

RAMCO INSTITUTE OF TECHNOLOGY

Civil Engg.

Part A : Institutional Information

1 Name and Address of the Institution

RAMCO INSTITUTE OF TECHNOLOGY,
NORTH VENGANALLUR VILLAGE, KRISHNAPURAM PANCHAYAT, RAJAPALAYAM.

2 Name and Address of Affiliating University

ANNA UNIVERSITY CHENNAI

3 Year of establishment of the Institution:

2013

4 Type of the Institution:

<input type="checkbox"/> University	<input type="checkbox"/> Autonomous
<input type="checkbox"/> Deemed University	<input checked="" type="checkbox"/> Affiliated
<input type="checkbox"/> Government Aided	

5 Ownership Status:

<input type="checkbox"/> Central Government	<input checked="" type="checkbox"/> Trust
<input type="checkbox"/> State Government	<input type="checkbox"/> Society
<input type="checkbox"/> Government Aided	<input type="checkbox"/> Section 25 Company
<input type="checkbox"/> Self financing	<input type="checkbox"/> 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

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	UG	2013	2013	60	No	60	Applying first time	--	--	Yes	4

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Civil Engg.

9 Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2024-25		2023-24		2022-23	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	59	61	57	57	52	52
Faculty in Engineering (Female)	60	61	46	48	30	32
Faculty in Maths, Science & Humanities (Male)	14	14	14	14	13	13
Faculty in Maths, Science & Humanities (FeMale)	12	13	10	10	7	7
Non-teaching staff (Male)	158	158	147	147	124	124
Non-teaching staff (FeMale)	95	95	86	86	77	77

B. Contractual* Employees (Faculty and Staff):

Items	2024-25		2023-24		2022-23	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	0	0	0	0	0	0
Faculty in Engineering (Female)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (FeMale)	0	0	0	0	0	0
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (FeMale)	0	0	0	0	0	0

10 Total number of Engineering Students:

Engineering and Technology- UG	<input checked="" type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
Engineering and Technology- PG	<input type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
Engineering and Technology- Polytechnic	<input type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
MBA	<input type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
MCA	<input type="checkbox"/> Shift1	<input type="checkbox"/> Shift2

Engineering and Technology- UG Shift-1

Items	2024-25	2023-24	2022-23
Total no. of Boys	1420	1284	1044
Total no. of Girls	993	740	535
Total	2413	2024	1579

11 Vision of the Institution:

To evolve as an Institute of international repute in offering high-quality technical education, research and extension programmes in order to create knowledgeable, professionally competent and skilled Engineers and Technologists capable of working in multi-disciplinary environment to cater to the societal needs.

12 Mission of the Institution:

To accomplish its unique vision, the Institute has a far-reaching mission that aims:

M1: To offer higher education in Engineering and Technology with the highest level of quality, professionalism and ethical standards.

M2: To equip the students with up-to-date knowledge in cutting-edge technologies, wisdom, creativity and passion for innovation, and life-long learning skills.

M3: To constantly motivate and involve the students and faculty members in the education process for continuously improving their performance to achieve excellence.

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

Head of the Institution	
Name	Dr. L. Ganesan
Designation	Principal
Mobile No.	9788212234
Email ID	principal@ritrjpm.ac.in

NBA Coordinator, If Designated

Name	Dr. S.Rajakarunakaran
Designation	Vice Principal
Mobile No.	9865312352
Email ID	vp@ritrjpm.ac.in

PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	60.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	120.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	120.00
4	STUDENTS' PERFORMANCE	150	104.87
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	172.67
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	50	50.00
8	FIRST YEAR ACADEMICS	50	44.28
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
	Total	1000	922

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)

Total Marks 60.00

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

Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	To evolve as an Institute of international repute in offering high-quality technical education, research and extension programmes in order to create knowledgeable, professionally competent and skilled Engineers and Technologists capable of working in multi-disciplinary environment to cater to the societal needs.												
Mission of the institute	<p>To accomplish its unique vision, the Institute has a far-reaching mission that aims:</p> <p>M1: To offer higher education in Engineering and Technology with the highest level of quality, professionalism and ethical standards.</p> <p>M2: To equip the students with up-to-date knowledge in cutting-edge technologies, wisdom, creativity and passion for innovation, and life-long learning skills.</p> <p>M3: To constantly motivate and involve the students and faculty members in the education process for continuously improving their performance to achieve excellence.</p>												
Vision of the Department	Create knowledgeable and professionally competent Civil Engineers who are capable of providing global solutions to the problems related to Civil Engineering.												
Mission of the Department	<table border="1"> <thead> <tr> <th data-bbox="734 884 869 967">Mission No.</th> <th data-bbox="869 884 2116 967">Mission Statements</th> </tr> </thead> <tbody> <tr> <td data-bbox="734 967 869 1015">M1</td> <td data-bbox="869 967 2116 1015">Impart high quality education and technical skills to transform students into Professional Civil Engineers.</td> </tr> <tr> <td data-bbox="734 1015 869 1062">M2</td> <td data-bbox="869 1015 2116 1062">Establish state-of-the-art infrastructure for updating knowledge in recent developments and cutting edge technology.</td> </tr> <tr> <td data-bbox="734 1062 869 1137">M3</td> <td data-bbox="869 1062 2116 1137">Bridge the gap between academics and industry by practical training and providing solutions for design projects related to Civil Engineering</td> </tr> <tr> <td data-bbox="734 1137 869 1185">M4</td> <td data-bbox="869 1137 2116 1185">Motivate the faculty members and students in the teaching learning process for achieving excellence to meet the global standards.</td> </tr> <tr> <td data-bbox="734 1185 869 1233">M5</td> <td data-bbox="869 1185 2116 1233">Produce graduates with high professional and ethical standards for fulfilling the needs of the industry and society.</td> </tr> </tbody> </table>	Mission No.	Mission Statements	M1	Impart high quality education and technical skills to transform students into Professional Civil Engineers.	M2	Establish state-of-the-art infrastructure for updating knowledge in recent developments and cutting edge technology.	M3	Bridge the gap between academics and industry by practical training and providing solutions for design projects related to Civil Engineering	M4	Motivate the faculty members and students in the teaching learning process for achieving excellence to meet the global standards.	M5	Produce graduates with high professional and ethical standards for fulfilling the needs of the industry and society.
Mission No.	Mission Statements												
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M3	Bridge the gap between academics and industry by practical training and providing solutions for design projects related to Civil Engineering												
M4	Motivate the faculty members and students in the teaching learning process for achieving excellence to meet the global standards.												
M5	Produce graduates with high professional and ethical standards for fulfilling the needs of the industry and society.												

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

Total Marks 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Graduates of the program will consistently demonstrate professional competence by applying fundamental principles of STEM and Civil Engineering, contributing to the field through innovative solutions, leadership in project execution, and a commitment to sustainable practices.
PEO2	Graduates of the program will exhibit professional development by pursuing higher education and obtaining professional certifications in Civil Engineering
PEO3	Graduates of the program will actively engage in projects & consultancy in emerging areas, entrepreneurial ventures and public sector initiatives for the betterment of society.

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

Total Marks 10.00

- The Vision, Mission and PEOs are published and disseminated among various internal stakeholders including management, governing council members, faculty members and students and External Stakeholders including parents, employers, alumni, professional bodies and general public through various modes and occasions.
- The Vision, Mission and PEOs of the department are published in the Institutional website (www.ritrjpm.ac.in (<http://www.ritrjpm.ac.in>)).
- The Vision, Mission and PEOs of the department are displayed at prominent locations in the Department and can be viewed by all the stakeholders.
- The Vision, Mission and PEOs of the department are disseminated during the Induction Program for the newly admitted Students & their Parents and Faculty members.
- The Vision, Mission and PEOs of the department are communicated during Alumni Interaction Meeting, Parents Teachers meeting, Department Advisory Committee (DAC) Meeting, Program Assessment & Quality Improvement Committee (PAQIC) Meeting, Department Review Meeting (DRM), Class Committee Meeting (CCM) and Internal Quality Assurance Cell (IQAC) Meeting etc.,
- The Vision, Mission and PEOs of the department are made available to all the stakeholders by email signatures of the faculty members.

A. The Vision, Mission and PEOs are published in the following modes:

The following Table 1.1 provides the publishing modes of Department's Vision, Mission and PEOs to internal and external stakeholders.

Table 1.1 Publishing Modes of Vision, Mission and PEOs

S.No.	Modes of Publishing	Internal stakeholders	External stakeholders
Institute Vision and Mission			
1.	College Website: https://www.ritrjpm.ac.in/home.php (https://www.ritrjpm.ac.in/home.php)	✓	✓
2.	Principal chamber	✓	✓
3.	Civil Department	✓	✓
4.	HOD Chamber	✓	✓
5.	IQAC Board Room	✓	
6.	Placement Cell	✓	
7.	Library	✓	
8.	Seminar Hall	✓	
9.	Hostels	✓	
10.	Office	✓	✓
11.	Cafeteria	✓	✓
12.	Auditorium	✓	✓
13.	Exam Cell	✓	✓
Department Vision, Mission and PEOs			
1.	College Website: (https://www.ritrjpm.ac.in/departments/civil-engg/civil-engg-vision-and-mission.php (https://www.ritrjpm.ac.in/departments/civil-engg/civil-engg-vision-and-mission.php))	✓	✓

2.	HOD chamber	✓	✓
3.	Department Notice Board	✓	✓
4.	Students' Notice Board	✓	✓
5.	All Class Rooms	✓	✓
6.	Civil Department	✓	✓
7.	All Laboratories	✓	
8.	Department Library	✓	
9.	Lab Manuals	✓	
10.	Civil Seminar Hall	✓	✓
11.	Students Handbook	✓	
12.	Department Magazine/Newsletter	✓	✓
13.	Faculty Email Signature	✓	✓
14.	Course File	✓	

The published sample of Vision, Mission and PEOs are shown in the following Figure 1.1 (Link: https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf))

Figure 1.1 Published sample of Vision, Mission and PEOs (Link: https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf))

B. Process of dissemination among stakeholders

Once the Mission and Vision statements are approved in the Governing Council, the statements are displayed and disseminated to the internal and external stakeholders through various media. The internal stakeholders have access to the statements through the display boards placed at different points such as Department Notice Board, Department, Department Laboratories, HoD chamber and respective classrooms.

- The Vision and Mission statements that are included in the course files and the course plan, make the faculty members and students aware of the statements. Moreover, the magazine/newsletter is other mode to disseminate the Vision and Mission statements to the students, faculty and management.
- The College website forms an indispensable platform to disseminate the statements of both the institute and the department to the internal and external stakeholders.
- The brochures prepared during the conduct of FDPs, workshops and conferences that are sent to the advisory committee members, sponsors and professional bodies like ICI, IGBC, IE(I), ACI and ISTE help in disseminating the statements to the internal and external stakeholders.

The Vision and Mission statements of the institute and department are disseminated to the stakeholders during the conduct of alumni meetings, parents meeting, and First year orientation/Induction programmes. Dissemination of PEOs to various stakeholders of the program is done during the meetings of faculty members, Program Assessment and Quality Improvement Committee (PAQIC), Department Advisory Committee (DAC) and Class Committee Meetings (CCM).

Internal stakeholders:

Management & Governing Council members

- The Vision, Mission and PEOs are disseminated during Governing Council meeting.

Faculty

- Awareness on Vision, Mission and PEOs is given by the Principal to the faculty members in the faculty orientation programme during the commencement of every academic year.
- Head of the Department creates awareness among the faculty members about Vision, Mission and PEOs in the Department review meetings.

Supporting staff

- Awareness on Institute Vision and Mission is given by the Principal to all the supporting staff in the institution.
- Awareness on Department Vision, Mission and PEOs is given by the Head of the Department to the supporting staff of the department.

Students

- Awareness on Vision, Mission and PEOs is given to the students during the commencement of classes in every semester.
- The students get awareness on Vision, Mission and PEOs in Class Committee Meetings through their respective chairpersons.

External stakeholders:**Affiliating University & Professional Bodies**

- The Vision, Mission and PEOs are disseminated through college website.

Alumni

- The Vision, Mission and PEOs are disseminated to alumni in RIT Alumni Meet by the Head of the Department

Industries and Employers

- Awareness on Vision, Mission and PEOs are given to the employers and recruiters through Placement Meet and Industry Institute interactions.

Parents

- The dissemination of the Vision, Mission and PEOs is given by the Head of the Department to parents in Parents Teachers Meeting.
- The dissemination of Vision and Mission is given by the Principal to parents during Induction Programme for fresher.

The following Table 1.2 provides the summary on the disseminating modes of Department's Vision, Mission and PEOs to internal and external stakeholders

Table 1.2 Disseminating Modes of Vision, Mission and PEOs

Vision, Mission and PEOs	Modes of Dissemination	Internal stakeholders	External stakeholders	Frequency of Meeting
	Student Induction programme for fresher	✓	✓	1 per Year
	Parent – Teacher meeting		✓	1 per Semester
	Alumni meeting		✓	1 per Year
	Department Review Meeting	✓		2 per Month
	Class Committee Meeting	✓		3 per Semester
	Faculty Orientation Program	✓		1 per Year
	Internal Quality Assurance Cell (IQAC) Meeting	✓	✓	4 per Year
	Management Review Meeting	✓	✓	1 per Semester
	Program Assessment and Quality Improvement Committee (PAQIC)	✓		1 per Semester
	Governing Council meeting	✓		1 per Year
	Department Advisory Committee meeting	✓	✓	1 per Year

The disseminated samples of Vision, Mission and PEOs among stakeholders are shown in the following Figure 1.2. (Link: https://www.ritrjpm.ac.in/images/civil/20242025/NBA/Civil_NBA_Criteria_I.pdf (https://www.ritrjpm.ac.in/images/civil/20242025/NBA/Civil_NBA_Criteria_I.pdf))

Figure 1.2 Disseminated samples of Vision, Mission and PEOs (Link: https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf))

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (25)

Total Marks 25.00

A. Description of process for defining the Vision, Mission of the Department:

- The Vision and Mission of the Department is developed in line with the Vision and Mission of the Institute. The Department of Civil Engineering has established its Vision and Mission through consultative process involving the stakeholders of the programme including Management, Governing Council members, Faculty members, Students, Parents, Alumni and Industry. In establishing the Vision and Mission of the department, the following steps are taken as shown in the figure 1.3.
- Inputs from the Internal stake holders (Management, Governing Council members, Faculty Members and Students) and the external stakeholders (Industry, Parents, Alumni, Professional Society) are collected.
- Vision and Mission of the Institute, Affiliating University, Professional Societies like ICI, IE(I), IGBC and ISTE, input from stakeholders and direction towards future development as stated in statutory/regulatory/affiliating organizations are taken as basis and department vision and mission are drafted.
- Brainstorming sessions are conducted with the department faculty members and the suggestions/ views were included to refine the Vision and Mission statements.
- The formulated Vision and Mission statements are reviewed to check consistency with the Vision and Mission of the institute.
- The recommended Vision and Mission statements are presented in Programme Assessment and Quality Improvement Committee (PAQIC) meeting and Department Advisory Committee (DAC) meeting.
- The formulated Vision and Mission statements are duly recommended by the Head of the Institution.
- The finalized Vision and Mission statements are approved by Governing Council.
- The Vision and Mission statements are displayed at prominent locations in the Department and disseminated to all the stakeholders.

The process of defining the Vision and Mission of the department is shown as flow chart in the Figure 1.3 below. (Link: https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf))

Figure 1.3 Process of defining the Vision and Mission of the Department (Link: https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf))

B. Description of process for defining the PEOs of the program

The Program Educational Objectives are established through a consultation process involving the core constituents such as Faculty members, Students, Parents, Industry and Members of Professional Society. Establishing PEOs, in addition to Vision and Mission of the department, was made mandatory so as to ensure that the graduates will get Outcome Based Education.

The PEO's are established through the following steps as shown in the figure 1.4 (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf))

- Inputs from the internal stakeholders (Management, Governing Council members, Faculty members and Students) and the External stakeholders (Industry and Parents) are collected.
- Vision and Mission of the Institute & Department, Affiliating University, Professional Societies like ICI, IE(I), IGBC and ISTE, input from stakeholders and direction towards future development as stated in statutory/regulatory/affiliating organizations are taken as basis and PEO statements are drafted.
- Brainstorming sessions are conducted with department faculty members and the suggestions/ views are included to refine the PEO statements.
- The recommended PEO statements are presented in Programme Assessment and Quality Improvement Committee (PAQIC) meeting and Department Advisory Committee (DAC) meeting.
- The formulated PEOs statements are duly recommended by the Head of the Institution.
- The finalized PEOs statements are approved by Governing Council.
- The PEOs statements are displayed at prominent locations in the Department and disseminated to all the stakeholders.

Figure 1.4 Process of establishing the PEOs (Link: https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_I.pdf))

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

Total Marks 15.00

A. Preparation of a matrix of mapping PEOs and elements of Mission statement

PEO statements are framed based on the outcomes of the graduates who excel with a wide spectrum of technical competencies and interpersonal skills. Feedback and suggestions obtained from alumni, industrial experts, employers and parents provide valuable insight of outcomes from successful graduates. The mapping of PEOs with Mission of the Department is presented in Table 1.3.

Mission of the Department

M1: Impart high quality education and technical skills to transform students into Professional Civil Engineers.

M2: Establish state-of-the-art infrastructure for updating knowledge in recent developments and cutting edge technology.

M3: Bridge the gap between academics and industry by practical training and providing solutions for design projects related to Civil Engineering.

M4: Motivate the faculty members and students in the teaching learning process for achieving excellence to meet the global standards.

M5: Produce graduates with high professional and ethical standards for fulfilling the needs of the industry and society.

Table 1.3 Mapping of PEOs with Mission of the Department

PEO Statements		Department Mission				
		M1	M2	M3	M4	M5
PEO1	Graduates of the program will consistently demonstrate professional competence by applying fundamental principles of STEM and Civil Engineering, contributing to the field through innovative solutions, leadership in project execution, and a commitment to sustainable practices.	3	2	3	3	3
PEO2	Graduates of the program will exhibit professional development by pursuing higher education and obtaining professional certifications in Civil Engineering.	3	3	3	2	3
PEO3	Graduates of the program will actively engage in projects & consultancy in emerging areas, entrepreneurial ventures and public sector initiatives for the betterment of society.	3	3	2	3	3

B. Consistency/Justification of co-relation parameter of the above matrix

The correlation of the Programme Educational Objectives (PEOs) with the Mission of the department is presented in Table 1.4

Table 1.4 Justifications of PEOs mapping with Mission of the Department

Mapping	Justifications
PEO1 maps strongly with M1, M3, M4 and M5	<ul style="list-style-type: none"> • Well established laboratories and facilities such as Concrete & Highway Engineering Lab, Hydraulics Engineering Lab, Water and Waste Water Analysis Lab, Surveying Lab, Soil Mechanics Lab, CAD Lab, RIT Centre of Excellence for BIM Lab in association with Bentley and TechApps, RIT ICT Academy Centre of Excellence for Design powered by Autodesk, Centre of Excellence for Geospatial Technology and Construction Practices Lab will enable the graduates to become professionally competent civil engineers. • Students have undergone Industrial Training, Industrial Visit, Internship and Industrial Projects to enhance their technical skills. • Value added courses, Industrial Visit, In-Plant Training/Internship, Workshop, Webinars and Guest lecture were organized from the MOU signed companies. • Programme outcomes were achieved by employing experienced faculty members, established laboratory facilities, Infrastructure such as CAD lab with Wi-Fi facilities, smart class rooms, seminar halls, Department library. Moreover GATE classes, competitive exam coaching, online courses and placement training program were provided frequently. • Faculty and students have completed online courses through various platforms such as Coursera, Edx, NPTEL, L&T EduTech and Udemy to update their technical knowledge.
PEO1 maps moderately with M2	<ul style="list-style-type: none"> • Organized value added courses such as Auto CAD, Revit, Anna University approved VAC on Project Planning and Management using Primavera and Quality Assurance and Quality Control in Construction, STAAD.Pro Connect Edition, Open Building Designer and Advanced surveying using DGPS and Total Station.

Mapping	Justifications
PEO2 maps strongly with M1, M2, M3 and M5	<ul style="list-style-type: none"> • Co-curricular activities were carried out in association with the professional societies like ICI Students Chapter, IGBC Students Chapter, ISTE Students Chapter and IE(I) for organizing Guest Lecture, Workshop, Value added courses and Hands on training on BIM, STAAD.Pro Connect Edition, Revit, Primavera, AutoCAD, DGPS and Total Station etc. The students were involved in interdisciplinary projects in association with the various industries. • Students are actively participated in soft skills, communication skills, value added courses, internship, mock interview, group discussion, aptitude training, foreign language training and GATE competitive exam coaching to improve their technical skill and also update their knowledge in recent developments and cutting edge technology. • Faculty members and students were presented papers in conferences, published papers in the reputed journals and applied for funded projects. • Students are actively participated in the construction practices laboratory for improving their practical knowledge and participation in technical Contest such as Cube Contest, Project Contest and Smart India Hackathon etc. • Faculty and Students undergone skill based software training such as BIM using Revit, Open Building Designer, STAAD.Pro, Primavera and AutoCAD by industrial experts.
PEO2 maps moderately with M4	<ul style="list-style-type: none"> • Students will be able to apply their knowledge of Engineering Science & Technical Skills in higher education and R&D by attending various workshops, project work, webinars, Internship and Industrial visit. • Faculty and students are applying funded projects in TNSCST for every academic year. • Faculty and students are jointly completed the funded projects through the funding agency TNSCST

Mapping	Justifications
PEO3 maps strongly with M1, M2, M4 and M5	<ul style="list-style-type: none"> • Students undergone Internship/Industrial Visit/Guest lecture/Webinar/Online Courses/Value added courses through MOU signed companies like The Ramco Cements Ltd, TechApps Consulting, Land Coordinates Technology, Infinity PMC Solutions Pvt Ltd, L&T EduTech, BAI, Pyramid IAS Academy to improve their technical skill and knowledge for fulfilling the needs of industry and society. • Individual assignments, seminars, paper presentations, online courses and participation in technical contest such as symposium, workshop and conferences. • Students equip their knowledge through participation in the Co – Curricular and extra-curricular activities which is organized by the various colleges. • Faculty members were completed the consultancy services in the fields of Structural Engineering, Geotechnical Engineering, Environmental Engineering, Surveying and Highway Engineering. In addition, interested students were encouraged to participate in the above consultancy works. • Students were involved in different activities in the various clubs like NSS, NCC, Photography club, Natural club, Eco club, EDC, sports and Elite English Learners' club which are helpful for their career building.
PEO3 maps moderately with M3	<ul style="list-style-type: none"> • Students are encouraged to do their final year project work in design, fabrication, experimental work, algorithm and program. • Students gain analytical skills and knowledge in Civil and related field through teaching learning process and involving them in projects and funded projects. • Students are encouraged to participate in the events like technical symposium, paper presentation, IITM Pals Events, Workshop, Project Expo and conferences. In addition, Students and Faculty members involved in Industry Institute Interactions, Entrepreneur Development Cell activities and pursuing online courses from Coursera, Edx, L&T EduTech and NPTEL.

Correlation Levels

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

Note: M1, M2, M3 are the distinct elements of Mission statement.

PEO Statements	M1	M2	M3	M4	M5
Graduates of the program will consistently demonstrate professional competence by applying fundamental principles of STEM and Civil Engineering, contributing to the field through innovative solutions, leadership in project execution, and a commitment to sustainable practices.	3	2	3	3	3
Graduates of the program will exhibit professional development by pursuing higher education and obtaining professional certifications in Civil Engineering	3	3	3	2	3
Graduates of the program will actively engage in projects & consultancy in emerging areas, entrepreneurial ventures and public sector initiatives for the betterment of society.	3	3	2	3	3

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120)

Total Marks 120.00

2.1 Program Curriculum (20)

Total Marks 20.00

2.1.1 State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexurel. Also mention the identified curricular gaps, if any (10)

Institute Marks : 10.00

2.1.1(A) Process used to identify extent of compliance of university curriculum for attaining**POs & PSOs (6)**

The curriculum was designed by Anna University and aims to build competencies and understanding of the courses with the real outcome of knowledge acquisition. The curriculum comprises of Basic Sciences, Engineering Sciences, Humanities & Social Sciences, Professional Core, Professional Electives, Open Electives and Employability Enhancement Courses as mentioned in **Table 2.1** (R2017) & **Table 2.2** (R2021) related to Civil Engineering. Program Outcomes (POs) are recommended by the National Board of Accreditation. Based on the industry needs and future technology, the Program Specific Outcomes (PSOs) are articulated for the program. Based on the curriculum/structure & content analysis for each course, Course Outcomes (COs) are framed for each course.

Curriculum compliance involves a systematic analysis of the university-prescribed curriculum to evaluate how effectively the syllabi and its contents align with and support the achievement of program outcomes and program-specific outcomes. Evaluation of CO-PO-PSO mapping for each course, suggestions from Department Advisory Committee (DAC) Members, Alumni, Academic and Industry Experts, are used to find the curriculum gaps in Anna University's syllabus. The DAC members suggested to bridge the curriculum gaps through webinars, guest lectures etc.,

Table 2.1 Program curriculum based on course components (R 2017)

S.No.	Course Component	Curriculum Content (% of the total number of credits of the program)	Total number of contact hours/ week	Total number of Credits
1	Basic Sciences	14.76	29	27
2	Engineering Sciences	11.47	28	21
3	Humanities and Social Sciences	6.01	11	11
4	Professional Core	45.90	105	84
5	Professional Electives	8.20	15	15
6	Open Elective	3.28	6	6
7	Employability Enhancement Courses	10.38	30	19
Total number of credits				183

Table 2.2 Program curriculum based on course components (R 2021)

S.No.	Course Component	Curriculum Content (% of the total number of credits of the program)	Total number of contact hours/ week	Total number of Credits
1	Basic Sciences	15.06	27	25
2	Engineering Sciences	11.45	27	19
3	Humanities and Social Sciences	7.23	12	12
4	Professional Core	39.16	77	65
5	Professional Electives	10.84	18	18

6	Open Elective	7.23	12	12
7	Employability Enhancement Courses	9.03	28	15
Total number of credits			166	

The course outcomes are mapped to POs and PSOs on a 3-point scale, defined as follows: 1-Low, 2-Medium, 3-High

Table 2.3 Mapping of CO-POs & PSOs with courses in B.E Civil Engineering Curriculum, 2019-2023 Batch (2017 Regulation)

AU Course Code / Course Title	NBA Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
I Semester (2018-2019)																	
HS8151 - Communicative English	C101									2.2	2.8						
MA8151 - Engineering Mathematics I	C102	3	2.6	2.2	1					1			1.4		1	1.5	
PH8151 - Engineering Physics	C103	2.4	1.8	1.2	2.4	1.2	2.4					2.2	2.2	1.2		2.4	1.2
CY8551 - Engineering Chemistry	C104	2.2	1.2	1								3	3	1			
GE8151 - Problem Solving and Python Programming	C105	2.8	1.66	1.75	1	2							1.4		1	1.4	
GE8152 - Engineering Graphics	C106	2.8	3			2		2			3		1	2			
GE8161 - Problem Solving and Python Programming Laboratory	C107	3	1.6	2.8		2							1	1	1	1	1
BS8161 - Physics and Chemistry Laboratory	C108	2.66	3		3				2.66	2.33	2	3	3	1.66		1	1

II Semester (2019-20 Even)																	
HS8251 - Technical English	C109									2	2.4						
MA8251 - Engineering Mathematics – II	C110	2.2	1.8	2		1							2		1.33	1	
PH8201 - Physics for Civil Engineering	C111	2.8	1.8	1	2.8	1	2.8					2.2	2.2	1		2.8	1
BE8251 - Basic Electrical and Electronics Engineering	C112	3	2.2	1.8	1.4	-	-	-	-	-	-	-	1	2.2	2	1	-
GE8291 - Environmental Science and Engineering	C113			2			2	3	2			2	3			1	
GE8292 - Engineering Mechanics	C114	3	2	2.5	1	2	-	-	-	-	-	1	2	-	1	-	-
GE8261 - Engineering Practices Laboratory	C115	1.83	1	1	1			2.83	2	2		2					
CE8211 - Computer Aided Building Drawing	C116	3	2	1	3	3	2	1	3	1	2	2	2	2	3	2	3
III Semester (2020-21 Odd)																	
MA8353 - Transforms and Partial Differential Equations	C201	3	2	1.2	1.2								1			1.5	2
CE8301 - Strength of Materials – I	C202	3	2	-	-	1	-	-	-	-	-	-	-	-	1	-	-
CE8302 - Fluid Mechanics	C203	3	2.4	1.6	1.75	1		2		1			1			1.8	1.4
CE8351 - Surveying	C204	1	1.75				1						1		1	1	

CE8391 - Construction Materials	C205			3	3	1	3	1	2					3	2		
CE8392 - Engineering Geology	C206	2.67	1.5	3	1.33	1.5	1.33		1		1	1	1	1.17	1.33	2	1.67
CE8311 - Construction Materials Laboratory	C207	3	3							3				2.8	3		3
CE8361 - Surveying Laboratory	C208	3			2	3				2					2	2	3
HS8381 - Interpersonal Skills / Listening and Speaking	C209									2.6	3						
IV Semester (2020-21 Even)																	
MA8491 - Numerical Methods	C210	1.8	1.8	1.8	1.2	1						1				1.25	
CE8401 - Construction Techniques and Practices	C211	2.17	2.2	2.33	1.67	1.8	2	3	2		1		1	1.5	2	1	1.33
CE8402 - Strength of Materials II	C212	3	3	2	1	3				1	2		2	2	3	2	3
CE8403 - Applied Hydraulic Engineering	C213	3	2.8	2.2	1.4	1							1	1.5		1.6	2
CE8404 - Concrete Technology	C214	3	2	2	1.5		1.3	1.2					1	1	2	2	1
CE8491 - Soil Mechanics	C215	3	2	1	1		2	1	0	0	0	1	1	1	1	1.2	1.33
CE8481 - Strength of Materials Laboratory	C216	3	2	1	3	3	2	1	1	1	1	2	2	2	3	2	3

CE8461 - Hydraulic Engineering Laboratory	C217	3	2	2	2												3	
HS8461 - Advanced Reading and Writing	C218									2	2.8							
V Semester (2021-22 Odd)																		
CE8501 - Design of Reinforced Cement Concrete Elements	C301	1.5	2.1	2.5	1	2.1											1.6	2.83
CE8502 - Structural Analysis I	C302	3	3	2	1	3				1	2		2	2	3	2	3	
EN8491 - Water Supply Engineering	C303	3	2	3	2		2.3	2					2	1	3	2.75	2.5	
CE8591 - Foundation Engineering	C304	2	2.5	2	3						1			1	1	2	2	
GE8071 - Disaster Management	C305	2	2	2	-	-	3	-	-	1	2	-	1	-	1	1	-	
ORO551 - Renewable Energy Sources	C306	2	1			2		2	1	2.3	2		1			1		
CE8511 - Soil Mechanics Laboratory	C307	3	2	2	2	2	2		2	1			2	2	3	2	3	
CE8512 - Water and Waste Water Analysis Laboratory	C308	3			2	3		1.5		2	2			2	2	2		
CE8513 - Survey Camp	C309	3	2	2	2	3	3		2	3	2		2	2	2	2	2	2
VI Semester (2021-22 Even)																		

CE8601 - Design of Steel Structures	C310	2	2	3	2	2	2	2	2	2	1	2	2	2	3	2	3
CE8602 - Structural Analysis II	C311	3	3	2	1	3				1	2		2	2	3	2	3
CE8603 - Irrigation Engineering	C312	2.83	2	1.8		2	1.6	1	1	2			1	1	1.5	2	1.67
CE8604 - Highway Engineering	C313	2.5	3	2.8	1.5		2.5	1	2.25	2		2		2	2	1.8	1.5
EN8592 - Wastewater Engineering	C314	3	2	3	2		1	2		1			2	1	3	2.75	2.5
CE8005 - Air Pollution and Control Engineering (Elective II)	C315	2.5	1.5	2	-	-	1.5	2.16	-	-	-	-	-	-	1	-	1
CE8611 - Highway Engineering Laboratory	C316	3	-	-	1	-	-	-	-	3	-	-	-	2.8	-	-	3
CE8612 - Irrigation and Environmental Engineering Drawing	C317	2	2	2						1		1		1		1	2
HS8581 - Professional Communication	C318										2.5	2.6					
VII Semester (2022-23 Odd)																	
CE8701 - Estimation, Costing and valuation Engineering	C401	2	1.7				1.5	0.3					1.6	1.5		1.5	

CE8702 - Railways, Airports, Docks and Harbour Engineering	C402	2.4	1.8	1.5	1	2	1		1		1		1	1.5	1	1.5	1
CE8703 - Structural Design and Drawing	C403	2	2	3	2	2	2	2	2	2	1	2	2	2	3	2	3
EN8591 - Municipal Solid Waste Management	C404	2	1	2			2	2		2	1.25		1.5	1.5	1.5	1.83	-
OML751 - Testing of Materials	C405	2	2	2	2			2					1		1.66		
CE8711 - Creative Innovative Project	C406	3	3	3	3	3	2	2	1	3	3	2	2	3	2	2	2
CE8712 - Industrial Training	C407	3	3	3	3	3	2	2	1	3	3	2	2	3	2	2	2
VIII Semester (2022-23 Even)																	
GE8076 - Professional Ethics in Engineering	C408	1.75	1.5	1			3		3	3	3		1				2
CE8020 - Maintenance, Repair and Rehabilitation of Structures	C409	3	2	3					1	1	1		1	1	2	1	2
CE8811 - Project Work	C410	3	3	3	3	2	2	2	1	3	3	2	2	3	2	2	2
	CO - PO&PSO Mapping Average	2.6	2.1	2.1	1.8	2.0	2.0	1.8	1.6	1.9	1.9	1.9	1.6	1.7	1.9	1.7	2.1

Table 2.3 shows the mapping of CO-PO&PSOs for all courses of R-2017 (2019-2023 Batch). The set target level of CO- POs & PSOs mapping for all courses is fixed as 60%. It is observed from Table 2.3 that the mapping average for PO4, PO7, PO8, PO12, PSO1, and PSO3 are 1.8, 1.8, 1.6, 1.6, 1.7 and 1.7 respectively, which are less than or equal to 60%. Additionally, Table 2.4(a) & (b) shows the percentage of contribution of courses to Program Outcome & Program Specific Outcome respectively.

Table 2.4 (a) - CO-PO, CO-PSO Mapping of the Anna University Curriculum-

Contribution of subject for each POs

Program Outcome	Weightage based on the mapping of Subjects		Percentage of contribution of courses to Program Outcome	
	R2017	R2021	R2017	R2021
PO1: Engineering Knowledge	55	53	90.2	88.3
PO2: Problem Analysis	53	50	86.9	83.3
PO3: Design/Development of Solutions	49	42	80.3	70.0
PO4: Conduct investigations of complex problems	43	40	70.5	66.7
PO5: Modern Tool Usage	37	34	60.7	56.7
PO6: The Engineer and Society	32	33	52.5	55.0
PO7: Environment and Sustainability	31	26	50.8	43.3
PO8: Ethics	28	26	45.9	43.3
PO9: Individual and Team Work	38	35	62.3	58.3
PO10: Communication	34	34	55.7	56.7
PO11: Project Management and Finance	24	22	39.3	36.7
PO12: Life Long Learning	46	44	75.4	73.3

Table 2.4(b) Contribution of subject for each PSOs

Program Specific Outcome (PSO)	Number of Courses mapping to the PSO		Percentage of contribution of courses to Program Specific Outcome	
	R2017	R2021	R2017	R2021
PSO1: Communicate and present civil engineering projects effectively.	40	25	65.6	41.7

PSO2: Use the techniques, skills, and modern engineering tools necessary for civil engineering practice and project management.	42	29	68.9	48.3
PSO3: Provide sustainable solutions to civil engineering problems.	49	31	80.3	51.7
PSO4: Perform as design consultants in construction industry for the design of civil engineering structures.	42	31	68.9	51.7

From the above tables the POs & PSOs with minimum weightages are PO5, PO6, PO7, PO8, PO10, PO11, PSO1 & PSO2

The process diagram of identifying the extent of compliance of University Curriculum and outcome attainment is illustrated **Figure 2.1** – https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

2.1.1(B) – Curricular gaps for the attainment of defined POs and PSOs

At the end of each semester, the Head of the Department conducts a PAQIC meeting with all faculty members to review and reflect on the semesters activities. This session helps evaluate the level of attainment of the outcomes. Additionally, the Department Advisory Committee meets annually to identify curricular gaps and propose corrective actions to address them. These suggestions assist in planning additional components to be incorporated into the next semesters activities to bridge the identified gaps.

The list and action taken for fulfilling curricular gaps are shown in **Figure 2.2** – https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

2.1.2 State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10)

Institute Marks : 10.00

2.1.2 (A) Inputs and suggestions to the Affiliating University regarding curricular gaps

To bridge the gap and for better attainment of POs and PSOs, some of the following identified gaps are represented as to the Director of Academic Courses, Anna University, Chennai.

- Building Information Modelling
- Net Zero Energy Building and Retrofitting
- Town & Country Planning Bye-Laws.
- Construction Practices Laboratory

Anna University, in regulation, R2017, has made provisions for the affiliated institutes to conduct one or two credit (additional) value-added courses for the students. Based on the above provisions, we have submitted the following two-credit value-added courses to the University for the approval.

- CVA007 – Project Planning and Management
- CVA036 – Quality Assurance and Quality Control in Construction
- Building Facade Technology

Sample letter forwarded by the Centre for Academic Courses, Anna University, Chennai to the Controller of Examination, Anna University, Chennai regarding the approval of Value- added course is shown in the **Figure 2.3** and syllabus copy of the approved value-added course is shown in **Figure 2.4** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

2.1.2 (B). Delivery details of the content beyond the syllabus (5)

The identified gaps for the attainment of defined POs & PSOs are covered in the following ways such as:

1. Guest Lectures/Seminar/Workshops
2. Content beyond syllabus as classroom lectures
3. Hands-on training/ Value added Courses
4. Soft skill training/Placement training
5. Industrial visits/In-plant training

The details of placement training given to students is shown in the **Table 2.5**

Table 2.5 Placement Training organized

S.No	Year	Date of Training	Resource Person/Training Institute	Nature of Training (Technical/Aptitude/Programming)	Relevance to POs & PSOs
Academic year (2023-2024)					

Figure 2.5 shows the evidence of guest lecture organized & **Figure 2.6** sample value-added course certificate.
https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf
https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf

S.No	Year	Date of Training	Resource Person/Training Institute	Nature of Training (Technical/Aptitude/Programming)	Relevance to POs & PSOs
1	III	19.06.2023 - 24.06.2023	Faculty members of RIT	Technical Training	PO1, PO12
2	III	26.06.2023 - 28.06.2023	Faculty members of RIT	Technical Training	
3	IV	23.06.2023 - 28.06.2023	Faculty members of RIT	Technical Training	
4	IV	07.08.2023 - 10.08.2023	Top Freshers, Chennai	Aptitude Training	
Academic year (2022-2023)					
1	II	16.08.2022 - 18.08.2022	Top Freshers, Chennai	Aptitude Training	PO1, PO12
2	II	22.08.2022 - 24.08.2022	Top Freshers, Chennai	Aptitude Training	
3	III	02.09.2022 - 03.09.2022	Top Freshers, Chennai	Aptitude Training	
4	IV	07.09.2022 - 09.09.2022	Top Freshers, Chennai	Programming	
5	III	07.10.2022 - 08.10.2022, 10.10.2022	Top Freshers, Chennai	Aptitude Training	
6	I	04.11.2022	Top Freshers, Chennai	Aptitude Training	
Academic year (2021-2022)					

S.No	Year	Date of Training	Resource Person/Training Institute	Nature of Training (Technical/Aptitude/Programming)	Relevance to POs & PSOs
1	IV	01.09.2021 - 14.09.2021	Top Freshers, Chennai	Programming	PO1, PO12
2	IV	23.09.2021 - 24.09.2021	Top Freshers, Chennai	Programming	
3	I	12.11.2021 - 13.11.2021	Top Freshers, Chennai	Aptitude	
4	I	27.11.2021	Top Freshers, Chennai	Aptitude	
5	I	04.12.2021	Top Freshers, Chennai	Aptitude	
6	IV	13.12.2021 - 18.12.2021	Top Freshers, Chennai	Programming	
7	I	18.12.2021	Top Freshers, Chennai	Aptitude	
8	I	05.02.2022	Top Freshers, Chennai	Aptitude	PO1, PO12
9	I	12.02.2022	Top Freshers, Chennai	Aptitude	
10	II	23.04.2022	Top Freshers, Chennai	Aptitude	
11	III	26.04.2022 - 28.04.2022	Top Freshers, Chennai	Aptitude	
12	I	07.05.2022	Top Freshers, Chennai	Aptitude	
13	I	28.05.2022	Top Freshers, Chennai	Aptitude	
14	II & III	28.05.2022	Top Freshers, Chennai	Aptitude	

2023-24

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Exposure to modern survey tools	Guest Lecture on Drone & Lidar Based Map Creation	28/07/2023	Mr. A. Selvam General Manager Land Coordinates Technology	91	PO1,PO3,PO5,PO6,PO9, PO12,PSO2.PSO3,PSO4
2	Exposure to Internet of Things (IoT)	Guest Lecture on Internet of Things (IoT) in Civil Engineering	22/08/2023	Mr. Senthil Murugan Founder & CEO BEYCAN Technical Training Institute, Rajapalayam	93	PO1, PO3, PO5, PO7, PSO2
3	Awareness program	Guest Lecture on an awareness program on IGBC Accredited Professional Exam Preparation & Strategies	29/08/2023	Mr.J.Saravanan IGBC Accredited, Assistant Professor, Department of Civil Engineering, PSR Engineering College, Sivakasi.	82	PO1, PO6, PO7, PO10, PO12, PSO3
4	Analyzing and detailing of structure	Workshop on Analyzing and Detailing of structure	31/08/2023	Dr. A. Rajasekar Assistant Professor (Selection Grade), Department of Civil Engineering Thiagarajar College of Engineering	86	PO1, PO2, PO3, PO4, PO5, PO10, PSO2, PSO4
5	Exposure to Safety Operations	Webinar on Occupational Ergonomics and Safety in Formwork Operations	30/09/2023	Dr.C.Vigneshkumar, PhD (IIT Guwahati), Assistant Professor, Amity School of Design, Amity University, Noida -201313	100	PO1, PO2, PO3, PO4, PO5, PO6, PO10, PO11, PSO2
6	Exposure to modern survey tools	Workshop on Total Station & DGPS	11/10/2023	Mr. A. Selvam General Manager Land Coordinates Technology	84	PO1, PO2, PO5. PO9, PSO2.
7	Exposure to Seismic Analysis & Design	Seminar on Seismic Analysis & Design	31/10/2023	Dr. C. Freeda Christy Professor, Civil Engineering, KARE.	95	PO1, PO2, PO3, PO4, PO5, PO7, PSO3, PSO4
8	Exposure to software	Workshop on Getting Started with GIS	10/10/2023	Dr. Surender Natarajan Assistant Professor Department of Civil Engineering SSN College of Engineering, Chennai	96	PO1, PO4, PO5, PO7, PSO2, PSO4
9	Code usage	Cocurricular-Contest on Code Cracking-IS456-2000	13/10/2023	Dr.M.Indhumathi/ASP, Ms.D.Darling Helen Lydia/AP Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam-626117	18	PO1, PO3, PO9, PSO2, PSO4
10	Exposure to Current Trends	Webinar on "Green Railway Stations"	19/10/2023	Ar.Saurav Chodhury, Counsellor-Green Built Environment, Architect& Urban Planner, CII-SohrabjiGodrej Green Business Centre, Hyderabad-500084	70	PO1, PO5, PO6, PO7, PO10, PO12, PSO3
11	Environment and sustainability	Classroom Lecture on Indoor Air Quality Management	31/10/2023	Mr.V.Ragavan, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	95	PO4, PO6, PO7, PO10, PSO3
12	Environment and sustainability	Classroom Lecture on Draft of EIA 2020	07/11/2023	Ms.R.Kalaimani, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	100	PO4, PO6, PO7, PO10, PSO3, PSO4
13	Exposure to Analysis and design of strap footing	Classroom Lecture on Analysis and design of strap footing	08/11/2023	Dr.S.Dharmar, Associate Professor& Head, Department of Civil Engineering, Ramco Institute of Technology.	100	PO1, PO2, PO3, PSO1, PSO2, PSO3, PSO4
14	Exposure to Building byelaws	Seminar on Building byelaws	16/11/2023	Ms. R. Harshini, Assistant Professor, Department of Civil Engineering, National Engineering College, Kovilpatti.	100	PO1, PO6, PO7, PSO4
15	Practical Knowledge	Field Visit	02/12/2023	M/s. CREATIVE BLOCKS	97	PO1, PO4, PO5, PO8, PO9, PO10, PO11 and PO12
16	Practical Knowledge	Field Visit	02/12/2023	M/s. TTV Bricks	97	PO1, PO4, PO5, PO8, PO9, PO10, PO11 and PO12

