
2	Consumable materials	₹ 29,49,123.30	₹ 4,67,187.85	₹5,09,234.76	92%	₹ 6,71,582.53	₹7,32,024.96	92%
3	Expenses on Seminar/Training Programs/Faculty development programs	₹ 0.00	₹ 0.00	₹0.00	0%	₹ 0.00	₹0.00	0%
4	Annual Events expenses	₹ 0.00	₹ 0.00	₹0.00	0%	₹ 0.00	₹0.00	0%
5	Travel expenses	₹ 0.00	₹ 0.00	₹0.00	0%	₹ 0.00	₹0.00	0%
6	Water expenses	₹ 1,94,381.00	₹ 30,793.03	₹33,564.40	92%	₹ 44,264.98	₹48,248.83	92%
7	Power expenses	₹ 6,33,807.00	₹ 1,00,405.07	₹1,09,441.53	92%	₹ 1,44,332.29	₹1,57,322.19	92%
8	Security expenses	₹ 0.00	₹ 0.00	₹0.00	0%	₹ 0.00	₹0.00	0%
9	Others	₹ 3,70,239.76	₹ 58,651.84	₹63,930.51	92%	₹ 84,312.02	₹91,900.11	92%
	Total	₹ 96,41,790.06	₹ 15,27,412.29	₹ 16,64,879.39		₹ 21,95,655.16	₹ 23,93,264.13	

9.4 Library and Internet (20)

(It is assumed that zero deficiency report was received by the institution, Effective availability and utilization to be demonstrated)

9.4.1 Quality of learning resources (hard/soft) (10)

The institution recognises the central role of a well-stocked and technologically equipped library in supporting teaching, learning, and research activities. The Central Library functions as the primary knowledge resource centre of the instituti electronic learning resources. In keeping with the evolving needs of technical education, the library has progressively expanded its digital resource base, ensuring that learners have access not only to traditional print holdings but also to a wid

This report presents a consolidated account of the librarys physical and digital holdings, its e-resource subscriptions and memberships, the internet and IT infrastructure available to support resource access, and the measures adopted to ensure

The library maintains a substantial and continuously updated collection of print resources, catalogued and classified as per standard library classification norms to facilitate easy retrieval.

Sl. No.	Resource	Holdings / Details
1	Books	19,173 (Titles/Volumes)
2	Journals (Print, subscribed)	16
3	Classification System	Books classified and catalogued as per standard classification number/category code (list to be furnished separately)

A detailed list of books along with their classification number/category code, arranged subject-wise, is maintained separately by the library and is available for reference and verification

In addition to its physical holdings, the institution has invested significantly in building a robust Digital Library, providing round-the-clock access to a vast repository of electronic learning material. The e-resource base includes e-books, e-theses and dissertations, as summarised in the table below.

Sl. No.	E-Resource	Quantum / Details
1	E-books	10,782
2	E-journals	911
3	E-databases	DELNET, NDLI, NPTEL (institutional membership)
4	CD-ROMs	70,802
5	Thesis and Dissertations	1,57,507

- DELNET (Developing Library Network) — enabling inter-library resource sharing and access to a national network of libraries.
- NDLI (National Digital Library of India) — providing access to a large, curated repository of academic and educational content across disciplines.
- NPTEL (National Programme on Technology Enhanced Learning) — providing access to video lectures, e-content, and certification courses developed by IITs/IISc for engineering and technical education.

These memberships significantly expand the range and depth of learning material available to students, extending well beyond the institutions own physical and digital holdings, and providing exposure to nationally curated academic content

To ensure effective utilisation of digital and e-learning resources, the library and campus are supported by dedicated internet and computing infrastructure, as detailed below.