17	Practical Knowledge on Cement Manufacturing	Field Visit	07/12/2023	Ramco Cements Limited, R.R Nagar, ECO Park Pandhalkudi	95	PO1, PO4, PO5, PO8, PO9, PO10, PO11 and PO12
18	Exposure to Turbulent flow	Classroom Lecture on Turbulent flow	21/12/2023	Ms.R.Kalaimani, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	99	PO1, PO2, PSO4
19	Quality Assurance & Quality Control	Value-Added Course On Quality Assurance & Quality Control in Construction	29/01/2024	Er.M.Ravikumar, Sr.Deputy General Manager, L&T Heavy Civil Infrastructure Bullet Train Project, Chennai.	100	PO1, PO5, PO8, PO9, PO10, PSO3, PSO4
20	Exposure to modern survey tools	Workshop on DGPS and DRONE: The Next Generation of Surveying Techniques	19/02/2024	Mr. A. Selvam General Manager, Mr. R. Velmurugan, Survey Engineer Land Coordinates Technology	57	PO1, PO3, PO5, PO6 PO9, PO12, PSO2.PSO3, PSO4
21	Quality Control	Contest on Cube contest 2	06/02/2024	Mr.R.Vijayakumar Manager, Technical Services Ramco Cements	81	PO1, PO3, PO7, PO9, PSO2, PSO3 PSO4
22	Environment and sustainability	Guest Lecture on Global Green Initiative	22/02/2024	Ms.R.Jeyasudha Sustainability Engineer, LEED GA, Active Score AP, Innowell Engineering International Pvt Ltd.	95	PO1, PO5, PO6, PO7, PO10, PO12, PSO3
23	Practical Knowledge	Field Visit	16/03/2024	RDC Concrete (India) Pvt. Ltd, Cochin	88	PO1, PO4, PO5, PO8, PO9, PO10, PO11 and PO12
24	3D model Connection	Guest Lecture on Exploration of steel structures an Experimental Learning on 3D model Connection	18/03/2024	R.Abinaya Tekla Modeler	86	PO2,3,5,6 PSO2, PSO3, PSO4
25	Exposure to 3D modeling	Classroom Lecture on Practicing 3D modeling of simple objects by CAD Software	09/05/2024	Mr.A.Manicka Mamallan, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	91	PO12, PSO1
26	Exposure to soil Consolidation	Webinar on 3-D Consolidation Theory	29/05/2024	Mr.R.R.Abishek,PhD. Scholar, Indian Institute of Technology, Hyderabad	94	PO1, PO2, PO3, PO4, PSO2
27	Life Cycle Assessment	Classroom Lecture on Life Cycle Assessment	09/08/2023	Mr.T.Chockalingam, Assistant Professor (SG) Department of Civil Engineering, Ramco Institute of Technology.q	100	PO7, PSO3
28	Exposure to Analysis and Design of Silo Storage Pin and Bunker	Classroom Lecture on Analysis and Design of Silo Storage Pin and Bunker	26/04/2024	Mr.R.Muruganantham, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	100	PO2, PO3, PO5, PO6 PSO2, PSO3, PSO4
29	Exposure to modern survey tools	Classroom Lecture on Introduction to Differential Global Positioning System (DGPS)	7/12/2023	Mr.A.Manicka Mamallan, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	100	PO1, PO5, PO6, PO12, PSO2, PSO4

2022-23

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Exposure to software tools	Value Added Course on Project Planning and Management using Primavera (P6)	25/07/2022	Mr. K. Iyappan, Project Lead, IBM India Pvt Ltd, Bangalore	100	PO1, PO2, PO3, PO5, PO9, PO11, PSO1, PSO2, PSO3, PSO4
2	Exposure to software tools	Value Added Course on Open Building Designer	25/08/2022	Mr.Akbar Ali Khader & Mr.S.Rajesh Kumar, TechApps, Chennai	100	PO1, PO2, PO3, PO5, PO9, PO10, PSO1, PSO2, PSO3, PSO4.
3	Current trends	Guest Lecture on Applications of new construction materials	09/09/2022	Mr.S.A.P.R.Karthik, Chairman, Builders Association of India, Madurai center	96	PO1, PO2, PO3, PO6, PO7, PSO1, PSO2, PSO3.
4	Quality Control	Technical Contest on Cube contest	06/10/2022	Mr. R. Vijayakumar, Manager, Technical services, Ramco Cements	50	PO1, PO3, PO7, PO9, PSO2, PSO3, PSO4
5	Exposure to Building Technologies	Guest Lecture on Alternate Building Technologies	04/11/2022	Er.T.P.Madhusudanan, Chief Consultant, Habitat – Pathanamthitta	100	PO1, PO2, PO3, PO6, PO7, PO8, PO9 PSO1, PSO2, PSO3
6	Exposure to Engineer and society	Classroom Lecture on SHA (Seismic Hazard Analysis)- DSHA &PSHA in EQ disaster content.	14/11/2022	Mr.A.Leema Margret, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	100	PO1, PO2, PO3, PO6, PO9, PO10, PO12, PSO4
7	Exposure to modern survey tools	Classroom Lecture on Introduction to Differential Global Positioning System (DGPS)	01/12/2022	Mr.A.Manicka Mamallan, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	100	PO6, PO12, PSO2, PSO3
8	Exposure to Analysis and design of strap footing	Classroom Lecture on Analysis and design of strap footing	03/12/2022	Dr.S.Dharmar, Associate Professor& Head, Department of Civil Engineering, Ramco Institute of Technology.	86	PO1, PO2, PO4, PO5, PSO1, PSO2, PSO3, PSO4
9	Exposure to Ethical practices	Workshop on an overview of patents & procedure for protection	20/01/2023	Mrs. Suganya Jayavelu, Patent Analyst, Puthran & Associates, Chennai,	100	PO6, PO7, PO8
10	Exposure to Staad.pro software	Workshop on Staad.pro connect edition v22	27/01/2023	Mr. R. Ganesh Kumar, Senior Structural Consultant, TechApps Consulting, Chennai	100	PO1, PO2, PO3, PO5, PO9, PO10, PSO1, PSO2, PSO3, PSO4.
11	Awareness program	Webinar on Gate Civil 2023 Strategies and Preparation	02/02/2023	Er.V.Keshavan, Professor, Pyramid IAS Academy, Karaikudi.	92	PO1, PO12
12	Exposure to modern survey tools	Guest Lecture on Third Eye in the sky – Drone Technology	04/03/2023	Alumni Er.M.Ponkumaran, Pilot Drone Trainer	83	PO1, PO3, PO5, PO6, PO9, PO12, PSO2, PSO3, PSO4
13	Exposure to softwares	Guest lecture on Mapping of Cropping pattern through Q-GIS Process	06/04/2023	Mr.A.Leema Margret, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	76	PO5, PO7, PO12, PSO2, PSO3, PSO4
14	Exposure to Corrosion and structural repair of prestressed concrete systems	Classroom Lecture on Corrosion and structural repair of prestressed concrete systems	08/05/2023	Dr.S.Dharmar, Associate Professor& Head, Department of Civil Engineering, Ramco Institute of Technology.	100	PO1, PO3, PO4, PO7, PSO2, PSO3, PSO4
15	Exposure to Impact of Jet	Classroom Lecture on Impact of Jet	10/05/2023	Ms.R.Kalaimani, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology	100	PO1, PO2, PO3, PSO2, PSO4

16	Exposure to Navier-stokes Equation	Classroom Lecture on Navier-stokes Equation	12/10/2023	Ms.R.Kalaimani, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	100	PO1, PO2, PSO4
17	Exposure to Analysis and Design of Silo Storage Pin and Bunker	Classroom Lecture on Analysis and Design of Silo Storage Pin and Bunker	31/10/2022	Mr.R.Muruganatham, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology	53	PO2,3,5,6 PSO 2, PSO 3, PSO 4
18	Exposure to software	Classroom Lecture on Introduction of TEKLA software, Numerical analysis of bolted connection by abaqus software.	10/04/2023	Mr.R.Muruganatham, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology	90	PO2,3,5,6 PSO 2, PSO 3, PSO 4

2021-22

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Career opportunities	Guest Lecture on Career opportunities in Civil Engineering	14/02/2021	Mrs.M.Karpagam, M.Tech., Director of Pyramid Academy, Karaikudi.	83	PO6, PO7, PO8, PO9, PO10, PO12, PSO3
2	Exposure to Recent Trends	Webinar on Recent Trends in Coordinates Based Survey Technology	10/07/2021	Er.A.Selvam, General Manager, Land Coordinates Technology, Chennai.	100	PO1, PO3, PO5, PO9, PO12, PSO2
3	Exposure to Innovative Technologies	Webinar on The use of Innovative Technologies in the Construction Industry	13/7/2021	Er. S. Suganya, Manager Delivery & Services, IPMCS, Chennai & Er. B. Janani, Manager Professional Services, IPMCS, Chennai	100	PO1, PO3, PO11, PSO2
4	Exposure to Quantity Surveying	Webinar on An overview of Quantity Surveying	17/09/2021	Er.Shriram Ramanan, Chartered Quantity Surveyor, Parsons Corporation, Dubai.	98	PO1, PO2, PO5, PO9, PO11, PSO2
5	Exposure to Project Planning and Management	Value Added Course on Project Planning and Management	11/11/2021	Er. S. Suganya, Manager Delivery & Services, IPMCS, Chennai & Er. B. Janani, Manager Professional Services, IPMCS, Chennai	100	PO1, PO2, PO3, PO5, PO6, PO7, PO9, PO11, PSO2, PSO3, PSO4
6	Exposure to Coastline infrastructure	Classroom Lecture on Sagarmala, Coastal Regulation Zone 2019	23/11/2021	Ms.T.Chockalingam, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	100	PO7
7	Exposure to Analysis and design of strap footing	Classroom Lecture on Analysis and design of strap footing	01/12/2021	Dr.S.Dharmar, Associate Professor& Head, Department of Civil Engineering, Ramco Institute of Technology.	100	PO1, PO2, PO3, PO4, PO5, PO7, PSO2, PSO3, PSO4
8	Exposure to BIM Software	Guest Lecture on Bentley BIM Advanced Software Education Program for Academic	02/12/2021	Mr.Rajesh Kumar, Director, Technical Services, TechApps Consulting, Chennai	73	PO1, PO2, PO3, PO5, PSO2, PSO4
9	Exposure to Current Trends / Modern Tools	Classroom Lecture on Use of sensors/robots for water distribution, conveyance,leaks	15/12/2021	Ms.C.Subha, Assistant Professor(SG), Department of Civil Engineering, Ramco Institute of Technology.	100	PO5, PO6, PO7 PSO2
10	Exposure to MATLAB-A modeling tool (software)	Workshop on MATLAB-A modeling tool for civil engineering applications	09/03/2022	Dr.Surendran.M,Senior Scientist, CSIR_SERC, Taramani, Chennai-600113	90	PO1, PO2, PO3, PO5, PSO2, PSO4
11	Exposure to Safety practices	Guest Lecture on Ergonomics in construction	25/03/2022	Mr.C.Vignesh Kumar, Research Scholar, IIT Guwahati	100	PO1, PO3, PO4, PO6, PO10, PO11, PSO2
12	Exposure to BIM Software	Webinar on Big Benefits of Building Information Modelling (BIM)	22/04/2022	Mr. Chandra Shekar, Co-Founder of TurnBIM Engineering Services	77	PO1, PO3, PO5, PO6, PSO2, PSO4
13	Exposure to Reality Modeling	Webinar on Reality Modeling	18/05/2022	Mr.S.Rajesh Kumar, Director, TechApps Consulting, Chennai	100	PO1, PO3, PO5, PSO2, PSO4
14	Exposure to STAAD.Pro software	Workshop on Structural Analysis Using STAAD.Pro software	20/05/2022	Dr.S.Nagan, Professor, Department of Civil Engineering, Thiagarajar College of Engineering, Madurai	71	PO1, PO2, PO3, PO5, PSO1, PSO2, PSO3, PSO4.
15	Exposure to Corrosion and structural repair of prestressed concrete systems	Classroom Lecture on Corrosion and structural repair of prestressed concrete systems	07/06/2022	Dr.S.Dharmar, Associate Professor& Head, Department of Civil Engineering, Ramco Institute of Technology.	86	PO1, PO4, PO6, PSO1, PSO 4
16	Exposure to CROPWAT	Classroom Lecture on Irrigation Planning and Management using CROPWAT	10/06/2022	Mr.A.Leema Margret, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	100	PO1, PO5, PO7, PO12, PSO1, PSO3

17	Exposure to Hydraulic structures	Classroom Lecture on Flow through Notches and weir	11/06/2022	Ms.R.Kalaimani, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology	100	PO1, PSO4
18	Exposure to wastewater treatment units	Classroom Lecture on Study on wastewater generation points, wastewater characteristics, process flow of treatment units of textile effluent	14/06/2022	Ms.C.Subha, Assistant Professor(SG), Department of Civil Engineering, Ramco Institute of Technology	100	PO1, PO7, PSO3
19	Exposure to TEKLA software,	Classroom Lecture on Introduction of TEKLA software, Numerical analysis of bolted connection by abaqus software	16/06/2022	Mr.R.Muruganatham Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology	100	PO2, PO3, PO5, PO6, PSO - 2,3,4
20	Exposure to Analysis and Design of Silo Storage Pin and Bunker	Classroom Lecture on Analysis and Design of Silo Storage Pin and Bunker	01/09/2021	Ms.R.Muruganatham Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology	86	PO1, PO2, PO3, PO5, PO6, PSO - 2,3,4
21	Exposure to modern survey tools	Classroom Lecture on Introduction to Differential Global Positioning System (DGPS)	30/09/2021	Mr.A.Manicka Mamallan, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology.	98	PO5, PO6, P012, PSO - 2,3

2.2 Teaching - Learning Processes (100)

Total Marks 100.00

2.2.1 Describe processes followed to improve quality of Teaching & Learning (25)

2.2.1 (A) Adherence to Academic Calendar

Anna University releases the academic schedule for non-autonomous affiliated colleges for every semester individually for the first year and higher semesters. It includes the commencement of classes, last working day, commencement of practical examinations, end semester examinations and re-opening day for the next semester. Samples of Anna University academic schedule are shown in **Figure 2.7 a, b c** for III, II & I years respectively. https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

With adherence to the Anna University schedule, RIT Academic coordinator prepares the institution academic calendar individually for first year and higher semester well before start of each semester. The process of preparing the academic calendar is shown in the **Figure 2.8** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf) and the contents are shown in **Table 2.7**

A copy of academic calendar is circulated to all the faculty members and students at least two weeks before the commencement of semester in order to prepare the course documents for effective teaching. Also, the soft copy of the calendar is made available on the college website. Also, it is circulated to other internal stakeholders like GM(A), Physical Director, Librarian, Training & Placement Officer, Hostel wardens for pre-planning any other activities. A sample of Academic calendar for III, II & I year is shown in the **Figure 2.9 a, b, c** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

The subject allotment is done well in advance based on the specialization of faculty members. A well-defined course plan indicating the topics to be covered, lecture wise is prepared by the concerned faculty before the commencement of the classes. Course content, activities and assessments are aligned with the course outcomes and the program outcomes. The mode of delivery is also shown. It is then duly approved after careful examination by the Head of the Department.

Based on the institutes academic calendar, the department timetable coordinator will prepare the class-wise timetable for each class, and individual timetables will be prepared by the course-handling faculty based on the class timetable.

In order to ensure good academic preparation for the upcoming semester, each faculty member prepares the course documents for theory and practical courses and the documents are verified by the concerned Domain coordinator and approved by the HOD, Vice Principal and Principal.

Contents of the Theory Course file

- Syllabus Copy
- Course plan – Theory which includes
 - Course objectives and course outcomes
 - Lecture Plan
 - Tutorial plan with tutorial sheets if applicable
 - Assignment plan with assignment sheets if applicable
 - Content beyond plan if applicable
 - Innovative practices & its report
 - Mini-project if applicable
 - Teaching – Learning material (Notes of lesson neatly typed/written with good hand writing and any other downloaded and edited material, soft copies of NPTEL Video, Online course materials relevant to the subject)
 - Use of Video Lectures (NPTEL)
- Course Assessment Plan – Theory which includes
 - Direct & Indirect Assessments
 - Rubrics
- Individual Time Table
- Class Time Table
- Question Papers of immediate previous University examinations for the subject concerned.
- Any other relevant material

The sample copy of course file contents like Course Plan, Course Assessment, Class Timetable and Individual Timetable etc., are shown **Figure 2.10** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Contents of the Practical Course file

- Laboratory Manual prepared as per guideline

- Course Plan - Laboratory
- Course Assessment - Laboratory
- Syllabus copy
- Individual Time Table
- Class Time Table
- Any other relevant material

After preparation of the documents, in the execution stage periodical monitoring (after completion of each unit) for effective teaching and learning process is done using Academic Performance Monitoring and log book.

In Academic Performance Monitoring, the performance in each Internal Assessment Test is monitored. Based on the performance, corrective and preventive actions are planned and executed. The Class room delivery, usage of ICT tools, Innovative practices, deviation from plan and execution are monitored using log book. The sample copies of these documents are shown in the **Figure 2.11**- https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

At the verification stage, after completing each unit the faculty members get signature from the concerned HOD and the execution of these activities are verified using class register which contains presentation details and details of class room delivery content.

Students' presentation details include topic of presentation and name of the student. Details of class room delivery content contains period, subject code/name, topic covered, mode of content delivery, register number of absentees, faculty name and signature and class/topic alteration details remarks (if any alteration is done).

The class register is maintained by the class representative after completion of each period, the student representative fills all the required data and get signature from the concerned faculty member and the same is monitored by class adviser and verified by the HOD. A sample page of Class register is shown in the **Figure 2.12** -https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Table 2.7 Contents of academic calendar

S.No.	Contents of Academic Calendar (Dates)
1	Commencement of the Class & Last working day
2	Number of working days
3	Holidays
4	Course file submission
5	Completion of each unit
6	Logbook submissions
7	Class committee meeting
8	Parents Teachers Meeting
9	Starts and completion of the Internal Assessment Tests
10	IAT Portions
11	Commencements of Model Practical Tests
12	Students Feedback
13	Tentative dates for university practical and theory exams

2.2.1 (B) Use of Various Instructional Methods and Pedagogical Initiatives

The context of Instructional Methods and Pedagogical Initiatives is shown in **Figure 2.13** https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Use of ICT Tools:

- All the faculty members created LMS through Canvas/Google Classroom for the course.
- Google site is created for specific courses, which comprises various sections.
- Course materials are posted through Canvas/Google Classroom which helps the students to access the materials round the clock.

Passive Learning:

- This methodology uses the traditional way of teaching using chalk and talk.

Active Learning:

- Active learning activities are conducted for short duration to increase the attention span of the student which helps to transfer knowledge in a better way.
- Active learning practices followed by faculty members is shown in **Figure 2.14 & Figure 2.15** shows the glimpses of active learning methods followed in classes.

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

E-Learning:

- Faculty member use NPTEL videos, conceptual videos and animated videos which add value to the teaching learning process.
- Faculty members use Virtual laboratories, simulation tool and software to make the students to have a better conceptual understanding.

Experiential Learning:

The hands-on experience on latest technologies is given through value added courses in which the students will work individually in software's like STAAD Pro., Primavera, Revit Architecture etc. as shown in **Figure 2.16** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf). It is important for educational institutions to supplement the curriculum as:

A few pedagogical initiatives followed during teaching-learning process and their impact is prescribed in **Table 2.8**

Table 2.8 Pedagogical initiatives for teaching learning with its impacts

Pedagogical Initiatives	Name of the Course	Name of the Faculty Member	Impacts/Outcomes
Formula Sheets	Applied Hydraulic Engineering	Mrs.R.Kalaimani	Give concise references summarizing key formulas and concepts for quick review and problem-solving.
Handouts	Structural Analysis II	Dr.M.Indhumathi	Help slow learners who have poor hand-written notes
Tutorials	Design of Steel Structures	Mr.R.Muruganatham	More time devoted for problem solving step by step under guidance
Open Book Test	Concrete Technology	Dr.G.Karthikeyan	Gives understanding & application rather than memorizing
One minute paper	Water Supply Engineering	Mrs.C.Subha	Easy for summarization of topics learnt.

Crossword Puzzles	Construction Techniques & Practices	Mr.J.Ramprashath	Enhanced vocabulary, critical thinking, and problem-solving skills while providing an engaging way to learn and review concepts
Simulation Tools	Structural Analysis I	Dr.M.Indhumathi	Hands on training of software
Four Corner Four Questions	Air Pollution & Control Engineering	Mr.V.Ragavan	Encouraged students' involvement, critical thinking in the learned concepts
Virtual Laboratory	Strength of Materials I	Mr.V.Ragavan	Provided digital environment for experiments & results
Experimental learning-lab visit	Soil Mechanics	Mrs.D.Darling Helen Lydia	Learning by Doing in the soil lab
Mind Map	Foundation Engineering	Mrs.R.Kalaimani	Improvement in Retention of Information by Students
Visible Quiz	Irrigation Engineering	Mrs.A.Leema Margret	Enhanced group participation & active learning
Google Classroom/Canvas	All Subjects	All Faculty	Materials are uploaded in google classrooms for students' reference
PPT/ NPTEL Videos			Used for easy understanding of topics

2.2.1 (C) Methodologies to support weak students and encourage bright students

The learning levels of the student are assessed based on the student's performance. Slow learners are identified based on their performance in the first internal exams. Students who score below 60% in three or more subjects are identified and special attention is being given. The students are motivated through individual care to boost their confidence level. Various action taken for slow and bright learners are illustrated in the **Figure 2.17** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Methodologies to support the slow learners

Special classes - For the identified slow learners, special classes are conducted during evening hours (5PM to 6.30 PM) to give special attention and clarify their doubts. Additionally, slow learners are provided support in the hostel during study hours and study holidays. **Figure 2.18** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf) illustrates the special class circular and attendance.

Collaborative learning, Assignment, Tutorial

- University question papers, Question Bank with 2-mark questions with answers, important bigger questions, and application-oriented questions for each unit are given to slow learners.
- Counseling: The Head of the Department selects the faculty members as mentors for a group of students. The Mentor establishes a close relationship with each student and follows their academic progress regularly.
- The Mentors meet their respective students at regular intervals and record their details like participation in Co-curricular/Extra-curricular activities in the Student Mentor Book.
- After each assessment, the identified slow learners are counseled by the Mentors, Class Advisors, and the Head of the Department.
- The students are also counseled to clear the previous years arrears, if any, and improve their grades in the current semester.

Parent-Teachers Meeting:

- The parents are informed about the academic performance of their wards.

- Parent-teacher meetings will be conducted once every semester as shown in **Figure 2.19** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf) through which awareness is created among the parents about the additional facilities and opportunities provided for their wards related to placement, higher studies, etc.,
- The slow learners are counselled in the presence of Parents.

Motivation for Placement: Placement training programs are conducted during semester holidays by external training vendors and internal faculty members to improve the aptitude skills and soft skills which support the slow learners for their placement in final year.

II. Encouragements for bright students:

- **Scholarship:** To encourage students with higher cutoffs, the college is providing scholarships to the students. The eligibility criteria for scholarships are given in the admission policy for every year and the same is updated on the college website. A sample copy of the admission policy is shown in **Figure 2.20** - https://www.ritrjpm.ac.in/images/admission/2022-2023/Revised_Admission_Policy_Civil_Mech_23-24.pdf (https://www.ritrjpm.ac.in/images/admission/2022-%202023/Revised_Admission_Policy_Civil_Mech_23-24.pdf)
- **Best Outgoing Student Award:** The bright students are also nominated for the Best Outgoing Students Awards for the college and department. The details of best outgoing of the department are shown in **Tables 2.9** and **Figure 2.21** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)
- **Motivation for University Ranks:** Identified bright students are encouraged by the Mentors, Class Advisors and Head of the Department consistently to obtain University Ranks. **Table 2.10** shows the details of University Rank Holders and **Figure 2.22** represents sample copy of certificates of the University Rank Holders. - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)
- **Encouraging to pursue Online Courses:** The Bright students are sponsored to do online courses in Edx, Coursera, etc., for their enrichment. **Table 2.11** depicts the number of students completed online courses for each academic year and the details of online course completed and sample certificate are shown in **Figure 2.23** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)
- **Nominated as Student Representatives:** The bright students are nominated for various positions like Class Representative, Placement Coordinators, IV/IPT Coordinators, Event Coordinators as well as President, Vice President, Secretary, Treasurer, and Office Executive Bearers of Students Technical Association in line with the ISTE, IEEE and IE(I) Students Chapters based on their interest as shown in **Figure 2.24** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)
- Bright students are also encouraged to associate with faculty members to submit project proposals to funding agencies as shown in **Table 2.12** and present the papers in conferences.
- They are encouraged to take-up industry projects and internships from Industries; participate in Workshops, Symposium, Seminars and Training.
- They collaborate with other branch students in interdisciplinary product development.
- **Motivation for Higher Studies** through GATE, TANCET is done and sample TANCET & Gate Scorecard is shown in **Figure 2.25** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf) . List of students completed/pursuing higher studies is shown in **Table 2.13**
- **Motivation to write Competitive Exams:** Resource materials are available in the library. Competitive exam coaching is given to students regularly and many of our students are appointed as Assistant Engineers, Junior Engineers, Draftsman, etc. in the Government sector. The sample Appointment order copy is shown in **Figure 2.26** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Table 2.9 Details of Best Outgoing Student of the Department

Sl.No.	Name of the Student	Batch
1.	R.Hema Karthika	2016-2020
2.	R.Harshani, G.Abirami	2017-2021
3.	G.Mohanrajan	2018-2022

Table 2.10 Details of University Rank Holders

Sl.No.	Name of the Student	Batch
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1	R. Harshani	2017-2021
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Table 2.11 Detail of online courses completed by students

Sl.No.	Academic Year	Online Courses
1	2021-2022	28
2	2022-2023	25
3	2023-2024	66

Table 2.12 Detail of Student Project Proposal Submitted

Sl.No.	Academic Year	Student Project Proposed to Funding Agencies - TNSCST	
		Submitted	Accepted
1	2021-2022	03	1
2	2022-2023	08	1
3	2023-2024	10	-

Table 2.13 List of Students Pursuing Higher Studies

Sl. No.	Register Number	Name of the Student	Degree	Name of the Institution/University
Batch: 2017-2021				
1	953617103013	Fathima Haseena M	M.E Structural Engineering	Mepco Shlenk Engineering College, Sivakasi
2	953617103019	Harshani R		
3	953617103038	Sanjay Maadhavan V		
4	953617103039	Saravanan S		
5	953617103047	Sri Ranjith Kumar P		
Batch: 2018-2022				
1	953618103007	Jenitha G	M.E. Construction Management	Thiagarajar College of Engineering, Madurai
2	953618103008	Meena Bharathi S	M.E. Structural Engineering	Thiagarajar College of Engineering, Madurai
3	953618103017	Sudhakaran A		Alagappa Chettiar Government College of Engineering and Technology, Karaikudi,
Batch: 2019-2023				

Sl. No.	Register Number	Name of the Student	Degree	Name of the Institution/University
1	953619103003	Hari Hara Pandiyan V	M.E. Structural Engineering	Mepco Schlenk Engineering College, Sivakasi

D. Quality of classroom teaching (Observation in class)

Classroom ambiance

All the classrooms in the department are well-ventilated with an area of 82 Sq. m. The classrooms are equipped with white and blackboards with a sound system to make the lectures audible, LCD Projectors with provision for connecting laptops and internet connection. The Civil Engineering department has a separate seminar hall to conduct seminars and display video lectures with a size of 152 Sq. m and a seating capacity of 150.

The view of the classroom, and seminar hall is shown in **Figure 2.27** and **Figure 2.28** respectively -https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Efforts taken by faculty to engage students

- Engaging students in active participation during class hours fosters interest in the subject and helps them understand the significance of the course, which is the key to quality classroom instruction.
- In order to incorporate real-time assessment and practical experience into the learning process, faculty members utilize PowerPoint presentations to deliver lectures that are full of engaging activities.
- Faculty members employ active learning activities to create a lively classroom environment and break up the monotony of the students time in class.
- To improve comprehension, demonstration is carried out in the classroom utilizing models and components.
- Videos are used to provide real-time demonstrations.
- The collaborative learning approach is utilized for tutorial classes use a collaborative learning approach, where students work together to solve challenges.

The best practices followed by the faculty members to enhance the quality of the teaching process are presented in **Table 2.14**

Table 2.14 Classroom delivery methods

S.No.	Course delivery	Justification
1	Lectures using Chalk & Board	Information concerning theories, and equations is communicated through lectures and chalk & board method. It helps in clear understanding of problems & doubt clarifications.
2	Handouts	Handouts are given to Supplement lectures with information for thinking or understanding the subject deeply concerning the contemporary world.
3	Application/Case studies	Case studies are used to give a clear understanding of the concepts
4	Mind map	Mind maps are used to easily put across complex ideas to students. Provides an overall pictorial view of the entire syllabus/ unit-wise topics/specific topics and the underlying connections to enable the students to relate to the course at large.
5	Video presentations	Video presentations are used to effectively communicate the working of actual engineering solutions and their impact. Such tools will help their imagination thrive and grow.
6	ICT tools (Smart boards/Video presentation/LMS)	Improve the efficiency and effectiveness of the teaching-learning process. Enable the students to get the materials related to the course in an organized manner.

7	Peer Learning	Peer learning enables Students to become more autonomous and learn to teach one another
8	One-minute paper	Students provide feedback twice in a semester about their understanding of the subject, requirements, grievances, etc.,
9	Experiential learning	Experiential learning enables, learning through reflection on doing lab courses enables the students to understand/verify the theorems, laws and physical behavior of the structure.
10	Open book test	<ul style="list-style-type: none"> Open-book exams encourage students to analyze, synthesize, and evaluate information, which helps them develop critical thinking skills. Access to resources can reduce exam anxiety and create a more relaxed environment.

2.2.1 (E) Conduct of Experiments (Observation in Lab)

- The departments laboratories are well-equipped and have the infrastructure needed to support the efficient operation of laboratory courses.
- Faculty members of respective specialization involve in the preparation of lab manual, material requirements, conduction of experiments and cycle of experiments, course plan before the commencement of the semester.
- Depending on the strength of class, the students are split into two batches subjected to maximum of 30 to 35 students per batch.
- The lab classes are conducted in sessions of 4 hours where the faculty members explain the fundamental concepts and application of the experiments and subsequently, students are allowed to continue experimenting.
- The observed results and inferences of the experiments are documented both in the observation notebook and record book by the students for further evaluation.
- Additional experiments are created for students for a better understanding of the subject and to have more hands-on.
- A post-lab viva is conducted for each experiment. The final evaluation for the laboratory course is based on their performance during the semester, model lab test and record submission.
- Absentees during laboratory sessions are given a chance to do the experiments in the evening of the subsequent laboratory session
- The process followed while conducting the laboratory course is shown in **Figure 2.30** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

2.2.1 (F) Continuous Assessment in the Laboratory

At the end of each laboratory session, students will get their records evaluated for the experiments done in the previous weeks. Marks are given in accordance with a brief viva-voce discussing the experiments and their use. The weightage of marks for each experiment is given in the **Table 2.15**

Table 2.15 Weightage of marks for each experiment

Description	Maximum Marks
Aim & Apparatus Required	5
Details of the Equipment	5
Safety Precautions	5
Procedure	5
Performance	10
Record	10
Results	10
References	5

Inference	5
Applications	5
Viva Voce	10
Total Marks	75

The Internal Marks for the practical course are awarded as per Anna University Regulation. 75% of marks scored in Continuous Assessment for all experiments and 25% of the marks scored in Model Practical Examination are calculated for 100 marks and reduced to 60 marks. The end semester examinations are scheduled by Anna University. An external examiner from other affiliated colleges appointed for each by the university along with an internal examiner from our institution conducts the laboratory exam for a total of 100 marks. The marks will be uploaded immediately after the completion of the exam in the Anna University web portal.

2.2.1 (G) Student feedback on teaching-learning process and actions taken

The following efforts are made to keep the students engaged and to verify the interaction among faculty and students. Frequency of collection of various Feedback is given in the following **Table 2.16**

Table 2.16 Feedback Mechanism and Frequency

S.No.	Feedback Mechanism	Frequency of collection
1	Class Committee Meeting	3 per semester
2	Course Committee Meeting	2 per semester
3	Students Feedback on Faculty	Once in a semester
4	Course Exit Survey	At the end of the semester
5	Programme Exit Survey	At the end of the programme

The student feedback system of Teaching - Learning process and action taken thereof is described as a flow chart in the **Figure 2.31** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

1. Students Feedback on Faculty

- To enhance teaching learning process, a student feedback procedure is designed and the collection is done through a software indigenously developed by the institute to receive transparent feedback about the faculty members on teaching-learning process from all the students after Internal Assessment Test I.
- The individual score of each questionnaire and the average score for the feedback should be greater or equal to 70%. The score which is less than 70% is treated as unsatisfactory and analysis is to be made to take corrective actions.
- The faculty member is asked to submit a self-reflection report to the Head of the Department to correct the content delivery, usage of additional teaching aids or software tools and any other teaching methodology to improve the teaching learning process.
- Consolidated details of student feedback for individual faculty members and class are generated by the Head of the Department for analysis as shown in **Figures 2.32** and **Figure 2.33**.
- A sample of faculty self-reflection form for the theory / laboratory course is presented below in **Figure 2.34** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

2.Feedback through Class & Course Committee Meeting

- Class committee meetings are conducted by a chairperson nominated by the Head of the Department thrice in a semester, second week after commencement of class, after Internal Assessment Test – I & Internal Assessment Test – II.
- The oral feedback about the Teaching Learning Process is collected from the student's representatives during class & course committee meetings.
- Course committee meeting is conducted for a specific course that is offered to more than one class and handled by different faculty members. In such cases, the senior-most faculty member serves as the course coordinator (Chairperson), who organizes the meeting and receives feedback from student representatives.
- Class/Course Committee Meeting Chairperson, Head of the Department and Head of the Institute, review the feedback collected from the students. In case of any difficulties faced by the students, corrective measures are suggested to the faculty members.
- The sample format of the Class Committee Constitution, Class Committee Circular, and Minutes of Meeting is shown in **Figure 2.35 (a) & (b)** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

3.Exit Surveys

- At the end of the semester, the faculty members collect the course exit survey for their courses to find the satisfaction level of the students on their method of content delivery, assessments, rating of experience for their course and suggestions/changes to improve the course.
- The programme exit survey is collected at the end of the program. in which, the questionnaires related to the teaching-learning process are analyzed. Head of the Department considers the factors while planning the courses for next batch.
- Templates for Course Exit Survey & Program Exit Survey are shown in **Figure 2.36 & Figure 2.37** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20)

Institute Marks : 20.00

As per Anna University Regulations R2017 & R2021, the system of examination (Continuous Internal Assessment) is followed for theory courses is shown in **Table 2.17**

Table 2.17 System of Examination for Theory courses

S.No.	Particulars	R2017	R2021
1	Number of Continuous Assessment Tests	3	2
2	Test Marks	50	100
3	Test Duration	90 minutes	180 minutes
4	Internal Marks Contribution	20	40

2.2.2 A) Process for Internal Assessment Question paper setting and evaluation and effective process implementation

- Question papers are set based on revised Bloom's taxonomy.
- While setting the question paper, previous year university exam question papers are taken into consideration.
- Question papers are Head of the Department.
- Two sets of question papers are prepared by the subject handling faculty and submitted to the exam control office. The exam control office selects any one of the two question papers and conduct the exam.
- Answer keys with scheme of evaluation are prepared by the faculty members for the evaluation.
- For any genuine reasons, if a student is unable to attend/perform well in the given three internal assessment tests, a re-test is conducted on him/her.
- The process of internal assessment question paper setting and evaluation is shown **Figure 2.38** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf).

2.2.2 B) Process to ensure questions from outcomes/learning levels perspective (5)

- Keeping in view the course objectives and the course outcomes, the internal test questions are set for each subject by the respective faculty member.
- Questions are framed based on Revised blooms taxonomy with a fair distribution of marks to the course outcomes and the weights are decided by the respective faculty member. Each question is mapped with the COs and the individual marks obtained in each question are used in the final CO-PO attainment.
- The Guidelines for Internal Assessment question papers include the following (R 2017 & R 2021) is shown in **Figure 2.39** and sample question paper is shown in **Figure 2.40** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf).
 - Syllabus coverage for each Internal Assessment Test
 - Unit-wise distribution of Questions and Marks thereof
 - Mapping of Questions with course outcomes

2.2.2 C) Evidence of COs coverage in class test / mid-term tests (5)

Course outcomes are marked for each question in the internal assessment question papers. Marks for each course outcome is sum up and entered in the front page of the answer booklet. A sample answer script with the individual CO marks is shown in **Figure 2.41**- https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf).

2.2.2 D) Quality of Assignment and its relevance to COs (5)

- Assignment questions are prepared by considering past university question papers or application questions.
- The number of assignments for a particular course is decided by the respective faculty handling the subject.
- Assignments are given based on COs framed for every course. A sample copy of the assignment sheet is shown in **Figure 2.42** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf).

2.2.3 Quality of student projects (25)

Institute Marks : 25.00

2.2.3 (A). Identification of projects and allocation methodology to faculty members

In the Anna University regulations R2017 & R2021, the project is included as a course with 10 credits.

Project Identification

- The students' projects are chosen in line with the department mission, vision and program outcomes.
- Brainstorming sessions are provided to students with faculty members for project identification.
- Students are asked to explore industry needs, societal challenges, and funding agency requirements during selection of project topics.
- Students are also asked to check for the feasibility of the technical, financial, and logistical feasibility of proposed projects. Also, the students are asked to ensure the projects align with available resources, infrastructure, and timelines.

Faculty Allocation

- Students are informed of the specializations of faculty members and the area of research in which they are interested to guide the project.
- The students can choose the project based on their area of interest.
- Students are permitted to execute a project work as an individual or form a team comprising of 2 members to a maximum of 4 members.
- The faculty members encourage the students to carry out in house projects as well as external projects in the industry.

2.2.3 (B) Types and relevance of the project and their contribution towards the attainment of POs and PSOs

The number of projects and their relevance to POs and PSOs are presented in the Table 2.18

Table 2.18 Type & Relevance of the project and its relevance to POs and PSOs

S.No	Name of the Project	Type & Relevance of Project	PO Mapping	PSO
(CAYm1 2023-2024)				
1	Mechanical Behavior of Roller compacted concrete using copper slag	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
2	Household Waste Composter	Environmental Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
3	Experimental investigation of High strength concrete using mill scale tailings	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
4	Experimental investigation of Geological Light weight Geopolymer Concrete Blocks	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
5	Influence of heat on mechanical properties of pervious concrete with different aggregate sizes	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
6	Experimental Investigation on mechanical properties of Geomortar-Ready Mix Powder	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
7	Experimental study on flexural behavior of textile reinforced concrete	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4

8	Experimental study on lantana camera reinforced concrete	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
9	Experimental Investigation on carbon fiber reinforced geopolymer concrete	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
(CAYm2 2022-2023)				
1	Flexural Performance of Geogrid reinforced pervious Concrete beam with different aggregate sizes.	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
2	Utilization of LECA in GGBS based light weight geopolymer concrete with addition of lime	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
3	Self-Compacting Concrete using mill scale waste	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
4	A comparative study on multiblock	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
5	Impact and Mechanical Properties of carbon fibre reinforced Concrete.	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
6	Eco-friendly light weight bricks	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
7	Experimental Investigation on mechanical behavior of fiber-based Roller compacted Concrete and copper slag	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
8	Study on LEED credits and Certification	Infrastructure Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
9	Experimental Study on Paver Block using Prosopis Juliflora Ash	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
10	Effect of Specimen size on Compressive strength of pervious concrete with different aggregate sizes	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
11	Influence of wood ash and fly ash based light weight geopolymer concrete using LECA	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
12	Impact behavior of GPC Using DMS and M-Sand as fine aggregates	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4

13	Experimental Study on mechanical properties of Textile Reinforced Concrete	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
14	Treatment of textile effluent in palm fruit cell	Environmental Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
15	Experimental study on the strength behavior of lantana camara reinforced concrete beam	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
16	Experimental Investigation of Arsenic Removal from water using Iron Oxide Nanoparticles Incorporated in Activated Carbon Synthesized from Natural adsorbents (Grass Cuttings)	Environmental Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
17	Experimental Investigation on stabilization of Black Cotton soil using Borosilicate Glass Powder	Geotechnical Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
(CAYm3 2021-2022)				
1	Experimental study on Microbial fuel cell performance on pollutant removal by utilizing sesame oil cake as Bio-char catalyst	Environmental Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
2	Experimental investigation on packing density of different fine aggregate	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
3	Experimental Investigation on Mechanical behavior of fibre-based Roller Compacted Concrete	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
4	Experimental study on Gypsum panel and blocks incorporated with waste recycled plastic	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
5	Experimental study on mechanical property of mill scale based self-compacting concrete	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
6	Experimental Study of Performance of Cement-Based Batteries	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
7	Effect of PVA Fiber on Slag Concrete	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
8	Experimental Investigation on Stabilized Mud Block incorporated with Copper Slag	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
9	Experimental investigation on flexural behavior of marine sand based Reinforced Cement Concrete Beam	Structural Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4

10	Experimental study on Compressive strength and durability properties of pervious concrete	Transportation Engineering (Product)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3, PSO4
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2.2.3 (C) Process for monitoring and evaluation

Project work flow and monitoring is described in **Table 2.19**

Table 2.19 Project Flow and Monitoring

Time Line	Task	Particulars
Date of commencement of semester	Call for Project Batch	<ul style="list-style-type: none"> Students are invited to form batches and get them registered with the project coordinator. The student submitting the project titles are evaluated by a review committee. Guides will be allotted as per their wish and area of specialization required.
1 st week	Zeroth Review	<ul style="list-style-type: none"> Project objective, scope, methodology and work plan will be presented by the students, which is reviewed by a review committee.
4 th week	Review I	<ul style="list-style-type: none"> Students are instructed to present the project with the contents shown in the Table 2.20 based on assessment criteria for review I The review committee will provide suggestions for improvements.
8 th week	Review II	<ul style="list-style-type: none"> Incorporation of previous review suggestions is to be verified. Students are instructed to present the project with the contents shown in the Table 2.20 based on assessment criteria for review II The review committee will provide suggestions for improvements.
12 th week	Review III	<ul style="list-style-type: none"> Students are encouraged to demonstrate the innovations/prototype/ model experiments/investigation. The results & discussions and conclusions are to be reviewed. Submission of project work to journals or conferences is encouraged The project report should be prepared as per the Anna University format.

An assessment of the project is done by review committee comprising of the project coordinator, senior faculty members. The project assessment criteria for the reviews are given in the **Table 2.20**

Table 2.20 Project Assessment Criteria

Review order	Assessment Criteria	Max. Marks
Review 1	Literature review	10
	Problem Identification and Project objectives	10
	Methodology Proposed and work plan	10
	Resource Planning	10
	Communication & Presentation Skills	10
Review 2	Application of engineering principles and concepts	10
	Problem Solving approach/Methodology used	10
	Modern tool usage	10
	Ethics/Social relevance/Environmental consideration during development of project	10
	Team work – Team morale and cohesiveness	5
	Communication & Presentation Skills	5
Review 3	Modelling and analysis	10
	Novelty & Interpretation of results	10
	Commitment to Professional ethics	10
	Project Documentation	10
	Oral and Presentation Skills	10
	Team work – Team morale and cohesiveness	10
	Project Management and Finance	10
	Self-Learning	10
	Project Outcome	10
	Conclusion and Future Scope	10

2.2.3 (D) Process to assess individual and team performance

During the project review, the students are asked to present their work individually and also by the team. The project review committee evaluates their work and award marks individually based on their involvement in the project work. The contribution of review assessment marks for Internal mark calculation is shown in **Table 2.21 (a)** & The assessment of individual and team performance is discussed in **Table 2.21 (b)**

Table 2.21 (a) Contribution of review assessment marks for Internal marks calculation

Review order	Internal Marks	
	R2017	R2021
Review 1	5	10

Review 2	7.5	15
Review 3	7.5	15
Total	20	40

Table 2.21 (b) Evaluation scheme for Projects

REVIEW 1				
Assessment Criteria	Max Marks (50)	Assessment Method for a Team		
		Excellent	Good	Fair
Literature review	10	Collected atleast 10 relevant references and summarize it properly (8-10 Marks)	50% of the paper was not relevant to the problem taken (5-7 Marks)	Most of the references were not relevant (0-4 Marks)
Problem Identification and Project objectives	10	Detailed and Extensive explanation of the problem chosen for the project. Project should have relevance to society/ Environment/ Industry (8-10 Marks)	Good explanation of the problem chosen for the project. Relevance to society/ Environment/ Industry (5-7 Marks)	Problem statement was not clearly defined (0-4 Marks)
Methodology Proposed and work plan	10	Selection of materials/method of test/software/processing steps were justified (8-10 Marks)	Selection of materials/method of test/software/processing steps were partially explained & justified (5-7 Marks)	Poor selection of materials/method of test/software/processing steps were poorly justified (0-4 Marks)
Resource Planning	10	All required resources are clearly identified, including personnel, tools, materials, and timelines. Each resource is justified and aligned with project goals. (8-10 Marks)	Most resources are identified with some justifications, but details or alignment with goals are incomplete. Minor omissions are present. (5-7 Marks)	Resource needs are unclear or incomplete, with little or no justification or connection to project goals. (0-4 Marks)
Assessment Method for an Individual				
Communication & Presentation Skills	10	Explains the project clearly and shows a deep understanding. (8-10 Marks)	Explains the project well but misses some key points. (5-7 Marks)	Explanation is unclear or shows poor understanding. (0-4 Marks)
REVIEW 2				

Assessment Criteria	Max Marks (50)	Assessment Method for a Team		
		Excellent	Good	Fair
Application of engineering principles and concepts	10	Shows a strong understanding of engineering principles and applies them correctly. (8-10 Marks)	Shows a good understanding but makes minor errors in application. (5-7 Marks)	Shows limited understanding or applies principles incorrectly. (0-4 Marks)
Problem Solving approach/Methodology used	10	Selection of materials/method of test/software/processing steps were justified (8-10 Marks)	Selection of materials/method of test/software/processing steps were partially explained & justified (5-7 Marks)	Poor selection of materials/method of test/software/preprocess steps were poorly justified (0-4 Marks)
Modern tool usage	10	Used the tools/software/equipment, effectively and correctly for the project tasks. (8-10 Marks)	Used the tools/software/equipment but with minor errors or inefficiencies. (5-7 Marks)	Struggled to use the tools/software/equipment or used them incorrectly. (0-4 Marks)
Ethics/Social relevance/Environmental consideration during development of project	10	The project fully considers ethical, social, and environmental factors, making a positive impact in all areas. (8-10 Marks)	The project addresses some ethical, social, or environmental concerns but could have a stronger focus on these areas. (5-7 Marks)	The project neglects ethical, social, and/or environmental considerations. (0-4 Marks)
Team work – Team morale and cohesiveness	5	The team collaborates seamlessly, communicates well, and supports each other throughout the project (5 Marks)	The team works together but occasionally faces communication issues or lacks support. (3-4 Marks)	The team struggles with collaboration, communication, and support. (0-2 Marks)
Assessment Method for an Individual				
Communication & Presentation Skills	5	Explains the project clearly and shows a deep understanding. (5 Marks)	Explains the project well but misses some key points. (3-4 Marks)	Explanation is unclear or shows poor understanding. (0-2 Marks)

REVIEW 3

Assessment Criteria	Max Marks (100)	Assessment Method for a Team		
		Excellent	Good	Fair
Modelling and analysis	10	The modelling is highly accurate, realistic, and relevant, with thorough analysis that leads to meaningful conclusions using appropriate tools and techniques. (8-10 Marks)	The modelling is fairly accurate but may have minor errors or oversimplifications. Analysis is adequate but lacks depth, and the tools used are not fully optimized. (5-7 Marks)	The modelling is inaccurate or unrealistic, the analysis is incomplete or invalid, and tools or techniques are used poorly or are inappropriate. (0-4 Marks)
Novelty & Interpretation of results	10	The project demonstrates high originality with innovative ideas or approaches, and the results are interpreted clearly and effectively, offering valuable insights. (8-10 Marks)	The project shows some originality, but the approach or ideas are not entirely unique. Results are interpreted but may lack depth or clarity. (5-7 Marks)	The project lacks originality, and the interpretation of results is unclear, superficial, or inaccurate. (0-4 Marks)
Commitment to Professional ethics	10	The project fully adheres to professional ethics, demonstrating integrity, accountability, and respect for all ethical standards. (8-10 Marks)	The project mostly follows professional ethics, but some aspects may need improvement or deeper consideration. (5-7 Marks)	The project shows limited or no adherence to professional ethical standards. (0-4 Marks)
Project Documentation	10	Project report is effectively written and it is according to the specified format. (8-10 Marks)	Project report is effectively written and requires alterations in format. (5-7 Marks)	Project report not yet prepared (0-4 Marks)
Project Management and Finance	10	The project is well-managed with clear timelines, resource allocation, and budget planning. Financial decisions are realistic, efficient, and align with project goals. (8-10 Marks)	The project management and financial planning are generally effective but may have minor gaps or inefficiencies. (5-7 Marks)	The project lacks proper management, and financial planning is inadequate or unrealistic. (0-4 Marks)
Self-Learning	10	Demonstrates strong self-learning skills by exploring new concepts, tools, or techniques independently and applying them effectively to the project. (8-10 Marks)	Shows some self-learning ability but relies on external guidance for most concepts or applications. (5-7 Marks)	Limited or no evidence of self-learning; depends heavily on external inputs without personal effort to explore or understand new ideas. (0-4 Marks)
Project Outcome	10	The project achieves all objectives with significant impact, producing high-quality, innovative, and practical results. (8-10 Marks)	The project meets most objectives and delivers acceptable results but lacks significant impact or innovation. (5-7 Marks)	The project fails to meet key objectives, and the results are incomplete, low-quality, or impractical. (0-4 Marks)

Conclusion and Future Scope	10	The conclusion is clear, well-supported by results, and effectively summarizes the project. Future scope is realistic, relevant, and demonstrates a deep understanding of potential advancements. (8-10 Marks)	The conclusion is satisfactory but may lack clarity or full alignment with results. Future scope is mentioned but lacks depth or feasibility. (5-7 Marks)	The conclusion is unclear, unsupported, or incomplete. Future scope is missing or irrelevant. (0-4 Marks)
Team work – Team morale and cohesiveness	10	The team collaborates seamlessly, communicates well, and supports each other throughout the project (8-10 Marks)	The team works together but occasionally faces communication issues or lacks support. (5-7 Marks)	The team struggles with collaboration, communication, and support. (0-4 Marks)
Assessment Method for an Individual				
Oral and Presentation Skills	10	Explains the project clearly and shows a deep understanding. (8-10 Marks)	Explains the project well but misses some key points. (5-7 Marks)	Explanation is unclear or shows poor understanding. (0-4 Marks)

2.2.3 (E) Quality of Completed project/working prototypes:

The faculty ensures that the project work done by their respective students is of good quality. The students are also encouraged to apply for funds for their projects and publish their work in journals and conferences. Quality projects are presented in **Table 2.22**

Table 2.22 Quality of Completed projects

S.No.	Team Members	Project	Outcome of the projects	Details
1.	Balaji K Devar Piran M Arun Kumar S Deena Dhayalan R	Household Waste Composter	Cash prize	Won Cash prize worth Rs.5000 in the event of Current Environmental Challenges and solution towards sustainability, EUPHORIA'24 organized by the Department of Civil Engineering, Kalasalingam Academy of Research and Education.
2.	A. Keerthi Roja	Impact and Mechanical Properties of carbon fibre reinforced Concrete.	Published in journal	Leema Margret, A. & Keerthi, Roja (2024). Effect of Addition of Carbon Fibre on Mechanical Properties of Concrete. Journal of Science Technology and Research (JSTAR) 5 (1): 535-541.
3.	S.Muthu Sanjay	Eco-friendly light weight bricks	TNSCST Funded	Got fund for the project under TNSCST Students Project Scheme
4.	K. Jeevanbabu	Figure Diminishing Geopolymer products	MSME Funded	Funded project Granted in the scheme of MSME Idea Hacathon

S.No.	Team Members	Project	Outcome of the projects	Details
5.	M.Paartha Sarathi	Experimental Study on Paver Block using Prosopis Juliflora Ash	Published in journal	Published in International conference Presented at International Conference on Sustainable Technology in Civil Engineering and Applied Sciences 2023 (ICSTCA2023) & Published in the conference of Global Nest Journal
6.	V.Vineeth	Experimental Study on mechanical properties of Textile Reinforced Concrete	Presented at International Conference	Presented at International Conference on Sustainable Technology in Civil Engineering and Applied Sciences 2023 (ICSTCA2023) & Published in the journal of E3 Web of conferences
7.	K. Hariharasudhan	Treatment of textile effluent in palm fruit cell	Published in journal	Subha, C. & Hariharasudhan, K. (2024). Textile Waste Water Treatment Using Biochar. Journal of Science Technology and Research (JSTAR) 5 (1):547-551.
8.	S.Ajandha Devi G.Jenitha M.Subalakshmi	Numerical study of flexural behavior of reinforced concrete beam using MATLAB	Published in journal	Presented at the International Conference on Smart Technologies and Applications 2022 and accepted for publication in AIP Conference Proceedings
9.	S.Ajandha Devi G.Jenitha M.Subalakshmi	Experimental investigation on packing density of different fine aggregate	Published in journal	Indhumathi, M.; Leema Margret, A.; Ajandhadevi, S.; Jenitha, G. & Subalakshmi, M. (2024). Experimental Investigation on Packing Density of Different Fine Aggregate in Geopolymer Concrete. Journal of Science Technology and Research (JSTAR) 5 (1):552-566.
10.	B.Jacksingh Dharma K.Thanga Guru P.Karthick Raja	Experimental and Numerical Studies on Gypsum Board using ABAQUS	Presented at the International Conference	Presented at the International Conference on Smart Technologies and Applications 2022
11.	A.Abdhur Rahman K.Dinesh	Experimental study on Microbial fuel cell performance on pollutant removal by utilizing sesame oil cake as Biochar catalyst	Presented at the International Conference	Presented at the ICISDG23: International Conference on Innovation Towards Sustainable Development Goals
12.	G.Mohanrajan S.Srivarshan M.RA.Suresh Kumar	Experimental Study of Performance of Cement-Based Batteries	TNSCST Funded	Got fund for the project under TNSCST Students Project Scheme
13.	Suresh Anand J Shreehari K	Experimental study on the future of sustainable building using textile reinforce concrete (TRC)	TNSCST Funded	Got fund for the project under TNSCST Students Project Scheme

S.No.	Team Members	Project	Outcome of the projects	Details
14.	V.Vineeth M.Patha Sarathi S.Muthu Sanjay	Translucent Concrete	Presented in project expo	Miniproject presented in project expo during National Science Day, ISTE Competition and Engineers Day
15.	Dhanalakshmi S, Jaya Priya Bharathy R, Ponpriya M	Android Application For Agriculture	Cash prize	Won Second Prize Rs. 50,000 from Dr.A.P.J.Abdul Kalam Innovative Ecosystems under the category of Agriculture at Sri Sairam Engineering College, Chennai
16.	Jagan T, Karthick Raja P	Effect of different compaction on determining compressive strength of pervious concrete – an experimental study	Published in journal	International Journal of Engineering Innovations and Management Strategies
17.	B.Jacksingh Dharm K. Thanga Guru	Experimental Study on The Behaviour Of Gypsum Plaster Board Incorporated With Waste Plastic.	Published in journal	International Journal of Engineering Innovations and Management Strategies
18.	T. Narmadha	Study on leed credits and the certification for whole building construction and major renovation - LT	Published in journal	International Journal of Engineering Innovations and Management Strategies
19.	A Keerthi Roja	Effect of Addition of Carbon Fibre on Mechanical Properties of Concrete	Published in journal	Journal of Science Technology and Research
20.	K. Hariharasudhan	Textile Waste Water Treatment Using Biochar	Published in journal	Journal of Science Technology and Research
21.	S.Ajandha Devi G.Jenitha M.Subalakshmi	Experimental Investigation on Packing Density of Different Fine Aggregate in Geopolymer Concrete.	Published in journal	Journal of Science Technology and Research

S.No.	Team Members	Project	Outcome of the projects	Details
22.	Harshani R	Influence of utilizing prosopis juliflora ash as cement on mechanical properties of cement mortar and concrete	Published in journal	Global NEST Journal
23.	Harshani R	Study on performance of paver block using Prosopis Juliflora ash	Published in journal	Global NEST Journal
24.	V. Vineeth R.Harshani	Experimental study on mechanical properties of Textile Reinforced Concrete (TRC),	Published in journal	E3S Web of Conferences
25.	V.Muthukumar	Utilization of Rice Husk Ash as Partial Replacement of Fly Ash in Sustainable Geopolymer Concrete	Presented at the International Conference	International Conference on Innovation towards Sustainable Development Goals (SDGs)
26.	K.Dinesh, A.Abdhur Rahman	Investigation on Biochar as Cathode Catalyst in Microbial Fuel Cells	Presented at the International Conference	International Conference on Innovation towards Sustainable Development Goals (SDGs)
27.	Anto Sherlina, R. Harshani	Study and Evaluation of Firecracker-related Soil Contamination in Selected areas around Sivakasi", International Conference on Sustainable Technology in Civil Engineering and Applied Sciences-2023	Presented at the International Conference	International Conference on Sustainable Technology in Civil Engineering and Applied Sciences-2023 (ICSTCA-2023)
28.	A Sudhakaran, E.Thanigai Selvan	Analysis Of Natural Coolant on The Rooftop to Lower Room Temperature	Presented at the International Conference	International Conference on Sustainable Technology in Civil Engineering and Applied Sciences-2023 (ICSTCA-2023)

S.No.	Team Members	Project	Outcome of the projects	Details
29.	R. Deena Dhayalan	Investigation On Strength Characteristics of Self Compacting Concrete Incorporated with AR Glass Fibers	Presented at the International Conference	International Conference on Sustainable Technology in Civil Engineering and Applied Sciences-2023 (ICSTCA-2023)
30.	V. Vineeth	Experimental Study on Mechanical Properties of Textile Reinforced Concrete (TRC)	Presented at the International Conference	International Conference on Sustainable Technology in Civil Engineering and Applied Sciences-2023 (ICSTCA-2023)
31.	M.Partha Sarathi	Experimental Study On Paver Block Using Prosopis Julifora Ash	Presented at the International Conference	International Conference on Sustainable Technology In Civil Engineering And Applied Sciences-2023 (ICSTCA-2023)
32.	V.Aiswarya, Ragavi and V.S Priyadharshini	Experimental Study on Biochar Utilization in Microbial Fuel Cells	Presented at the International Conference	International conference on Recent trends in Science, Engineering and Technology (KIRSET-2023)
33.	Meenaa Bharathi S, Sneghavardhini J	Performance Study on Damaged Cylinder with SFRP Under Various Loading Conditions using Abaqus	Presented at the International Conference	International Conference on Smart Technologies and Applications-2022 (ICSTA 2022)
34.	S. Ajandhadevi, G. Jenitha and M. Subalakshmi	Numerical Study on Flexural Behavior of Reinforced Concrete Beam using MATLAB	Presented at the International Conference	International Conference on Smart Technologies and Applications-2022 (ICSTA 2022)

2.2.3 (F) Evidence of papers published/awards received by projects

Quality projects including the journal paper publication and awards received are shown in **Table 2.22** of the above section

The sample of evidence of papers published / awards received by projects is shown in **Figure 2.43** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf) -

2.2.4 Initiative related to industry interaction (15)

Institute Marks : 15.00

2.2.4 A. Industry-Supported Laboratories

- The Civil Engineering Department has constant tie-up with leading industries to setup industry-oriented laboratories to train the students and faculty members for the current trend.
- Also intending to provide value-added courses, workshops, guest lectures, and seminars for the benefit of the students. The list of industry supported laboratories set up in the department is presented in **Table 2.23**

Table 2.23 List of industry-supported laboratories

Laboratory Name	Name of the Industry	Area
Centre for Geospatial Technology	Land Coordinates Technology, Chennai	Surveying
Construction Practices Laboratory	Ramco Groups	Construction Practices
Project Laboratory	Ramco Groups	Research Activities
Centre of Excellence for BIM Laboratory	Bentley & Tech Apps, Chennai	Software Training
ICT Academy, Centre of Excellence for Design Powered by Autodesk	ICT Academy, Chennai	Software Training

Centre for Geospatial Technology

Objective

Centre for Geospatial Technology was established in the year 2024 in association with Land Coordinates Technology (LCT), Chennai to provide hands-on experience to students and faculty members on Differential Global Positioning System (DGPS) and Drone Surveying. This hands-on experience helps them to enhance their skills regarding the cutting-edge technologies happening in the Geospatial sector. **Figure 2.44** shows the proofs for MoU between RIT and Land Coordinates Technology - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Utilization & Effectiveness

Our department faculty members and students engaged in preparing the topographic layout of Kondaneri lake which is situated in city of Rajapalayam in association with Land Coordinates Technology (LCT), Chennai. **Figure 2.45** shows the photos of topographical surveys conducted with the assistance of Land Coordinates Technology, - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

The following **Table 2.24** shows the list of events organized through Centre for Geospatial Technology & **Figure 2.46** is the sample photos taken during hands on session on drone surveying. https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Table 2.24 Events organized through Centre for Geospatial Technology

S. No	Title of the Event	Date
1	Drone and LIDAR based Map Creation	28-07-2023
2	Workshop on Total Station and DGPS	11-10-2023 - 12-10-2023
3	One Day Hands on Training on Mapping Using DGPS	24-07-2024
4	One Day Hands on Training on Drone Surveying	24-10-2024

Construction Practices Laboratory

Objective

Construction Practice Labs established in 2022; it provides a hands-on learning environment to the students. Hence, they can apply theoretical knowledge gained in the classroom to real-world construction scenarios.

Utilization & Effectiveness

The lab offers a controlled setting for students to practice various construction skills, such as carpentry, masonry, electrical work, plumbing, and heavy equipment operation. Safety is paramount in the construction industry. The lab allows students to learn and practice safety protocols and procedures, reducing the risk of accidents and injuries on real construction sites. The facilities available in construction practices laboratory are shown in Figure 2.47 - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Project Laboratory

Objective

- **Project and consultancy laboratory was established in the year 2022.**
- **This laboratory is mainly focused on enhancing the project work of the students as well as Faculty those who are doing the research works.**

Utilization & Effectiveness

- **The major equipment in the laboratory includes Rapid Chloride Penetration Test equipment, Concrete Impact testing equipment, Rebound Hammer, Total Station, Line Laser Level, Standard Penetration test equipment, Rapid Moisture Meter.**

In addition, various consultancy works like Field Density Test, Bearing Capacity of Soil, Topographical Survey, Compressive strength of existing structures etc., have been carried with the help of our faculty members. Project lab facilities are shown in Figure 2.48 - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Centre of Excellence for Building Information Modelling (BIM)

Objective

The Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam, has established the RIT Centre of Excellence for Building Information Modeling (BIM - A Futuristic Lab) in collaboration with Bentley Education and Tech Apps Consulting, Chennai with cutting-edge industry-relevant software catering to diverse sub-domains of Civil Engineering. A MoU was signed between RIT and Tech Apps for Bentley's software training and knowledge transfer among students and faculty members. MoU document between RIT & Tech Apps is shown in **Figure 2.49** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Utilization & Effectiveness

RIT BIM Laboratory has equipped with the Bentley Softwares like STAAD.Pro Connect Edition, Open Buildings Designer, Open Roads Designer and other products available for academics from Bentley Education which facilitates the students to do simulation and projects. Through the Centre of Excellence, Guest lectures, and Value-Added Courses conducted periodically for the benefit of students and faculty members and listed in **Table 2.25**

Table 2.25 Activities organized through RIT-CoE for BIM

S.No	Title of the Event	Date & Duration	Resource Person
1	Virtual Webinar on Reality Modeling	18.05.2022 - 4 hours	Mr.S.Rajesh Kumar, Director, Technical Services, TechApps Consulting, Chennai.
2	Standard Operating Procedure for Bentley Certification	19.05.2022 - 4 hours	Mr.S.Rajesh Kumar, Director, Technical Services, TechApps Consulting, Chennai.
3	Hands on Training on Building Information Modelling	23.07.2024-27.07.2024 2 Days	Mr.Mohammed Muneeb, Senior BIM Consultant Mr.S.Rajesh Kumar, Director Technical Services, TechApps Consulting, Chennai.
4	Big Benefits of Building Information Modelling (BIM)	22.04.2022 - 2 hours	Chandra Shekar, Co-Founder of Turn BIM Engineering Services

5	Hands on Training on Project Planning and Management using Primavera and MS Project	25.10.2024 26.10.2024 2 Days	Er.K.Iyappan, Project Lead, Tech Mahindra India Pvt. Ltd., Bengaluru
6	Hands on Training on STAAD.Pro Connect Edition V22	27.06.2023 -28.06.2023 2 Days	Mr.R.Ganesh Kumar, Sr.Structural Consultant, TechAppss, Consulting, Chennai
7	Value Added Course on Open Building Designer	25.08.2022 -26.08.2022 2 Days	Mr.Akbar Ali Khader & Mr.S.Rajesh Kumar, TechAppss, Chennai
8	Hands on Training on "STAAD.Pro Connect Edition V22"	27.01.2023 -28.01.2023 2 Days	Mr.R.Ganesh Kumar, Sr.Structural Consultant, TechAppss, Consulting, Chennai

RIT ICT Academy Centre of Excellence for Design Powered by Autodesk

Objective

The Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam, has established the **RIT Centre of Excellence for design powered by Autodesk in collaboration with ICT Academy** during the Academic year 2023-2024 for cutting-edge industry-relevant software catering to diverse sub-domains of Civil Engineering.

Utilization & Effectiveness

RIT Design laboratory has equipped with the Autodesk software like Autodesk Architecture, Engineering & Construction Collection, Robot Structural Analysis professionals, Advance Steel, Structural bridge Design, Navis work, Fabrication CADmep, AutoCAD Takeoff, Geospatial Infracore. The Autodesk provides students with a set of BIM and CAD tools supported by a cloud-based common data environment that facilitates project delivery from early-stage design through to construction. ICT Academy – Centre of Excellence for Design – Certificate is shown in **Figure 2.50** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (& **Table 2.26** lists the activities organized through RIT ICT Academy.

Table 2.26 Activities organized through RIT ICT Academy - COE

S.No	Title of the Event	Date & Duration	Resource Person
1	Revit Architecture – Building Information Modelling	07.10.2024 - 11.07.2024 5 Days	Ms.Priya Dharshika Technical Trainer Training and Development ICT Academy

2.2.4.B. Industry Involvement in the Program Design and partial delivery of any regular courses for students (5)

During the Department Advisory Committee (DAC) meeting, an industry expert identifies curricular gaps and recommends corrective actions to ensure students acquire the necessary knowledge, skills, and attitudes. To further bridge the gap between academia and industry, the department collaborates with various industries and engineering societies in its core engineering field. This partnership aims to keep students updated with the latest trends, enhance their knowledge, and provide practical exposure. MoUs have been signed with the following industries in **Table2.27** with the motive to provide placements, practical training to the students, to conduct student mentoring programme and software training programme

Table 2.27 Details of Memorandum of understandings (MoU) with industries

S.No.	Name of the Company	Areas of Collaboration
1	Ramco Group of Textile Division, Rajapalayam	Internship, Industrial Visit.
2	Infinity PMC Private Limited, Chennai	Skill Development Programme, Guest lectures & Webinar, Value Added Course
3	MEDSBY Healthcare and Engineering Solutions, Coimbatore	Internship, Industrial Visit, Project work, Skill development programme, Guest lectures, Placement, R&D
4	Ramco Cements Ltd., Chennai.	Internship, Industrial Visit, Skill development programme, Guest lectures, Placement.
5	Ramco Industries Ltd., Chennai.	Internship, Industrial Visit, Project work, Curriculum design, Skill development programme, Guest lectures, Placement, R&D
6	Land Coordinates Technology, Chennai	Skill Development Programs, Guest Lectures & Workshops.
7	Builders Association of India (BAI)	Guest Lectures
8	V-Invent Chemilab Private Limited, Rajapalayam	Projects
9	Pyramid IAS Academy	Webinar & Guest Lectures
10	Tech Apps Consulting	Access & Training to BIM Software, Webinar, Guest Lecture, Value added Courses
11	Larsen & Toubro Limited, Chennai	L&T College Connect Program, Internship, Industrial Visit

Knowledge Sharing by the Industry

Department of Civil Engineering is regularly coordinating with industries for various activities like placement, Guest lectures, Site visits, Internships, Industrial problems, etc. Every semester the department organizes industry-oriented activities for the students to expose industry-related standards and new technologies. **Table 2.28** shows the list of resource persons from the industry for partial delivery of courses.

Table 2.28 List of programs with resource persons from Industries

S.No	Name of Subject	Name of Topic	Resource Person from the industry.	Date
1	Design of Reinforced Concrete Structural Elements	Design of Compression Members	Er.B.Muthukumarasamy, Structural Consultant, Valuer, Chartered Engineer, Proprietor, Absara Construction, Rajapalayam	24.10.2024 8 hours

2	Structural Analysis	Training on STAAD. Pro	Mr.R.Ganesh Kumar, Sr.Structural Consultant, TechAppss, Consulting, Chennai	27.06.2023 to 28.06.2023 16 hours
3	Construction Techniques and Practices	Training on Project Planning Using Primavera	Er.K.Iyappan, Project Lead, Tech Mahindra India Pvt. Ltd., Bengaluru	25.10.2024 to 26.10.2024 16 hours
4	Design of Steel Structures	An overview on TEKLA Software	Ms.R.Abinaya, Tekla Modeller, Struct Mech Engineers Pvt. Ltd., Bangalore	26.04.2023 3hours
5	Structural Analysis	Training on STAAD. Pro	Mr.R.Ganesh Kumar, Sr.Structural Consultant, TechAppss, Consulting, Chennai	27.01.2023 to 28.01.2023 16 hours
6	Construction Techniques and Practices	Training on Project Planning Using Primavera	Er.K.Iyappan, Project Lead, Tech Mahindra India Pvt. Ltd., Bengaluru	25.07.2022 to 30.07.2022 48 hours

2.2.4 C. Impact analysis of industry-institute interaction and actions taken thereof (5)

Benefits of Industry Interaction

- As a result of industry contribution to the institute, student placements are increased progressively.
- Value Added courses are organized by the department with industry experts as resource persons.
- Similarly, Events like webinars, guest lectures, seminars, workshops and technical contests are organized to enhance the student knowledge.
- Internship's opportunities are created.
- Students find the industry interactions as avenues to gradually enter the job transition.
- Exposure of engineering students to the industrial atmosphere. **Table 2.29** shows the Industry Institute in various forms.

Table 2.29 Industry Institute Interaction in the various forms

Sl.No.	Academic Year	Initiatives	Implementation
RIT Center of Excellence for BIM Laboratory in association with Bentley & Tech Apps			

Sl.No.	Academic Year	Initiatives	Implementation
1	2021 - 2022	<ul style="list-style-type: none"> RIT Centre of Excellence for BIM lab is established in the year 2022. Software access for Open Building Designer (BIM), STAAD Pro, Open Roads, and other products available for academics from Bentley Education was purchased for students. Faculty training programme was planned to be conducted through the resource person from Tech Apps, Chennai, to enhance students practical skills. 	<ul style="list-style-type: none"> Conducted a Guest lecture on Bentley BIM Advance Software Education Program for Academic on 02.12.2021 for 36 students and 12 faculty members. Conducted a webinar on Reality Modelling on 18.05.2022 in which 60 students and 10 faculty members were participated and gained the knowledge on Reality Modelling. Conducted a webinar on "Standard Operating Procedure for Bentley Certification" on 19.05.2022. In which 12 Faculty members were trained for Bentley certification programme.
2	2022 - 2023	<ul style="list-style-type: none"> Value-added courses and Skill development programs for the students were planned through the resource person from Tech Apps, Chennai to enhance their employability. 	<ul style="list-style-type: none"> Conducted a value-added course on Open Building Designer during August 25 & 26, 2022. In which 80 students were trained. Conducted a skill development training program on STAAD.Pro Connect Edition during January 27 & 28 in which 50 students were trained. Skill development training programs on BIM Software were conducted during July 2023 for III- & IV-year students
3	2023-2024	<ul style="list-style-type: none"> Training for III & IV students on STAAD.Pro Connect Edition V22 was initiated. 	<ul style="list-style-type: none"> Hands-on Training on "STAAD.Pro Connect Edition V22" 27.06.2023 & 28.06.2023
Larsen & Toubro Limited, Chennai			
1	2022 - 2023	<ul style="list-style-type: none"> MOU Signed between L&T & RIT on 09.09.2022 to enhance students' employability skills through L&T Campus Connect Program. Students are suggested to take up L&T EduTech courses. 	<ul style="list-style-type: none"> 34 students have completed the L&T EduTech online courses like Concreting Techniques and Practices, Design of Reinforced Concrete Buildings & Practice, and Formwork Engineering Practices.
2	2023-2024	<ul style="list-style-type: none"> Seminar by L&T Resource person on Non – Destructive Testing was arranged for III-year students. 	<ul style="list-style-type: none"> Non-Destructive Testing 30.01.2024 & 31.04.2024
The Ramco Cements Limited			

Sl.No.	Academic Year	Initiatives	Implementation
1	2021 - 2022	<ul style="list-style-type: none"> Industrial Visit and Internship were scheduled for II-, III- and IV-year students 	<ul style="list-style-type: none"> II, III, and IV year Civil Engineering students visited the Ramco Cements, R.R.Nagar on 12.11.2021. I year Civil Engineering students have visited the Ramco Cements, R.R.Nagar on 06.05.2022.
2	2022 - 2023	<ul style="list-style-type: none"> Guest lectures, Industrial Visits, and Internship were planned for II-, III- and IV-year students 	<ul style="list-style-type: none"> Conducted a Guest lecture on Ready Mix Concrete and cube contest for III- and IV-year Civil Engineering students on 06.10.22 4 Final year students have completed the project internship from 13.07.2022 to 08.08.2022
3	2023-2024	<ul style="list-style-type: none"> Planned for an Invited Talk on Mix Designs by Industrial Experts. 	<ul style="list-style-type: none"> Invited Talk on Mix Designs & Cube Contest 07.02.2024 III & IV
Ramco Industries Limited			
1	2022 - 2023	<ul style="list-style-type: none"> Industrial Visits arranged for II- and III-year students 	<ul style="list-style-type: none"> II-year Civil Engineering students visited Ramco Industries Limited, Gangaikondan on 13.08.2022.
Infinity PMC Solutions Pvt Ltd, Chennai			
1	2020 - 2021	<ul style="list-style-type: none"> A webinar series was planned for the students and faculty members through industry experts from Infinity to introduce the project planning software. 	<ul style="list-style-type: none"> Technical Webinar Series on Project Management in Construction Industry using Primavera, Digital Estimation and Latest Techniques in Construction Projects using 5D BIM & Cost X, Benefits of 4D Planning and Project Monitoring using Asta Power Project during 29.07.2020 to 31.07.2020
2	2021 - 2022	<ul style="list-style-type: none"> Value-Added Course on Project Planning and Management using Primavera were initiated. 	<ul style="list-style-type: none"> Conducted Anna University Approved Value-Added Course on Project Planning and Management using Primavera from 11.11.2021 to 15.11.2021.
Pyramid IAS Academy, Karaikudi			
1	2021 - 2022	<ul style="list-style-type: none"> Guest lecture was planned to be conducted for II, III and IV-year students 	<ul style="list-style-type: none"> Conducted a Guest lecture on career opportunities in Civil Engineering on 14.02.2022
2	2022 - 2023	<ul style="list-style-type: none"> Employment Opportunities in Civil Engineering for II-, III-, and IV-year students are organised 	<ul style="list-style-type: none"> Conducted a Seminar on Employment opportunities in Civil Engineering on 02.05.2023
Builders Association of India			

Sl.No.	Academic Year	Initiatives	Implementation
1	2021 - 2022	<ul style="list-style-type: none"> Technical seminar was planned to be conducted for II, III, and IV-year students 	<ul style="list-style-type: none"> Conducted a Technical seminar on Alternative Building Technologies on 04.11.2022
Land Coordinates Technology, Chennai			
1	2021 - 2022	<ul style="list-style-type: none"> Technical webinar was planned to be conducted for II-, III-, and IV-year students and Faculty members 	<ul style="list-style-type: none"> Conducted a Technical webinar on Recent Trends in Coordinates Based Survey Technology on 10.07.2021
2	2023-2024	<ul style="list-style-type: none"> Guest Lecture was planned to be conducted for III & Faculty Members 	<ul style="list-style-type: none"> Conducted Guest Lecture on the 'Drone & LIDAR based map creation" 28.07.2023
3	2023-2024	<ul style="list-style-type: none"> Workshop was planned to be organized for III & IV 	<ul style="list-style-type: none"> Conducted Workshop on Total Station & DGPS 11.10.2023 & 12.10.2023
4	2023-2024	<ul style="list-style-type: none"> Workshop was planned to be organized on DGPS Survey for IV-year students & Faculty Members 	<ul style="list-style-type: none"> Workshop on DGPS Survey
V-Invent Chemilab Pvt. Ltd			
1	2020 - 2021	<ul style="list-style-type: none"> Final year students were given opportunities to do industry-related project. 	<ul style="list-style-type: none"> 3 final-year students have completed the experimental project on developing a system for fixing plaster panel
Innowell Engineering International Private Ltd, Sivakasi			
1	2023-2024	<ul style="list-style-type: none"> Guest Lecture on Global Green Initiative was arranged for III & IV students. 	<ul style="list-style-type: none"> Guest Lecture on Global Green Initiative
WRD, Regional Quality Control Laboratory & Sub Division,			
1	2023-2024	<ul style="list-style-type: none"> Field Visits were arranged for third-year students to explore the various equipment in WRD. 	<ul style="list-style-type: none"> Demonstration on various equipment and field visit

2.2.5 Initiative related to industry internship/summer training (15)

Institute Marks : 15.00

Our students are encouraged to undergo In-plant training / Internship/ summer training and Industrial Visits, to help them gain practical knowledge along with theoretical knowledge, to face real-world challenges and set a successful career path.

2.2.5 A) Industrial training/ tours for students

In-plant training

At the end of semester, students are encouraged and guided to undergo in-plant training. The duration of this training is short and it is of maximum 4 weeks. **Table 2.30** shows the list of students who have undergone in-plant training during the academic year 2021-22, 2022-23 and 2023-24.

Table 2.30 Details of In-plant training

Sl.No	Name of the Student	Organization	Date	Duration
CAYm1 2023-2024				
1	Harish Ragav S, III year	Highways Department, Tirunelveli	03.07.2023	15 days
2	ValathiVarun E, III year		to	
3	Balaji M, III year		17.07.2023	
4	Sabari Mugesh P, III year			
5	Mohamed Rizwan I, III year	Madurai ES Consultancy Private Ltd	01.07.2023	16 days
6	PonGokul P, III year		to	
7	Sasikumar M, III year		16.07.2023	
8	Padmavathy SE, III year	Water Resources Department, Tirunelveli	05.07.2023 to 13.07.2023	9 days
9	Ambika A, III year	AM Construction	08.07.2023 to 15.07.2023	8 days
10	Anatha Murugan, III year	Sansons Civil Consultant & Contractors, Rajapalayam	04.07.2023	14 days
11	Pandiaraj S, III year		to	
12	Sanjaykumar G, III year		17.07.2023	
13	SibiBala P, III year			
14	Thanabala P, III year			
15	Aarthika G, III year	MDS Goodwillers Engineering Contractors, Srivilliputhur	10.07.2023	8 days
16	Dhivya M, III year		to	
17	Haritha S, III year		17.07.2023	
18	Viyani Blessy A, III year			

19	Manikandan M, III year	Jehovah Nissi Design Build Pvt Ltd	07.07.2023	8 days
20	Santhoosh Raj R, III year		to 14.07.2023	
21	Gayathri V, III year	Er.G.Manikandan Engineering Contractor Srivilliputhur	10.07.2023	8 days
22	Kartheeswari Anusri M, III year		to	
23	Porkodi V, III year		17.07.2023	
24	S.Nivedha, III year	SRK Construction	03.07.2023 to 10.07.2023	8 days
25	S.Abdul Basith, III year	MM Construction	03.07.2023 to 10.07.2023	8 days
26	Aashik Anton M, III year	Highways Department, Tenkasi	03.07.2023	8 days
27	Essakihariganesh DC, III year		to 10.07.2023	
CAYm2 2022-2023				
1	Mohamed Rizwan I, II year	Madurai ES Consultancy Pvt.Ltd	26.01.2023	6 days
2	PonGokul P, II year		to 31.01.23	
3	Yuvaraj.S, II year	P&C RPP (JV), Tenkasi	30.12.2022	6 days
4	B Praveen, II year		to	
5	M.Madasamy Hariharan, II year		04.01.2023	
6	Manikandan. M			
CAYm3 2021-2023				

1	Subalakshmi M, IV year	Tapasya Design Studio (Rajapalayam Mega City Traffic Survey)	30.09.2021 to 12.10.2021	13 days
2	Aakash P, IV year			
3	Shalini P, IV year			
4	Sneghavardhini J, IV year			
5	Meena Bharathi S, IV year			
6	Ajandha Devi S, IV year			
7	Padmavathi P, III year			
8	Palani Manikanda Prabhu P, III year			
9	HariharaPandiyan V, III year			
10	Marimuthu P, III year			
11	MuthuSanjay S, III year			
12	Vineeth V, III year			
13	Partha Sarathi M, III year			
14	Sankaralingam S, III year			
15	Sivaramakrishnan K, III year			
16	Muthusunderaswar S, III year			
17	Saravanan, III year			
18	Balakrishnan R, III year			
19	Hariharasudhan K, III year			
20	JeevanBabu K, III year			

Industrial Visits

The Civil Engineering Department organizes various industrial visits to the students of all the years. The list of Industrial visits/tours is presented in Table 2.31

Table 2.31 Industrial visits/tours

S.No	Date	Name of the Industry	Accompanying Faculty	No. of Students
CAYm3 2023-2024				
1	07.12.2023	Ramco Cements Limited, R.R Nagar, ECO Park Pandhalkudi	Mr.T.Chockalingam, Mrs.A.Leema Margret	43 (I year)

2	16.03.2024	RDC Concrete (India) Pvt. Ltd, Cochin	Dr.G.Karthikeyan Mrs.A.Leema Margret	38 (I Year)
3	02.12.2023	M/s. CREATIVE BLOCKS	Mr.V.Ragavan Mrs.D.Darling Helen Lydia	34 (II Year)
4	02.12.2023	M/s. TTV Bricks	Mr.V.Ragavan Mrs.D.Darling Helen Lydia	34 (II Year)
5	09.04.2024	Sobha Limited, Kochin	Mr.R.Saravana Kumar & Ms.S.Manibharathi LT Civil	25 (II Year)
6	18.10.2023	Tamilnadu road sector project (TNRSP - II), Tenkasi	Dr.M.Indhumathi Mr.R.Muruganantham	45 (III Year)
7	18.10.2023	M/s. TTV Bricks	Dr.M.Indhumathi Mr.R.Muruganantham	45 (III Year)
8	09.04.2024	PS Frames, Wayanad	Mrs.R.Kalaimani Mr.R.Muruganantham	29 (III Year)
CAYm2 2022-2023				
1	10.02.2023	RDC Concrete (India) Pvt. Ltd, Cochin	Dr.M.Indhumathi Mr.T.Chockalingam,	46 (II year)
2	25.02.2023	L&T Construction Project – Cochin Dry Dock Site, Kerala	Mr.A.Manicka Mamallan	21 (III year)
3	25.02.2023	2. ABAD Nucleus Mall, Maradu, Cochin	Mr.A.Manicka Mamallan	21 (III year)
4	13.08.2022	Ramco Industries Limited, Gangaikondan	Dr.G.Karthikeyan Dr.M.Indhumathi	45 (II year)
5	03.06.2023	RDC Concrete (India) Pvt. Ltd, Cochin	Mrs.A.Leema Margret Mr.V.Ragavan	31 (I Year)
CAYm3 2021-2022				
1	27.10.2021	Surgical Cotton Mills Limited, Rajapalayam	Mrs.A.Leema Margret Mr.A.Manicka Mamallan	21 (II year)

2	11.11.2021	Surgical Cotton Mills Limited, Rajapalayam	Dr.G.Karthikeyan Mrs.R.Kalaimani	17 (III year) 21 (IV year)
3	12.11.2021	The Ramco Cements Limited, RR Nagar	Dr.M.Indhumathi Dr.G.Karthikeyan Mr.A.Manicka Mamallan Mrs.A.Leema Margret	21 (II year) 17 (III year) 22 (IV year)
4	01.05.2022	Sea Blue Shipyard Limited, Ooty	Mrs.R.Kalaimani Mr.A.Manicka Mamallan Mr.V.Ragavan	21 (II year) 17 (III year)
5	06.05.2022	The Ramco Cements Limited & Pandalkudi Eco Park	Dr.M.Indhumathi Mrs.A.Leema Margret	44 (I year)
6	27.05.2022	Six Sigma Ready Mix Concrete Private Limited, Mettupalayam	Mr.T.Chockalingam	44 (I year)

2.2.5 B) Industrial /internship /summer training of more than two weeks and post-training assessment

Internships

The students are encouraged to take up internship programs during their semester break. Faculty members give guidelines, suggestions and scope for an internship. They also help the students by interacting with the industrial experts, provide the students recommendation letters and necessary support. The details of the internship of the students are presented in **Table 2.32** and the details of the summer internship programme with stipend are presented in **Table 2.33**. Sample copy of internship certificates and reports are shown in **Figure 2.51** and **Figure 2.52** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)

Table 2.32 Details of Student Internships

SI.No	Name of the Student	Organization	Date	Duration
CAYm1 2023-2024				
1	Aishvarya V, IV year	Archetype Design Services Pvt. Ltd, Coimbatore	03.07.2023	29 days
2	Priyadharshini VS, IV year		to	
3	Rakavi R, IV year		01.08.2023	

4	Balaji K, IV year	Water Resources Department, PWD, Rajapalayam	01.07.2023	1 month
5	Logesh Kanna K, IV year		to	
6	Mahendran C, IV year		31.07.2023	
7	Manikanda Balaji M, IV year			
8	Ponnusangili R, IV year			
9	Balakumaran M, IV year	PWD, Building (C&M) Division, Coimbatore	03.07.2023	28 days
10	Vinothkumar C, IV year		to 31.07.2023	
11	DevarPiran M, IV year	RB Infrastructures & Engineering, Chennai	01.07.2023 to 31.07.2023	1 month
12	Kathirvel M, IV year	Sivam Builders	03.07.2023 to 01.08.2023	29 days
13	Bhasheer Mohamad M, IV year			
14	Vijay R, IV year			
15	Arunkumar S, IV year			
16	DeenaDhayalan S, IV year			
17	Perumalsamy A, IV year			
18	Shreehari K, IV year			
19	SajeshRam SR, IV year	Arangacons, Contractors & Engineers, Tuticorin	01.07.2023 to 30.07.2023	29 days
20	Mathavan M, IV year	Mani Constructions, Tirunelveli	01.07.2023 to 30.07.2023	29 days
CAYm2 2022-2023				
1	Aakash P, IV year	Sterling Indo Tech Consultants Pvt. Ltd., Madurai	12.07.2022	29 days
2	Sankaralingam S, IV year		to	
3	Hariharasudan K, IV year		10.08.2022	
4	Partha Sarathi S, IV year			

5	Balakrishnan S, IV year	Innowell Engineering International Pvt. Ltd., Sivakasi	12.07.2022	29 days
6	HariHaraPandiyam V, IV year		to 10.08.2022	
7	Jeevanbabu K, IV year	Madurai ES consultancy Pvt. Ltd	12.07.2022	29 days
8	Muthu Sanjay S, IV year		to	
9	Vineeth V, IV year		10.08.2022	
10	Palani Manikanda Prabu V, IV year			
11	KeerthiRoja A, IV year	Lathif Contractor, Madurai	12.07.2022 to 10.08.2022	29 days
12	MuthuSundareeswar S, IV year	The Ramco Cements Pvt Ltd, R.R. Nagar, Virudhunagar	13.07.2022	26 days
13	Sivaramakrishnan K, IV year		to	
14	Marimuthu P, IV year		08.08.2022	
15	Saravanan A, IV year			
16	Narmada T, IV year	Lakshmi Constructions, Rajapalayam	12.07.2022	29 days
17	Sivasakthiya M, IV year		to 10.08.2022	
CAYm2 2021-2022				
1	Dinesh K, IV year	Highway Department, Tirunelveli	02.08.2021	29 days
2	RaviKumar R, IV year		to	
3	Abdhur Rahman A, IV year		31.08.2021	
4	Jacksingh Dharma B, IV year			
5	Sudhakaran A, IV year			
6	Mohanrajan G, IV year	MSME (Revit Architecture)	31.05.2021	30 days
7	Ajandha Devi S, IV year		to	
8	Shalini P, IV year		30.06.2021	
9	Dinesk K, IV year			
10	Jenitha G, IV year			

11	SureshKumar MRA, IV year	L&T IDPL, Chennai	15.07.2021	1 month
12	Sneghavardhini J, IV year		to	
13	Srivarshan S, IV year		15.08.2021	
14	Meena Bharathi M, IV year			
15	Praveen B, IV year	SPK Constructions & Co	15.07.2021	1 month
16	Yoga Dhandapani S, IV year		to	
			15.08.2021	
17	Tamil Selvan S, IV year	Union office, Watrap	15.07.2021	1 month
18	Thanga Guru K, IV year		to	
			15.08.2021	
19	Jagan T, IV year	Sree Subha Construction, Sivakasi	14.07.2021	1 month
			to	
			14.08.2021	
20	Thanigai Selvan E, IV year	RK Construction, Coimbatore	15.07.2021	1 month
			to	
			15.08.2021	
21	Karthick Raja P, IV year	Innowell Engineering International Pvt.Ltd., Sivakasi	15.11.2021	25 days
22	Sneghavardhini J, IV year		to	
23	Thanigai Selvan E, IV year		10.12.2021	
24	Narmada T, III year	GK group of Company	20.08.2021	15 days
25	Sivasakthiya M, III year		to	
			05.09.2021	

Table 2.33 Details of internship with stipend

Sl.No	Name of the Student	Organization	Stipend Received	Duration	Date
1	Ponnusangili R	RCI Digital Solutions	Rs 21,000/-	3.5 Months	13.03.2024 - 30.06.2024
2	Shreehari K	PRAMODA Rebar Pvt Ltd., Namakkal	Rs. 10,000/-	2 Months	04.03.2024 - 30.04.2024
3	Balaji K	PRAMODA Rebar Pvt Ltd., Namakkal	Rs. 10,000/-	2 Months	04.03.2024 - 30.04.2024

4	Suresh Anand J	Sri Sivasubramaniya Nadar College of Engineering	Rs. 3,000/-	4 weeks	June – August 2023
5	Thanga Guru K	Ridh Engineering Services, Chennai	Rs.7,500/-	3.5 Months	13.12.2021 - 30.03.2022

Post training assessment

- All students who undergo industrial training are directed to give presentations about their training and submit a report on the training. The schedule of this presentation is devised by the internship Coordinator and this presentation is conducted in the presence of HoD and a committee of three members as shown in **Figure 2.53** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf)
- During the presentation, students are instructed to present their major learning during the training, the effectiveness of the training in gaining relevant knowledge & skills and other benefits they have achieved.