Sl. No.	Facility	Details
1	Computer Terminals	10 dedicated terminals for library/OPAC and internet access
2	Wi-Fi	Wi-Fi enabled library and campus network

Sl. No.	Facility	Details
3	Bandwidth	4 Mbps dedicated internet bandwidth

The availability of dedicated computer terminals, campus-wide Wi-Fi connectivity, and adequate internet bandwidth collectively ensure that students and faculty can access e-books, e-journals, online databases, and other digital resources with

The institution has adopted a multi-pronged approach to ensure that the library's resources — both physical and digital — remain readily accessible to the student community:

- The library functions on extended working hours during working days, and additional hours during examination periods, to maximise student access.
- Physical collections are organised and classified systematically, enabling students to independently locate resources with minimal assistance.
- Digital and e-resources (e-books, e-journals, DELNET, NDLI, NPTEL) are accessible through dedicated computer terminals within the library as well as via Wi-Fi-enabled personal devices across the campus.
- Remote/off-campus access to select e-resources and digital repositories is facilitated wherever subscription terms permit, extending accessibility beyond campus hours.
- Orientation and induction sessions are conducted for new students to familiarise them with library resources, cataloguing systems, and procedures for accessing e-resources and digital databases.
- Library staff provide reference assistance to help students locate relevant books, journals, and digital content pertinent to their coursework, projects, and research requirements.
- Reprographic and printing facilities are made available to support academic use of library and digital resources.

9.4.2 Internet (10)

Name of the Internet provider	Kerala Vision
Available band width	500 MbPS
WiFi availability	WiFi is available
Internet access in labs, classrooms, library and offices of all Departments	Provided
Security arrangements	Company - TP Link, Brand - Omada, Model - ER 8411. This device is a multifun

9.5 Institutional Contribution to the Community Development (5)

As a self-financing technical institution, the college recognises its responsibility not only towards imparting quality technical education but also towards contributing meaningfully to the development and well-being of the surrounding community. The college regularly organises outreach activities aimed at skill development, environmental sustainability, and awareness generation among local residents, school communities, and other stakeholders in the neighbourhood.

These initiatives are designed and executed by the departments in coordination with the institution's community outreach/extension activities cell, involving faculty coordinators and student volunteers. The activities are planned to address local environmental conservation — thereby extending the benefits of institutional expertise and infrastructure beyond the campus.

Objectives of Community Development Initiatives

- To extend the technical and professional expertise available within the institution for the benefit of the local community.

- To promote digital literacy and employable skills among unemployed youth and community members.
- To encourage sustainable livelihood practices through skill-based training programmes.
- To create awareness on renewable energy, water conservation, and environmental sustainability.
- To instil a sense of social responsibility and civic engagement among students through active participation in outreach activities.
- To strengthen institution–community relationships and position the institution as a resource centre for local development.

Methodology of Implementation

Community development activities are identified based on local needs assessment, feedback from community members, and inputs from faculty and student coordinators. Each programme is planned with a defined target group, resource pers
Activities are conducted either on the institutions premises or at accessible community locations such as panchayat halls, nearby schools, or residential areas, to maximise participation.

Publicity for each activity is carried out through local coordination channels (ward members, panchayat offices, resident associations, or school administrations), and attendance/participation records are maintained for institutional documenta
assess effectiveness and to guide the planning of future programmes.

Activities Conducted (Academic Year–wise)

The table below summarises the community development activities conducted by the institution over the last three academic years, indicating the dates on which each activity was held.

Sl. No.	Activity	2023-24	2024-25	2025-26
1	Skill Development Training Programme (Computer & IT Literacy)	28.12.2023	-	27.11.2025
2	Paper Bag & Envelope Making	-	24.08.2024	26.07.2025
3	Solar Panel Awareness Programme	-	11.07.2024	-
4	Rain Water Harvesting Awareness Class	-	-	12.07.2025
5	Tree Plantation Awareness Class	05.06.2023	-	05.06.2025

The community development activities undertaken span multiple focus areas — digital literacy, sustainable livelihood, renewable energy awareness, water conservation, and environmental sustainability — each targeting a specific segment o

Focus Area	Activity	Beneficiaries / Community Reached	Outcome / Impact
Digital Literacy	Skill Development Training Programme (Computer & IT Literacy)	Local unemployed youth and community members	Enhanced basic computer literacy and IT skills, improving employability and access to digital services among non-student community members.