The major contents of their presentation include,

- Institute/ organization name, supervisor/ mentor name, duration and how they got this opportunity
- About the domain in which they did the intern
- The objective of the intern/Problem they worked on during the intern
- Learning from the internship program
- Challenges faced during the intern
- How their professionalism improved due to this internship and general feedback.

2.2.5 C) Impact analysis of Industrial Training

- Industrial training is an essential component of preparing a student for professional job.
- During their training, students gain knowledge of the industry's requirements, skill set, and work ethics.
- Students gain real-time practical experience related to their classroom studies, recognizing the practical significance of the course.
- The students attain employment readiness upon completion of the training and improve their job opportunities.
- Training cultivates leadership abilities and fosters a collaborative mindset among students.
- Organization may give job to the trainees after graduation
- Industrial contacts have increased which will help their future professional career.

2.2.5 D) Student feedback on the initiative

After completion of the industrial training/internship, feedback has been received from the students. Sample feedback collected from students and company is shown in **Figures 2.54** and **Figure 2.55** - https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_II.pdf). Student's feedback is analyzed for key components like general aspects of training, opportunities for development, overall experience and comments & recommendations to other students. The internship coordinator analyzes all the students' feedbacks and provide suggestive actions (such as companies relevant for the students, etc.,) for the forthcoming semesters.

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

Total Marks 120.00

Define the Program specific outcomes

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

Total Marks 20.00

PSO1	Communicate and present civil engineering projects effectively
PSO2	Use the techniques, Skills and modern engineering tools necessary for civil engineering practice and project management.
PSO3	Provide sustainable solutions to civil engineering problems
PSO4	Perform as design consultants in construction industry for the design of civil engineering structures.

3.1.1 Course Outcomes(COs)(SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (5)

Institute Marks : 5.00

Note : Number of Outcomes for a Course is expected to be around 6.

Course Name :	C2 03	Course Year :	2020-2021
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Course Name	Statements
C2 03.1	Explain the fundamental concepts of fluid fluids in static, kinematic and dynamic equilibrium.
C2 03.2	Apply and solve the problems related to the equation of motion.
C2 03.3	Demonstrate the concepts about dimensional and model analysis.
C2 03.4	Explain types of flow and losses of flow in pipes.
C2 03.5	Apply and solve the boundary layer problems

Course Name :	C2 12	Course Year :	2020-2021
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Course Name	Statements
C2 12.1	Determine the strain energy and compute the deflection of determinate beams, frames and trusses using energy principles
C2 12.2	Analyze propped cantilever, fixed beams and continuous beams using theorem of three moment equation for external loadings and support settlements.
C2 12.3	Find the load carrying capacity of columns and stresses induced in columns and cylinders.
C2 12.4	Determine principal stresses and plans for an element in a three dimensional state of stress and study various theories of failure.
C2 12.5	Determine the stresses due to unsymmetrical bending of beams, locate the shear center, and find the stresses in curved beams.

Course Name :	C3 02	Course Year :	2021-2022
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Course Name	Statements
C3 02.1	Analyze the continuous beams, pin-jointed indeterminate plane frames and rigid plane frames by strain energy method
C3 02.2	Inspect the continuous beams and rigid frames by slope deflection method.
C3 02.3	Access the concept of moment distribution and analysis of continuous beams and rigid frames with and without sway.
C3 02.4	Evaluate the indeterminate pin jointed plane frames, continuous beams and rigid frames using matrix flexibility method.
C3 02.5	Resolve the concept of matrix stiffness method and analysis of continuous beams, pin jointed trusses and rigid plane frames

Course Name :	C3 12	Course Year :	2021-2022
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Course Name	Statements
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C3 12.1	Compute the irrigation water requirement of crops using the knowledge and skills acquired through the important terms in Irrigation Engineering.
C3 12.2	Illustrate the conditions of adopting different methods of irrigation and types of irrigation efficiencies in the field
C3 12.3	Compare the different types of hydraulic structures for flow diversion and storage with their working principle and its functions
C3 12.4	Explain about methods of irrigation including canal irrigation
C3 12.5	Acquire knowledge about various concepts of irrigation water management on optimization of water use

Course Name :	C4 02	Course Year :	2022-2023
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Course Name	Statements
C4 02.1	Describe the methods of route alignment and design elements in Railway Planning and Constructions.
C4 02.2	Explain the Construction techniques and Maintenance of Track laying and Railway stations.
C4 02.3	Review the insights on planning and site selection of Airport Planning and design.
C4 02.4	Analyze and design the elements for orientation of runways and passenger facility systems.
C4 02.5	Elaborate the various features in Harbours and Ports, their construction, coastal protection works and coastal Regulations to be adopted.
C4 02.6	Sketch the layout of railway station and yard available in your residing area.

Course Name :	C4 09	Course Year :	2022-2023
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Course Name	Statements
C4 09.1	Understand the importance of maintenance and assessment method of distressed structures.
C4 09.2	Enumerate the concept of quality assurance in structures, basic mechanisms by which quality assurance schemes are developed and operated with case studies
C4 09.3	Acquire the knowledge on recent development in concrete.
C4 09.4	Suggest the suitable techniques for repair and protection methods
C4 09.5	Illustrate the repair, rehabilitation and retrofitting of structures and demolition methods.

3.1.2 CO-PO matrices of courses selected in 3.1.1 (Six matrices to be mentioned; one per semester from 3rd to 8th semester) (5)

Institute Marks : 5.00

1 . course name : C203

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203.1	3 ▾	2 ▾	- ▾	1 ▾	- ▾	- ▾	- ▾	- ▾	2 ▾	- ▾	- ▾	1 ▾
C203.2	3 ▾	3 ▾	2 ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	1 ▾	- ▾	- ▾	1 ▾
C203.3	3 ▾	2 ▾	1 ▾	- ▾	- ▾	- ▾	- ▾	- ▾	1 ▾	- ▾	- ▾	1 ▾
C203.4	2 ▾	3 ▾	2 ▾	2 ▾	1 ▾	- ▾	2 ▾	- ▾	1 ▾	- ▾	- ▾	1 ▾
C203.5	3 ▾	2 ▾	- ▾	2 ▾	- ▾	- ▾	- ▾	- ▾	1 ▾	- ▾	- ▾	1 ▾
Average	3.00	2.40	1.60	1.75	1.00	0.00	2.00	0.00	1.00	0.00	0.00	1.00

2 . course name : C212

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212.1	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
C212.2	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
C212.3	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
C212.4	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
C212.5	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
Average	3.00	3.00	2.00	1.00	3.00	0.00	0.00	0.00	1.00	2.00	0.00	2.00

3 . course name : C302

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302.1	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
C302.2	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
C302.3	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
C302.4	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
C302.5	3 ▾	3 ▾	2 ▾	1 ▾	3 ▾	- ▾	- ▾	- ▾	1 ▾	2 ▾	- ▾	2 ▾
Average	3.00	3.00	2.00	2.00	3.00	0.00	0.00	0.00	1.00	2.00	0.00	2.00

4 . course name : C312

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C312.1	3	2	2	-	-	2	-	-	-	-	-	1
C312.2	3	2	2	-	2	-	-	-	-	-	-	1
C312.3	3	2	2	-	-	2	1	1	-	-	-	1
C312.4	3	2	2	-	-	1	-	1	-	-	-	1
C312.5	2	-	-	-	-	1	-	-	2	-	-	1
Average	2.83	2.00	1.80	0.00	2.00	1.60	1.00	1.00	2.00	0.00	0.00	1.00

5 . course name : C402

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402.1	3	2	1	1	-	1	-	1	-	1	-	1
C402.2	2	2	-	1	-	1	-	-	-	1	-	1
C402.3	2	1	1	-	-	1	-	1	-	1	-	1
C402.4	3	2	3	-	-	1	-	1	-	1	-	1
C402.5	2	2	1	-	-	1	-	-	-	1	-	1
C402.6	-	-	-	-	-	-	-	-	-	1	-	1
Average	2.40	1.80	1.50	1.00	2.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00

6 . course name : C409

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C409.1	3	2	3	-	-	-	1	1	1	-	-	1
C409.2	3	-	3	-	-	-	1	-	1	-	-	1
C409.3	3	2	3	-	-	-	-	1	1	-	-	1
C409.4	3	-	-	-	-	-	1	-	1	-	-	1
C409.5	3	-	3	-	-	-	-	1	1	-	-	1
Average	3.00	2.00	3.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00

1 . Course Name : C203

Course	PSO1	PSO2	PSO3	PSO4
C203.1	- ▾	- ▾	2 ▾	1 ▾
C203.2	- ▾	- ▾	2 ▾	1 ▾
C203.3	- ▾	- ▾	1 ▾	2 ▾
C203.4	- ▾	- ▾	2 ▾	2 ▾
C203.5	- ▾	- ▾	2 ▾	1 ▾
Average	0.00	0.00	1.80	1.40

2 . Course Name : C212

Course	PSO1	PSO2	PSO3	PSO4
C212.1	2 ▾	3 ▾	2 ▾	3 ▾
C212.2	2 ▾	3 ▾	2 ▾	3 ▾
C212.3	2 ▾	3 ▾	2 ▾	3 ▾
C212.4	2 ▾	3 ▾	2 ▾	3 ▾
C212.5	2 ▾	3 ▾	2 ▾	3 ▾
Average	2.00	3.00	2.00	3.00

3 . Course Name : C302

Course	PSO1	PSO2	PSO3	PSO4
C302.1	2 ▾	3 ▾	2 ▾	3 ▾
C302.2	2 ▾	3 ▾	2 ▾	3 ▾
C302.3	2 ▾	3 ▾	2 ▾	3 ▾
C302.4	2 ▾	3 ▾	2 ▾	3 ▾
C302.5	2 ▾	3 ▾	2 ▾	3 ▾
Average	2.00	3.00	2.00	3.00

4 . Course Name : C312

Course	PSO1	PSO2	PSO3	PSO4
C312.1	- ▾	2 ▾	- ▾	- ▾
C312.2	- ▾	- ▾	2 ▾	- ▾
C312.3	1 ▾	- ▾	- ▾	2 ▾
C312.4	1 ▾	- ▾	- ▾	1 ▾
C312.5	- ▾	1 ▾	- ▾	- ▾
Average	1.00	1.50	2.00	1.67

5 . Course Name : C402

Course	PSO1	PSO2	PSO3	PSO4
C402.1	2 ▾	- ▾	1 ▾	- ▾
C402.2	- ▾	1 ▾	- ▾	- ▾
C402.3	- ▾	- ▾	2 ▾	- ▾
C402.4	- ▾	1 ▾	- ▾	- ▾
C402.5	- ▾	- ▾	- ▾	1 ▾
C402.6	1 ▾	- ▾	- ▾	- ▾
Average	1.50	1.00	1.50	1.00

6 . Course Name : C409

Course	PSO1	PSO2	PSO3	PSO4
C409.1	1 ▾	2 ▾	1 ▾	2 ▾
C409.2	1 ▾	- ▾	1 ▾	2 ▾
C409.3	1 ▾	2 ▾	1 ▾	2 ▾
C409.4	1 ▾	2 ▾	1 ▾	2 ▾
C409.5	1 ▾	- ▾	1 ▾	2 ▾
Average	1.00	2.00	1.00	2.00

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

Institute Marks : 10.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
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C101	0	0	0	0	0	0	0	0	2.2	2.8	0	0
C102	3	2.6	2.2	1	2	PO6	PO7	PO8	1	PO10	PO11	1.4
C103	2.4	1.8	1.2	2.4	1.2	2.4	PO7	PO8	PO9	PO10	2.2	2.2
C104	2.2	1.2	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	3	3
C105	2.8	1.66	1.75	1	2	PO6	PO7	PO8	PO9	PO10	PO11	1.4
C106	2.8	3	PO3	PO4	2	PO6	2	PO8	PO9	3	PO11	1
C107	3	1.6	2.8	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	1
C108	2.66	3	PO3	3	PO5	PO6	PO7	2.66	2.33	2	3	3
C109	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2	2.4	PO11	PO12
C111	2.2	1.8	2	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	2
C112	3	2.2	1.8	1.4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
C113	PO1	PO2	2	PO4	PO5	2	3	2	PO9	PO10	2	3
C114	3	2	2.5	1	2	PO6	PO7	PO8	PO9	PO10	1	2
C115	1.83	1	1	1	PO5	PO6	2.83	2	2	PO10	2	PO12
C116	3	2	1	3	3	2	1	3	1	2	2	2
C201	3	2	1.2	1.2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
C202	3	2	PO3	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203	3	2.4	1.6	1.75	1	PO6	2	PO8	1	PO10	PO11	1
C204	1	1.75	PO3	PO4	PO5	1	0	PO8	PO9	PO10	PO11	1
C205	PO1	PO2	3	3	1	3	1	2	PO9	PO10	PO11	PO12
C206	2.67	1.5	3	1.33	1.5	1.33	PO7	1	PO9	1	1	1
C207	3	3	PO3	PO4	PO5	PO6	PO7	PO8	3	PO10	PO11	PO12
C208	3	PO2	PO3	2	3	PO6	PO7	PO8	2	PO10	PO11	PO12
C209	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2.6	3	PO11	PO12
C210	1.8	1.8	1.8	1.2	1	PO6	PO7	PO8	PO9	PO10	1	PO12
C211	2.17	2.2	2.33	1.67	1.8	2	3	2	PO9	1	PO11	1
C212	3	3	2	1	3	PO6	PO7	PO8	1	2	PO11	2
C213	3	2.8	2.2	1.4	1	PO6	PO7	PO8	PO9	PO10	PO11	1
C214	3	2	2	1.5	PO5	1.3	1.2	PO8	PO9	PO10	PO11	1

C215	3	2	1	1	0	2	1	0	0	0	1	1
C216	3	2	1	3	3	2	1	1	1	1	2	2
C217	3	2	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C218	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2	2.8	PO11	PO12
C301	1.5	2.1	2.5	1	2.1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302	3	3	2	1	3	PO6	PO7	PO8	1	2	PO11	2
C303	3	2	3	2	PO5	2.3	2	PO8	PO9	PO10	PO11	2
C304	2	2.5	2	3	PO5	PO6	PO7	PO8	PO9	1	PO11	PO12
C305	2	2	2	PO4	PO5	3	PO7	PO8	1	2	PO11	1
C306	2	1	PO3	PO4	2	PO6	2	1	2.3	2	PO11	1
C307	3	2	2	2	2	2	PO7	2	1	PO10	PO11	2
C308	3	PO2	PO3	2	3	PO6	1.5	PO8	2	2	PO11	PO12
C309	3	2	2	2	3	3	PO7	2	3	2	PO11	2
C310	2	2	3	2	2	2	2	2	2	1	2	2
C311	3	3	2	1	3	PO6	PO7	PO8	1	2	PO11	2
C312	2.83	2	1.8	PO4	2	1.6	1	1	2	PO10	PO11	1
C313	2.5	3	2.8	1.5	PO5	2.5	1	2.25	2	PO10	2	PO12
C314	3	2	3	2	PO5	1	2	PO8	1	PO10	PO11	2
C315	2.5	1.5	2	PO4	PO5	1.5	2.16	PO8	PO9	PO10	PO11	PO12
C316	3	PO2	PO3	1	PO5	PO6	PO7	PO8	3	PO10	PO11	PO12
C317	2	2	2	PO4	PO5	PO6	1	PO8	PO9	1	PO11	PO12
C318	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2.5	2.6	PO11	PO12
C401	2	1.7	PO3	PO4	1.5	0.3	PO7	PO8	PO9	PO10	1.6	1.5
C402	2.4	1.8	1.5	1	2	1	PO7	1	PO9	1	PO11	1
C403	2	2	3	2	2	2	2	2	2	1	2	2
C404	2	1	2	PO4	PO5	2	2	PO8	2	1.25	PO11	1.5
C405	2	2	2	2	PO5	PO6	2	PO8	PO9	PO10	PO11	1
C406	3	3	3	3	3	2	2	1	3	3	2	2
C407	3	3	3	3	3	2	2	1	3	3	2	2

C408	1.75	1.5	1	PO4	PO5	3	PO7	3	3	3	PO11	1
C409	3	2	3	PO4	PO5	1	1	1	PO9	PO10	PO11	1
C410	3	3	3	3	2	2	2	1	3	3	2	2

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

Course	PSO1	PSO2	PSO3	PSO4
C101	PSO1	PSO2	PSO3	PSO4
C102	PSO1	1	1.5	PSO4
C103	1.2	PSO2	2.4	1.2
C104	1	PSO2	PSO3	PSO4
C105	PSO1	1	1.4	PSO4
C106	2	PSO2	PSO3	PSO4
C107	1	1	1	1
C108	1.66	PSO2	1	1
C109	PSO1	PSO2	PSO3	PSO4
C110	PSO1	1.33	1	PSO4
C111	1	PSO2	2.8	1
C112	2.2	2	1	PSO4
C113	PSO1	PSO2	1	PSO4
C114	PSO1	1	PSO3	PSO4
C115	PSO1	PSO2	PSO3	PSO4
C116	2	3	2	3
C201	PSO1	PSO2	1.5	2
C202	PSO1	1	PSO3	PSO4
C203	PSO1	PSO2	1.8	1.4
C204	PSO1	1	1	PSO4
C205	PSO1	3	2	PSO4
C206	1.17	1.33	2	1.67
C207	2.8	3	PSO3	3

C208	PSO1	2	2	3
C209	PSO1	PSO2	1.5	2
C210	PSO1	PSO2	1.25	PSO4
C211	1.5	2	1	1.33
C212	2	3	2	3
C213	1.5	PSO2	1.6	2
C214	1	2	2	1
C215	1	1	1.2	1.33
C216	2	3	2	3
C217	PSO1	PSO2	3	PSO4
C218	PSO1	PSO2	PSO3	PSO4
C301	PSO1	1.6	PSO3	2.83
C302	2	3	2	3
C303	1	3	2.75	2.5
C304	1	1	2	2
C305	PSO1	1	1	PSO4
C306	PSO1	PSO2	1	PSO4
C307	2	3	2	3
C308	2	2	2	PSO4
C309	2	2	2	2
C310	2	3	2	3
C311	2	3	2	3
C312	1	1.5	2	1.67
C313	2	2	1.8	1.5
C314	1	3	2.75	2.5
C315	PSO1	1	PSO3	1
C316	2.8	PSO2	PSO3	3
C317	1	PSO2	1	2
C318	PSO1	PSO2	PSO3	PSO4

C401	PSO1	1.5	PSO3	PSO4
C402	1.5	1	1.5	1
C403	2	3	2	3
C404	1.5	1.5	1.83	PSO4
C405	PSO1	1.66	PSO3	PSO4
C406	3	2	2	2
C407	3	2	2	2
C408	PSO1	PSO2	PSO3	2
C409	1	2	1	2
C410	3	2	2	2

3.2 Attainment of Course Outcomes (50)

Total Marks 50.00

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

Institute Marks : 10.00

3.2.1 (A) Assessment processes of CO attainment

For measuring the attainment of Course Outcomes, various tools are used. The process of CO attainment is described in below link:

Figure 3.1 Assessment process of CO attainment (flow chart)

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_III.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_III.pdf)

The systematic process for achieving Program Outcomes (PO) and Program Specific Outcomes (PSO) is detailed below. It incorporates both direct and indirect methods of evaluation, alongside continuous improvement mechanisms. The key steps are as follows:

1. PO/PSO Attainment

The process begins with the assessment of PO and PSO attainment using two distinct approaches:

- **Direct Attainment:** Based on calculations derived from CO (Course Outcome) attainment across all courses including both theory as well as laboratory.
- **Indirect Attainment:** Based on the feedback gathered from surveys such as program exit surveys and alumni surveys.

2. Direct Attainment

The following steps are involved:

- **Formulation of CO-PO/PSO Mapping:** A mapping is created to align course outcomes (COs) with the corresponding Program Outcomes (POs) and Program-Specific Outcomes (PSOs).
- **Calculation of CO Attainment:** The CO attainment for each course is calculated as stated in the process 3.2.1
- **Calculation of PO/PSO Attainment Direct:** Based on the mapping, PO/PSO attainment is calculated from the CO attainments.

3. Indirect Attainment

This involves:

- **Collection of Survey Forms:** Feedback is gathered through two main surveys:
- **Program Exit Survey:** Collected from graduating students.
- **Alumni Survey:** Collected from alumni to understand the relevance and applicability of the program in real-world scenarios.
- **Calculation of PO/PSO Attainment Indirect:** The survey data is analyzed to compute the indirect attainment of POs and PSOs.

4. Weightage for Attainment

- **Direct Method:** Carries 80% weightage.
- **Indirect Method:** Carries 20% weightage (10% each for Programme Exit Survey and Alumni Survey collected from the passed out students of each batch)

5. Calculation of Overall CO-PO/PSO Attainment

The overall attainment of POs and PSOs is calculated by combining the results of direct and indirect methods based on their respective weightages.

6. Decision on Attainment

A decision is made to determine whether the desired level of PO/PSO attainment has been achieved:

- **If Attained:** The focus shifts to increasing the level of competency and attainment for the next academic year.
- **If Not Attained:** Appropriate measures are taken to address the gaps, including:
 - Revising the content delivery method.
 - Improving the assessment methods.

7. Review and Planning

Discussions are held in meetings involving various committees such as:

- **DRM:** Department Review Meeting
- **DAC:** Department Advisory Committee

- **PA & QIC:** Program Assessment & Quality Improvement Committee

The focus of these meetings is to identify areas for the improvement and plan necessary actions.

8. Implementation

Based on the discussions, the required changes are implemented in the academic plan for the next academic year to ensure continuous improvement in the attainment of POs and PSOs.

Direct Assessment:

<i>Evaluation Methods</i>	<i>Process</i>
Internal Assessment Tests	To evaluate the attainment of course outcomes, three internal assessment tests are conducted per semester for R2017 and two per semester for R2021. Each question is mapped with COs and blooms levels.
Assignments & Tutorials	The tutorials and assignments are given to the students based on the subject nature. Tutorial and Assignment sheets are prepared by the faculty member with COs and levels.
Continuous Assessment & Model Exam (Laboratory Course)	The evaluation criteria for each experiment are based on performance, viva-voce, and record mark. The attainment of COs is calculated through continuous assessment and model practical performance.
Project Reviews	<ul style="list-style-type: none"> • Three reviews are conducted periodically to monitor and evaluate the progress of the project using project rubrics. • Viva-Voce is conducted at the end of the semester as per university norms.
University Examination	At the end of each semester, final examination is conducted for Theory and Laboratory courses by Anna University, in which question paper covers the entire syllabus and all the COs are covered in the question papers.

Attainment Level:

1	60% of Students \geq 60 Marks
2	70% of Students \geq 60 Marks
3	80% of Students \geq 60 Marks

Theory courses:

For each theory course, faculty member calculates the course outcome attainment using the University Examination and Internal Assessment Test. The attainment level will be calculated based on the average performance levels of both the University Examination and Internal Assessment Test. The evaluation process of Internal Assessment Tests/Assignments/Tutorials/Quiz is counted for 40% and the remaining 60% will be given for university examination. Based on the level of CO attainment, the faculty member will decide whether to increase the competency level or change the content delivery method, assessment methods to improve attainment level for the course.

Assessment Tool	Weightage	Frequency
CO Attainment	Internal Assessment Tests	40%
	University Examination	60%
		Thrice in a Semester for R2017 and Twice in a Semester for R2021
		Once in a Semester

Laboratory Courses:

For laboratory courses, the course outcome will be calculated based on performance, viva-voce, record work and model practical examination with the weightage of 40% for Continuous Internal Assessment and 60 % weightage for University Practical Examination. Based on the CO attainment level, the faculty member will decide whether to increase the competency level or enhance the practical knowledge of the students in order to improve attainment level for the laboratory course.

Assessment Tool		Weightage	Frequency
CO Attainment	Continuous Internal Assessment	40%	Every Week
	University Practical Examination	60%	Once in a Semester

Project Work Assessment:

For project work, Continuous Internal Assessment is based on the performance in the three reviews. The Course Attainment is calculated based on the three reviews and project Viva voce.

- Project review is conducted every month to review the progress of the students and the second review will be conducted in the presence of an industry expert.
- Suggestions are given to the students for their continuous update and improvement.
- Evaluation of each review are based on the parameters discussed in teaching learning process.

The faculty member will decide the competency level and attainment level for project work considering the average performance level of the students.

Assessment Tool		Weightage	Frequency
Continuous Assessment	Reviews	40%	Every Month
University Assessment	Viva-Voce	60%	Once in a Semester

CO Attainment Calculation:

The course outcomes for all the courses are calculated in terms of percentage using the formula

$$\text{CO}_x \text{ in } \% = \frac{\text{Marks obtained by the students in CO}_x}{\text{Maximum marks allotted in CO}_x} \times 100$$

Maximum marks allotted in CO_x

Where, x= [1 to N], N= Number of COs.

Each course outcome is calculated for all the students based on marks obtained by the students.

$$\text{CO}_x \text{ Attainment in } \% = \frac{\text{No. of Students scored more than or equal to 60\% of Marks in CO}_x}{\text{No. of Students}}$$

No. of Students

here, x= [1 to N], N= Number of Course Outcomes

CO Attainment level is defined based on the following criteria:

COx Attainment Level	3	80% of the Students scoring more than or equal to 60% of Marks in COx
	2	70% of the Students scoring more than or equal to 60% of Marks in COx
	1	60% of the Students scoring more than or equal to 60% of Marks in COx

After calculating the attainment levels of each COs from the performance of Internal Assessment Test 1, 2 & 3, the attainment level of internal assessment test is calculated with ratio of sum of all COs attained by total number of COs as shown below:

$$\text{IAT Attainment Level} = \frac{\text{Sum of all COs attained by Students}}{\text{Total number of COs}}$$

Total number of COs

Based on university grade, the attainment level of COs is calculated. The attainment level is decided based on the following criteria.

University Attainment Level	3	80% of the students scoring more than or equal to 60% of Marks in University Exam
	2	70% of the students scoring more than or equal to 60% of Marks in University Exam
	1	60% of the students scoring more than or equal to 60% of Marks in University Exam

Overall CO Attainment:

The Overall Attainment for a course is sum of 40% of Internal Assessment Test Attainment Level and 60% of the University Attainment Level.

Overall CO Attainment = 40% Internal Assessment Test Attainment + 60% University Attainment

The weightage of the assessment varies based on the nature of the course and assessment methods used for that particular course by course-handling faculty members.

Sample Course for Calculation of CO Attainment:

Course Code & Title : EN8592 - Wastewater Engineering

Semester & Year of study : VI Semester, III Year – Batch 2020-2024

Index : C315

Figure 3.2 Sample – Course Attainment – EN8592 Waste Water Engineering

VI Semester

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_III.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_III.pdf)

The course outcomes attainment for the sample course taken above is calculated as per the table mentioned below.

Continuous Internal Assessment Methods (CIAM)	Weightage							End Semester
	CO1	CO2	CO3	CO4	CO5	CO6	CIAM	

IAT	60%	60%	60%	60%	60%		40%	60%
Assignment	10%	10%	10%	10%	10%	90%		
Tutorial	20%	20%	20%	20%	20%			
CO End Survey	10%	10%	10%	10%	10%	10%		
Total	100 %	100 %	100 %	100 %	100 %	100 %	100%	

Sample Calculation:

$$CO_x \text{ in } \% = \text{Marks obtained by the students in } CO_x \times 100$$

Maximum marks allotted in CO_x

Where, $X = [1 \text{ to } N]$, $N = \text{Number of COs.}$

Continuous Internal Assessment Methods (CIAM)	Reg. No of the student: 953620103001					
	CO1	CO2	CO3	CO4	CO5	CO6
IAT (60% Weightage)	CO1 in % =23/33 =69.67	CO2 in % =15/34 = 44. 12	CO3 in % =2/33 = 6.06	CO4 in % =38/58 =65.52	CO5 in % =8/42 = 19.05	-
Assignment (10% Weightage)	CO1 in % =15/20 =75	CO2 in % =15/20 =75	CO3 in % =18/20 =90	CO4 in % =17/20 = 85	CO5 in % =15/20 = 75	CO6 in % =16/20 = 80
Tutorial (20% Weightage)	CO1 in % =15/20 =75	CO2 in % =16/20 =80	CO3 in % =15/20 = 75	CO4 in % =17/20 = 85	CO5 in % =15/20 = 75	-
CO End Survey (10% Weightage)	100	100	100	100	100	100
Total	74.32	59.97	37.64	74.81	43.93	82
Continuous Internal Assessment Methods (CIAM)	Reg. No of the student: 953620103008					
	CO1	CO2	CO3	CO4	CO5	CO6
IAT (60% Weightage)	CO1 in % =31/33 =93.93	CO2 in % =33/34 = 97.05	CO3 in % =31/33 = 93.93	CO4 in % =50/58 = 86.20	CO5 in % =36/42 = 85.71	-
Assignment (10% Weightage)	CO1 in % =19/20 = 95	CO2 in % =18/20 = 90	CO3 in % =19/20 = 95	CO4 in % =18/20 = 90	CO5 in % =18/20 = 90	CO6 in % =20/20 = 100

Tutorial (20% Weightage)	CO1 in % =18/20 =90	CO2 in % =20/20 = 100	CO3 in % =18/20 = 90	CO4 in % =19/20 = 95	CO5 in % =20/20 = 100	-
CO End Survey (10% Weightage)	100	100	100	100	100	100
Total	93.86	97.23	93.86	89.72	90.43	100
Continuous Internal Assessment Methods (CIAM)	Reg. No of the student: 953620103303					
	CO1	CO2	CO3	CO4	CO5	CO6
IAT (60% Weightage)	CO1 in % =8/33 = 24.24	CO2 in % =8/34 = 23.52	CO3 in % =2/33 = 6.06	CO4 in % =6/58 = 10.34	CO5 in % =3/42 = 7.14	-
Assignment (10% Weightage)	CO1 in % =16/20 = 80	CO2 in % =17/20 = 85	CO3 in % =16/20 = 80	CO4 in % =13/20 = 65	CO5 in % =15/20 = 75	CO6 in % =16/20 = 80
Tutorial (20% Weightage)	CO1 in % =16/20 = 80	CO2 in % =16/20 = 80	CO3 in % =17/20 = 85	CO4 in % =15/20 = 75	CO5 in % =14/20 = 70	-
CO End Survey (10% Weightage)	100	100	100	100	100	100
Total	48.55	48.62	38.64	37.71	35.79	82

We used the above formula to calculate CO attainment in terms of percentage for all the students. The CO attainment level is calculated by as follows

CO1	2	76% of Students scored more than 60 Marks
CO2	3	86% of Students scored more than 60 Marks
CO3	0	48% of Students scored more than 60 Marks
CO4	0	52% of Students scored more than 60 Marks
CO5	0	19% of Students scored more than 60 Marks
CO6	3	100% of Students scored more than 60 Marks

Internal Attainment is calculated as follows:

$$\text{IAT Attainment Level} = \text{CO1} + \text{CO2} + \text{CO3} + \text{CO4} + \text{CO5} + \text{CO6}$$

6

$$\text{IAT Attainment Level} = 2 + 3 + 0 + 0 + 0 + 3 = 1.33$$

6

University Attainment is calculated as follows:

The university attainment level can be calculated as follows:

University Attainment level	1	60% of Students scored more than or equal to 60 Marks
	2	70% of Students scored more than or equal to 60 Marks
	3	80% of Students scored more than or equal to 60 Marks

In this subject 80.95% of the students scored 60% of the marks in university examination, so the University Attainment level is 3

Overall Attainment is calculated as follows:

The Overall Attainment for the course is calculated as follows.

Overall CO Attainment = 40% Internal Assessment Test Attainment + 60% University Attainment

$$\text{Overall Attainment Level} = (0.4 \times 1.33) + (0.6 \times 3) = 2.33$$

$$\text{Overall Attainment Level} = 2.33$$

3.2.2 Record the attainment of Course Outcome of all courses with respect to set attainment levels (40)

Institute Marks : 40.00

The attainment level for each course is decided by the respective faculty member. The attainment of COs for all subjects from the I year, II-year, III year, and IV year for the batch 2018-2022, 2019-2023, and 2020-2024 are assessed by having 60% weightage for university examination and 40% weightage to Continuous Internal Assessment Methods (CIAM) which includes Internal Assessment Tests and Assignments/Tutorial/Quiz/Mini Project and Course Outcome End Survey.

Set Attainment Level Calculation:

- The set attainment level for the first batch (2017-2021) has been fixed as 1.8 for theory courses and 2.1 for Laboratory courses/Project.
- The set attainment level for the batch 2018-2022 has been fixed by taking the average grade point analysis value of the university examinations obtained by the 2017-2021 batch students.
- The set attainment level for the batch 2019-2023 has been fixed by taking the average value of average grade point analysis value of the university examination obtained by the previous two batch students (2017-2021 & 2018-2022)

The table 3.2 shows the methodology of Target attainments (Set Attainment Level) for all the courses.

Table 3.2 Targets for Course outcomes

Batch	Target Attainment
2017-2021 (AGPA ₁)	1.8 for Theory Courses & 2.1 for Laboratory courses/Projects
2018-2022 (AGPA ₂)	AGPA ₁ × 0.3
2019-2023 (AGPA ₃)	((AGPA ₁ + AGPA ₂)/2)*0.3
2020-2024	((AGPA ₁ + AGPA ₂ + AGPA ₃)/3)*0.3

BATCH: 2018-2022

2018-2022 Batch					
S.No	Course Index	Course Code & Course Name	Target	CO Attainment	Attainment Status
2018-2019 Odd Semester I Semester					
1	C101	HS8151 - Communicative English	2.20	2.91	Attained
2	C102	MA8151 - Engineering Mathematics I	1.80	1.31	Not Attained
3	C103	PH8151 - Engineering Physics	1.80	2.71	Attained
4	C104	CY8151 - Engineering Chemistry	2.04	3.00	Attained
5	C105	GE8151 - Problem Solving and Python Programming	1.92	2.03	Attained
6	C106	GE8152 - Engineering Graphics	2.34	2.57	Attained
7	C107	GE8161 - Problem Solving and Python Programming Laboratory	2.70	2.68	Not Attained
8	C108	BS8161 - Physics and Chemistry Laboratory	2.70	3.00	Attained
2018-2019 I Even Semester II Semester					
9	C109	HS8251 - Technical English	2.16	3.00	Attained
10	C110	MA8251 - Engineering Mathematics II	2.16	2.57	Attained
11	C111	PH8201 - Physics of Civil Engineering	2.52	2.78	Attained
12	C112	BE8251 - Basic Electrical and Electronics Engineering	1.80	2.06	Attained

13	C113	GE8291 - Environmental Science and Engineering	2.13	2.71	Attained
14	C114	GE8292 - Engineering Mechanics	1.80	2.82	Attained
15	C115	GE8261 - Engineering Practices Laboratory	2.79	3.00	Attained
16	C116	CE8211 - Computer Aided Building Drawing	2.76	3.00	Attained
2019-2020 Odd Semester III Semester					
17	C201	MA8353 - Transforms and Partial Differential Equations	1.8	1.67	Not Attained
18	C202	CE8301 - Strength of Material I	1.8	2.24	Attained
19	C203	CE8302 - Fluid Mechanics	1.8	3.00	Attained
20	C204	CE8351 - Surveying	1.8	2.32	Attained
21	C205	CE8391 - Construction Materials	1.8	2.46	Attained
22	C206	CE8392 - Engineering Geology	1.92	0.30	Attained
23	C207	CE8311 - Construction Materials Laboratory	2.97	3.00	Attained
24	C208	CE8361 - Surveying Laboratory	2.61	3.00	Attained
25	C209	HS8381 - Interpersonal Skills / Listening and Speaking	2.37	3.00	Attained
2019-2020 Even Semester IV Semester					
26	C210	MA8491 - Numerical Methods	1.80	2.73	Attained
27	C211	CE8401 - Construction Techniques and Practices	2.04	3.00	Attained
28	C212	CE8402 - Strength of Materials II	1.80	2.60	Attained
29	C213	CE8403 - Applied Hydraulic Engineering	1.80	2.92	Attained
30	C214	CE8404 - Concrete Technology	1.80	2.76	Attained
31	C215	CE8491 - Soil Mechanics	1.80	2.35	Attained
32	C216	CE8481 - Strength of Materials Laboratory	2.64	3.00	Attained
33	C217	CE8461 - Hydraulic Engineering Laboratory	2.73	3.00	Attained
34	C218	HS8461 - Advanced Reading and Writing	2.52	3.00	Attained
2020-2021 Odd Semester V Semester					
35	C301	CE8501 - Design of Reinforced Cement Concrete Elements	1.80	3.00	Attained
36	C302	CE8502 - Structural Analysis I	2.07	3.00	Attained
37	C303	EN8491 - Water Supply Engineering	2.25	3.00	Attained
38	C304	CE8591 - Foundation Engineering	1.80	3.00	Attained
39	C305	ORO551 - Renewable Energy Sources	2.25	3.00	Attained
40	C306	OCH551 - Industrial Nanotechnology	2.07	2.92	Attained

41	C307	GE8071 - Disaster Management	1.8	3.00	Attained
42	C308	CE8511 - Soil Mechanics Laboratory	2.88	3.00	Attained
43	C309	CE8512 - Water and Waste Water Laboratory	2.88	3.00	Attained
44	C310	CE8513 - Survey Camp	2.61	3.00	Attained
2020-2021 Even Semester VI Semester					
45	C311	CE8601 - Design of Steel Structural Elements	2.49	3.00	Attained
46	C312	CE8602 - Structural Analysis II	2.43	3.00	Attained
47	C313	CE8603 - Irrigation Engineering	2.43	2.84	Attained
48	C314	CE8604 - Highway Engineering	2.25	2.84	Attained
49	C315	EN8592 - Wastewater Engineering	2.25	3.00	Attained
50	C316	CE8005 - Air Pollution and Control Engineering	2.76	3.00	Attained
51	C317	CE8611 - Highway Engineering Laboratory	2.97	3.00	Attained
52	C318	CE8612 - Irrigation and Environmental Engineering Drawing	2.88	3.00	Attained
53	C319	HS8581 - Professional Communication	2.85	3.00	Attained
2021-2022 Odd Semester VII Semester					
54	C401	CE8701 - Estimation, Costing and valuation Engineering	2.40	2.87	Attained
55	C402	CE8702 - Railways, Airports, Docks and Harbour Engineering	2.28	2.67	Attained
56	C403	CE8703 - Structural Design and Drawing	1.95	2.64	Attained
57	C404	CE8012 - Construction Planning and Scheduling	1.80	2.73	Attained
58	C405	EN8591 - Municipal Solid Waste Management	2.37	3.00	Attained
59	C406	OML751 - Testing of Materials	2.52	3.00	Attained
60	C407	OCS752 - Introduction to C Programming	2.40	2.07	Attained
61	C408	CE8711 - Creative Innovative Project	3.00	3.00	Attained
62	C409	CE8712 - Industrial Training	2.97	3.00	Attained
2021-2022 Even Semester VIII Semester					
63	C410	GE8076 - Professional Ethics in Engineering	2.43	2.68	Attained
64	C411	CE8020 - Maintenance, Repair and Rehabilitation of Structures	2.58	2.80	Attained
65	C412	CE8811 - Project Work	3.00	3.00	Attained

BATCH: 2019-2023

2019-2023 Batch

S.No	Course Index	Course Code & Course Name	Target	CO Attainment	Attainment Status
2019-2020 Odd Semester I Semester					
1	C101	HS8151 - Communicative English	2.2	3	Attained
2	C102	MA8151 - Engineering Mathematics I	1.8	2.64	Attained
3	C103	PH8151 - Engineering Physics	1.83	2.21	Attained
4	C104	CY8551 - Engineering Chemistry	2.06	2.64	Attained
5	C105	GE8151 - Problem Solving and Python Programming	1.83	1.2	Not Attained
6	C106	GE8152 - Engineering Graphics	2.34	2.64	Attained
7	C107	GE8161 - Problem Solving and Python Programming Laboratory	2.7	3	Attained
8	C108	BS8161 - Physics and Chemistry Laboratory	2.7	3	Attained
2019-2020 Even Semester II Semester					
9	C109	HS8251 - Technical English	2.16	2.8	Attained
10	C110	MA8251 - Engineering Mathematics – II	2.16	2.2	Attained
11	C111	PH8201 - Physics for Civil Engineering	2.76	2.33	Not Attained
12	C112	BE8251 - Basic Electrical and Electronics Engineering	1.8	2.6	Attained
13	C113	GE8291 - Environmental Science and Engineering	2.13	3	Attained
14	C114	GE8292 - Engineering Mechanics	1.8	2.84	Attained
15	C115	GE8261 - Engineering Practices Laboratory	2.79	3	Attained
16	C116	CE8211 - Computer Aided Building Drawing	2.76	3	Attained
2020-2021 Odd Semester III Semester					
17	C201	MA8353 - Transforms and Partial Differential Equations	1.8	2.68	Attained
18	C202	CE8301 - Strength of Materials – I	1.8	2.76	Attained
19	C203	CE8302 - Fluid Mechanics	1.8	3	Attained
20	C204	CE8351 - Surveying	1.8	3	Attained
21	C205	CE8391 - Construction Materials	1.8	2.84	Attained
22	C206	CE8392 - Engineering Geology	1.92	2.84	Attained
23	C207	CE8311 - Construction Materials Laboratory	2.97	3	Attained
24	C208	CE8361 - Surveying Laboratory	2.66	3	Attained
25	C209	HS8381 - Interpersonal Skills / Listening and Speaking	2.37	3	Attained

2020-2021 Even Semester IV Semester					
26	C210	MA8491 - Numerical Methods	1.8	2.92	Attained
27	C211	CE8401 - Construction Techniques and Practices	2.15	3	Attained
28	C212	CE8402 - Strength of Materials II	1.8	3	Attained
29	C213	CE8403 - Applied Hydraulic Engineering	1.93	3	Attained
30	C214	CE8404 - Concrete Technology	1.9	3	Attained
31	C215	CE8491 - Soil Mechanics	1.8	3	Attained
32	C216	CE8481 - Strength of Materials Laboratory	2.73	3	Attained
33	C217	CE8461 - Hydraulic Engineering Laboratory	2.8	3	Attained
34	C218	HS8461 - Advanced Reading and Writing	2.63	3	Attained
2021-2022 Odd Semester V Semester					
35	C301	CE8501 - Design of Reinforced Cement concrete Elements	1.82	2.67	Attained
36	C302	CE8502 - Structural Analysis I	2.13	2.58	Attained
37	C303	EN8491 - Water and Waste Water Engineering	2.25	3	Attained
38	C304	CE8591 - Foundation Engineering	1.95	2.88	Attained
39	C305	GE8071 - Disaster Management	2.16	2.47	Attained
40	C306	ORO551 - Renewable Energy Sources	2.23	2.8	Attained
41	C307	CE8511 - Soil Mechanics Laboratory	2.88	3	Attained
42	C308	CE8512 - Water and Waste Water Analysis Laboratory	2.88	3	Attained
43	C309	CE8513 - Survey Camp	2.69	3	Attained
2021-2022 Even Semester VI Semester					
44	C310	CE8601 - Design of Steel Structures	2.53	2.28	Not Attained
45	C311	CE8602 - Structural Analysis II	2.64	2.76	Attained
46	C312	CE8603 - Irrigation Engineering	2.56	2.2	Not Attained
47	C313	CE8604 - Highway Engineering	2.32	2.12	Not Attained
48	C314	EN8592 - Wastewater Engineering	2.39	2.73	Attained
49	C315	CE8005 - Air Pollution and Control Engineering (Elective II)	2.65	2.8	Attained
50	C316	CE8611 - Highway Engineering Laboratory	2.97	3	Attained
51	C317	CE8612 - Irrigation and Environmental Engineering Drawing	2.89	3	Attained
52	C318	HS8581 - Professional Communication	2.85	3	Attained

2022-2023 Odd Semester VII Semester					
53	C401	CE8701 - Estimation, Costing and valuation Engineering	2.4	2.73	Attained
54	C402	CE8702 - Railways, Airports, Docks and Harbour Engineering	2.35	2.93	Attained
55	C403	CE8703 - Structural Design and Drawing	2.09	2.64	Attained
56	C404	EN8591 - Municipal Solid Waste Management	2.42	2.93	Attained
57	C405	OML751 - Testing of Materials	2.58	2.92	Attained
58	C406	CE8711 - Creative Innovative Project	3	3	Attained
59	C407	CE8712 - Industrial Training	2.98	3	Attained
2022-2023 Even Semester VIII Semester					
60	C408	GE8076 - Professional Ethics in Engineering	2.43	2.52	Attained
61	C409	CE8020 - Maintenance, Repair and Rehabilitation of Structures	2.58	2.92	Attained
62	C410	CE8811 - Project Work	3	3	Attained

BATCH: 2020-2024

2020-2024 Batch					
S.No	Course Index	Course Code & Course Name	Target	CO Attainment	Attainment Status
2020-2021 Odd Semester I Semester					
1	C101	HS8151 - Communicative English	2.2	3	Attained
2	C102	MA8151 - Engineering Mathematics-I	1.8	2.57	Attained
3	C103	PH8151 - Engineering Physics	1.8	3	Attained
4	C104	CY8151 - Engineering Chemistry	2.06	2.68	Attained
5	C105	GE8151 - Problem Solving and Python Programming	1.83	2.57	Attained
6	C106	GE8152 - Engineering Graphics	2.34	3	Attained
7	C107	GE8161 - Problem Solving and Python Programming Laboratory	2.7	3	Attained
8	C108	BS8161 - Physics and Chemistry Laboratory	2.7	3	Attained
2020-2021 Even Semester II Semester					
9	C109	HS8251 - Technical English	2.16	2.9	Attained
10	C110	MA8251 - Engineering Mathematics II	2.16	3	Attained
11	C111	PH8201 - Physics of Civil Engineering	2.76	2.93	Attained
12	C112	BE8251 - Basic Electrical and Electronics Engineering	1.8	2.71	Attained

13	C113	GE8291 - Environmental Science and Engineering	2.14	2.71	Attained
14	C114	GE8292 - Engineering Mechanics	1.8	2.92	Attained
15	C115	GE8261 - Engineering Practices Laboratory	2.8	3	Attained
16	C116	GE8211 - Computer Aided Building Drawing	2.76	3	Attained
2021-2022 Odd Semester III Semester					
17	C201	MA8353 - Transforms and Partial Differential Equations	1.8	2.21	Attained
18	C202	CE8301 - Strength of Material I	1.8	2.52	Attained
19	C203	CE8302 - Fluid Mechanics	1.8	2.4	Attained
20	C204	CE8351 - Surveying	1.9	3	Attained
21	C205	CE8391 - Construction Materials	2.28	2.58	Attained
22	C206	CE8392 - Engineering Geology	1.99	2.7	Attained
23	C207	CE8311 - Construction Materials Laboratory	2.97	3	Attained
24	C208	CE8361 - Surveying Laboratory	2.7	3	Attained
25	C209	HS8381 - Interpersonal Skills/Listening and Speaking	2.4	3	Attained
2021-2022 Even Semester IV Semester					
26	C210	MA8491 - Numerical Methods	1.8	2.12	Attained
27	C211	CE8401 - Construction Techniques and Practices	2.18	2.4	Attained
28	C212	CE8402 - Strength of Materials II	1.8	2.44	Attained
29	C213	CE8403 - Applied Hydraulic Engineering	1.97	1.33	Not Attained
30	C214	CE8404 - Concrete Technology	1.93	2.27	Attained
31	C215	CE8491 - Soil Mechanics	1.8	2.34	Attained
32	C216	CE8481 - Strength of Materials Laboratory	2.73	3	Attained
33	C217	CE8461 - Hydraulic Engineering Laboratory	2.65	3	Attained
34	C218	HS8461 - Advanced Reading and Writing	2.63	3	Attained
2022-2023 Odd Semester V Semester					
35	C301	CE8501 - Design of Reinforced Cement concrete Elements	2	2.13	Attained
36	C302	CE8502 - Structural Analysis I	2.13	2.46	Attained
37	C303	EN8491 – Water Supply Engineering	2.29	2.13	Not Attained
38	C304	CE8591 - Foundation Engineering	2.1	2.4	Attained
39	C305	GE8071 - Disaster Management	2.41	2.47	Attained

40	C306	ORO551 - Renewable Energy Sources	2.34	1.4	Not Attained
41	C307	OAA551 - Sensors and Transducers	1.8	0.2	Not Attained
42	C308	CE8511 - Soil Mechanics Laboratory	2.88	3	Attained
43	C309	CE8512 - Water and Waste Water Analysis Laboratory	2.88	3	Attained
2022-2023 Even Semester VI Semester					
44	C311	CE8601 - Design of Steel Structures	2.53	2.58	Attained
45	C312	CE8602 - Structural Analysis II	2.64	2.94	Attained
46	C313	CE8603 - Irrigation Engineering	2.56	2.4	Not Attained
47	C314	CE8604 - Highway Engineering	2.32	1.96	Not Attained
48	C315	EN8592 - Wastewater Engineering	2.39	2.33	Not Attained
49	C316	CE8611 - Highway Engineering Laboratory	2.97	3	Attained
50	C317	CE8612 - Irrigation and Environmental Engineering Drawing	2.89	3	Attained
51	C318	HS8581 - Professional Communication	2.85	1.2	Not Attained
2023-2024 Odd Semester VII Semester					
52	C401	CE8701 - Estimation, Costing and Valuation Engineering	2.4	2.4	Attained
53	C402	CE8702 - Railways, Airports, Docks and Harbour Engineering	2.35	2.8	Attained
54	C403	CE8703 - Structural Design and Drawing	2.09	2	Not Attained
55	C404	EN8591 - Municipal Solid Waste Management	2.42	2.73	Attained
56	C405	CE8711 -Creative and Innovative Project	3	3	Attained
57	C406	CE8712- Industrial Training	2.98	3	Attained
2023-2024 Even Semester VIII Semester					
58	C407	GE8076-Professional Ethics in Engineering (Elective IV)	2.43	1.36	Not Attained
59	C408	CE8020- Maintenance, Repair and Rehabilitation of Structures (Elective V)	2.58	1.93	Not Attained
60	C409	CE8811- Project Work	3	3	Attained

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50)

Total Marks 50.00

3.3.1 Describe the assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10)

Institute Marks : 10.00

3.3.1. Describe assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10)

For measuring the attainment of Program Outcomes and Program Specific Outcomes various tools are used. The process for measuring the attainment of each PO & PSO is described in

Figure 3.3 Process of PO & PSO Attainment (Flowchart)

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_III.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_III.pdf)

PO/PSO Assessment Tools:

Evaluation of attainment of POs and PSOs is based on direct and indirect assessment tools. Direct assessment of POs and PSOs is based on students' performance in Continuous Assessments and University Examination. Indirect assessment is based on Program Exit Survey, Alumni Survey and Course Outcome End Survey (Theory and Practical).

Direct Assessment:

Using Program Outcomes prescribed by NBA, the faculty member evaluates the Program Outcomes and Program Specific Outcomes through Internal Assessment Tests, Assignments / Tutorial, and Quiz. PO will be evaluated by the CO-PO Mapping with the attainment value for each course. For each course, every faculty member decides the competency level and attainment level.

The following table 3.3 shows the tools and process for direct PO attainment.

Table 3.3 Direct Assessment

PO Attainment	Tools	Process
Direct (CO Attainment)	<ul style="list-style-type: none"> Internal Assessment Test Assignments Tutorials Quiz University Examination 	<ul style="list-style-type: none"> Assignments / Tutorials / online quizzes are given periodically for the entire course to attain specific POs. Three Internal Assessment Tests are conducted per semester to evaluate student performance. University Examination is conducted once a semester as per the Anna University Schedule.
	<ul style="list-style-type: none"> Performance Viva Voce Record Quiz 	<ul style="list-style-type: none"> Student Contribution in the laboratory is evaluated based on the performance, Viva Voce Presentation, and Record Work. Model Practical examination is conducted for 100 marks for 3 hours. University Examination is conducted once a semester as per the Anna University Schedule.
	<ul style="list-style-type: none"> Project Reviews 	<ul style="list-style-type: none"> Students are divided into batches. Each batch consists of two to four students. Supervisors are allotted for each group. Zeroth reviews are conducted for the students to identify the area of project. Three reviews are conducted periodically to monitor and evaluate the progress of the project. Viva-Voce is conducted at the end of the semester.

Course level PO & PSO Attainment Calculation:

The PO & PSO attainment for the course is calculated using the following formula.

$$\text{CO Attainment Ratio of Course}(x) = \frac{\text{CO Attainment of Course}(x)}{3(\text{Maximum attainment Value})}$$

$$\text{CO Attainment of Course}(x) = \text{CO Attainment Ratio of Course}(x) \times 3(\text{Maximum attainment Value})$$

Where, $x = [1 \text{ to } N]$, $N = \text{Number of Courses}$.

$$\text{PO}_m \text{ Attainment of course}(x) = \text{CO Attainment Ratio of Course}(x) \times \text{PO}_m \text{ Mapping Value of Course}(x)$$

Where, $m = [1 \text{ to } 12]$

PSO_m Attainment of course(x) = CO Attainment Ratio of Course(x) X PSO_m Mapping Value of Course(x)

Where, $m = [1 \text{ to } M]$, $M = \text{Number of Program Specific Outcomes}$.

Program level PO & PSO Direct Attainment Calculation:

The PO & PSO attainment for Program is calculated using the following formula.

PO_m Direct Attainment = PO_m Attainment of all courses

X

Where, $m = \text{Program Outcomes varies from 1 to 12}$

$x = \text{Number of Courses mapped with POM}$

PSO_m Direct Attainment = PSO_m Attainment of all courses

X

Where, $m = \text{Program Outcomes varies from 1 to 4}$

$x = \text{Number of Courses mapped with PSOM}$

Indirect Assessment:

The following tools are used to assess the indirect assessment of attainment of POs and PSOs. The assessment tools listed in the below table 3.4 are used for both PO – PSO attainment calculation.

Table 3.4 Tools for Assessment process

S. No.	Tools used for Assessment processes	Batch	Batch	Batch
		2018-22	2019-23	2020-24
1	Program Exit Survey	Yes	Yes	Yes
2	Alumni Survey	Yes	Yes	Yes

Course Outcome End Survey (Theory & Practical):

The course outcome end survey is process of collecting reviews on each theory course and laboratory from the students at the end of each semester. It helps to improve the overall aspect of the course in future semesters. The survey covers the overall view about the learning outcome of the respective course/laboratory.

Program Exit Survey:

It is a process of collecting satisfaction survey on the quality of education from the perspective of graduating students upon the completion of their program. Program Exit Survey is structured with 5 like scale questions. The survey helps in identifying

- Perception on the overall quality of teaching, learning and mentoring.
- Opinion about the support provided by the programme in projects, modern tools and softwares.
- Support provided for extra-curricular and co-curricular activities.
- Exposure to the competitive exams and personality development programmes.
- Insight on imparting skills like entrepreneurship and societal responsibility through NSS, YRC, NGO and Club's
- Improvement on facilities.

PO & PSO Attainment Calculation of PES:

Question Level Calculation:

$$Q(x) \text{ in } \% = \frac{\text{No. of Students provided more than or equal to 3 Marks in } Q(x)}{\text{No. of Students}} \times 100$$

No. of Students X 100

Where, $x = [1 \text{ to } 25]$, $Q[x] = x^{\text{th}}$ Questions in Program Exit Survey

Question Level Attainment:

PES Attainment level

Program Exit Survey (PES) Question Level Attainment	3	80% of the students provided more than or equal to 3 Marks in Survey Question
	2	70% of the students provided more than or equal to 3 Marks in Survey Question
	1	60% of the students provided more than or equal to 3 Marks in Survey Question

POm Attainment of PES = Summation of $Q(x)$ Attainment mapped with POM

X

Where, $m = [1 \text{ to } M]$, $M = \text{Number of Program Outcomes}$.

$x = \text{Number of Questions mapped with POM}$

PSOm Attainment of PES = Summation of $PO(x)$ Attainment mapped with PSOm

X

Where, $m = [1 \text{ to } M]$, $M = \text{Number of Program Specific Outcomes}$.

$x = \text{Number of POs mapped with PSOm}$

Alumni Survey:

The alumni survey is conducted through the survey questionnaire after graduation towards the achievement of POs and PSOs. Survey form is structured with six sections with respect to,

- Personal information.
- Employment/higher studies/entrepreneurship- details.
- Technical, professional, communication and general skills at present towards RIT contribution.
- Experience at RIT in projects, extra-curricular, co-curricular activities, personality development, sports, NSS and YRC facilities.
- Suggestions for further improvement.
- Suggestions for bridging curriculum gap and other valuable inputs.

PO & PSO Attainment Calculation of AS:

Question Level Calculation:

$$Q(x) \text{ in } \% = \frac{\text{No. of Students provided more than or equal to 3 Marks in } Q(x)}{\text{No. of Students}} \times 100$$

No. of Students X 100

Where, $x = [1 \text{ to } 25]$, $Q[x] = x^{\text{th}}$ Questions in Alumni Survey

Question Level Attainment:

Alumni Survey Attainment level

Alumni Survey (AS) Question Level Attainment	3	80% of the students provided more than or equal to 3 Marks in Survey Question
	2	70% of the students provided more than or equal to 3 Marks in Survey Question
	1	60% of the students provided more than or equal to 3 Marks in Survey Question

POm Attainment of AS = Summation of $Q(x)$ Attainment mapped with POm

X

Where, $m = [1 \text{ to } M]$, $M = \text{Number of Program Outcomes}$.

$x = \text{Number of Questions mapped with POm}$

PSOm Attainment of AS = Summation of $PO(x)$ Attainment mapped with PSOm

X

Where, $m = [1 \text{ to } M]$, $M = \text{Number of Program Specific Outcomes}$.

$x = \text{Number of POs mapped with PSOm}$

Program level PO & PSO Indirect Attainment Calculation:

POm Indirect Attainment = (POm Attainment of PES X 0.5) + (POm Attainment of AS X 0.5)

Where $m = \text{number of Program Specific Outcomes}$

PSOm Indirect Attainment = (PSOm Attainment of PES X 0.5) + (PSOm Attainment of AS X 0.5) Where $m = \text{number of Program Specific Outcomes}$

Overall PO & PSO Attainment Calculation:

The Overall PO & PSO attainment is calculated by using the following formula

Overall POm Attainment = (POm Direct Attainment X 0.8) + (POm Indirect Attainment X 0.2)

Where $m = \text{number of Program Outcomes}$

Overall PSOm Attainment = (PSOm Direct Attainment X 0.8) + (PSOm Indirect Attainment X 0.2)

Where $m = \text{number of Program Specific Outcomes}$

The following table 3.5 shows the tools and process for Indirect PO attainment.

Table 3.5 Tools for Assessment Process

PO Attainment	Tools	Process
---------------	-------	---------

Indirect	<ul style="list-style-type: none"> • Program Exit Survey 	On completion of the program, feedback is obtained from each student about the entire program experience through the Institute ERP portal
	<ul style="list-style-type: none"> • Alumni Survey 	During the alumni meet and graduation day the alumni survey is collected from the graduates based on the various parameters.

3.3.2 Provide results of evaluation of PO&PSO (40)

Institute Marks : 40.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2.2	2.8	PO11	PO12
C102	2.64	2.29	1.94	0.88	PO5	PO6	PO7	PO8	0.88	PO10	PO11	PO12
C103	1.77	1.32	0.88	1.77	0.88	1.77	PO7	PO8	PO9	PO10	1.62	1.62
C104	1.94	1.06	0.88	PO4	PO5	PO6	PO7	PO8	PO9	PO10	2.64	2.64
C105	1.12	0.66	0.7	0.4	0.8	PO6	PO7	PO8	PO9	PO10	PO11	0.56
C106	2.46	2.64	PO3	PO4	1.76	PO6	1.76	PO8	PO9	2.64	PO11	0.88
C107	3	1.6	2.8	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	1
C108	2.66	3	PO3	3	PO5	PO6	PO7	2.66	2.33	2	3	3
C109	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	1.87	2.24	PO11	PO12
C110	1.67	1.37	1.52	PO4	0.76	PO6	PO7	PO8	PO9	PO10	PO11	1.52
C111	2.24	1.44	0.8	2.24	0.8	2.24	PO7	PO8	PO9	PO10	1.76	1.76
C112	2.6	1.91	1.56	1.21	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.87
C113	PO1	PO2	2	PO4	PO5	2	3	2	PO9	PO10	2	3
C114	2.84	1.89	2.37	0.95	1.89	PO6	PO7	PO8	PO9	PO10	0.95	1.89
C115	1.83	1	1	1	PO5	PO6	2.83	2.00	2.00	PO10	2.00	PO12
C116	3.00	2.00	1.00	3.00	3.00	2.00	1.00	3.00	1.00	2.00	2.00	2.00
C201	2.68	1.79	1.07	1.07	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.89
C202	2.76	1.84	PO3	PO4	0.92	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203	3	2.4	1.6	1.75	1	PO6	2	PO8	1	PO10	PO11	1

C204	1	1.75	PO3	PO4	PO5	1	PO7	PO8	PO9	PO10	PO11	1
C205	PO1	PO2	2.84	2.84	0.95	2.84	0.95	1.89	PO9	PO10	PO11	PO12
C206	2.53	1.42	2.84	1.26	1.42	1.26	PO7	0.95	PO9	0.95	0.95	0.95
C207	3	3	PO3	PO4	PO5	PO6	PO7	PO8	3	PO10	PO11	PO12
C208	3	PO2	PO3	2	3	PO6	PO7	PO8	2	PO10	PO11	PO12
C209	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2.6	3	PO11	PO12
C210	1.75	1.75	1.75	1.17	0.97	PO6	PO7	PO8	PO9	PO10	0.97	PO12
C211	2.17	2.2	2.33	1.67	1.8	2	3	2	PO9	1	PO11	1
C212	3	3	2	1	3	PO6	PO7	PO8	1	2	PO11	2
C213	3	2.8	2.2	1.4	1	PO6	PO7	PO8	PO9	PO10	PO11	1
C214	3	2	2	1.5	PO5	1.3	1.2	PO8	PO9	PO10	PO11	1
C215	3	2	1	1	PO5	2	1	PO8	PO9	PO10	1	1
C216	3	2	1	3	3	2	1	1	1	1	2	2
C217	3	2	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C218	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2	2.8	PO11	PO12
C301	1.34	1.87	2.23	0.89	1.87	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302	2.68	2.68	1.79	0.89	2.68	PO6	PO7	PO8	0.89	1.79	PO11	1.79
C303	3	2	3	2	PO5	2.3	2	PO8	PO9	PO10	PO11	2
C304	1.92	2.4	1.92	2.88	PO5	PO6	PO7	PO8	PO9	PO10	0.96	PO12
C305	1.65	1.65	1.65	PO4	PO5	2.47	PO7	PO8	0.82	1.65	PO11	0.82
C306	1.87	0.93	PO3	PO4	1.87	PO6	1.87	0.93	2.15	1.87	PO11	0.93
C307	3	2	2	2	2	2	PO7	2	1	PO10	PO11	2
C308	3	PO2	PO3	2	3	PO6	1.5	PO8	2	2	PO11	PO12
C309	3	2	2	2	3	3	PO7	2	3	2	PO11	2
C310	1.47	1.47	2.2	1.47	1.47	1.47	1.47	1.47	1.47	0.73	1.47	1.47
C311	2.76	2.76	1.84	0.92	2.76	PO6	PO7	PO8	0.92	1.84	PO11	1.84
C312	2.08	1.47	1.32	PO4	1.47	1.17	0.73	0.73	1.47	PO10	PO11	0.73
C313	1.77	2.12	1.98	1.06	PO5	1.77	0.71	1.59	1.41	PO10	1.41	PO12
C314	2.73	1.82	2.73	1.82	PO5	0.91	1.82	PO8	0.91	PO10	PO11	1.82
C315	2.33	1.4	1.87	PO4	PO5	1.4	2.02	PO8	PO9	PO10	PO11	PO12
C316	3	PO2	PO3	1	PO5	PO6	PO7	PO8	3	PO10	PO11	PO12

C317	2	2	2	PO4	PO5	PO6	1	PO8	PO9	1	PO11	PO12
C318	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2.5	2.6	PO11	PO12
C401	1.82	1.55	PO3	PO4	1.37	0.27	PO7	PO8	PO9	PO10	1.46	1.37
C402	2.34	1.76	1.47	0.98	1.95	0.98	PO7	0.98	PO9	0.98	PO11	0.98
C403	1.33	1.33	2	1.33	1.33	1.33	1.33	1.33	1.33	0.67	1.33	1.33
C404	1.95	0.98	1.95	PO4	PO5	1.95	1.95	PO8	1.95	1.22	PO11	1.47
C405	1.95	1.95	1.95	1.95	PO5	PO6	1.95	PO8	PO9	PO10	PO11	0.97
C406	3	3	3	3	3	2	2	1	3	3	2	2
C407	3	3	3	3	3	2	2	1	3	3	2	2
C408	1.56	1.34	0.89	PO4	PO5	2.67	PO7	2.67	2.67	2.67	PO11	0.89
C409	2.92	1.95	2.92	PO4	PO5	PO6	0.97	0.97	0.97	PO10	PO11	0.97
C410	3	3	3	3	2	2	2	1	3	3	2	2
PO Attainment	2.52	2.14	2.11	1.97	2.10	2.03	1.93	1.86	2.06	2.15	1.94	1.78

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.40	1.93	1.89	1.71	1.87	1.79	1.66	1.58	1.83	1.94	1.68	1.48
InDirect Attainment	3	3	3	3	3	3	3	3	3	3	3	3

PSO Attainment

Course	PSO1	PSO2	PSO3	PSO4
C101	PSO1	PSO2	PSO3	PSO4
C102	PSO1	0.88	1.32	PSO4
C103	0.88	PSO2	1.77	0.88
C104	0.88	PSO2	PSO3	PSO4
C105	PSO1	0.4	0.56	PSO4
C106	1.76	PSO2	PSO3	PSO4
C107	1	1	1	1
C108	1.66	PSO2	1	1
C109	PSO1	PSO2	PSO3	PSO4
C110	PSO1	1.01	0.76	PSO4

C111	0.8	PSO2	2.24	0.8
C112	1.91	1.73	0.87	PSO4
C113	PSO1	PSO2	1	PSO4
C114	PSO1	0.95	PSO3	PSO4
C115	PSO1	PSO2	PSO3	PSO4
C116	2	3	2	3
C201	PSO1	PSO2	1.34	1.79
C202	PSO1	0.92	PSO3	PSO4
C203	PSO1	PSO2	1.8	1.4
C204	PSO1	1	1	PSO4
C205	PSO1	2.84	1.89	PSO4
C206	1.11	1.26	1.89	1.58
C207	2.8	3	PSO3	3
C208	PSO1	2	2	3
C209	PSO1	PSO2	PSO3	PSO4
C210	PSO1	PSO2	1.22	PSO4
C211	1.5	2	1	1.33
C212	2	3	2	3
C213	1.5	PSO2	1.6	2
C214	1	2	2	1
C215	1	1	1.2	1.33
C216	2	3	2	3
C217	PSO1	PSO2	3	PSO4
C218	PSO1	PSO2	PSO3	PSO4
C301	PSO1	1.42	PSO3	2.52
C302	1.79	2.68	1.79	2.68
C303	1	3	2.75	2.5
C304	0.96	0.96	1.92	1.92
C305	PSO1	0.82	0.82	PSO4
C306	PSO1	PSO2	0.93	PSO4
C307	2	3	2	3

C308	2	2	2	PSO4
C309	2	2	2	2
C310	1.47	2.2	1.47	2.2
C311	1.84	2.76	1.84	2.76
C312	0.73	1.1	1.47	1.22
C313	1.41	1.41	1.27	1.06
C314	0.91	2.73	2.5	2.28
C315	PSO1	0.93	PSO3	0.93
C316	2.8	PSO2	PSO3	3
C317	1	PSO2	1	2
C318	PSO1	PSO2	PSO3	PSO4
C401	PSO1	1.37	PSO3	PSO4
C402	1.47	0.98	1.47	0.98
C403	1.33	2	1.33	2
C404	1.47	1.47	1.79	PSO4
C405	PSO1	1.62	PSO3	PSO4
C406	3	2	2	2
C407	3	2	2	2
C408	PSO1	PSO2	PSO3	1.78
C409	0.97	1.95	0.97	1.95
C410	3	2	2	2
PSO Attainment	1.89	2.03	1.88	2.15

PSO Attainment Level

Course	PSO1	PSO2	PSO3	PSO4
Direct Attainment	1.61	1.79	1.60	1.94
InDirect Attainment	3	3	3	3

4 STUDENTS' PERFORMANCE (150)

Total Marks 104.87

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2024-25 (CAY)	2023-24 (CAYm1)	2022-23(CAYm2)	2021-22(CAYm3)	2020-21(CAYm4)	2019-20 (CAYm5)	2018-19 (CAYm6)
Sanctioned intake of the program(N)	60	60	60	60	60	60	60
Total number of students admitted in first year minus number of students migrated to other programs/ institutions plus No. of students migrated to this program (N1)	38	43	31	42	10	13	19
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	3	4	3	11	4	3
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	38	46	35	45	21	17	22

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2024-25 (CAY)	38	0	0	0	0
2023-24 (CAYm1)	46	16	0	0	0
2022-23 (CAYm2)	35	17	14	0	0
2021-22 (CAYm3)	45	25	22	22	0
2020-21 (LYG)	21	9	5	4	3
2019-20 (LYGm1)	17	8	12	7	6
2018-19 (LYGm2)	22	8	7	7	7

Table 4.3

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2024-25 (CAY)	38	0	0	0	0
2023-24 (CAYm1)	46	43	0	0	0
2022-23 (CAYm2)	35	31	35	0	0
2021-22 (CAYm3)	45	42	45	45	0
2020-21 (LYG)	21	10	21	21	9
2019-20 (LYGm1)	17	13	17	17	15
2018-19 (LYGm2)	22	19	22	22	22

4.1 Enrolment Ratio (20)

Total Marks 14.00

Institute Marks : 14.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2024-25 (CAY)	60	38	63.33
2023-24 (CAYm1)	60	43	71.67
2022-23 (CAYm2)	60	31	51.67

Average [(ER1 + ER2 + ER3) / 3] : 62.22

Assessment : 14.00

4.2 Success Rate in the stipulated period of the program (40)

Total Marks 18.30

4.2.1 Success rate without backlogs in any semester / year of study (25)

Institute Marks : 6.75

Item	Latest Year of Graduation, LYG (2020-21)	Latest Year of Graduation minus 1, LYGm1 (2019-20)	Latest Year of Graduation minus 2 LYGm2 (2018-19)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	21.00	17.00	22.00
Y Number of students who have graduated without backlogs in the stipulated period	3.00	6.00	7.00
Success Index [SI = Y / X]	0.14	0.35	0.32

Average SI [(SI1 + SI2 + SI3) / 3] : 0.27

Assessment [25 * Average SI] : 6.75

4.2.2 Success rate in stipulated period (15)

Institute Marks : 11.55

Item	Latest Year of Graduation, LYG (2020-21)	Latest Year of Graduation minus 1, LYGm1 (2019-20)	Latest Year of Graduation minus 2 LYGm2 (2018-19)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	21.00	17.00	22.00
Y Number of students who have graduated in the stipulated period	9.00	15.00	22.00
Success Index [SI = Y / X]	0.43	0.88	1.00

Average SI [(SI1 + SI2 + SI3) / 3] : 0.77

Assessment [15 * Average SI] : 11.55

Note : If 100% students clear without any backlog then also total marks scored will be 40 as both 4.2.1 & 4.2.2 will be applicable simultaneously.

4.3 Academic Performance in Third Year (15)

Total Marks 11.56

Institute Marks : 11.56

Academic Performance	CAYm3 (2021-22)	LYG (2020-21)	LYGm1 (2019-20)
Mean of CGPA or mean percentage of all successful students(X)	7.36	7.59	8.16
Total number of successful students(Y)	45.00	21.00	17.00
Total number of students appeared in the examination(Z)	45.00	21.00	17.00
API [$X \cdot (Y/Z)$]:	7.36	7.59	8.16

Average API [$(AP1 + AP2 + AP3)/3$] : 7.70

Assessment [$1.5 \cdot \text{AverageAPI}$] : 11.56

4.4 Academic Performance in Second Year (15)

Total Marks 11.54

Institute Marks : 11.54

Academic Performance	CAYm2 (2022-23)	CAYm3 (2021-22)	LYG (2020-21)
Mean of CGPA or mean percentage of all successful students(X)	7.66	7.47	7.96
Total number of successful students (Y)	35.00	45.00	21.00
Total number of students appeared in the examination (Z)	35.00	45.00	21.00
API [$X \cdot (Y/Z)$]	7.66	7.47	7.96

Average API [$(AP1 + AP2 + AP3)/3$] : 7.70

Assessment [$1.5 \cdot \text{AverageAPI}$] : 11.54

4.5 Placement, Higher Studies and Entrepreneurship (40)

Total Marks 29.47

Institute Marks : 29.47

Item	LYG (2020-21)	LYGm1 (2019-20)	LYGm2 (2018-19)
Total No of Final Year Students(N)	21.00	17.00	22.00
No of students placed in the companies or government sector(X)	15.00	12.00	11.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	1.00	1.00	3.00
No of students turned entrepreneur in engineering/technology (Z)	1.00	0.00	0.00
$x + y + z =$	17.00	13.00	14.00
Placement Index [(X+Y+Z)/N] :	0.81	0.76	0.64

Average Placement [(P1 + P2 + P3)/3] : 0.74

Assessment [40 * Average Placement] : 29.47

Program Name :

Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Aishvarya R	953620103001	Ambal Construction	24.07.2024
2	K Balaji	953620103002	Pramoda Rebar Private Limited	12.02.2024
3	Kathirvel M	953620103005	Ayothi Consultancy	22.07.2024
4	Logesh Kanna K	953620103006	Ayothi Consultancy	22.07.2024
5	Mathavan M	953620103007	Shri Vetri Builders	23.10.2024
6	V.S.Priyadharshini	953620103008	Pinnacle Infotech Solutions	13.06.2024
7	Rakavi R	953620103009	Pinnacle Infotech Solutions	13.06.2024
8	Bhasheer Mohamad M	953620103302	Absara Consultancy	16.09.2024
9	C.Mahendran	953620103304	Pinnacle Infotech Solutions	13.06.2024
10	Manikanda Balaji M	953620103305	Balaji construction	20.08.2024
11	Perumalsamy A	953620103307	Sivam Builders	21.08.2024
12	Ponnusangili R	953620103308	RCI Digital Solutions	13.03.2024
13	K.Srihari	953620103310	RAROVAH Engineering PVT.LTD	31.09.2024
14	Vijay R	953620103311	Sivam Builders	05.09.2024
15	Vinoth Kumar C	953620103312	Absara Consultancy	28.10.2024

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Balakrishnan R	953619103002	Shri Vetri Builders	14.02.2024
2	Jeevanbabu K	953619103004	R.K.M Powergen Pvt.Ltd	HR/RKM/AO-GET/0893/2023 & 27.12.2023
3	Muthu Sanjay S	953619103006	RD ASSOCIATES	20.06.2024
4	Muthu Sundareesvar S V	953619103007	Pinnacle Infotech Solutions	15.09.2023
5	Partha Sarathi M	953619103009	River Construction & Consultancy	18.12.2023
6	Sivaramakrishnan K	953619103011	The Ramco Cements Limited	26.09.2023
7	Sivasakthiya M	953619103012	Ambal Construction	24.08.2023
8	Vineeth V	953619103013	Pinnacle Infotech Solutions	15.09.2023
9	Hariharasudan K	953619103301	Jasper International Engineering Consultants	08.06.2023
10	Marimuthu P	953619103302	The Ramco Cements Limited	28.09.2023
11	Palani Manikandan Prabhu V	953619103303	P.P Builders	01.08.2023
12	Saravanan A	953619103304	SANSONS-Civil Constructions	20.08.2024

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Abdhur Rahman A	953618103001	RD ASSOCIATES	23.03.2023
2	Ajandha Devi S	953618103002	Absara Consultancy	10.10.2022
3	Dinesh K	953618103003	River Construction & Consultancy	24.10.2023
4	Jacksingh Dharma B	953618103006	The Ramco Cements Limited	06.01.2024
5	Thanigai Selvan E	953618103004	Innowell Engineering International Pvt Ltd.	01.05.2023
6	Padmavathi P	953618103010	SANSONS-Civil Construction	17.07.2023
7	Praveen B	953618103011	Sivam Builders	10.10.2022
8	Ravi Kumar R	953618103012	The Ramco Cements Limited	05.09.2023
9	Suresh kumar M.Ra	953618103018	Maruthi Builders	10.08.2022
10	Karthick Raja P	953618103302	AEON Integrated Building Design LLP ("AIBDC")	16.09.2024
11	Thanga Guru K	953618103303	RiDh Engineering Services	01.09.2022

4.6 Professional Activities (20)

Total Marks 20.00

4.6.1 Professional societies/ chapters and organizing engineering events (5)

Professional societies/chapters and organizing engineering events (5)

Following are the professional societies/Chapter available in Department of Civil Engineering:

- **ISTE**(Indian Society for Technical Education)
- **ICI** (Indian Concrete Institute)
- **IGBC** (Indian Green Building Council)
- **IEI** (Institution of Engineers (India))

Following are the events and programs organized by the above societies:

- Guest Lectures
- Value added courses/Short term courses
- Industrial Visit
- Workshops
- Technical Events
- Cube Contest
- Quiz Competition
- Paper Presentation
- Poster Designing Competition

ISTE (Indian Society for Technical Education)

The Indian Society for Technical Education (ISTE) is the leading National Professional Society for the Technical Education System in our country with the motto of Career Development of Teachers and Personality Development of Students and overall development of our Technical Education System. RIT-ISTE Chapter for Student and Faculty was established in year 2014 – 2015.

ISTE Faculty Chapter No: **TN301**

ISTE Student Chapter No: **TN336**

Office Bearers of ISTE:**Academic Year 2024-2025**

Advisor	Dr.K.Vijayalakshmi
Faculty Advisor	Mr.P.Sureshkumar
Faculty Coordinator	Mr.T.Chockalingam AP/Civil
Student Representatives (Civil)	Ramya Sudha N / III Civil
	Hari Haran K / III Civil

Academic Year 2023-2024

Advisor	Dr.K.Vijayalakshmi
Faculty Advisor	Mr.P.Sureshkumar
Faculty Coordinator	Mr.T.Chockalingam AP/Civil
Student Representatives(Civil)	Kavi Kumar P/III Civil
	Viyani Blessy A/III Civil

Academic Year 2022-2023

Advisor	Dr.K.Vijayalakshmi
Faculty Advisor	Mr.P.Sureshkumar
Faculty Coordinator	Mr.T.Chockalingam AP/Civil
Student Representatives	
Event Coordinator	Suresh Anand J / III Civil Yuvraj S / II Civil
Department Coordinator	Ganesh Raj / II Civil Gowri G / II Civil
Social Media Publisher	Aashik Anton M / II Civil
Report Submission	Padmavathy S E / II Civil
Poster Designer	Pandiaraj S / II Civil

Academic Year 2021-2022

Advisor	Dr.K.Vijayalakshmi Prof/ CSE
Faculty Advisor	Mr.P.Sureshkumar , ASCP / Mech
Faculty Coordinator	Mr.T.Chockalingam, AP/Civil
Student Representatives	
Civil Engineering	V. Muthukumar, S. Meenaa Bharathi

ICI (Indian Concrete Institute)

The Indian Concrete Institute (ICI) is one of the leading professional bodies in our country. It is a strong professional body, having 38 regional centres in all major cities spread across the entire length and breadth of the country. For starting a student chapter in our institute, it is essential for us to have organisational membership. RIT joined as an Organization Life member of the Indian Concrete Institute in the year 2018. One of the major advantages of becoming an organisational member is that such members will receive the ICI-Journal quarterly, which carries valuable technical articles. ICI-Update is a monthly e-bulletin from ICI, to keep abreast of the happenings in ICI, to know the forthcoming events, and to have access to the job portal and e-learning portal.

Office Bearers of ICI:**Academic Year 2024-2025**

Senior Faculty Advisor	Dr.S.Dharmar, HOD/Civil
Additional Faculty Advisor	Mrs.B.Bharani Bhanu, AP/Civil
Student Secretary	Madasamy Hariharan M, IV Year B.E Civil
Student Joint Secretary	Sutha N, III Year B.E Civil
Student Treasurer	Gowri G, IV Year B.E Civil
Student Joint Treasurer	Vijay Malliya III Year B.E. Civil

Academic Year 2023-2024

Senior Faculty Advisor	Dr.S.Dharmar, HOD/Civil
Additional Faculty Advisor	Dr.M.Indhumathi,ASP/Civil
Student Secretary	Logesh Kanna K.R, IV Year B.E Civil
Student Joint Secretary	Harish Ragav .S, III Year B.E Civil
Student Treasurer	Balaji K, IV Year B.E Civil
Student Joint Treasurer	Nivedha S, III Year B.E. Civil

Academic Year 2022-2023

Senior Faculty Advisor	Mr.G. Karthikeyan, AP/Civil
Additional Faculty Advisor	Mr.T. Chockalingam, AP/Civil
Student Secretary	Jeevanbabu K, IV Year B.E. Civil
Student Joint Secretary	Aishvarya R, III Year B.E. Civil
Student Treasurer	Sivaramakrishnan K, IV Year B.E. Civil
Student Joint Treasurer	Logesh Kanna K, III Year B.E. Civil

Academic Year 2021-2022

Senior Faculty Advisor	Mr.G. Karthikeyan, AP/Civil
Additional Faculty Advisor	Mr.T. Chockalingam, AP/Civil
Student Secretary	Mohan Rajan G, IV Year B.E. Civil
Student Joint Secretary	Narmadha T, III Year B.E. Civil
Student Treasurer	Meenaa Bharathi S, IV year B.E. Civil
Student Joint Treasurer	Vineeth V, III year B.E. Civil

IGBC (Indian Green Building Council)

The Indian Green Building Council (IGBC), part of the Confederation of Indian Industry (CII) was formed in the year 2001. The vision of the council is, "To enable a sustainable built environment for all and facilitate India to be one of the global leaders in the sustainable built environment by 2025". RIT joined as an Annual Member of Indian Green Building council (IGBC) in the year 2021. The councils services include developing new green building rating programmes and certification services. Indias Green Building Council (GBC) promotes green building concepts in the country. The council also closely works with several State Governments, Central Government and other multi-lateral agencies to promote eco-friendly building concepts across the country through its various regional chapters. IGBC is making rapid strides in advancing the Green Building concept through the involvement of stakeholders in the construction industry. As a part of Green Building promotion & awareness activities, IGBC is launching Student Chapters in all the Engineering, Technical, Architecture Colleges. The basic objective of this student chapter is to spread awareness on Green Building amongst the student community and to facilitate India to become one of the global leaders in embracing green building concepts.

Academic Year 2024-2025

Convener	Dr.S.Dharmar, HOD/Civil
Faculty Coordinator	Mrs.A.Leema Margret AP/Civil
Student Convener(s)	Arumuga Kathathar.K III Year Civil
Publicity Head	Arun Lokesh. R, III Year Civil
Student Treasurer	S.Nishanthi,III Year Civil
Event Organizers	Jeevika Kannan, II Year Civil M.Muruga Sundar, II Year Civil

Academic Year 2023-2024

Convener	Dr.S.Dharmar, HOD/Civil
Faculty Coordinator	Mrs.A.Leema Margret AP/Civil
Student Convener(s)	Yuvaraj .S, III Year Civil
Student Treasurer	Arumuga Kathathar.K II Year Civil
Event Organizers	Sutha N II Year Civil

Academic Year 2022-2023

Convener	Dr.S.Dharmar, HOD/Civil
Faculty Coordinator	Mrs.A.Leema Margret AP/Civil
Student Convener	Rakavi R, III Year Civil

Academic Year 2021-2022

Convener	Dr.S.Dharmar, HOD/Civil
Faculty Coordinator	Mr.J.Ramprashath. AP/Civil
Student Convener	Jeevanbabu K, III Year Civil

IE(I) Institution of Engineers India:

The Institution of Engineers IE(I) India is an engineering and technology advancement legal entity that was founded in 1920 and incorporated by Royal Charter in 1935. With almost nine decades of service to the country and fifteen (fifteen) engineering fields, it is the largest multidisciplinary professional body of engineers. In 2014, our institute became an Institutional Member of the Indian Institute of Engineers. The student chapter of IE(I) was founded on August 7, 2015.

The Institution of Engineers India IE (I) CIVIL Students Chapter at Ramco Institute of Technology, Rajapalayam has been recognized as an authorized student chapter approved by The Institutions of Engineers (India), Kolkata, since January 2024. Workshops, Webinars, Competitions, and other events are organised by IE (I) to help student members demonstrate and advance their talent.