Focus Area	Activity	Beneficiaries / Community Reached	Outcome / Impact
Livelihood & Sustainability	Paper Bag & Envelope Making	Womens self-help groups / local residents	Introduced eco-friendly livelihood skills as an alternative to plastic use, supporting small-scale income generation and environmental awareness.
Renewable Energy Awareness	Solar Panel Awareness Programme	Nearby households and local public	Increased community awareness of solar energy adoption, benefits of renewable energy, and government incentive schemes.
Water Conservation	Rain Water Harvesting Awareness Class	Local households and school students	Promoted sustainable water management practices and rainwater harvesting techniques suited to the local terrain.
Environmental Sustainability	Tree Plantation Awareness Class	Institution neighbourhood and general public	Contributed to green cover enhancement and instilled environmental responsibility among students and local residents through hands-on plantation drives.

Skill Development Training Programme (Computer & IT Literacy)

Conducted on 28.12.2023 and again on 27.11.2025, this programme aimed at imparting basic computer and IT literacy skills to community members with limited or no prior exposure to digital tools. Sessions covered fundamental computer c bridging the digital divide and improving employability among local youth and adults.

Paper Bag & Envelope Making

Held on 24.08.2024 and 26.07.2025, this hands-on training session introduced participants to the making of paper bags and envelopes as an eco-friendly alternative to plastic products. The programme aimed at promoting sustainable practices could support small-scale income generation.

Solar Panel Awareness Programme

Organised on 11.07.2024, this awareness programme educated community members on the working principles, benefits, and installation aspects of solar photovoltaic systems. The session also covered available government subsidy schemes 1

Rain Water Harvesting Awareness Class

Conducted on 12.07.2025, this session focused on educating participants about rainwater harvesting techniques suitable for local household and institutional settings. The programme emphasised the importance of groundwater recharge and v

Tree Plantation Awareness Class

Conducted on 05.06.2023 and 05.06.2025 (coinciding with World Environment Day), this activity combined an awareness class on the ecological importance of trees with an actual tree plantation drive involving students, faculty, and local re campus while reinforcing environmental consciousness among participants.

Outcomes and Institutional Significance

- Strengthened institution–community relationships through sustained, recurring engagement across three consecutive academic years.
- Enhanced digital and livelihood skills among community members, contributing to local employability and income-generation potential.
- Increased community awareness and adoption readiness for renewable energy and sustainable resource management practices.
- Measurable contribution to environmental sustainability through tree plantation and eco-friendly product-making initiatives.
- Provided students with opportunities for social engagement, developing civic responsibility, communication skills, and empathy alongside their technical education.
- Generated documented evidence of extension and outreach activities, supporting institutional accreditation (NBA/NAAC) requirements under community engagement and social responsibility criteria.

9.6 Alumni Performance and Connect (10)

The Alumni Association of the institution was formally established on 23.12.2023 with the objective of maintaining a close and continuing association between the institution and its former students. The Association serves as an important t alumni go on to inhabit, enabling the exchange of knowledge, experience, and opportunities that benefit both current students and the institution as a whole.

Aims and Objectives of the Alumni Association

- To provide a forum for alumni to exchange ideas on academic, cultural, and social issues of the day.
- To organise and coordinate reunion activities among alumni, and between faculty and alumni, as well as to facilitate networking between current students and alumni for mutual benefit in professional and career development.