Chapter Code: 626117/RIT/CV

Academic Year 2024-2025

President	Dr. S.Dharmar, HOD/Civil
Faculty Advisor	Mr.V.Ragavan, AP/Civil
Secretary	Anantha Murugan K, IV Civil

Joint Secretary	Surya T, IV Civil
	Srikrishna M, III Civil
Treasurer	Aathi Laxmi M, IV Civil
	Sutha N, III Civil
Joint-Treasurer	Srija S. II Civil
	Gayathri V, IV Civil
Event Organizer	Arunkumar J, III Civil

Academic Year 2023-2024

President	Dr. S.Dharmar, HOD/Civil
Faculty Advisor	Mr.V.Ragavan, AP/Civil
Secretary	Anantha Murugan K, IV Civil
	Surya T, IV Civil
Joint Secretary	Srikrishna M, III Civil
	Aathi Laxmi M, IV Civil
Treasurer	Sutha N, III Civil
	Srija S. II Civil
Joint-Treasurer	Gayathri V, IV Civil
	Arunkumar J, III Civil
Event Organizer	

Table 4.6 Details of Events organized

Sl.No	Academic Year	Name of the Professional societies and Association				Total
		ICI	IGBC	IEI	RIT Structa	
1	2024-2025	3	4	1	3	11
2	2023-2024	5	7	3	9	24
3	2022-2023	7	5	-	4	14
4	2021-2022	10	3	-	6	19

Table: 4.7 List of activities conducted through Professional Societies

Sl. No.	Date	Name of the Event	No.of Students Participated / Year	Professional Society	PO Mapping
Academic Year: 2024-2025					

Sl. No.	Date	Name of the Event	No. of Students Participated / Year	Professional Society	PO Mapping
1	31.08.2024	Guest lecture on Design and Testing of Transmission Line Towers	81/II,III & IV Year	ICI	PO1,PO2,PO12
2	21.09.2024	Guest Lecture on Career Opportunities in Civil Engineering	126/II, III & IV Year	ICI	PO1,PO2,PO3,PO4
3	11.11.2024	Introduction to SWAT MODEL	43/IV Year	ICI	PO1,PO2,PO3,PO4
4	05.09.2024	Guest Lecture on "Introduction to Ocean Structures & Roles and Opportunities for Civil Engineering in Ocean Engineering Field.	50/III & IV Year	IE(I)	PO1,PO3,PO6
5	30.08.2024	Seminar on "Energy Conservation"	16/III & IV Year	IGBC	PO1, PO5,PO6,PO7, PO10,PO12
6	13.09.2024	Eco-Build Off: Quiz and Collaborate Event in the Celebration of World Green Building Week 2024	20/II & III Year	IGBC	PO1, PO6,PO7, PO10,PO12
7	28.10.2024	Technical Webinar on Solar Water Pumping System	37/II Year	IGBC	PO1, PO3, PO6, PO7, PO12
8	22.10.2024	Webinar on Sustainable Built Environment - Water & Wastewater Management	43/II Year	IGBC	PO1, PO6, PO7, PO12
Academic Year: 2023-2024					
1	06.02.2024	Cube Contest 2	54/ III & IV Year	ICI	PO1, PO6, PO7, PO9
2	01.12.2023	"Occupational Ergonomics and safety in formwork constructions"	35/ II Year	ICI	PO1, PO2, PO3, PO4, PO5,PO10
3	16.11.2023	Seminar on Building byelaws	35/ II Year	ICI	PO1, PO6, PO7
4	13.10.2023	Code Cracking	III & IV Year	ICI	PO1, PO2, PO3, PO4, PO5,PO6,PO8,PO10
5	31.08.2023	Workshop on "Designing and Detailing of Structures"	18/ IV Year	ICI	PO1, PO2, PO3, PO4, PO5 ,PO10

Sl. No.	Date	Name of the Event	No. of Students Participated / Year	Professional Society	PO Mapping
6	29.05.2024	Guest Lecture on "3D Consolidation Theory"	33/ II Year	IE(I)	PO1, PO2, PO3, PO4
7	09.04.2024	Technical Visit – Shobha Limited	25/ II Year	IE(I)	PO1, PO7, PO11, PO12
8	28.03.2024	Technical Paper Presentation	22/ I,II & III Year	IE(I)	PO9, PO10, PO12
9	22.03.2024	Technical Quiz on "Water Management in Green Buildings"	76/ I,II,III & IV Year Civil, EEE & Mech	IGBC	PO1, PO6, PO7,PO12
10	22.02.2024	Industrial Guest Lecture on "Global Green Initiative"	59/ III, IV year Civil, EEE & Mech	IGBC	PO1,PO5, PO6, PO7,PO10,PO12
11	05.12.2023	Seminar on "Energy Efficient Technologies to approach Net Zero for Buildings"	63/ I, II Year Civil, EEE & Mech	IGBC	PO3,PO5, PO6, PO7,PO10,PO12
12	28.10.2023	Poster Designing Competition on "Climate Change and Green Buildings"	10/ I, II & III Year Civil & Mech	IGBC	PO1, PO6, PO7,PO10,PO12
13	19.10.2023	Virtual Session on "Green Railway Stations – Sustainable Transport at the heart of Sustainable development goals"	54/ II, III & IV Year Civil, EEE & Mech	IGBC	PO1,PO5, PO6, PO7,PO10,PO12
14	29.08.2023	How to become IGBC AP – An Awareness Program on IGBC Accredited Professional Exam: Preparation & Strategies	75/ III & IV Year Civil, EEE & Mech	IGBC	PO1, PO6, PO7,PO10,PO12
15	12.07.2023	Interactive session on IGBC Green Accredited Professionals – Insights/ Roles/Needs/Industry demand	30/ I Year	IGBC	PO1, PO6, PO7,PO10,PO12
Academic Year: 2022-2023					
1	24.02.2023	One day Workshop on "Simulation & Design of Building by Using STAAD Pro"	47/ Polytechnic students	ICI	PO1,PO5,PO9

Sl. No.	Date	Name of the Event	No. of Students Participated / Year	Professional Society	PO Mapping
2	03.02.2023	Code Cracking	14/ III and IV year	ICI	PO1,PO9
3	27.01.2023 & 28.01.2023	Hands on Training on "STAAD.Pro Connect Edition V22"	27/ III and IV year	ICI	PO1,PO2,PO3,PO5, PO9,PO10
4	04.11.2022	Technical seminar on "Alternative Building Technologies"	84/ II, III and IV year	ICI & IGBC	PO1, PO6,PO7,PO12
5	06.10.2022	Cube Contest	33/ III and IV year	ICI & IGBC	PO1, PO6, PO7, PO10,PO12
6	25.08.2022 & 26.08.2022	Value added course on "Open Building Designer"	80/ II, III and IV year	ICI	PO1, PO5 PO6, PO7, PO9,PO11
7	25.07.2022 to 30.07.2022	One week AU Approved VAC on "Project Planning and Management using Primavera"	21/ III year	ICI	PO1, PO5, PO9 PO10,PO11
8	20.04.2023	Drawing Competition on "Green Building Concept & Sustainable Infrastructure"	14/ I, II & III Year	IGBC	PO1, PO6, PO7,PO12
9	06.04.2023	Virtual Knowledge Sharing Session on "Integrating Geospatial and ML Techniques in Irrigation & Water Resources Engineering"	24/ III Year	IGBC	PO1, PO4, PO5,PO7,PO12
10	13.03.2023	Virtual Expert Lecture on "Green & Net Zero Buildings: Challenges and Resolutions"	68/ II, III & IV Year	IGBC	PO1, PO6, PO7,PO12
11	09.03.2023	Virtual Expert Lecture on "A Career in Sustainable Building Industry"	50/ II, III & IV Year RIT Students	IGBC	PO1, PO6, PO7,PO12
12	04.03.2023	Technical Quiz Competition on "Green Building Practices"	92/ II, III & IV Year RIT Students	IGBC	PO1, PO6, PO7,PO10,PO12
Academic Year:2021-2022					

Sl. No.	Date	Name of the Event	No. of Students Participated / Year	Professional Society	PO Mapping
1	18.05.2022	Virtual Webinar on Reality Modeling	60/ II, III and IV year	ICI	PO1,PO2, PO5,PO12
2	22.04.2022	Webinar on "Big Benefits of Building Information Modeling (BIM)"	20/ IV Year	ICI	PO1,PO2, PO5,PO12
3	25.03.2022	Guest Lecture on Ergonomics in Construction	40/ II,III & IV year	ICI	PO1, PO2, PO6 PO12
4	26.02.2022	Drawing competition on Sketch Your Dream Home (Theme: As Green Building leads to sustainability)	7/ I Year	ICI & IGBC	PO1, PO6, PO7, PO12
5	17.12.2021	Technical webinar on "Autodesk's BIM Softwares"	10/ Civil & Mechanical Faculty Members	ICI	PO1,PO2, PO5,PO12
6	02.12.2021	Guest Lecture on Bentley BIM Advanced Software Education Program for Academic	36/ Faculty Members & Students (Civil, EEE & Mech)	ICI	PO1,PO2, PO5,PO12
7	11.11.2021 to 15.11.2021	One week AU Approved VAC on Project Planning and Management using Primavera	39/ III and IV year	ICI	PO1, PO2, PO5,PO11,PO12
8	17.09.2021	ICI Students Chapter Inauguration and Guest Lecture by Er.Shriram Ramanan, Chartered Quantity Surveyor, Parsons Corporation, Dubai.	59/ II, III and IV year	ICI	PO1, PO2, PO5,PO12
9	13.07.2021	Technical webinar on "The use of Innovative Technologies in the Construction Industry"	221/ Internal and External Participants	ICI in association with Infinity PMC Solutions Pvt.Ltd & Builders Association of India, Madurai	PO1, PO2, PO5,PO12

Sl. No.	Date	Name of the Event	No. of Students Participated / Year	Professional Society	PO Mapping
10	10.07.2021	Technical webinar on “Recent Trends in Coordinates Based Survey Technology”	61/ Internal and External Participants	ICI in association with Land Coordinates Technology	PO1, PO2, PO5, PO12
11	07.07.2021	Technical webinar on “TBM Tunnel Excavation in Metro projects”	96/ Internal and External Participants	ICI in association with Builders Association of India, Madurai	PO1, PO2, PO5, PO12
12	10.03.2022	Webinar on Sustainability goals and Job opportunities in the sustainability field	86/ III & IV Year Civil, Mechanical	IGBC	PO1, PO6, PO7, PO10, PO12
13	26.01.2022	Technical Quiz on Green Building Concepts	13/ III & IV Year RIT Students	IGBC	PO1, PO6, PO7, PO10, PO12
14	26.03.2022	Project Contest-20 th Annual ISTE TamilNadu Section Engineering Student convention on “Sustainable Development of India through Innovation”	17/Internal & External Participants	ISTE	PO1, PO2, PO9, PO10
15	26.03.2022	Hands on Training on Staadpro-20 th Annual ISTE TamilNadu Section Engineering Student convention	30/Internal & External Participants	ISTE	PO1, PO2, PO5, PO9, PO10, PO12
16	26.03.2022	Quiz competition-20 th Annual ISTE TamilNadu Section Engineering Student convention	18/Internal & External Participants	ISTE	PO1, PO2, PO9, PO10, PO12
17	26.03.2022	Paper Presentation-20 th Annual ISTE TamilNadu Section Engineering Student convention	21/Internal & External Participants	ISTE	PO1, PO2, PO9, PO10, PO12

Photo gallery for the events conducted by Professional societies is given in the following link https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IV.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IV.pdf)

The following table shows the details of conferences organized from the year 2021 to 2024.

Table: 4.8 Details of Conferences organized

S.No	Date	Name of the Conference	Level
1	24.03.2023 to 25.03.2023	International Conference on Sustainable Technology in Civil Engineering and Applied Sciences(ICSTCA'23)	International
2	11.03.2022 & 12.03.2022	International Conference on Smart Technologies and Applications-2022 (ICSTA 2022)	International
3	19.03.2021 & 20.03.2021	National Conference on Challenges and Innovation in Engineering and Technology 2021 (NWCCIET 2021)	National

RIT-Structa Association:**Office Bearers:****Academic Year: 2024-2025**

Senior Faculty Advisor	Dr.S.Dharmar, HOD/Civil
Additional Faculty Advisor	Mrs.C.Subha, AP(SG)/Civil
Student President	Aashik Anton M, IV year Civil
Student Secretary	Ambika A, IV year Civil
Student Joint Secretary	Srikrishna M, III year Civil
Student Treasurer	Nishanthi S, III year Civil
	Surya T, IV year Civil
	Valathivarun E, IV year Civil
Excutive Member	Gopi Balan, III year Civil
	Sudha N, III year Civil
	Malini V, II year Civil
	Muniraj R, II year Civil

Academic Year: 2023-2024

Senior Faculty Advisor	Dr.S.Dharmar, HOD/Civil
Additional Faculty Advisor	Mrs.C.Subha, AP(SG)/Civil
Student President	PonnuSangili R, IV year Civil
Student Secretary	Priyadharshini V S, IV year Civil
Student Joint Secretary	Sanjay Kumar G, III year Civil
Student Treasurer	Ambika A, III year Civil

	Rakavi R, IV year Civil
	Kathirvel M, IV year Civil
Excutive Member	Krishna R, III year Civil
	Porkodi V, III year Civil
	Ramya Sudha N, II year Civil
	Srikrishna M, II year Civil

Academic Year: 2022-2023

Senior Faculty Advisor	Dr.S.Dharmar, HOD/Civil
Additional Faculty Advisor	Mrs.D.Darling Helen Lydia,AP/Civil
Student President	Mahendran C, III Year Civil
Student Secretary	Rakavi R, III Year Civil
Student Joint Secretary	Balakumaran M, III Year Civil
Student Treasurer	Logesh Kanna K, III Year Civil
	Priyadharshini V S, III Year Civil
	Shreehari K, II Year Civil
Excutive Member	Mohamed Rizwan I, II Year Civil
	Sibi Bala P, II Year Civil
	Kartheeswari Anusri M, II Year Civil
	Ambika A, II Year Civil

Academic Year: 2021-2022

Senior Faculty Advisor	Dr.S.Dharmar, HOD/Civil
Additional Faculty Advisor	Mrs.D.Darling Helen Lydia,AP/Civil
Student President	Jeevanbabu K, III Year B.E. Civil
Student Secretary	Hari Hara Pandiyan V, III Year B.E. Civil
Student Joint Secretary	Narmada T, III Year B.E. Civil
Student Treasurer	Vineeth V, III Year B.E. Civil
Excutive Member	Ponnu Sangili R, II Year B.E. Civil
	Rakavi R, II Year B.E. Civil

Table: 4.9 List of activities conducted through Department Association

Sl. No.	Date	Name of the programme	Resource Person	Participant Details	PO Mapping
Academic Year: 2024-2025					

Sl. No.	Date	Name of the programme	Resource Person	Participant Details	PO Mapping
1	24.07.2024	One Day Hands on Training on Mapping Using DGPS	Mr.A.Manicka Mamallan, Assistant Professor, Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam.	30	PO1,PO2,PO5
2	13.09.2024	Guest Lecture on Revolutionizing Structural Designs with Tekla	Mr.S.Jeffri, Tekla Operational Head Trainer, Design Drafting, Tekla Authorized Training Centre, Tirunelveli	III & IV year - 73	PO1,PO2,PO3,PO5
3	24.10.2024	Guest Lecture on Design of Compression Members	Er.B.Muthukumarasamy, Adjunt Faculty, Department of Civil Engineering, RIT, Structural Construction, Valuer, Chartered Engineer, Proprietor, Absara Construction, Rajapalayam	III & IV year - 80	PO1,PO2,PO3,PO12
Academic Year: 2023-2024					
1	28.07.2023	Guest Lecture on 'Drone & Lidar Based Map Creation'	Mr. A. Selvam General Manager Land Coordinates Technology	III year - 41	PO1,PO3,PO5, PO9,PO10, PO12
2	22.08.203	Association Inauguration & Guest Lecture – Internet of Things (IoT) in Civil Engineering	Mr. Senthil Murugan Founder & CEO BEYCAN Technical Training Institute, Rajapalayam.	III, IV - 66	PO1,PO3,PO5, PO7
3	26.08.203	Guest Lecture on Structural Drafting Using CAD	Ms.R Aishwarya, Ms.V S Priyadharshini & Ms.R.Rakavi of IV Civil	III, IV - 25	PO1,PO2,PO3, PO4,PO5,PO6
4	25.09.2023	Seminar on Preface to ArcGIS	Mr. J.Suresh Anand of IV year Civil	II - 34	PO1,PO2,PO5
5	10.10.2023	Virtual Workshop on Getting Started with GIS –	Dr. Surender Natarajan Assistant Professor Department of Civil Engineering SSN College of Engineering, Chennai	III year - 43	PO1,PO4,PO5, PO7

Sl. No.	Date	Name of the programme	Resource Person	Participant Details	PO Mapping
6	11.10.2023 12.10.2023	Workshop on Total Station & DGPS	Mr. A. Selvam General Manager Land Coordinates Technology	III, IV - 52	PO1,PO2,PO5
7	31.10.2023	Seminar on Basics of Vibration Analysis and Seismic Resistant Structures	Dr. C. Freeda Christy Professor, Civil Engineering, KARE.	IV - 20	PO1,PO4,PO5, PO7,PSO3, PSO4
8	19.02.2024- 23.02.2024	Skill Development Training on DGPS and DRONE: The Next Generation of Surveying Techniques	Mr. A. Selvam General Manager Land Coordinates Technology	IV - 12	PO1,PO3,PO5, PO3,PO9,PO10, PO12
9	18.08.2024	Exploration of Steel Structure – An Experiential learning	Ms.R.Abinaya, Tekla Modeller, Struct Mech Engineers Pvt. Ltd., Bangalore	III - 38	PO1, PO3, PO5, PO9,PO10, PO12
Academic Year: 2022-2023					
1	26.04.2023	Guest Lecture on An overview on TEKLA Software	Ms.R.Abinaya, Tekla Modeller, Struct Mech Engineers Pvt. Ltd., Bangalore	II, III, IV-66	PO1, PO3, PO5, PO9,PO10, PO12
2	04.03.2023	Guest Lecture on Third Eye in the sky	Er.M.Ponkumaran, Pilot Drone Trainer	II & III Year-52	PO1, PO3, PO5, PO9,PO10, PO12
3	02.02.2023	Webinar on Gate Civil 2023 Strategies and Preparation	Er.V.Keshavan, Professor, Pyramid IAS Academy, Karaikudi.	II, III & IV Year Civil-68	PO1,PO2,PO12
4	09.09.2022	Inauguration of Department Association/Guest Lecture	Mr.S.A.P.R.Karthik, Chairman, Builders Association of India, Madurai center and Chairman of Rajapalayam centre	II, III & IV Year Civil-80	PO1, PO3, PO5, PO9,PO10, PO12
Academic Year: 2021-2022					
1	30.05.2022	Workshop on Structural Analysis using Software	Dr.S.Nagan, Professor, TCE, Madurai	III & IV year-27	PO1, PO2,PO3, PO5,PO9, PO12

Sl. No.	Date	Name of the programme	Resource Person	Participant Details	PO Mapping
2	22.04.2022	Webinar on Big Benefits of Building Information Modelling (BIM)	Chandra Shekar, Co-Founder of TurnBIM Engineering Services	IV year-20	PO1,PO2, PO3, PO5, PO9,PO12
3	25.03.2022	Guest Lecture on the topic Ergonomics in construction	Mr.C.Vignesh Kumar, Research Scholar, IIT Guwahati	III&IV Year-40	PO1,PO2,PO12
4	09.03.2022	Workshop on MATLAB	Mr.M.Surendran, Senior Scientist, CSIRR-SERC, Chennai Dr.N.KArthiga Shenbagam, AP, BIT, Sathyamangalam	III & IV year - 39	PO1,PO2, PO3, PO5, PO9,PO12
5	14.02.2022	Motivational talk on Career opportunities in Civil Engineering	Mrs.M.Karpagam, M.Tech., Director of Pyramid Academy, Karaikudi	II,III & IV year -50	PO1,PO2, PO12
6	17.09.2021	Association Inauguration and Guest Lecture on "An Overview of Quantity Surveying"	Er.Shriram Ramanan, Chartered Quantity Surveyor, Parsons Corporation, Dubai	II,III &IV -59	PO1,PO2, PO12

Photo gallery for the events conducted by Department Association is given in the following link https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IV.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IV.pdf)

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

Institute Marks : 5.00

The Department of Civil Engineering releases every year, a Technical Magazine named, "STRUCTA" and every semester a Technical Newsletter named, "BUILDCON" which contains all the activities of Civil Engineering Department, achievements (both by student and faculty) and technical articles by the students.

Table: 4.10 Details of Newsletter and Magazines

S. No.	Academic Year	Name of Publisher	Name of Editorial Member	Name of Magazine/ Newsletter	Frequency	Link
1	2021-2022	Department of Civil Engineering	Faculty Editor(s) Mr.S.Dharmar, HoD/Civil Mrs.R.Kalaimani, AP/Civil Student Editor(s) Mr. Muthu Sundareswar S V, III Year Ms. Siva Sakthiya M, III Year Mr. Dinesh K, II Year Ms. Meena Bharathi S, IV Year Mr. Ravikumar R, IV year	BUILDCON Newsletter - Odd Semester	Bi -Annual	https://www.ritrjpm.ac.in/images/civil/2021-2022/Civil_2021-2022_Newsletter_Odd.pdf (https://www.ritrjpm.ac.in/images/civil/2021-2022/Civil_2021-2022_Newsletter_Odd.pdf)
2	2021-2022	Department of Civil Engineering	Faculty Editor: Mr.S.Dharmar, HoD/Civil Mrs.R.Kalaimani, AP/Civil Student Editor(s): Mr. Jeevan Babu K, III Year Ms. Narmada T, III Year Ms. Jenitha G, IV Year Mr. Mohan Rajan G, IV Year Ms. Shalini P, IV Year	BUILDCON Newsletter – Even Semester	Bi- Annual	https://www.ritrjpm.ac.in/images/civil/2021-2022/Civil_2021-2022_Newsletter_Even.pdf (https://www.ritrjpm.ac.in/images/civil/2021-2022/Civil_2021-2022_Newsletter_Even.pdf)

S. No.	Academic Year	Name of Publisher	Name of Editorial Member	Name of Magazine/ Newsletter	Frequency	Link
3	2021-2022	Department of Civil Engineering	Editor in Chief: Mrs.R.Kalaimani, AP/Civil Mrs.A.Leema Margret AP/Civil Student Editor(s): Mr. Shreehari .K , II Year Mr. Sanjesh Ram S.R , II Year Mr. Vinoth Kumar .R , II Year Mr. Lokesh Kannan .K, II Year Mr. Vijay .R , II-Year	Structa Magazine	Annual	https://www.ritrjpm.ac.in/images/civil/2021-2022/Civil_2021_2022_Magazine.pdf (https://www.ritrjpm.ac.in/images/civil/2021-2022/Civil_2021_2022_Magazine.pdf)
4	2022-2023	Department of Civil Engineering	Editor in Chief: Dr.S.Dharmar,HoD/Civil Mrs.R.Kalaimani, AP/Civil Student Editor(s): Mr. Mahendran C, III Year Ms. Rakavi R, III Year Mr. Devarpiran K, III Year Mr. Siva Ramakrishnan K, IV Year Mr. Keerthi Raja A, IV Year	BUILDCON Newsletter – Odd Semester	Bi-Annual	https://www.ritrjpm.ac.in/images/civil/2022-2023/Civil_2022-2023_Newsletter_Odd.pdf (https://www.ritrjpm.ac.in/images/civil/2022-2023/Civil_2022-2023_Newsletter_Odd.pdf)

S. No.	Academic Year	Name of Publisher	Name of Editorial Member	Name of Magazine/ Newsletter	Frequency	Link
5	2022-2023	Department of Civil Engineering	Editor in Chief: Dr.S.Dharmar, HoD/Civil Mrs.A.Leema Margret, AP/Civil Student Editor(s): Ms. Priyadharshini V S, III Year Mr. Dheena Dhayalan , III Year Mr. Ponnu Sangili R, III Year Mr. Paratha Sarathi M, IV Year Mr. Vineeth V, IV Year	BUILDCON Newsletter – Even Semester	Bi-Annual	https://www.ritrjpm.ac.in/images/civil/2022-2023/Civil_2022-2023_Newsletter_Even.pdf (https://www.ritrjpm.ac.in/images/civil/2022-2023/Civil_2022-2023_Newsletter_Even.pdf)
6	2022-2023	Department of Civil Engineering	Editor in Chief: Mrs.R.Kalaimani, AP/Civil Mrs.A.Leema Margret, AP/Civil Student Editor(s): Mr. YuvaRaj. S , II Year Mr. Madasamy Hariharan. M , II Year Mr. Balaji. M , II Year Mr. Pandiraj .S , II Year Mr. Padamavathy .S.E , II - Year	Structa Magazine	Annual	https://www.ritrjpm.ac.in/images/civil/2022-2023/Civil_2022_2023_Magazine.pdf (https://www.ritrjpm.ac.in/images/civil/2022-2023/Civil_2022_2023_Magazine.pdf)

S. No.	Academic Year	Name of Publisher	Name of Editorial Member	Name of Magazine/ Newsletter	Frequency	Link
7	2023-2024	Department of Civil Engineering	Editor in Chief: Dr.S.Dharmar, HoD/Civil Mrs.R.Kalaimani, AP/Civil Student Editor(s): Ms.AathilakshmiM, III YEAR Mr. Valathi Varun E, III YEAR Mr. NivedhaM, III YEAR Mr. BalakumaranM, IV YEAR Ms. Aishwarya R, IV YEAR Ms. Bala Suriya Kumari, I YEAR	BUILDCON Newsletter – Odd	Bi-Annual	https://www.ritrjpm.ac.in/images/civil/2023-2024/Civil_2023-2024_Newsletter_Odd.pdf (https://www.ritrjpm.ac.in/images/civil/2023-2024/Civil_2023-2024_Newsletter_Odd.pdf)
8	2023-2024	Department of Civil Engineering	Editor in Chief: Dr.S.Dharmar, HoD/Civil Mrs.R.Kalaimani, AP/Civil Student Editor(s): Ms.Gowri G, III Year Mr.Aashik Anton M, III Year Ms . Ambika A, III Year Mr. Suresh Anand J, IV Year Mr. Perumal Samy A, IV Year Mr. Jeevika Kannan, I Year	BUILDCON Newsletter – Even Semester	Bi-Annual	https://www.ritrjpm.ac.in/images/civil/2023-2024/Civil_2023-2024_Newsletter_Even.pdf (https://www.ritrjpm.ac.in/images/civil/2023-2024/Civil_2023-2024_Newsletter_Even.pdf)

S. No.	Academic Year	Name of Publisher	Name of Editorial Member	Name of Magazine/ Newsletter	Frequency	Link
9	2023-2024	Department of Civil Engineering	Editor in Chief: Mrs.R.Kalaimani, AP/Civil Mrs.A.Leema Margret, AP/Civil Student Editor(s): Mr. Arumuga Kaththak II year Ms. Sutha II year Mr. Vijaya Malliya II year Mr. G. Ari Kara Moorthy I Year Mr. A Vel Prasath I Year	Structa Magazine	Annual	https://www.ritrjpm.ac.in/images/civil/2023-2024/Civil_2023_2024_Magazine.pdf (https://www.ritrjpm.ac.in/images/civil/2023-2024/Civil_2023_2024_Magazine.pdf)

4.6.3 Participation in inter-institute events by students of the program of study (10)

Institute Marks : 10.00

The following students were actively participated in Technical events, Workshops, Symposium, Conferences, Project Expo conducted by various Institutions as shown in the table 4.11

Table 4.11 Details of students participated in Inter Institute

Year	Organizing Institute	Duration	Title of the Event	Name of the Student/Year
2024-2025	Sri Sivasubramaniya Nadar College of Enginnering.	09.08.2024	Practical Aspects and Innovation in Civil Enginneering	Ari kara Moorthy G/II Year Yuga Bharathi B/II Year Srija S/II Year Nandhidha DR/II Year Bala surya Kumari S/II Year Jeevika Kannan/II Year Sathiswari M/II Year Samyuktha M/II Year Vilva Janani V/II Year
	National Water Academy Central Water Commision	14.08.2024	National Space Day Quiz	Dhanasekar G/II Year Pandi Ganesh K/II Year Lakshamana Kumar S/II Year Pravin Raj P/II Year Dharsana Mugesh S/II Year Ravi Narayanan M/II Year Vilva Janani V/II Year Samyuktha M/II Year Jeevika Kannan/ II Year Lavanya M/ II Year Dhivya K/ II Year Malini V/ II Year Yuga Bharathi B/II Year Priya K G/II Year Srija S/II Year Sathiswari M/II Year

2024-2025	ISRO	12.08.2024	National Space Day Quiz	Dhanasekar G/II Year Ravi Narayanan M/II Year Samyuktha M/ II Year Yuga Bharathi B/II Year Priya K G/II Year Srija S/II Year Sathiswari M / II Year Bala surya Kumari /II Year Priya Dharshini K/ II Year Nandhidha DR / II Year Vilva janani V/ II Year
	Rajapalayam Rajus'College	12.08.2024	Elephant Day - 2024	Vijayachandran M/ II Year Vel Prasath A/ II Year Bala surya Kumari S/II Year
	Velammal College of Engineering and technology , Chennai	24.08.2024	Treasure Hunt.	Kathirvel K/II Year Pandi Ganesh K/II Year Rishikesh G/ II Year Visakan S/ II Year
	Velammal College of Engineering and technology , Chennai	24.08.2024	Breaker of Codes.	Kathirvel K/II Year Pandi Ganesh K/II Year Rishikesh G/II Year Visakan S/II Year
	Velammal College of Engineering and technology , Chennai	24.08.2024	Clash of Minds.	Kathirvel K/II Year Pandi Ganesh K/II Year Rishikesh G/ II Year Visakan S/II Year
	Ministry of Culture Government of India	15.08.2024	A Selfie with Tiranga, an Initiative By The Ministry of Culture.	Nandhidha DR / II Year Gopi Kannan S/ II Year

Velammal College of Engineering and technology , Madurai	27.08.2023	Poster Presentation	Ramyasudha N/III Year
Innowell Engineering International	29.08.2024	Webinar on Whole Building Life Cycle Analysis	Pandi Ganesh K/ II Year
Velammal College of Engineering and technology , Madurai	01.09.2024	Poster Presentation	Aswanthika R Nandhidha DR Bala surya Kumari S
Adithya Institute of Technology, Coimbatore	04/09/2024	Workshop	Arumuga Kathathar K/III Year Karthik Kumar S/III Year Arun Kumar J/III Year Sanjay Kumar S/III Year R Arun Lokesh/III Year

2024-2025	Coimbatore Institute of Technology.Coimbatore	06.09.2024	Civilthan	Vel Prasath A/II Year Ravi Narayanan M/II Year Eraianbu M/II Year Muruga Sundar M/II Year Sudharsan R/II Year
	Indian Concrete Institute Coimbatore Centre Tamilnadu.	20.09.2024	International Webinar on " Precast Construction"	Ari kara Moorthy G/ II Year
	Mepco Schlenk Engineering College(Autonomous), Sivakasi	19.09.2024 & 20.09.2024	Legacy' 24 - State Level Inter-collegiate cultural festival.	Bala surya Kumari S/ II Year
	ISTE Tamil Nadu Section	20.10.2024	Mathematical Competition	Sonamuthiah A/III Year Dharmendra C/III Year Hari Ajay Prashad M S/III Year R Arun Lokesh/III Year
	Women Techmakers (Google for Developers)	21.09.2024	SAWIT.AI Learnathon	Bala surya Kumari S/II Year Samyuktha M/ II Year
	P.S.R Engineering college,Sivakasi	16.10.2024	Technical Quiz competition	Thamimun Anasri K/III Year Akkil Ahamed Batcha M/III Year Sudharsan S R/III Year Selvamani M/III Year Ramya Sudha N/III Year

	Sri Eshwar College of Engineering, Coimbatore	24.10.2024	IITM PALS- Residential student workshop	G.Arikaramoorthy/ II Year
2023-2024	Thiagarajar College of Engineering, Madurai	08.7.2023	I Tech HackFest 2023 Hackathon-Regional Round	Thamimun Ansari.K/ II Year
	National Cadet Corps, NTA Idayapatti, Madurai	17.7.2023 to 26.7.2023	CATC-CUM-IUC-RDC-2023	Abishek.M/ III Year
	QCRETE Readymix (India) Pvt Ltd	07.9.2023	Webinar on Sustainability and Practices - A Timeline Requirement of the Construction Industry	Sanjay Kumar.G/ II Year
	Mangayarkarasi College of Engineering	07.09.2023	One day workshop on DRONE AWARENESS PROGRAM	Thanabala.P/ III Year
	SRM Madurai College for Engineering and Technology, Sivaganagai	15.09.2023	Paper Presentation on "Geopolymer Concrete with Recycled Waste Material"	S.Yuvaraj/ III Year M Madasamy Hariharan/ III Year
	QCRETE Readymix (India) Pvt Ltd	27.9.2023	Webinar on "Making Concrete Sustainable and moving towards Net Zero"	Sonamuthiah.A/ II Year Nana Shree N.M/ II Year V.Usha Devi/ II Year Hariprasath.S/ II Year
	MyGOV	26.10.2023	Khadi Mahotsav e-Pledge	M.Thulasibalan/ I Year Gopi Kannan.S/ I Year Nandhidha D R/ I Year

2023-2024	QCRETE Readymix (India) Pvt Ltd	27.10.2023	Webinar on "Creating new age Infra to be corrosion free and provide Major-Maintenance Free life (M.F.L): Experience From Mauritius Metro project"	Nana Shree N.M/ II Year V.Usha Devi/ II Year
	S.Veerassamy Chettiar College of Engineering and Technology	30.10.2023	Workshop on Emerging AI/ML job opportunities and Career path(India and Global)	P.Sibi bala/III year P.Thana bala/III year M.Aashik Anton/III year E.Valathi Varun/III year K.Ananthamurugan/III year
	M.A.M College of Engineering and Technology, Trichy in association with PALS	28.11.2023	Hands-on project-based workshop, precursor and a qualifier to the Residential Student Workshop	Arumuga Kathathar.K/ II Year
	Department of Prohibition and Excise, Virudhunagar District	03.12.2023	Marathon in connection with Awareness Campaign against Consumption of Liquor, Drunken Driving and Drug abuse	S.Srija/ I Year
	Mepco Schlenk Engineering College, Sivakasi	16.02.2024 to 17.02.2024	GYAN MITRA"24, A National-Level Technical Symposium Events	Gayathri.V/ III Year Aarthika.G/ III Year Kartheeswari Anusri.M/ III Year Viyani Blessy.A/ III Year Porkodi.V/ III Year Dhivya.M/ III Year Haritha.S/ III Year

	P.S.R Engineering College, Sivakasi	01.03.2024	SKYSCAPERZ-2K24 National Level Technical Symposium Events	Thamimum Ansari.K/ II Year
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2023-2024	Thiagarajar College of Engineering, Madurai	14.03.2024	Workshop on "Modern Materials and Techniques in Civil Engineering"	Vilva Janani.V/ I Year Himajaa.J/ I Year Shantha Kumar.K/ I Year Kiruthika.M/ I Year Lakshmana Kumar.S/ I Year Sangarasubbu/ II Year Dharmendra.C/ II Year Srikrishna.M/ II Year Sudharsan.S.R/ II Year
	Thiagarajar College of Engineering, Madurai	14.03.2024	Workshop on "Challenges and Solutions in Concreting and Plastering"	Vilva Janani.V/ I Year Himajaa.J/ I Year Shantha Kumar.K/ I Year Kiruthika.M/ I Year Lakshmana Kumar.S/ I Year Sangarasubbu.P/ II Year Dharmendra.C/ II Year Srikrishna.M/ II Year Sudharsan.S.R/ II Year
	HAL IISc Skill Development Centre, Indian Institute of Science, Bengaluru	18.3.2024 to 20.3.2024	Skill Training Program on "Do Drones Workshop 2024"	Thanabala.P/ III Year
	Anna University Regional Campus, Tirunelveli	22.03.2024	ஆய்வுரை பகிர்நல்	Sankarasubbu.P/ II Year

	National Engineering College, Kovilpatti	22.03.2024 to 23.03.2024	Tech Pirates in NEC-TECH Fest – 2024 National level Technical Symposium	Ramya Sudha.N/ II Year K.Arumuga Kathathar/ II Year Arun Lokesh.R/ II Year Sonamuthiah.A/II Year K.Thamimum Ansari/ II Year
	National Engineering College, Kovilpatti	22.03.2024 to 23.03.2024	Workshop on “Stadard Penetration Test” NEC -TECH Fest – 2024 National level Technical Symposium	Ramya Sudha .N/ II Year K.Thamimum Ansari/ II Year Sonamuthiah.A/ II Year K.Arumuga Kathathar/ II Year Arun Lokesh.R/ II Year
	National Engineering College, Kovilpatti	22.03.2024 to 23.03.2024	“Mind Buster” in NEC -TECH Fest – 2024 National level Technical Symposium	Sibi Bala.P/ III Year Sanjay Kumar.G/ III Year Anantha Murugan.K/ III Year Pandiaraj.S/III Year

2023-2024	National Engineering College, Kovilpatti	22.03.2024 to 23.03.2024	“Puddle Crafter” in NEC - TECH Fest – 2024 National level Technical Symposium	Sudharsan.R/ I Year Muruga Sundar.M/ I Year Vel Prasath.A/ I Year Sibi Bala.P/ III Year Anantha Murugan.K/ III Year Sanjaykumar.G/III Year Pandiaraj.S/III Year
	National Engineering College, Kovilpatti	22.03.2024 to 23.03.2024	Workshop on “Total Station and its Application” - NEC-TECH FEST National level Technical Symposium	Sibi Bala.P/ III Year Sanjay Kumar.G/ III Year Anantha Murugan.K/ III Year Pandiyaraj.S/ III Year Sudharsan.R/ I Year Muruga Sundar.M/ I Year Vel Prasath.A/ I Year
	Kalasalingam Academy of Research and Education, Krishnankovil	06.04.2024	“ISTE-IIC Innovation Contest 2024”	Ramya Sudha.N/ II Year Vijay Malliya V.S/ II Year K.Thamimum Ansari/ II Year M.Selvamani/ II Year M.Akil Ahamed Batcha/ II Year Pasumpon.G/ II Year
	Kalasalingam Academy of Research and Education, Krishnankovil	04.05.2024	National level Project Expo 2024 – Demo and Poster Presentation	Asmath Marzia.M/ II Year Nishanthi.S/ II Year Sutha.N/ II Year

2022-2023	CSIR - CECRI JIGYASA	25.07.2022	Online Quiz on "Gandhi Jayanti" in connection with 75th CSIR - CECRI Foundation Day Celebrations 2022	S.V.Muthu Sundareesvar/ IV Year V.Vineeth/ IV Year M.Devar Piran/ III Year R.Perumalsamy/ III Year V.S.Priyadharshini/ III Year R.Ragavi/ III Year R.Ponnusangili/ III Year Sajesh Ram/ III Year N.Akash Kumar/ II Year S.E.Padmavathi/ II Year
	CSIR - CECRI JIGYASA	25.07.2022	Online Quiz on "World Teachers Day" in connection with 75th CSIR - CECRI Foundation Day Celebrations 2022	M.Devar Piran/ III Year R.Perumalsamy/ III Year K,Shreehari/ III Year N.Akash Kumar/ II Year

2022-2023	CSIR - CECRI JIGYASA	25.07.2022	Online Quiz on "National Unity Day" in connection with 75th CSIR - CECRI Foundation Day Celebrations 2022	K,Shreehari/ III Year
	CSIR - CECRI JIGYASA	25.07.2022	Online Quiz on "International Organic Day" in connection with 75th CSIR - CECRI Foundation Day Celebrations 2022	M.Devar Piran/ III Year K,Shreehari/ III Year
	CSIR - CECRI JIGYASA	25.07.2022	Online Quiz on "Indian Airforce Day" in connection with 75th CSIR - CECRI Foundation Day Celebrations 2022	M.Devar Piran/ III Year K,Shreehari/ III Year
	CSIR - CECRI JIGYASA	25.07.2022	Online Quiz on "International day of the Girl child" in connection with 75th CSIR - CECRI Foundation Day Celebrations 2022	M.Devar Piran/ III Year K,Shreehari/ III Year
	CSIR - CECRI JIGYASA	25.07.2022	Online Quiz on "World Students Day" in connection with 75th CSIR - CECRI Foundation Day Celebrations 2022	M.Devar Piran/ III Year K,Shreehari/ III Year
	CSIR - CECRI JIGYASA	25.07.2022	Online Quiz on "World Energy Day" in connection with 75th CSIR - CECRI Foundation Day Celebrations 2022	M.Devar Piran/ III Year K,Shreehari/ III Year

National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India	21.08.2022 to 31.08.2022	Online training on "Disaster Risk Assessment and Management"	K.Logesh Kanna/ III Year
INOWELL Engineering International Pvt.Ltd.,	25.08.2022	Webinar on "Well Standard for Architect"	V.Vineeth/ IV Year
SkillBind Education	02.09.2022	Masterclass on "Fundamentals of Building Information Modeling"	K.Jeevanbabu/ IV Year V.S.Priyadharshini/ III Year

2022-2023	National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India	05.09.2022	Webinar on "Flood Disaster Management"	K.Logesh Kanna/ III Year
	SCAD College of Engineering & Technology, Tirunelveli	15.09.2022	Online Quiz for National Engineer's Day 2022	K.Karthick/ II Year
	INOWELL Engineering International Pvt.Ltd.,	20.09.2022	Webinar on "Circadian Sustainability"	K.Jeevanbabu/ IV Year V.Vineeth/ IV Year
	National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India	21.09.2022 to 23.09.2022	Online Training on "Disaster Risk Reduction"	M.Devar Piran/ III Year M.Kathirvel/ III Year C.Mahendran/ III Year K.Logesh Kanna/ III Year C.Vinoth Kumar/ III Year
	National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India	30.09.2022	Webinar on "Role of Early Warning and Communications in Disaster Management"	M.Devar Piran/ III Year
	Mepco Schlenk Engineering College, Sivakasi	30.09.2022 to 01.10.2022	Two days Hands on Training Workshop on "Design of Bridges using STAAD PRO"	V. Hariharapandian/ IV Year K.Jeevanbabu/ IV Year K.Sivaramakrishnan/ IV Year
	Ministry of Youth Affairs & Sports, Govt. of India at VHNSM College, Virudhunagar	08.10.2022	District level YUVA UTSAV 2022 Competition -Painting Programme	R.Ponnusangili/ III Year
	Innovation & Entrepreneurship Development Programme (IEDP) at Anna University Regional Campus Tirunelveli	01.11.2022 & 02.11.2022	Two days Design Thinking Workshop	K.Logesh Kanna/ III Year
	Two Days National Level Workshop on "IOT Applications in Civil Engineering"	11.01.2023 to 12.01.2023	Mepco Schlenk Engineering College, Sivakasi	R.Aishvarya /III Year R.Rakavi /III Year V.S.Priyadharshini /III Year

Three day Capacity Building Program on "Construction Techniques"	18.01.2023 to 20.01.2023	ACIC – Mepco Innovation Foundation, Sivakasi	G.Sanjaykumar/II Year S.Pandiaraj/II Year M.Abishek/II Year S.Harish Ragav/II Year
Three day Capacity Building Program on "Cost Effective Construction Materials and Techniques"	23.01.2023 to 25.01.2023	ACIC – Mepco Innovation Foundation, Sivakasi	M.Srikrishna /II Year V.Saravana Kumar/II Year M.S.Hari Ajay Prashad/II Year
P.S.R Engineering College	27.01.2023	Paper Presentation, National Level Technical Symposium ELCOWARZ – 2K23	G.Aarthika/II Year M.Dhivya/II Year S.Haritha/II Year