The functioning of the Alumni Association is overseen by a duly constituted Administrative Committee, comprising office bearers drawn from the alumni body itself, ensuring that the Association remains alumni-led and responsive to the nee

Sl. No.	Name	Position
1	Mr. Julien Joseph E	President
2	Mrs. Lalitha P K	Vice President
3	Mr. Pranav V J	Secretary
4	Mr. Aneeth	Joint Secretary
5	Ms. Sumi Sunil	Treasurer
6	Mr. Gimshy Jojo	Patron
7	Mr. Syam Prasad O T	Executive Member

Sl. No.	Name	Position
8	Mr. Srinraj N M	Executive Member

The institution organises an Annual Alumni Meet every year on 23rd December, bringing together graduates from successive outgoing batches to reconnect with the institution, their former faculty, and fellow alumni. Since its inception in 2018, it has been strengthening the bond between the institution and its alumni community.

Sl. No.	Batches Covered	Date of Meeting	No. of Alumni Participated
1	2018-21, 2019-22, 2020-23	23.12.2023	56
2	2018-21, 2019-22, 2020-23, 2021-24	23.12.2024	82
3	2018-21, 2019-22, 2020-23, 2021-24, 2022-25	23.12.2025	105

The Alumni Meet of 2023 brought together the 2018–21, 2019–22, and 2020–23 batches with 56 alumni in attendance. This was followed by the 2024 meet, which included the additional 2021–24 batch and recorded a marked increase in participation, including the 2022–25 batch across multiple disciplines (Civil, Mechanical, EEE, Chemical, and Automobile Engineering), drawing the highest participation recorded so far at 105 alumni. This consistent year-on-year growth in participation base

As part of documenting alumni performance, the Association maintains department-wise records of alumni career progression, capturing details of the organisations they are employed with, their designations, and work locations. These records contribute to producing industry-ready graduates and also inform current students about potential career pathways.

5.1 Illustrative Alumni Placement Records

Sl. No.	Batch	Alumnus	Designation	Company	Location
1	2018-21	Pranav V J	Sales Executive	Mahindra	—
2	2018-21	Aneeth	Quality Engineer	NEST	Ernakulam
3	2018-21	Abhishek A S	Production Executive	Camlin Fine Science	Perambra

5.2 Electrical and Electronics Engineering (EEE) Department

Sl. No.	Batch	Alumnus	Designation	Company	Location
1	2019-22	Jesvin Palatty	Sales Executive	Maruthi	Angamaly
2	2020-23	K P S Prabhu	Technical Engineer	Ramco Cements Ltd	Kottayam

Sl. No.	Batch	Alumnus	Designation	Company	Location
3	—	Sreerag P B	Technical Engineer	Ramco Cements Ltd	—
4	2021-24	Christo John	Mechanical Supervisor	KSE Limited	Irinjalakuda

These illustrative records demonstrate that alumni from the institution have secured placements across a diverse range of core and allied sectors — including automotive (Mahindra, Maruthi), quality and manufacturing (NEST, Camlin Fine S manufacturing (KSE Limited) — in roles spanning sales, quality assurance, production, and technical/mechanical engineering. This spread reflects the multidisciplinary employability of the institutions graduates across the Civil, Mechanical,

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Annexure I
(A) PROGRAM OUTCOME (POs)

1. **Basic and Discipline specific knowledge:** Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.
2. **Problem analysis:** Identify and analyse well-defined engineering problems using codified standard methods.
3. **Design/ development of solutions :** Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.
4. **Engineering Tools, Experimentation and Testing:**Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.
5. **Engineering practices for society, sustainability and environment:**Apply appropriate technology in context of society, sustainability, environment and ethical practices.
6. **Project Management:** Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
7. **Life-long learning:**Ability to analyse individual needs and engage in updating in the context of technological changes.

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1	To understand, read, draw & interpret drawings of different Civil Engineering Systems.
PSO2	To apply the laboratory investigations, code of practice and software skills to plan, design and to prepare cost estimates

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 : JULIEN JOSEPH E

Designation : PRINCIPAL

Signature :



Seal of The Institution :



Place : CHALAKUDI

Date : 24-08-2026 16:40:03