2022-2023	P.S.R Engineering College	27.01.2023	Event – SMARTICUS, National Level Technical Symposium ELCOWARZ – 2K23	A.Blessy/II Year V.Gayathri/II Year
	P.S.R Engineering College	27.01.2023	Event – Spotify, National Level Technical Symposium ELCOWARZ – 2K23	V.Gayathri/II Year S.Haritha/II Year A.Blessy/II Year M.Dhivya/II Year G.Aarthika/II Year
	P.S.R Engineering College	03.02.2023 & 04.02.2023	MECH BRAVE-T'23 National level technical symposium	K.Thamimum Ansari/I Year
	M.Kumarasamy College of Engineering, Karur	02.03.2023	CONCRETA'23	P.Sibibala/II Year S.Pandiaraj/II Year K.Ananthamurugan/II Year
	Kamaraj college of Engineering and Technology	09.03.2023&10.03.2023	Experimental study on biochar utilization in microbial fuel cells	R.Rakavi/III Year V.S.Priyadharshini/III Year
	Ministry of Electronics & Information Technology, GoI	20.03.2023	Online Quiz on "Secure Social Media Practices"	Mathavan/III Year
	Francis Xavier Engineering College, Tirunelveli	20.04.2023	Paper Presentation	Kartheeswari M/II Year Padmavathy S E/II Year
	PSG Institute of Technology and Applied Research. Coimbatore	25.04.2023	National Workshop on "3D Concrete Printing"	K.Logesh Kanna/III Year C.Mahendran/III Year
	The Gandhigram Rural Institute	26.04.2023	Workshop on "Cost effective Building Materials and Technologies"	M.Aashik Anton/II Year D.C.Esakkihariganesh/II Year T.Surya/II Year E.Valathi Varun/II Year

2021-2022	ELEATION	20.07.2021	Election's CAD(CREO) Basic to Professional Training Program	P.Padmavathi/ IV Year
	IITM PALS	14.08.2021	Aware Webinar for Entrepreneurs - Overview of the Lean Business Canvas Model	K.Jeevanbabu/ III Year
	IITM PALS	21.08.2021	Aware Webinar for Entrepreneurs - Marketing, Channels and Key Metrics	K.Jeevanbabu/ III Year

2021-2022	IITM PALS	28.08.2021	Aware Webinar for Entrepreneurs - Revenue Streams and Cost Structure	Harihara Pandian/ III Year K.Jeevanbabu/ III Year R.Rakavi/ II Year V.S.Priyadharshini/ II Year
	Program Monitoring Office – Innovation and Entrepreneurship Development Programme	29.09.2021-01.10.2021	3-Day E-Leader Workshop	S.Muthu Sanjay/ III Year
	TAPASYA DESIGN STUDIO	30.09.2021-12.10.2021	Road Traffic & Transportation Surveys	T.Narmada/ III Year V.Palani Manikanda Prabhu/ III Year K.Jeevanbabu/ III Year Muthusundareswarar/ III Year
	Entrepreneurship Development and Innovation Institute (EDII)	13.11.2021	Online Webinar/Online Training Module Programme on Student Entrepreneurship Awareness Programme	M.Partha Sarathi/III Year K.Jeevanbabu/ III Year V.Palani Manikanda Prabhu/ III Year K.Sivaramakrishnan/ III Year R.Balakrishnan/III Year S.Sankaralingam/III Year Narmada T/III Year S.Muthusanjay/III Year S.V.Muthusundareeswar/ III Year

	INFINITY PMC SOLUTIONS PVT LTD	15.11.2021	Training Program on Project Planing and Management Training using Oracle Primavera P6 R19	R.Balakrishnan/III Year P.Akash/III Year K.Jeevanbabu/ III Year Keerthi Roja A/III Year S.Muthusanjay/III Year S.V.Muthusundareeswar/ III Year Narmada T/III Year V.Palani Manikanda Prabhu/ III Year M.Partha Sarathi/III Year S.Sankaralingam/III Year A.Saravanan/III Year K.Sivaramakrishnan/ III Year V.Vineeth/ III Year
	Microsoft Azure GitHub	20.11.2021	Azure GitHub-Code to Cloud Workshop	K.Dinesh/ IV Year K.Jeevanbabu/ III Year V.Vineeth/ III Year

2021-2022	ICT Academy	03.12.2021	Entrepreneurship Awareness Program	M RA Suresh Kumar/ IV Year
	Huawei Developers	13.12.2021	Webinar on "The future of Mobile App Industry	M.Partha Sarathi/ III Year
	IIT PALS	October 2021	InnoWAHI!–Pitch Your Point Competition2021-22 – Project Contest	K.Jeevanbabu/ III Year V.Vineeth/ III Year V. Hariharapandian/ III Year
	IITM PALS	11.01.2022	Aware Webinars for Entrepreneurs – Basics on IPR	V. Hariharapandian/ III Year S.Meena Bharathi/ IV Year J.Sneghavardhini/ IV Year P.Padmavathi/ IV Year
	Qcrete Readymix (India) Pvt Ltd	25.03.2022	Choosing the right cement based on application	G.Mohanrajan/ IV Year
	IIT PALS	04.04.2022	Introduction to Stainless steels and their applications	Mr.J.Suresh Anand, II Year
	Qcrete Readymix (India) Pvt Ltd	13.05.2022	Low Carbon Concrete	G.Mohanrajan/ IV Year

The following students were presented papers in Conferences (National / International level) conducted by various Institutions as shown in following table 4.12

Table 4.12 Details of Students Presentation in Conference

Sl.No.	Title of Paper	Author(s)	Conference Details
Academic Year 2022-2023			
1	Utilization of Rice Husk Ash as Partial Replacement of Fly Ash in Sustainable Geopolymer Concrete	V.Muthukumar	International Conference on Innovation towards Sustainable Development Goals (SDGs)
2	Investigation on Biochar as Cathode Catalyst in Microbial Fuel Cells	K.Dinesh, A.Abdhur Rahman	International Conference on Innovation towards Sustainable Development Goals (SDGs)

SI.No.	Title of Paper	Author(s)	Conference Details
3	Study and Evaluation of Firecracker-related Soil Contamination in Selected areas around Sivakasi	Anto Sherlina, R. Harshani	International Conference on Sustainable Technology In Civil Engineering And Applied Sciences-2023 (ICSTCA-2023)
4	Analysis Of Natural Coolant On The Rooftop To Lower Room Temperature	A Sudhakaran, E.Thanigai Selvan	International Conference on Sustainable Technology In Civil Engineering And Applied Sciences-2023 (ICSTCA-2023)
5	Investigation On Strength Characteristics of Self Compacting Concrete Incorporated With AR Glass Fibers	R. Deena Dhayalan	International Conference on Sustainable Technology In Civil Engineering And Applied Sciences-2023 (ICSTCA-2023)
6	Experimental Study On Mechanical Properties of Textile Reinforced Concrete(TRC)	V. Vineeth	International Conference on Sustainable Technology In Civil Engineering And Applied Sciences-2023 (ICSTCA-2023)
7	Experimental Study On Paver Block Using Prosopis Julifora Ash	M.Paartha Sarathi	International Conference on Sustainable Technology In Civil Engineering And Applied Sciences - 2023 (ICSTCA-2023)
8	Experimental Study on Biochar Utilization in Microbial Fuel Cells.	Aishwarya R.Rakavi V.S.Priyadharshini	International Conference on Recent Trends in Science, Engineering and Technology (KIRSET 2023)
Academic Year 2021-2022			
1	Performance Study on Damaged Cylinder with SFRP Under Various Loading Conditions using Abaqus	Meenaa Bharathi S, Sneghavardhini J	International Conference on Smart Technologies and Applications-2022 (ICSTA 2022)

SI.No.	Title of Paper	Author(s)	Conference Details
2	Numerical Study on Flexural Behaviour of Reinforced Concrete Beam using MATLAB	Ajandhadevi S Jenitha G Subalakshmi M	International Conference on Smart Technologies and Applications-2022 (ICSTA 2022)
Academic Year 2020-2021			
1	Analytical Investigation on Flexural Behaviour of RC beam strengthened with CFRP using ABAQUS	M Parthiban, R Mahesh Murugan, B Balaj	National Web Conference on Challenges and Innovation in Engineering & Technology 2021
2	Numerical Simulation On Flexural Behaviour Of Reinforced Concrete Beam By Varying Cover Depth Under Monotonic Loading	S.Anto Sherlina, R.Harshani,M.Subhalakshmi	National Web Conference on Challenges and Innovation in Engineering & Technology 2021
3	Analysis of Impact Behaviour of Masonary Wall Using Abaqus	P.Aarthi, R.Sangeetha, S.Sathya	National Web Conference on Challenges and Innovation in Engineering & Technology 2021
4	Behaviour of Masonry Wall Under Blast Loading	M.Fathima Haseena, S.Shamli priya, V.Selva Abinaya	National Web Conference on Challenges and Innovation in Engineering & Technology 2021
5	Numerical Simulation on Precast T-Beam Using ETABS	T.Gayathri, M.Ragavi, R.Sujitha	National Web Conference on Challenges and Innovation in Engineering & Technology 2021
6	Effect of Geometry on The Behaviour of RCC Column	M.Mubena ,V Sangeetha,R Sri Asmitha	National Web Conference on Challenges and Innovation in Engineering & Technology 2021

SI.No.	Title of Paper	Author(s)	Conference Details
7	Analytical Study On Structural Behaviour Of Castellated Reinforced Cement	S.Dharmar, M.Madhan Vignesh, N.Naveenkumar, C.G.P.Rajakalidoss	National Web Conference on Challenges and Innovation in Engineering & Technology 2021
8	Treatment of Industrial Wastewater using Green Synthesis of Copper Nano Particles	D.Darling Helen Lydia, Kanthimathi, Abirami Ganesan, Gowsalya Murugan, Jeyasudha Rajendran	National Web Conference on Challenges and Innovation in Engineering & Technology 2021
9	Real time monitoring of cracks Using deep learning techniques	T.Chockalingam, V .Muthukumar, S Nagaraj, S Hariprasath	National Web Conference on Challenges and Innovation in Engineering & Technology 2021
10	Experimental Study on Water Softening Using Biochar	C.Subha, R.Kalaimani,V.Sivakumar, A.Thamotharan	National Web Conference on Challenges and Innovation in Engineering & Technology 2021
Academic Year 2019-2020			
1	Effect of Hydrophobic Coating on Structural Glass to Reduce the NOx Concentration in Indoor and Outdoor Environment	R.Abitha R.Hema Karthika S.Maha Vidya	National Web Conference on Advances in Civil Engineering for Sustainable Environment, Easwari Engineering College, Chennai

SI.No.	Title of Paper	Author(s)	Conference Details
2	Experimental Study on Mechanical properties of Concrete by Partial Replacement of Coarse Aggregate with Recycled Plastic Aggregate	R.Abinaya M.Akila P.Ramapriya	International Web Conference on Smart Engineering Technologies 2020 (IWCSET - 2020), Ramco Institute of Technology, Rajapalayam
3	Effect of Wire Mesh on Properties of Pervious Concrete Pavement Blocks	P.Abinaya Prasakthi M.Kaleeswari M.Siva Priya M.Priyetharshini	International Web Conference on Smart Engineering Technologies 2020 (IWCSET - 2020), Ramco Institute of Technology, Rajapalayam
4	Denitrification of Structural Glass by Coating TiO ₂ – An Eco-Friendly Approach	R.Abitha R.Hema Karthika S.Maha Vidya	International Web Conference on Smart Engineering Technologies 2020 (IWCSET - 2020), Ramco Institute of Technology, Rajapalayam
5	Comparative Study on the Influence of Wood Ash in the Sustainability of Soil	C.Abi N.Nagasivaraj S.K.Nadheer T.Akilesh	International Web Conference on Smart Engineering Technologies 2020 (IWCSET - 2020), Ramco Institute of Technology, Rajapalayam
6	Effect of Chemical Admixture on Pervious Concrete Properties	K.Muthuselvi M.Madhumitha T.C.R.Aarthi	International Web Conference on Smart Engineering Technologies 2020 (IWCSET - 2020), Ramco Institute of Technology, Rajapalayam

SI.No.	Title of Paper	Author(s)	Conference Details
7	Experimental study of thermal conductivity on Fiber Reinforced Concrete using Glass and Polypropylene fibre and slags	K.Sayasree R.Aarthi S.Soundarya	International Web Conference on Smart Engineering Technologies 2020 (IWCSET - 2020), Ramco Institute of Technology, Rajapalayam
8	Stabilization of Black Cotton Soil using Silica Fume and Coconut Coir ash	R.Atchaya	International Web Conference on Smart Engineering Technologies 2020 (IWCSET - 2020), Ramco Institute of Technology, Rajapalayam
9	Experimental Study on Influence of Natural Fibre and Artificial Fibre in Concrete	S.G.Karthikeyan S.Gokul S.Mohamedsufyan	International Web Conference on Smart Engineering Technologies 2020 (IWCSET - 2020), Ramco Institute of Technology, Rajapalayam
10	Experimental study on utilization of Treated and Magnetized Industrial Wastewater in strength of concrete	S.Saravanan	Second International Conference on Advanced Materials Chemistry at the Interfaces of Energy, Environment and Medicine (AMCI-2020)

The following students were published papers in various journals as shown in the following table 4.13

Table 4.13 Details of Students Journal Publication

SI.No.	Title of Paper	Author(s)	Journals Details
Academic Year 2024-2025			
1	Experimental study on Gypsum panel and blocks incorporated with waste recycled plastic	B.Jacksingh Dharma K. Thanga Guru	International Journal of Engineering Innovations and Management Strategies 2 (1):1-10.(2024)

SI.No.	Title of Paper	Author(s)	Journals Details
2	Study on leed credits and the certification for whole building construction and major renovation	T. Narmadha	International Journal of Engineering Innovations and Management Strategies 2 (1):1-15.(2024)
3	Effect of Addition of Carbon Fibre on Mechanical Properties of Concrete	A Keerthi Roja	Journal of Science Technology and Research (JSTAR) 5 (1):535-541.(2024)
4	Treatment of textile effluent in palm fruit cell	K. Hariharasudhan	Journal of Science Technology and Research (JSTAR) 5 (1):547-551.(2024)
5	Experimental investigation on packing density of different fine aggregate	S.Ajandha Devi G.Jenitha M.Subalakshmi	Journal of Science Technology and Research (JSTAR) 5 (1):552-566.
Academic Year 2023-2024			
1	Numerical study on flexural behavior of reinforced concrete beam using MATLAB	Ajandhadevi Sakthivel, Jenitha Gnana Sekaran, and Subalakshmi Muniyandi.	In AIP Conference Proceedings, vol. 2831, no. 1. AIP Publishing, 2023.
2	Experimental study on mechanical properties of Textile Reinforced Concrete (TRC)	Karthikeyan, G., Margret, A. L., Vineeth, V., & Harshani, R.	In E3S Web of Conferences (Vol. 387, p. 04002). EDP Sciences. (2023)

The following students were participated in other state as shown in the following table 4.14:

Table 4.14 Details Of Students Paticipated in Other state

Year	Date	Event Description	Name of the Participant/Year	Organizer/Convener
2024-2025	12.08.2024	JK Swachhta Pakhwada 2024 Quiz Competition	Dhanasekar G/II Year	Government of Jammu and Kashn
	24.11.2024	Webinar Programme on Interior Fit-Out Management	Samyuktha M/ II Year Jeevika Kannan/ II Year Kiruthika K/ II Year	Construction Management Training Institute

2023-2024	28.10.2023 to 29.10.2023	2 Day Residential Workshop for Civil and Structural Engineers	R.Rakavi / IV Year V.S.Priyadharshini / IV Year R.Aishwarya/ IV Year	Econstruct Design & Build Pvt. Ltd., Bai
	20.07.2023 to 21.07.2023	6th Edition GreenPro Summit 2023 “ Towards Net Zero”	K.Logesh Kanna / IV Year M.Manikanda Balaji / IV Year	IGBC, Bangalore
2022-2023	04.04.2023	Cube test Competition	Mahendran C / III Year Ponnusangili R / III Year Balaji K / III Year Logeshkanna K / III Year Manikanda Balaji M / III Year Perumal samy A / III Year	3rd International Conference on Innovative Engineering for Sustainability, Toc H Institute and Technology, Ernakulam, Kera
	2023	Smart India Hackathon	Suresh Anand J/III Year Priyadharshini V S/III Year Pongokul P/III Year Mohammed Rizwan I/III Year Shreehari K/III Year Thamimum Ansari K/III Year	Shortlisted for Finals held at Harya
2021-2022	20.12.2021	National level Online Quiz on Engineering Workshop	K.Sivaramakrishnan / III Year	Bharat Institute of Engineering and Tech Hyderabad
	2022	Smart India Hackathon	Meena Bharathi S/ IV Year Thanigai Selvan E/IV Year Sneghavardhini J/IV Year Narmada T/IV Year Logesh Kanna K/II Year Ponnu Sangili R/II Year	Shortlisted for Finals held at Assa

The following students won prize in Technical Events, Workshop, Poster Presentation etc., conducted by various Institutions as shown in the following table 4.15:

Table 4.15 Details of Students Prize /Award Received in Events

S.No	Duration	Symposium/Programme/Contest, etc.,	Organizing Institute	Name of the student Participant / Year	Prize won
Academic Year 2024-2025					
1.	01.09.2024	Poster Presentation	Velammal College of Engineering and Technology, Madurai	Jeevika Kannan/II Year Samyuktha M/ II Year	III
Academic Year 2023-2024					
1	15.09.2023	3D-Modelling - National Technical symposium (TECH-ELITE 23)	SRM Madurai College for Engineering and Technology, Sivaganagai	S.Yuvaraj / III Year M Madasamy Hariharan / III Year	II
2	27.9.2023 to 30.9.2023	Anna University Sports Board Cricket Tournament	Anna University Regional Camp Site, Tirunelveli	M.Aashik Anton / III Year	III
3	16.02.2024& 17.04.2024	Civilic Brains In GYAN MITRA '24 National level techno symposium	Mepco Schlenk Engineering College, Sivakasi	Aarthika.G/III Year Dhivya.M/III Year	I
4	22.03.2024 to 23.03.2024	Tech Pirates in NEC-TECH Fest – 2024 National level Technical Symposium	National Engineering College, Kovilpatti	K.Thamimum Ansari / II Year Sonamuthiah.A / II Year N.Ramyasudha/II Year	I
5	22.03.2024 to 23.03.2024	“Mind Buster” in NEC -TECH Fest – 2024 National level Technical Symposium	National Engineering College, Kovilpatti	Anantha Murugan.K / III Year Pandiyaraj.S/ III Year	I
6	22.03.2024 to 23.03.2024	“Puddle Crafter” in NEC -TECH Fest – 2024 National level Technical Symposium	National Engineering College, Kovilpatti	Pandiaraj.S / III Year	I
7	22.03.2024 to 23.03.2024	“Puddle Crafter” in NEC -TECH Fest – 2024 National level Technical Symposium	National Engineering College, Kovilpatti	Sanjay Kumar.G/ III Year	II

S.No	Duration	Symposium/Programme/Contest, etc.,	Organizing Institute	Name of the student Participant / Year	Prize won
8	22.03.2024& 23.03.2024	NEC-Tech Fest-2024 National level technical symposium	National Engineering College, Kovilpatti	Sanjay Kumar.G/ III Year Sibibala.P/III Year	II
9	26.03.2024 to 27.03.2024	Light Weight Concrete Contest	Kalasalingam Academy of Research and Education, Krishnankovil	M.Aathi Laxmi / III Year A.Ambika / III Year G.Gowri / III Year	I
10	26.03.2024 to 27.03.2024	Environmental Challenges	Kalasalingam Academy of Research and Education, Krishnankovil	S.Nivetha /III Year	II
Academic Year 2022-2023					
1	21.08.2022	Open Chess Tournament	Virudhunagar District Chess Championship	P.Sibi bala/II year	I
2	01.09.2022	Online Quiz - T2P Ground water Contamination and Remediation	IITM PALS	A.Ambika / II Year N.Akash Kumar / II Year S Yuvaraj / II Year E.Valathi Varun / II Year M.Aashik Anton / II Year S.Harish Ragav /II Year A.Viyani Blessy/ II Year M.Madasamy Hariharan/II Year Padmavathy S E/ II Year V.Gayathri / II Year V.Abishek / II Year V.Porkodi / II Year	Won PALS Sparkling Star

S.No	Duration	Symposium/Programme/Contest, etc.,	Organizing Institute	Name of the student Participant / Year	Prize won
3	16.10.2022	Wall Magazine cum Poster making Competition	Election Commission of India Systematic Voter's Education & Electoral Participation (SVEEP)	M.Sivasakthiya/ III Year	III
4	25.01.2023	National Level Symposium AAKRITI - Quiz Event	Dr.M.G.R. Educational and Research Institute, Chennai	M.Balakumaran / III Year K,Shreehari / III Year C.Vinoth Kumar / III Year	II
5	03.02.2023	Online Quiz – PALS T2P – Campus Development Of I.I.T Hyderabad, A Greenfield Project	IITM PALS	Dineshbabu.S / II Year	Won Sparkling Star
6	02.03.2023	CONCRETA'23 - National level Inter College meet – SurveQue Event	M.Kumarasamy College of Engineering, Karur	Anantha Murugan K / II Year	I
7	02.03.2023	National Level Symposium INFRAZEST'23 - Sequencing (Non-Technical Event)	Kamaraj College of Engineering and Technonolgy, Virudhunagar	Yuvaraj S/ II Year Madasamy Hariharan M/II Year	I
8	07.03.2023	National Level Symposium INFOTRAZ'2K23 – Technical Quiz	V.S.B Engineering College, Karur	Janarthanan M/ II Year	III
9	07.03.2023	National Level Symposium INFOTRAZ'2K23 – Non-Technical Events	V.S.B Engineering College, Karur	Janarthanan M / II Year Sathish A / II Year Praveen B / II Year	I
10	15.03.2023	National level online Poster Competition – Recent Advances in Civil Engineering	SSN College of Engineering, Chennai	Muthusundareeswar S V/ IV Year Partha Sarathi M / IV Year Vineeth V/ IV Year	III

S.No	Duration	Symposium/Programme/Contest, etc.,	Organizing Institute	Name of the student Participant / Year	Prize won
11	26.04.2023	"Break the Code" Event – Civilage'23 Symposium	The Gandhigram Rural Institute, Gandhigram	T.Surya / II Year	II
				E. Valathi Varun /II Year M Aashik Anton / II Year	
				D.C. Esakki Hari Ganesh /II Year	III
12	26.04.2023	"Technical Quiz" Event – Civilage'23 Symposium	The Gandhigram Rural Institute, Gandhigram	E. Valathi Varun / II Year M Aashik Anton / II Year	I
Academic Year 2019-2020					
1	19.09.2019	Terramind	Alagappa Chettiar Government College of Engineering and Technology, Karaikudi.	S.Saravanan (III Year)	II
2	27.02.2020	Puzzle Prime	P.S.R. Engineering College, Sivakasi	G.Mohanrajan(II Year)	II
3	27.02.2020	Mirror Corrector	P.S.R. Engineering College, Sivakasi	R.A.J.Ananthasivaraman and M.Parthiban	III
4	09.03.2020	Stadia	Government College of Engineering, Tirunelveli	V.Selva Abinaya and M.Ragavi	I
5	27.02.2020	Brain Trazer	P.S.R. Engineering College, Sivakasi.	M.Venkatesh	I
6	09.03.2020	Technical Quiz	Government College of Engineering, Tirunelveli	R.Abinaya	I
7	09.03.2020	Krayon	Government College of Engineering, Tirunelveli	R.Abinaya	I
Academic Year 2018-2019					

S.No	Duration	Symposium/Programme/Contest, etc.,	Organizing Institute	Name of the student Participant / Year	Prize won
1	27.12.2018 & 28.12.2018	Fancy Shades-Sketching	Kongu Engineering College, Perundurai	R.Abinaya & S.Gokul	II
2	27.12.2018 & 28.12.2018	Treasure Hunt	Kongu Engineering College, Perundurai.	S.Gokul Mohamed Mishal Ahmed B.Dhivahar K.Sai Kumaran	I
3	27.12.2018 & 28.12.2018	Group Dance	Konju Engineering College, Perundurai.	B.Dhivahar	I
4	08.02.2019 & 09.02.2019	MAT (Excelsia)	Mepco Schlenk Engineering College, Sivakasi	N.Muthu Prakash R.Muthu Vijaya Kumar	II
5	08.02.2019 & 09.02.2019	Haze Vista (Code Cracking)	Mepco Schlenk Engineering College, Sivakasi	P.Abinaya Parasakthi	I
6	08.02.2019 & 09.02.2019	Civil Mania (Quiz)	Mepco Schlenk Engineering College, Sivakasi	Mohamed Mishal Ahmed A.Mohamed Vasim N.Muthu Prakash R.Muthu Vijaya Kumar	I
7	08.02.2019 & 09.02.2019	Tech Hunt (Treasure Hunt)	Mepco Schlenk Engineering College, Sivakasi	B.Dhivahar S.Srijith	I
8	08.02.2019 & 09.02.2019	Tech Hunt (Treasure Hunt)	Mepco Schlenk Engineering College, Sivakasi	N.Muthu Prakash R.Muthu Vijaya Kumar	II
9	08.02.2019 & 09.02.2019	Brick Battle	Mepco Schlenk Engineering College, Sivakasi	S.Hari Prasath S.Nagaraj	II

S.No	Duration	Symposium/Programme/Contest, etc.,	Organizing Institute	Name of the student Participant / Year	Prize won
10	13.02.2019	Quiz	Thiagarajar College of Engineering, Madurai.	S.Gokul V.Suranthiran	II
11	15.02.2019	Treasure Hunt	Lady Doak College, Madurai	G.Mohan Rajan	II
12	15.02.2019	Flameless Cooking	Lady Doak College, Madurai	G.Mohan Rajan	II
13	05.03.2019	Theodo	Government College of Engineering, Thirunelveli	V.Naveen Kumar	II
14	05.03.2019	Environ	Government College of Engineering, Thirunelveli	Mohamed Mishal Ahmed	I
15	05.03.2019	Environ	Government College of Engineering, Thirunelveli	A.Mohamed Vasim	II
16	05.03.2019	De-Tour	Government College of Engineering, Thirunelveli	Mohamed Mishal Ahmed A.Mohamed Vasim	III

5 FACULTY INFORMATION AND CONTRIBUTIONS (200)

Total Marks 172.67

Institute Marks :

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/Assoc. Prof.).	Initial Date of Joining	Association Type	At present working with the Institution(Yes/No)	In case of NO, Date of Leaving	IS HOD?
Dr. S. Dharmar	AELPD5780R	ME/M. Tech and PhD	22/07/2022	Structural Engineering	7	1	0	Associate Professor	01/01/2023	09/07/2018	Regular	Yes		Yes
Dr.M.Indhumathi	AEEPI4080G	ME/M. Tech and PhD	11/01/2021	Structural Engineering	6	4	0	Associate Professor	02/01/2023	23/11/2020	Regular	Yes		No
Dr.G.Karthikeyan	BGZPK2732B	ME/M. Tech and PhD	27/02/2023	Infrastructure Engineering	6	0	0	Associate Professor	01/02/2024	02/05/2014	Regular	Yes		No
Mrs.C.Subha	BWXPS7687H	M.E/M. Tech	28/04/2011	Environmental Management	3	0	0	Assistant Professor		02/06/2014	Regular	Yes		No
Mr.T.Chockalingam	ATOPC9795P	M.E/M. Tech	19/06/2015	Structural Engineering	2	0	0	Assistant Professor		02/12/2015	Regular	Yes		No
Mrs.R.Kalaimani	COSPK1911G	M.E/M. Tech	19/06/2015	Structural Engineering	1	0	0	Assistant Professor		01/06/2016	Regular	Yes		No
Mr.R.Muruganantham	CKKPM5976R	M.E/M. Tech	25/05/2016	Structural Engineering	2	0	0	Assistant Professor		13/06/2016	Regular	Yes		No
Mr.A.Manicka Mamallan	AZGPM5936Q	M.E/M. Tech	25/05/2017	Structural Engineering	1	0	0	Assistant Professor		01/06/2017	Regular	Yes		No
Mrs.A.Leema Margret	ASQPL9580N	M.E/M. Tech	21/04/2017	Structural Engineering	4	0	0	Assistant Professor		01/10/2020	Regular	Yes		No
Mr.V.Ragavan	CDEPR7911L	M.E/M. Tech	25/05/2016	Structural Engineering	4	0	0	Assistant Professor		12/10/2020	Regular	Yes		No
Mrs.B.Bharani Baanu	BKTPB2993R	M.E/M. Tech	27/04/2012	Hydrology and Water Resources Engineering	7	0	0	Assistant Professor		01/07/2024	Regular	Yes		No
Mr.V.Jeevanantham	BBSPV1999M	M.E/M. Tech	29/06/2015	Geotechnical Engineering	8	0	0	Assistant Professor		08/07/2024	Regular	Yes		No
Mrs.D.Darling Helen Lydia	ALKPL5057D	M.E/M. Tech	16/05/2013	Structural Engineering	0	0	0	Assistant Professor		01/12/2014	Regular	No	12/12/2023	No
Mr.J.Ram Prashath	BQVPR8105H	M.E/M. Tech	25/05/2016	Structural Engineering	0	0	0	Assistant Professor		01/06/2017	Regular	No	23/12/2022	No

5.1 Student-Faculty Ratio (20)

Total Marks 16.00

UG

No. of UG Programs in the Department

Civil Engineering						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students
2nd Year	60	3	60	4	60	3
3rd Year	60	4	60	3	60	11
4th Year	60	3	60	11	60	4
Sub-Total	180	10	180	18	180	18
Total	190		198		198	
Grand Total	<input type="text" value="190"/>		<input type="text" value="198"/>		<input type="text" value="198"/>	

PG

No. of PG Programs in the Department

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

No. of UG Programs in the Department

No. of PG Programs in the Department

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
Total No. of Students in the Department(S)	<input type="text" value="190"/> Sum total of all (UG+PG) students	<input type="text" value="198"/> Sum total of all (UG+PG) students	<input type="text" value="198"/> Sum total of all (UG+PG) students
No. of Faculty in the Department(F)	<input type="text" value="12"/> F1	<input type="text" value="10"/> F2	<input type="text" value="11"/> F3
Student Faculty Ratio(SFR)	<input type="text" value="15.83"/> SFR1=S1/F1	<input type="text" value="19.80"/> SFR2=S2/F2	<input type="text" value="18.00"/> SFR3=S3/F3
Average SFR	<input type="text" value="17.88"/> SFR=(SFR1+SFR2+SFR3)/3		
F=Total Number of Faculty Members in the Department (excluding first year faculty)			

Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

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 number of contractual faculty in the department
CAY(2024-25)	12	0
CAYm1(2023-24)	10	0
CAYm2(2022-23)	11	0

Average SFR for three assessment years : 17.88

Assessment SFR : 16

5.2 Faculty Cadre Proportion (25)

Total Marks 14.00

Institute Marks : 14.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2024-25)	1.00	0.00	2.00	3.00	6.00	9.00
CAYm1(2023-24)	1.00	0.00	2.00	2.00	6.00	8.00
CAYm2(2022-23)	1.00	0.00	2.00	0.00	6.00	11.00
Average Numbers	1.00	0.00	2.00	1.67	6.00	9.33

Cadre Ratio Marks $[(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5$: 14.00

5.3 Faculty Qualification (25)

Total Marks 16.67

Institute Marks : 16.67

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F]
2024-25(CAY)	3	9	9.00	18.33
2023-24(CAYm1)	3	7	9.00	16.11
2022-23(CAYm2)	2	9	9.00	15.56

Average Assessment : 16.67

5.4 Faculty Retention (25)

Total Marks 25.00

Institute Marks : 25.00

Description	2023-24	2024-25
No of Faculty Retained	10	10
Total No of Faculty	9	9
% of Faculty Retained	111	111

Average : 111.00

Assessment Marks : 25.00

5.5 Innovations by the Faculty in Teaching and Learning (20)

Total Marks 20.00

Innovations by the Faculty in Teaching and Learning:

The teaching and learning process is highly valued by the Department of Civil Engineering faculty. The faculty members employ various cutting-edge pedagogical strategies in their teaching and learning process in addition to traditional teaching techniques like chalk & talk and power point presentations to boost the students understanding. Among the cutting-edge pedagogical methods frequently employed by the faculty of civil engineering are include:

- Team quizzes
- Flipped classroom
- Mind maps
- LMS based learning
- One-minute paper
- Model based learning
- Industrial & Field visit
- Video lectures
- Group discussions
- Reflective Journal
- Experiential learning
- Handouts
- Think Pair Share
- Collaborative learning

The innovative pedagogic teaching techniques implemented by the faculty of Civil Engineering are available for review by academicians and public in the form of documents available in the course files and Learning Management System (LMS). The faculty members issue handouts and scaffolding materials to students extensively for their courses in order to improve the understanding of the students.

Think pair share

Think-Pair-Share is an instructional strategy that encourages student engagement, collaboration, and critical thinking. It is widely used in classrooms to enhance learning by allowing students to think independently, discuss their ideas with a partner, and then share their thoughts with class. Think-Pair-Share activities often lead to deeper engagement with content, better communication skills, and enhanced social learning. This activity is conducted for the course strength of materials II. As a result, the class attained 100% pass percentage in the respective end semester exam conducted.

Fig. 5.1 Think pair share while handling Strength of Materials-II

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Collaborative learning

Collaborative Learning is an educational approach that emphasizes the importance of teamwork and collective problem-solving among students. It involves students working together in groups to achieve shared learning goals. This method not only enhances academic achievement but also develops essential social skills, critical thinking, and a sense of community within the classroom. This activity is conducted for the course strength of materials I. As a result, the class pass percentage improved to 72.73% in the respective end-semester exam.

Fig. 5.2 Collaborative Learning Strength of Materials I

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Experiential Learning

Experiential learning is a process through which individuals gain knowledge, skills, and competencies by engaging in direct experience and reflection. Students enhance their critical thinking, problem-solving, and practical skills, while also gaining self-awareness and emotional intelligence. This activity was conducted for the course Applied Hydraulics Engineering. As a result, the class pass percentage increased significantly, from 52.38% in the previous year to 82.22% in the respective end-semester exam

Fig. 5.3 Experiential Learning Applied Hydraulics Engineering

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

The following table provides the details of the innovative pedagogic techniques implemented by the faculty members of Department of Civil Engineering in their courses. (Table 5.1)

Table 5.1 Innovative Teaching Learning Methodologies Adopted

Name of the Faculty member	Innovative pedagogic techniques adopted	Course Code & Course Name	Semester	Academic Year	Availability
Mrs.B.Bharani Baanu	Theory to Practical	CE3301 Fluid Mechanics	III	2024-2025	In Course File, College website
Mrs.B.Bharani Baanu	Video Lecture	CE3301 Fluid Mechanics	III	2024-2025	In Course File, College website
Mrs.B.Bharani Baanu	Video Lecture	AI3404 Hydrology and Water Resources Engineering	VII	2024-2025	In Course File, College website
Dr.G.Karthikeyan	Experimental Learning	CE3403 Concrete Technology	IV	2023-2024	In Course File, College website
Dr.M.Indhumathi	Simulation Tool	CE3502 Structural Analysis I	V	2023-2024	In Course File, College website
Mrs.R. Kalaimani	Mind Maps	CCE333 Environmental Impact Assessment	VI	2023-2024	In Course File, College website
Mrs.R. Kalaimani	Virtual Laboratory	CE3401 Applied Hydraulic Engineering	IV	2023-2024	In Course File, College website
Mrs.R. Kalaimani	Theory to Practical	CE3401 Applied Hydraulic Engineering	IV	2023-2024	In Course File, College website
Mr.V.Ragavan	Theory to Practical	CE3404 Soil Mechanics	IV	2023-2024	In Course File, College website
Dr.M.Indhumathi	Simulation Tool	CE3602 Structural Analysis II	VI	2023-2024	In Course File, College website
Mrs.A.Leema Margret	Quick Write	CE8702 Railways, Airports, Docks and Harbour Engineering	VII	2023-2024	In Course File, College website
Mrs.A.Leema Margret	Crossword Puzzle	CE8702 Railways, Airports, Docks and Harbour Engineering	VII	2023-2024	In Course File, College website
Mr.V.Ragavan	Mind Map	CCE331 Air and Noise Pollution Control Engineering	V	2023-2024	In Course File, College website
Mr.V.Ragavan	Four Corner Four Questions	CCE331 Air and Noise Pollution Control Engineering	V	2023-2024	In Course File, College website
Mrs.R. Kalaimani	Virtual Laboratory	CE3401 Applied Hydraulic Engineering	IV	2022-2023	In Course File, College website
Mrs.R. Kalaimani	Theory to Practical	CE3401 Applied Hydraulic Engineering	IV	2022-2023	In Course File, College website
Mr.G. Karthikeyan	Experimental learning	CE3403 Concrete Technology	IV	2022-2023	In Course File, College website

Mr.G. Karthikeyan	Open Book Test	CE3403 Concrete Technology	IV	2022-2023	In Course File, College website
Mr.V. Ragavan	One minute paper	CE3402 Strength of Materials	IV	2022-2023	In Course File, College website
Mr.V. Ragavan	Theory to Practical	CE3402 Strength of Materials	IV	2022-2023	In Course File, College website
Mrs. A. Leema Margret	Theory to Practice	CE8603 Irrigation Engineering	IV	2022-2023	In Course File, College website
Mrs. A. Leema Margret	Visible Quiz	CE8603 Irrigation Engineering	VI	2022-2023	In Course File, College website
Mrs. A. Leema Margret	One minute paper	CE8603& Irrigation Engineering	VI	2022-2023	In Course File, College website
Dr.M. Indhumathi	Simulation Tool	CE8602 Structural Analysis II	VI	2022-2023	In Course File, College website
Mrs.D. Darling Helen Lydia	Virtual Laboratory	CE3404 Soil Mechanics	VI	2022-2023	In Course File, College website
Mrs.R.Kalaimani	Virtual Laboratory	CE3301 Fluid Mechanics	III	2022-2023	In Course File, College website
Mrs.R.Kalaimani	Theory to Practice	CE3301Fluid Mechanics	III	2022-2023	In Course File, College website
Mrs.R.Kalaimani	One Minute Paper	CE3301 Fluid Mechanics	III	2022-2023	In Course File, College website
Mrs.D.Darling Helen Lydia	Visible Quiz	CE3302-Construction Materials& Technology	III	2022-2023	In Course File, College website
Mrs.C.Subha	Visible Quiz	EN8491-Water Supply Engineering	III	2022-2023	In Course File, College website
Mrs.C.Subha	One Minute Paper	EN8491-Water Supply Engineering	III	2022-2023	In Course File, College website
Mrs.C.Subha	Reflective Journal	EN8491-Water Supply Engineering	III	2022-2023	In Course File, College website
Mrs.C.Subha	Visible Quiz	CE3303-Water Supply& Waste water Engineering	V	2022-2023	In Course File, College website
Mrs.C.Subha	Reflective Journal	CE3303-Water Supply& Waste water Engineering	V	2022-2023	In Course File, College website
Mrs.C.Subha	Virtual Laboratory	CE3303-Water Supply& Waste water Engineering	V	2022-2023	In Course File, College website

Mr.G.Karthikeyan	Open Book Test	CE8701-Estimation, Costing & Valuation Engineering	VII	2022-2023	In Course File, College website
Dr.M.Indhumathi	Simulation Tool	CE8502& Structural Analysis I	V	2022-2023	In Course File, College website
Mr.V. Ragavan	Visible Quiz	OCE551-Airpollution and Control Engineering	V	2022-2023	In Course File, College website
Mr.V. Ragavan	Four Corner Four questions	OCE551-Airpollution and Control Engineering	V	2022-2023	In Course File, College website
Mr.V. Ragavan	One minute paper	OCE551-Airpollution and Control Engineering	V	2022-2023	In Course File, College website
Mrs.R.Kalaimani & Mrs.A.Leema Margret	One minute paper	EN8591-Municipal Solid Waste Management	VII	2022-2023	In Course File, College website
Mrs.R.Kalaimani & Mrs.A.Leema Margret	Reflective Journal	EN8591-Municipal Solid Waste Management	VII	2022-2023	In Course File, College website
Mrs.R.Kalaimani & Mrs.A.Leema Margret	Visible Quiz	EN8591-Municipal Solid Waste Management	VII	2022-2023	In Course File, College website
Mrs.A.Leema Margret	Cross Word and Jig Jaw Puzzle	GE8071-Disaster Management	VII	2022-2023	In Course File, College website
Mrs.A.Leema Margret	Disaster Supplies kit Concentration	GE8071-Disaster Management	VII	2022-2023	In Course File, College website
Mrs.A.Leema Margret	Visible Quiz	GE8071-Disaster Management	VII	2022-2023	In Course File, College website
Mrs.R.Kalaimani	Virtual Laboratory	CE8403 Applied Hydraulic Engineering	IV	2021-2022	In Course File, College website
Mrs.R.Kalaimani	Theory to Practice	CE8403 Applied Hydraulic Engineering	IV	2021-2022	In Course File, College website
Mr.G. Karthikeyan	Experimental learning	CE8404 Concrete Technology	IV	2021-2022	In Course File, College website
Mr.V.Ragavan	One minute paper	CE8005Air pollution and Control Engineering	VI	2021-2022	In Course File, College website
Mr.V.Ragavan	Four Corner Four Question	CE8005Air pollution and Control Engineering	VI	2021-2022	In Course File, College website
Mrs.C. Subha	Virtual Lab	EN8592 Waste Water Engineering	VI	2021-2022	In Course File, College website
Mrs.C. Subha	Crossword Puzzle	EN8592 Waste Water Engineering	VI	2021-2022	In Course File, College website

Mrs. A. Leema Margret	Visible Quiz	CE8603 Irrigation Engineering	VI	2021-2022	In Course File, College website
Mrs. A. Leema Margret	One minute paper	CE8603 Irrigation Engineering	VI	2021-2022	In Course File, College website
Dr.M.Indhumathi	Simulation Tool	CE8602 Structural Analysis II	VI	2021-2022	In Course File, College website
Mr.J.Ram Prashath	Cross Word Puzzle	CE8401 Construction Techniques and Practices	IV	2021-2022	In Course File, College website
Mr.J.Ram Prashath	One Minute Paper	CE8401 Construction Techniques and Practices	IV	2021-2022	In Course File, College website
Mrs.D.Darling Helen Lydia	Virtual Laboratory	CE8491 Soil Mechanics	IV	2021-2022	In Course File, College website
Mrs.D.Darling Helen Lydia	Laboratory Visit	CE8491 Soil Mechanics	IV	2021-2022	In Course File, College website
Mrs.R. Kalaimani	Theory to Practice	CE8302 Fluid Mechanics	III	2021-2022	In Course File, College website
Mrs.R. Kalaimani	One minute paper	CE8361 Surveying Laboratory	III	2021-2022	In Course File, College website
Mrs.R. Kalaimani	Mind Map	CE8591 Foundation Engineering	V	2021-2022	In Course File, College website
Dr.M.Indhumathi	Simulation Tool	CE8502 Structural Analysis I	V	2021-2022	In Course File, College website
Dr.M.Indhumathi	Quiz	CE8391 Construction Materials	V	2021-2022	In Course File, College website
Mr.J.Ramprashath	Cross Word Puzzle	CE8392 Engineering Geology	III	2021-2022	In Course File, College website
Mr.J.Ramprashath	One minute paper	CE8392 Engineering Geology	III	2021-2022	In Course File, College website
Mr.J.Ramprashath	Theory to Practice	CE8392 Engineering Geology	III	2021-2022	In Course File, College website
Mr.V. Ragavan	One minute paper	CE8301Strength of Materials I	III	2021-2022	In Course File, College website
Mr.V. Ragavan	Virtual Lab	CE8301Strength of Materials I	III	2021-2022	In Course File, College website
Mrs.A.Leema Margret	One minute paper	EN8591 Municipal Solid Waste Management	VII	2021-2022	In Course File, College website

Mrs.A.Leema Margret	Recycle Relay	EN8591 Municipal Solid Waste Management	VII	2021-2022	In Course File, College website
Mrs.A.Leema Margret	Cross Word and Jig Jaw Puzzle	GE8071 Disaster Management	V	2021-2022	In Course File, College website
Mrs.A.Leema Margret	Reflective Journal	GE8071 Disaster Management	V	2021-2022	In Course File, College website
Mrs.A.Leema Margret	Visible Quiz	GE8071 Disaster Management	V	2021-2022	In Course File, College website
Mr.V.Jeevanantham	Google Site (Mindmap)	CE3503 Foundation Engineering	V	2024-2025	College website

Other highlights of the teaching learning process in the department are:

- The department classrooms are equipped with modern teaching aids like LCD projectors; Internet enabled computer systems and high quality audio system.
- Apart from the college main library, the civil engineering department has a separate library to cater to the needs of the civil engineering students and faculty.
- The department library is easy and open accessible to all the civil engineering students and faculty.
- The faculties have been participating/presenting papers in national/international conferences and publish their articles in national/international journals to enrich their knowledge.
- The research laboratories established by the department like RIT-Centre of Excellence for Building Information Modelling (BIM), RIT ICT Academy Centre of Excellence for Design Powered by Autodesk, Centre for Geospatial Technology, Construction Practices Laboratory and Project & Consultancy Laboratory in the development of faculty related to delivering lectures in advanced topics.
- The laboratory courses are handled by the faculty with utmost care in such a way to ensure the enrichment of the practical skill and knowledge of the students in the respective laboratory experiments.
- The respective faculty members handling the laboratory courses prepare an extensive Laboratory Manual which helps the students to understand and practice the applications of the theoretical concepts taught in the classrooms.

The department and institute make great efforts to teach the faculty in new pedagogic practises by allowing the faculty members to participate in numerous workshops, FDPs, STTPs and online courses relevant to pedagogy organized at many esteemed institutions. In order to improve their teaching skills, the faculty members participate in a variety of programmes. The details of the pedagogy-related workshops, FDPs, STTPs and online courses that the faculty of civil engineering attended are listed in table 5.2.

Table 5.2 Workshops/FDPs/STTPs/Online course related to Pedagogy attended by Faculty

S. No.	Name of the Faculty	Type of Program	Title of Program	Organized by	Program Period	Academic Year
1	Dr.G.Karthikeyan	Online Course	Accreditation and Outcome Based Learning	IIT Kharagpur	8 Weeks	2024-2025
			Module 5: Technology Enabled Learning & Life Long Self Learning	NITTTR, Chennai	July – August 2022	2022-2023
			Module 6: Student Assessment and Evaluation	NITTTR, Chennai	July – August 2022	2022-2023
			Module 4 - Instructional Planning and Delivery	NITTTR, Bhopal	September - October 2021	2021-2022
2	Mr.T.Chockalingam	Faculty Competence Enhancement Programme	LPB01 – Reverse Engineering	LEAP	2 days	2023-2024
		Online Course	Module 4 - Instructional Planning and Delivery	NITTTR, Bhopal	September - October 2021	2021-2022
			Module 5: Technology Enabled Learning & Life Long Self Learning	NITTTR, Chennai	February - March 2022	2021-2022
			Module 6: Student Assessment and Evaluation	NITTTR, Chennai	February - March 2022	2021-2022

3	Mr.R.Muruganantham	Online Course	Module 5: Technology Enabled Learning & Life Long Self Learning	NITTTR, Chennai	July – August 2022	2022-2023
			Module 4 - Instructional Planning and Delivery	NITTTR, Bhopal	September – October 2021	2021-2022
			Module 6: Student Assessment and Evaluation	NITTTR, Chennai	February – March 2022	2021-2022
			SWAYAM	Module 2 - Professional Ethics & Sustainability	-	February 2023
			SWAYAM	Module 8 – Institutional Management and Administrative Procedures	-	February 2023
4	Mr.A.Manicka Mamallan	Online Course	Module 4 - Instructional Planning and Delivery	NITTTR, Bhopal	September – October 2021	2021-2022
5	Mrs.A.Leema Margret	Faculty Competence Enhancement Programme	LPB01 – Reverse Engineering	LEAP	2 days	2023-2024
		Online Course	Module 1: Orientation towards Technical Education and Curriculum Aspects	NITTTR, Chennai	September - October 2023	2023-2024
			Module 6: Student Assessment and Evaluation	NITTTR, Chennai	February - March 2023	2022-2023
			Module 3 - Communication Skills Modes & Knowledge Dissemination	NITTTR, Chandigarh	July - August 2022	2021-2022
6	Mr.V.Ragavan	Online Course	Module 4 - Instructional Planning and Delivery	NITTTR, Bhopal	July - August 2022	2021-2022
			Module 6: Student Assessment and Evaluation	NITTTR, Chennai	February - March 2023	2022-2023
			Module 3 - Communication Skills Modes & Knowledge Dissemination	NITTTR, Chandigarh	July - August 2022	2021-2022
7	Mrs.D.Darling Helen Lydia	Online Course	IUCEE International Engineering Educators Certification Program	IUCEE		2021-2022
8	Mr.J.Ram Prashath	Online Course	Module 4 - Instructional Planning and Delivery	NITTTR, Bhopal	July - August 2022	2021-2022

The department and institute encourage faculty members to enhance their teaching skill and technical knowledge by attending and completing various online courses and webinars on advanced topics and pedagogic techniques through various platforms such as NPTEL, SWAYAM, Coursera & EDX etc. in order to keep pace with the advanced level of knowledge and skills. The following table provides the details of online courses completed the faculty of Civil Engineering.

Table 5.3 Online Courses completed by faculty for Technical Competency

S. No.	Name of the Faculty Member	Organizing Institute	Platform	Title of Online Course	Duration of Course	Period of Course	Academic Year
1	Dr.S.Dharmar	University of Copenhagen	Coursera	Sustainable Tourism – promoting environmental public health (https://www.coursera.org/learn/sustainable-tourism/home/welcome)	-	30.12.2022	2022-2023
		Indian Green Building Council	IGBC	Green Buildings and Built Environment	2 Weeks	13 th – 24 th March 2023	2022-2023
2	Dr.M.Indhumathi	IIT Madras	SWAYAM	Admixtures and special concretes	12 Weeks	Jul-Oct 2023	2023-2024
		IOV Registered Valuers Foundation	-	Land & Building	10 Days	21.10.2022 to 30.10.2022	2022-2023
3	Dr.G.Karthikeyan	IIT Kharagpur	SWAYAM	Accreditation and Outcome Based Learning	8 Weeks	Aug-Oct 2024	2024-2025
		IIT Madras	SWAYAM	Admixtures and special concretes	12 Weeks	Jul-Oct 2023	2023-2024
		Duke University	Coursera	Data Science Math Skills	-	Feb 9, 2024	2023-2024
		IIT Madras	SWAYAM	Maintenance and Repair of Concrete Structures	12 Weeks	Jan-Apr 2024	2023-2024
		Hong Kong University of Science and Technology	Coursera	Matrix Algebra for Engineers / Completed	-	May 27, 2023	2022-2023
		IIT Madras	SWAYAM	Concrete Technology	12 Weeks	Jan- April 2023	2022-2023
4	Mrs.C.Subha	IIT Bombay	SWAYAM	Remote Sensing: Principles and Applications	12 Weeks	Jul-Oct 2024	2024-2025
		IIT Guwahati	SWAYAM	Municipal Solid Waste Management	12 Weeks	Jul-Oct 2023	2023-2024
		EIT Digital	Coursera	Mastering Digital Twins	•	Sep 8, 2023	2023-2024
		Duke University	Coursera	Data Science Math Skills	-	Mar 13, 2024	2023-2024
		IIT- Roorkee	SWAYAM	Geographic Information Systems	12 Weeks	Jan-Apr 2024	2023-2024
		University of Copenhagen	Coursera	Sustainable Tourism – promoting environmental public health (https://www.coursera.org/learn/sustainable-tourism/home/welcome)	-	Dec 2022	2022-2023
		Hong Kong University of Science and Technology	Coursera	Matrix Algebra for Engineers	-	Apr 2023	2022-2023

S. No.	Name of the Faculty Member	Organizing Institute	Platform	Title of Online Course	Duration of Course	Period of Course	Academic Year
5	Mr.T.Chockalingam	IIT Guwahati	SWAYAM	Fundamentals of Additive Manufacturing Technologies	12 Weeks	July – October 2024	2024-2025
		IIT Kanpur	SWAYAM	Metal Additive Manufacturing	12 Weeks	July – October 2024	2024-2025
		NITTTR Bhopal	SWAYAM	Module 2 - Professional Ethics & Sustainability	-	February – March 2023	2023-2024
		IIT Madras	SWAYAM	Concrete Technology	12 Weeks	Jan- April 2023	2023-2024
6	Mrs.R.Kalaimani	IIT Madras	SWAYAM	Building Materials as a Cornerstone to Sustainability	12 Weeks	July – October 2024	2024-2025
		Ecole Polytechnique	Coursera	Fundamentals of Fluid-Solid Interactions	-	August 2024	2024-2025
		NITTTR	SWAYAM	Module 2 Professional Ethics & Sustainability	-	September 2023	2023-2024
		NITTTR	SWAYAM	Module 8 Institutional Management & Administrative Procedures	-	September 2023	2023-2024
		Duke University	Coursera	Data Science Math Skills	-	Mar 7, 2024	2023-2024
		IIT Madras	SWAYAM	Concrete Technology	12 Weeks	Jan-Apr 2024	2023-2024
		University of Copenhagen	Coursera	Sustainable Tourism – promoting environmental public health (https://www.coursera.org/learn/sustainable-tourism/home/welcome)	-	Jan 2023	2023-2024
		Hong Kong University of Science and Technology	Coursera	Matrix Algebra for Engineers / Completed	-	Apr2023	2023-2024
7	Mr.R.Muruganatham	Duke University	Coursera	Data Science Math Skills	-	Feb 2024	2023-2024
		NITTTR	SWAYAM	Module 2 - Professional Ethics & Sustainability	-	February 2023	2022-2023
		NITTTR	SWAYAM	Module 8 – Institutional Management and Administrative Procedures	-	February 2023	2022-2023
		Hong Kong University of Science and Technology	Coursera	Matrix Algebra for Engineers	-	August 28,2023	2023-2024

S. No.	Name of the Faculty Member	Organizing Institute	Platform	Title of Online Course	Duration of Course	Period of Course	Academic Year
8	Mr.A.Manicka Mamallan	IIT- Roorkee	SWAYAM	GPS Surveying	4 Weeks	July – August 2022	2022-2023
		National Institute of Disaster Management		"Understanding Recurring Heatwaves Risk Impact and the Way Forward for Resilience"	3 Days	26 Jul 2022 to 28 Jul 2022	2022-2023
9	Mrs.A.Leema Margret	IIT Madras	SWAYAM	Building Materials as a Cornerstone to Sustainability	12 Weeks	July – October 2024	2024-2025
		Duke University	Coursera	Data Science Math Skills	-	Mar 2024	2023-2024
		National Institute of Disaster Management	-	"Understanding Recurring Heatwaves Risk Impact and the Way Forward for Resilience"	3 Days	26 Jul 2022 to 28 Jul 2022	2022-2023
		Hong Kong University of Science and Technology	Coursera	Matrix Algebra for Engineers	-	May 27, 2023	2022-2023
		Indian Green Building Council	IGBC	Green Buildings and Built Environment	12 Days	13 March – 24 March 2024	2023-2024
10	Mr.V.Ragavan	IIT Madras	SWAYAM	Building Materials as a Cornerstone to Sustainability	12 Weeks	July – October 2024	2024-2025
		IIT Madras	SWAYAM	Admixtures and special concretes	12 Weeks	Jul-Oct 2023	2023-2024
		Duke University	Coursera	Data Science Math Skills	-	Mar 2024	2023-2024
		IIT Madras	SWAYAM	Concrete Technology	12 Weeks	Jan-Apr 2024	2023-2024
11	Mrs.B.Bharani Baanu	IIT Guwahati	SWAYAM	Natural Resource Management	12 Weeks	July – August 2024	2024-2025
12	Mr.V.Jeevanantham	IIT Bombay	SWAYAM	Geotechnical Engineering Laboratory	4 Weeks	July – August 2024	2024-2025
		IIT Kharagpur	SWAYAM	Ground Improvement	12 Weeks	July – October 2024	2024-2025

S. No.	Name of the Faculty Member	Organizing Institute	Platform	Title of Online Course	Duration of Course	Period of Course	Academic Year
13	Mrs.D.Darling Helen Lydia	University of Copenhagen	Coursera	Sustainable Tourism – promoting environmental public health (https://www.coursera.org/learn/sustainable-tourism/home/welcome)	-	Jul 2023	2023-2024
		IIT - Kanpur	SWAYAM	Geology and Soil Mechanics	12 Weeks	Jan- April 2023	2023-2024
		Hong Kong University of Science and Technology	Coursera	Matrix Algebra for Engineers	-	May 22, 2023	2023-2024

Study materials uploaded in the public platforms by the faculty

Study materials in the form of PPT/PDF are uploaded in the platform by the faculty such as SlideShare, Google sites. Moreover, lecture videos are uploaded in YouTube for benefit of students and the general public for peer review and critique. Samples with access links of the SlideShare, Google sites and YouTube are shown below.

Fig. 5.4 Sample Analytics of Lecture Materials available in SlideShare

<https://www.slideshare.net/chocka1> (<https://www.slideshare.net/chocka1>)

CE3503 Foundation Engineering (Google sites)

<https://sites.google.com/ritrjpm.ac.in/foundationengineering/home> (<https://sites.google.com/ritrjpm.ac.in/foundationengineering/home>)

Fig. 5.5 Sample Analytics of Google Site – Foundation Engineering

Lecture Videos uploaded (YouTube)

<https://www.youtube.com/@karthikeyang4623/videos> (<https://www.youtube.com/@karthikeyang4623/videos>)

Fig. 5.6 Sample Analytics of Videos available in YouTube

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

The department and institute encourage faculty members to deliver guest lectures in National and International level programs conducted in RIT and other academic institutions. Delivering guest lectures helps faculty members to enrich their knowledge in their area of research and teaching by sharing and communicating with a larger audience. Feedbacks provided by the attendees helps to improve their teaching-learning process. The following **Table 5.4** provides the details of guest lectures delivered by the faculty of Civil Engineering.

Table 5.4 Guest Lectures delivered by Faculty Members

Name of Faculty	Type of Program	Title / Topic of lecture	Organized by	Date of lecture delivered
Mrs.Leema Margret	Webinar	Forces on Impounding Structure	Er.Perumal Manimekalai College of Engineering, Hosur	19.05.2021

Dr.M.S.Dharmar	Guest Lecture	Opportunities in Civil Engineering	Shanmuganathan Engineering College, Pudukkottai	03.09.2022
Mr.T.Chockalingam	Guest Lecture	Entrepreneurship and Innovation as Career Opportunity	RIT – IIC & RIT SIP Cell	09.11.2022
Mr.T.Chockalingam	Seminar	How to write a Proposal	PSR Engineering College, Sivakasi	06.07.2023
Mr.T.Chockalingam	Guest Lecture	Ideation: Cultivation Creativity for innovation	Ayya Nadar Janaki Ammal College, Sivakasi	25.03.2024
Dr.G.Karthikeyan	Guest Lecture	Career Opportunities in Civil Engineering	PACR Polytechnic College, Rajapalayam	14.08.2024

5.6 Faculty as participants in Faculty development/training activities/STTPs (15)

Total Marks 15.00

Institute Marks : 15.00

Name of the faculty	Max 5 Per Faculty		
	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
Dr.S.Dharmar	5.00	5.00	3.00
Dr.M.Indhumathi	5.00	5.00	5.00
Dr.G.Karthikeyan	5.00	5.00	5.00
Mrs.C.Subha	5.00	5.00	5.00
Mr.T.Chockalingam	5.00	5.00	5.00
Mrs.R.Kalaimani	5.00	5.00	5.00
Mr.R.Muruganantham	5.00	5.00	5.00
Mr.A.Manicka Mamallan	5.00	5.00	5.00
Mrs.A.Leema Margret	5.00	5.00	5.00
Mr.V.Ragavan	5.00	5.00	5.00
Mrs.D.Darling Helen Lydia	0.00	5.00	5.00
Mr.J.Ram Prashath	0.00	0.00	3.00
Sum	50.00	55.00	56.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratios per 5.1	9.50	9.90	9.90
Assessment [$3 \times (\text{Sum} / 0.5\text{RF})$]	31.58	33.33	33.94

Average assessment over 3 years: 32.95

5.7 Research and Development (30)

Total Marks 26.00

5.7.1 Academic Research (10)

5.7.1. Academic Research (10)

The following table lists the core research areas of faculty in Civil engineering department.

Table 5.5 Core research areas

S.No.	Research Group	Faculty Members
1	Structural Engineering	Dr.M.S.Dharmar Dr.M.Indhumathi Mr.T.Chockalingam Mrs.R.Kalaimani Mr.R.Muruganatham Mr.A.Manickamamallan Mrs.A.Leema Margret Mr.V.Ragavan
2	Environmental Engineering	Mrs.C.Subha
3	Infrastructure Engineering	Dr.G.Karthikeyan
4	Hydrology and Water Resources Engineering	Mrs.B.Bharani Baanu
5	Geotechnical Engineering	Mr.V.Jeevanantham

(A) Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (6)**1. Journal Publications:**

The following table 5.6 list the paper publication in National/International journals by our faculty members

Table 5.6 List of Journal Publications

1	Karthikeyan Ganesan, Vijai Kanagarajan, Jerlin Regin Joseph Dominic	Investigation on Corrosion and flexural behaviour of Reinforced Concrete using Marine Sand	Jurnal Teknologi (Sciences & Engineering)	87	2025	SCI	0.6	-	2180-3722
2	Subha C Priya A.K.	Mustard (Brassica Nigra) Cake Powder Biochar/Nafion Composite as ORR Catalyst in Single Chambered Air Cathode MFC	Iranian Journal of Chemistry and Chemical Engineering	43/2	2024	SCI	1.0	-	1021-9986
3	Chithambar Ganesh A Raju H.P Leema Margret A Jinendra U	Rice Husk Ash based Sodium Silicate as the Alkali Activator in slag based Geopolymer Concrete	E3S Web of Conferences	559	2024	Scopus	-	-	2267-1242
4	Prakash R. Srividhya S Vijayalakshmi R. Muruganantham R	Characterization and performance evaluation of coconut shell concrete with alccofine supplements	Materials Protection/ Zastita Materijala	65/3	2024	Scopus	-	-	0351-9465
5	Karthikeyan G Dharmar S Ragavan V	Study on Performance of Paver Block Using Prosopis Juliflora Ash	Global NEST	25/9	2023	SCI	1.4	1	1790-7632
6	Karthikeyan G Dharmar S Ragavan V	Study on Performance of Paver Block Using Prosopis Juliflora Ash	Global NEST	25/9	2023	SCI	1.4	1	1790-7632
7	Karthikeyan G Leema Margret A Muruganantham R	Influence of Utilizing Prosopis Juliflora Ash as Cement on Mechanical Properties of Cement Mortar And Concrete	Global NEST	26/1	2023	SCI	1.4	2	1790-7632

8	Marimuthu Venkatesh Perumal Andavar Manicka Mamallan Veeriah Ragavan	Determination and eco-friendly suppression of fluoride contamination in ground water samples using activated carbon constituents of carica papaya – A natural adsorbent	Materials Today: Proceedings	In Press	2023	Scopus	-	-	2214-7853
9	Vigneshkumar Chellappa Angelin Lincy Gunasekaran Kalaimani Ramakrishnan	Factors influencing construction waste generation: perspectives from India	Proceedings of the Institution of Civil Engineers - Waste and Resource Management	177/3	2023	Scopus	0.7	2	1747-6526
10	Parthiban Loganathan Hemadri Prasad Raju A. Leema Margret V. Ragavan A. Chithambar Ganesh	Extraction of Heavy Metals from Soil Affected by Landfill Leachate through Constructed Wetlands: A Phytoremediation Approach to Rejuvenating the Contaminated Environment	E3S Web of Conferences	405	2023	Scopus	-	-	2267-1242
11	P. Kunal Kaushik D. Justus Reymond C. Subha V. Lawrance	Review on Biocrude generated from plastic waste using Pyrolysis process	AIP Conference Proceedings	2852/1	2023	Scopus	-	-	1551-7616
12	Leema Margret A, Karthikeyan G	Numerical study on flexural behavior of reinforced concrete beam using MATLAB	AIP Conference Proceedings	2831/1	2023	Scopus	-	2	1551-7616

13	Subha Chandrasekarabarathi, Kalaimani Ramakrishnan, Justus Reymond David, Dharmar Sakkarai	Surface water analysis and purification system for Korampallam lake in Tuticorin	AIP Conference Proceedings	2831/1	2023	Scopus	-	-	1551-7616
14	Sathish Kumar V, Dhivakar M, Nagamani S, Dhanalakshmi A, Leema Margret A	Removal of pharmaceuticals from wastewater: a review of different adsorptive approaches	Global NEST	26/4	2024	SCI	1.4	1	1790-7632
15	B.G. Vishnuram, P. Muthupriya, A Dhanalakshmi, A. Leema Margret	Fly-ash and GGBS based geo-polymer concrete with granite powder as partial replacement of M-Sand for sustainability	Materials Today: Proceedings	In Press	2023	Scopus	-	5	2214-7853
16	Karthikeyan G Dharmar S Ragavan V	Study on Performance of Paver Block Using Prosopis Juliflora Ash	Global NEST	25/9	2023	SCI	1.4	1	1790-7632
17	T.Chockalingam C.Vijayaprabha J.Leon Raj	Experimental study on size of aggregates, size and shape of specimens on strength characteristics of pervious concrete	Construction and Building Materials	385	2023	SCI	7.693	20	0950-0618
18	L Dhal, R Gopalakrishnan, S Dharmar, M Praveenaa	Hybrid Fibre Reinforced Concrete with Replacement of Fine Aggregate	Journal of the Balkan Tribological Association	28	2022	Scopus	-	3	1310-4772

19	A.K. Priya C. Subha P. Senthil Kumar R. Suresh Saravanan Rajendran Yasser Vasseghian Matias Soto-Moscoso	Advancements on sustainable microbial fuel cells and their future prospects: A review	Environmental Research	210	2022	SCI	8.431	44	0013-9351
20	M.Indhumathi A.Leema Margret V.Ragavan J.Ram Prashath	Investigation on corrosion behaviour of geopolymer concrete using DMS and M-Sand as a fine aggregate under ambient curing conditions	Materials Today: Proceedings	In Press	2023	Scopus	-	1	2214-7853
21	Dhanalakshmi Ayyanar B.G. Vishnuram P. Muthupriya M. Indhumathi Anbarasan	An experimental investigation on strength properties and flexural behaviour of ternary blended concrete	Materials Today: Proceedings		2023	Scopus		-	2214-7853
22	S.Dharmar S.Nagan	Assessment of the characteristics of ferro-geopolymer composite box beams under flexure	Advances in Concrete Construction	15/4	2023	SCI	2.580	-	2287-5301
23	C.Subha Priya ArunKumar Rajesh Banu Jeyakumar	Effect of organic loading on bioelectricity generation potential of dual-chambered microbial fuel cell treating chocolaterie wastewater	Environmental Progress & Sustainable Energy	42/4	2023	SCI	2.824	1	1944-7450

24	M.Indhumathi V.Ragavan Darling Helen Lydia D	A Study on Non Destructive Tests And Flexural Behaviour Of Geopolymer Concrete Using Different Fine Aggregates	E3S Web of Conferences	387	2023	Scopus	-		2267-1242
25	Karthikeyan G Leema Margret A	Experimental study on mechanical properties of Textile Reinforced Concrete (TRC)	E3S Web of Conferences	387	2023	Scopus	-	3	2267-1242
26	R. Kalaimani C. Subha D. Justus Reymond C. Vignesh kumar	Investigation on Strength Characteristics of Self Compacting Concrete incorporated with AR Glass Fibers	E3S Web of Conferences	387	2023	Scopus	-	2	2267-1242
27	Kalaimani Ramakrishnan Vigneshkumar Chellappa Subha Chandrasekarabarathi	Manufacturing of Low-Cost Bricks Using Waste Materials	Materials Proceedings	13/1	2023	Scopus	-	10	2673-4605
28	A. Dhanalakshmi J. Jeyaseela S. Karthika A. Leema Margret	An Experimental Study on Concrete with Partial Replacement of Cement by Rice Husk Ash and Bagasse Ash	E3S Web of Conferences	387	2023	Scopus	-	9	2267-1242
29	R Gopalakrishnan, S Dharmar, D Purushothaman	Production of Construction Material Using Construction and Demolition Waste by Geo-Polymerisation of Industrial Waste	Journal of the Balkan Tribological Association	27/6	2021	Scopus	-		1310-4772

30	S.Dharmar S.Nagan	Strength Behavior of Flat and Folded Fly Ash-Based Geopolymer Ferrocement Panels under Flexure and Impact	Advances in Civil Engineering	2021	2021	SCI	1.843	-	1687-8094
31	Karthikeyan Ganesan Vijai Kanagarajan Jerlin Regin Joseph Dominic	Influence of marine sand as fine aggregate on mechanical and durability properties of cement mortar and concrete	Materials Research Express	9/3	2022	SCI	2.025	17	2053-1591
32	G. Murali Sallal R. Abid K. Karthikeyan M.K.Haridharan Mugahed Amran A. Siva	Low-velocity impact response of novel prepacked expanded clay aggregate fibrous concrete produced with carbon nano tube, glass fiber mesh and steel fiber	Construction and Building Materials	284	2021	SCI	4.419	67	0950-0618
33	S.Dharmar R. Gopalakrishnan A. Mohan	Environmental Effect of Denitrification of Structural Glass by coating TiO_2	Materials Today: Proceedings	45/7	2021	Scopus	-	47	2214-7853
34	M.K.Haridharan	Low-velocity impact response of novel prepacked expanded clay aggregate fibrous concrete produced with carbon nano tube, glass fiber mesh and steel fiber	Construction and Building Materials	284	2021	SCI	4.419	49	0950-0618
35	S.Dharmar	Environmental Effect of Denitrification of Structural Glass by coating TiO_2	Materials Today: Proceedings	45/7	2021	Scopus	-	43	2214-7853
36	T. Chockalingam	Strength and abrasion characteristics of pervious concrete	Road Materials and Pavement Design	21/8	2019	SCI	2.582	24	1468-0629

37	G.Karthikeyan	Structural Rehabilitation and Strengthening of Column using Micro Concrete and Additional Reinforcement	International Journal of Engineering Research & Technology	7/6	2019	Non-Scopus	-	01	2278-0181
38	G.Karthikeyan	Experimental Study on Concrete by Replacement of Fine Aggregate with Copper Slag, GGBS and M- Sand	International Journal of Innovative Science and Research Technology	3/3	2018	-	-	02	2456-2165
39	G.Karthikeyan	Doubling of Tracks in Plate Girder Bridges without Demolition	Journal of Civil and Construction Engineering	4/1	2018	-	-	-	2457-001X
40	Manicka Mamallan A	Experimental Study on Reinforced Concrete Beam Strengthened & Retrofitted with GFRP Sandwich Panels	International Journal of Applied Engineering Research	13/9	2018	-	-	-	0973-4562
41	Muruganantham R	Experimental Study on Concrete Thermal Conductivity by incorporating copper and steel Slag	Journal of Ceramics and Concrete Sciences	3/1	2018	-	-	-	2582-1938
42	Ram Prashath J								
43	Kalaimani R								
44	A.Hari Rama Lakshmi	Effect of Jute on Properties of Lime and Baggase Ash Stabilized Black Soil	International Research Journal of Engineering and Technology	5/4	2018	-	-	-	2395-0072
45	C.Subha	Prediction of Landslides in Nilgris	Journal of Geotechnical Studies	3/1	2018	-	-	-	2581-9763

S. No.	Faculty Name	Title of the Paper	Name of Journal	Volume/ Issue	Year of Publication	SCI/ Scopus/ UGC	Impact Factor	Citation	ISSN/ E-ISSN No.
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Citations:**Table 5.7 Citation Details**

S. No.	Name of the Faculty Member	Google Scholar			Scopus Index	
		H Index	i-10 Index	Total Citations	H Index	Total Citations
1	Dr.S.Dharmar	7	4	168	3	39
2	Dr.M.Indhumathi	2	1	32	2	25
3	Dr.G.Karthikeyan	3	1	32	2	18
4	Mrs.C.Subha	4	3	146	3	118
5	Mr.T.Chockalingam	2	2	55	2	47
6	Mrs.R.Kalaimani	2	1	14	1	2
7	Mr.R.Muruganatham	2	0	4	1	1
8	Mrs.A.Leema Margret	3	0	23	2	9
9	Mr.V.Ragavan	1	0	5	1	2
10	Mrs.B.Bharani Banu	4	1	39	1	7
11	Mr.V.Jeevanantham	3	0	24	3	13

2. Patent granted & IPR Registered**Table 5.8 Patent Details**

S. No.	Title of the Invention	Application Number	Date of Filing	Date of Publication	Current Status
1	Banana Peel Activated Carbon Adsorbent Removing Zinc in Textile Effluent	202041054919	17.12.2020	25.12.2020	Granted on 22.08.2022

Figure 5.7 Patent Certificate

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Table 5.9 Copyright status of the Laboratory Manuals

S.No.	Title of Laboratory Manual	Authors	Diary Number	Status
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1	CE3311 - Water and Wastewater Analysis Laboratory	Mrs.A.Leema Margret , AP/ Civil Mr.V.Ragavan, AP/Civil Dr.S.Dharmar, ASP(HoD)/Civil Dr.M.Indhumathi, ASP/Civil	34421/2023-CO/L	Registered
2	CE3411 - Hydraulic Engineering Laboratory	Mrs.B.Bharani Baanu, AP/Civil Dr.S.Dharmar, ASP(HoD)/Civil Mrs.C.Subha, AP(SG) / Civil Mrs.R.Kalaimani, AP/Civil	24101/2024-CO/L	Applied
3	CE3412 - Materials Testing Laboratory	Mr.V.Ragavan, AP/Civil Dr.S.Dharmar, ASP(HoD)/Civil Mrs.A.Leema Margret , AP/ Civil	34427/2024-CO/L	Applied
4	CE3413 - Soil Mechanics Laboratory	Mr.V.Jeevanantham, AP/Civil Dr.S.Dharmar, ASP(HoD)/Civil Dr.M.Indhumathi, ASP/Civil	24502/2024-CO/L	Applied
5	CE3511- Highway Engineering Laboratory	Mr.T. Chockalingam, AP(SG)/Civil Dr.S.Dharmar, ASP(HoD)/Civil Mr.V.Ragavan, AP/Civil	35205/2024-CO/L	Applied

Fig. 5.8 Registered Copyright for Water and Wastewater Analysis Laboratory

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

3.Books/Book Chapters

Table 5.10 Details of Books/Book Chapters

S. No.	Faculty Name	Title of Book	Name of Publisher	DOI/ISBN	Year of Publication	Language	Book/Book Chapter
1	Dr.M.Indhumathi	Estimation, Costing and Valuation Engineering	Magnus Publications	978-81-972240-5-8	2024	English	Book
2	Dr.M.Indhumathi	Construction Materials and Technology	Sruthi Publishers	13:978-81-958745-0-7	2022	English	Book
3	Dr.M.Indhumathi	Geopolymer Concrete under Ambient Curing	Intech Open	10.5772/intechopen.97541	2021	English	Book Chapter

4.Conference Publications:

Table 5.11 List of Conference Publications

S. No.	Faculty Name	Title of the Paper	Name of Conference	Year of Publication	Date of Conference	ISBN
1	Dr.M.Indhumathi Mr.V.Ragavan	Experimental Investigation on Fibre Reinforced Geopolymer Concrete	2023 Third Global Conference on Recent Advances in Sustainable Materials (GC-RASM 2023)	2023	27 th and 28 th July 2023	-
2	Mrs.R.Kalaimani	Experimental Study on Performance of Cement-Based Batteries	2 nd International Conference on WATER, ENERGY & ENVIRONMENT [WEECON 2023]	2023	29 th and 30 th December 2023	-
3	Dr.M.Indhumathi	Experimental Investigation on Concrete Using Industrial By-Products	Second International Conference on Recent Trends in Engineering and Technology (ICRTET 2024)	2024	14 th and 15 th March 2024	-
4	Mr.T.Chockalingam	Experimental Investigation on Strength and Hydrological Behaviour of Geo-Gird Reinforced Pervious Concrete	International Conference on Recent Trends in Engineering & Science (ICRTES-2024)	2024	2 nd and 3 rd May 2024	-
5	Dr.S.Dharmar Dr.G.Karthikeyan Mr.V.Ragavan	Experimental Study on Paver Block Using Prosopis Julifora Ash	International Conference on Sustainable Technology in Civil Engineering and Applied Sciences-2023	2023	24 th and 25 th March 2023	978-93-5759-825-4
6	Mr.A.Manicka Mamallan	Analysis Of Natural Coolant on The Rooftop To Lower Room Temperature	International Conference on Sustainable Technology in Civil Engineering and Applied Sciences-2023	2023	24 th and 25 th March 2023	978-93-5759-825-4
7	Mr.V. Ragavan Mr.A. Manicka Mamallan	Study and Evaluation of Firecracker-related Soil Contamination in Selected areas around Sivakasi	International Conference on Sustainable Technology in Civil Engineering and Applied Sciences-2023	2023	24 th and 25 th March 2023	978-93-5759-825-4
8	Chockalingam T	A Review on Permeability of Pervious Concrete	International Conference on Smart Technologies and Applications-2022	2022	11 th and 12 th March 2022	978-93-5593-352-4
9	A.Leema Margret V.Ragavan	Investigation of Mechanical Properties of High-Performance Concrete using Industrial Waste with Well Graded Aggregates	International Conference on Materials Science and Manufacturing Technology	2022	8 th - 9 th April 2022	-
10	D.Darling Helen Lydia	Performance Study on Damaged Cylinder with SFRP Under Various Loading Conditions using Abaqus	International Conference on Smart Technologies and Applications-2022	2022	11 th and 12 th March 2022	978-93-5593-352-4
11	C.Subha	Investigation on Industrial Effluent Treatments Using Dual Chamber Microbial fuel Cells	Proceedings of Second International Conference on Advances in Management and Technology	2021	11 th -12 th December 2021	978-93-5426-863-4
12	C.Subha R.Kalaimani	Microbial Fuel Cells for Treating Seafood Processing Wastewater	International Conference on Recent Trends in Applied Sciences and Computing Engineering	2021	17 th – 19 th December 2021	-
13	Chockalingam T	Real Time Monitoring of Cracks using Deep Learning Techniques	National Web Conference on Challenges and Innovation in Engineering and Technology	2021	19 th and 20 th March 2021	-

14	Chockalingam T	Prediction of Properties of Pervious Concrete using Multiple Linear Regression	1 st International Conference on Advances in Construction Materials and Management	2021	25 th and 26 th March 2021	-
15	Karthikeyan G	Effect of Geometry of Core on the behaviour of Hollow Core Beam	National Web Conference on Challenges and Innovation in Engineering & Technology	2021	19 th and 20 th March 2021	-
16	Karthikeyan G	Effect of Geometry on the behaviour of RCC Column	National Web Conference on Challenges and Innovation in Engineering & Technology	2021	19 th and 20 th March 2021	-
17	R.Kalaimani C.Subha	Experimental Study on the Effect of Magnetized Water on Compressive Strength of Concrete	International Web Conference on Smart Engineering Technologies	2020	26 th & 27 th June 2020	-
18	R.Kalaimani C.Subha	Experimental Study on Utilization of Treated and Magnetized Industrial Wastewater in Strength of Concrete	Second International Conference on Advanced Materials Chemistry at the interfaces of Energy, Environment and Medicine – AMCI – 2020	2020		-
19	C Subha	Textile Effluent Treatment and Electricity Generation Using Microbial Fuel Cell	International Conference on Advances in Management and Technology	2020	6 th – 7 th November 2020	-
20	C Subha	Anaerobic Microbial Fuel Cell for Treating Complex Organic Wastewater	International Conference on Advances in Management and Technology	2020		-
21	C Subha R Kalaimani	Experimental Study on Water Softening Using Biochar	National Web Conference on Challenges and Innovation in Engineering & Technology	2021	19 th and 20 th March 2021	-
22	Leema Margret A	Analytical Investigation on Flexural Behaviour of RC beam strengthened with CFRP using ABAQUS	National Web Conference on Challenges and Innovation in Engineering & Technology	2021	19 th and 20 th March 2021	-
23	Ragavan V	Numerical Simulation on Precast T-Beam Using ETABS	National Web Conference on Challenges and Innovation in Engineering & Technology	2021	19 th and 20 th March 2021	-
24	Dharmar S	Numerical Simulation on Flexural Behaviour of Reinforced Concrete Beam by Varying Cover Depth Under Monotonic Loading	National Web Conference on Challenges and Innovation in Engineering & Technology	2021	19 th and 20 th March 2021	-
25	Darling Helen Lydia D	Treatment of Industrial Wastewater using Green Synthesis of Copper Nano Particles	National Web Conference on Challenges and Innovation in Engineering & Technology	2021	19 th and 20 th March 2021	-
26	Ram Prashath J	Analysis of Impact Behaviour of Masonry Wall Using Abaqus	National Web Conference on Challenges and Innovation in Engineering & Technology	2021	19 th and 20 th March 2021	-
27	R.Muruganantham	Behaviour of Masonry Wall Under Blast Loading	National Web Conference on Challenges and Innovation in Engineering & Technology	2021	19 th and 20 th March 2021	-

(B) PhD guided /PhD awarded during the assessment period while working in the institute

1.Research Centre Details

Table 5.12 Research Centre Details

S. No.	Name of the Department	Recognized R&D Centre Number	University
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1	Civil Engineering	4467805	Anna University, Chennai
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2. Ph.D. Guidance**Table 5.13 Research Supervisor details**

S. No.	Name of the Supervisor	Supervisor Number	University
1	Dr.S.Dharmar	4210005	Anna University, Chennai
2	Dr.M.Indhumathi	4010010	Anna University, Chennai
3	Dr.G.Karthikeyan	4310015	Anna University, Chennai

3. Research Scholar Details:**Table 5.7.10 Research scholar details**

S. No.	Name of the Faculty	Name of the Scholar	Registration Number	Mode	Area of Research	Year of registration	Status
1	Dr.S.Dharmar	Mr.Venkateswaran	24121897107	Part Time	Structural Engg.	2024	Doing Coursework
2	Dr.M.Indhumathi	Ms.Rebekhal D	24241897128	Part Time	Structural Engg.	2024	Doing Coursework
3	Dr.M.Indhumathi	Mrs.Manju A	24236797104	Part Time	Arch.	2024	Doing Coursework
4	Dr.M.Indhumathi	Mr.Muthuramu B	24131891200	Part Time	Structural Engg.	2024	Doing Coursework
5	Dr.M.Indhumathi	Mr.Ramesh V	24141891199	Part Time	Structural Engg.	2024	Doing Coursework

4. Faculty members with Ph.D.**Table 5.14 Faculty members with Ph.D.**

S. No.	Name of the Faculty	University	Ph.D. Awarded (Year)
1	Dr.S.Dharmar	Anna University	2022
2	Dr.M.Indhumathi	Anna University	2021
3	G.Karthikeyan	Anna University	2023

5. Faculty members pursuing Ph.D.**Table 5.15 Faculty members pursuing Ph.D.**

S. No.	Name of the Faculty	University	Status
1	Mrs.C.Subha	Anna University	Thesis submitted
2	Mr.T.Chockalingam	Anna University	Thesis submitted
3	Mrs.R.Kalaimani	Anna University	Confirmation completed
4	Mr.R.Muruganatham	Anna University	Coursework Completed
5	Mr.A.Manicka Mamallan	Anna University	Coursework Completed
6	Mrs.A.Leema Margret	Anna University	Confirmation Completed
7	Mr.V.Ragavan	Anna University	Confirmation completed
8	Mrs.B.Bharani Baanu	Anna University	Thesis submitted

5.7.2. Sponsored Research (5)

2023-2024 (CAYm1)

Project Title	Duration	Funding Agency	Amount (Rs.)
Figure Diminishing Geopolymer Products	1 Year	Ministry of MSME	1400000.00
Sustainable Light-weight Building Block (SLBB) and its Manufacturing Method	1 Year	Ministry of MSME	900000.00
Experimental study on the future of sustainable building using textile reinforced concrete (TRC)	6 Months	Tamil Nadu Council for Science and Technology	7500.00
Total			2307500.00

2022-2023 (CAYm2)

Project Title	Duration	Funding Agency	Amount (Rs.)
Eco friendly light weight bricks	6 Months	Tamil Nadu Council for Science and Technology	7500.00

2021-2022 (CAYm3)

Project Title	Duration	Funding Agency	Amount (Rs.)
Cement Battery	6 Months	Tamil Nadu Council for Science and Technology	7500.00

Cumulative Amount (X + Y + Z) = Rs.2322500.00

5.7.3. Development activities (10)

(A) Product Development:

Table 5.16 Details of Product Developed

S. No.	Name of the Faculty and Students	Type of the Product	Applications	Academic Year
1	Mrs.C.Subha Mrs.R.Kalaimani Balaji Devar Piran M Arun Kumar S	Household Waste Composter	It will convert kitchen waste into manure	2023-2024
2	Dr.G.Karthikeyan Suresh Anand J Bhasheer Mohamad M	Textile Reinforced Concrete	It can be used for Structural Elements, Facades and Thin-shell Structures, Retrofitting and Strengthening, Precast Elements Noise Barriers, Sustainability Initiatives, Pavements and Roadways, Footbridges and Pedestrian Walkways, Molds and Formworks, Artistic and Architectural Designs	2023-2024
3	Mr.T.Chockalingam P.Aakash	Pervious Concrete	It can be used for Parking Lots, Driveways, Sidewalks and Pathways, Roadways, Stormwater Management, Green Building Projects, Paving for Parks and Recreational Areas, Pool Decks Low-Impact Development (LID) Solutions, Landscaping Features	2022-2023
4	Mr.G. Karthikeyan M.Paartha Sarathi	Paver Blocks using supplementary cementitious material (Prosopis Juliflora)	Promising sustainable solution for the construction industry in the production of paver block by replacing cement	2022-2023
5	Mrs.C.Subha Abdhur Rahman, K.Dinesh	Microbial Fuel Cell	A Single Chamber Microbial Fuel Cell is employed for treating distillery wastewater with simultaneous power generation.	2021-2022
6	Dr.S.Dharmar Mrs.R.Kalaimani G.Mohanrajan S.Srivarshan M.RA.Suresh Kumar	Cement Battery	Cement matrix batteries are cost-effective because they generate electricity by interacting with water, which contributes to the development of sustainable energy solutions.	2021-2022
7	Mrs.A.Leema Margret Balaji B Charu Mahesh M Mahesh Murugan R Parthiban M	Translucent Concrete	It observes the natural light source during the daytime and discharge the same during the night time, which leads to energy conservation.	2020-2021

(B) Research laboratories:

A workplace to conduct research to create products to solve problems related to sustainability. By means of that faculty members and students will nourish their Research and development activities specifically providing opportunities for the students to participate in Cube contest, design competition, project contest. Also, it provides opportunities to publish journals and conferences.

In Ramco Institute of Technology, Rajapalayam Department of Civil Engineering is having four research laboratories they are as follows:

1. Project & Consultancy Lab
2. RIT-Centre of Excellence for Building Information Modelling (BIM)
3. RIT ICT Academy Centre of Excellence for Design Powered by Autodesk
4. Centre for Geospatial Technology

1. Project & Consultancy Lab

Project and consultancy laboratory was established in the year 2022. This laboratory is mainly focused on enhancing the project work of the students as well as Faculty those who are doing the research works. The major equipment in the laboratory includes Rapid Chloride Penetration Test equipment, Concrete Impact testing equipment, Rebound Hammer, Total Station, Line Laser Level, Standard Penetration test equipment, Rapid Moisture Meter. In addition, various consultancy works like Field Density Test, Bearing Capacity of Soil, Topographical Survey, Compressive strength of existing structures etc., have been carried with the help of our faculty members. Project lab facilities are shown in Figure 5.9

Figure 5.9 Project Lab Facilities

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Table 5.17 List of Projects

S.No.	Name of the Project	Type & Relevance of Project
(CAYm1 2023-2024)		
1	Mechanical Behavior of Roller compacted concrete using copper slag	Structural Engineering (Product)
2	Household Waste Composter	Environmental Engineering (Product)
3	Experimental investigation of High strength concrete using mill scale tailings	Structural Engineering (Product)
4	Experimental investigation of Geological Light weight Geopolymer Concrete Blocks	Structural Engineering (Product)
5	Influence of heat on mechanical properties of pervious concrete with different aggregate sizes	Structural Engineering (Product)
6	Experimental Investigation on mechanical properties of Geomortar-Ready Mix Powder	Structural Engineering (Product)
7	Experimental study on flexural behavior of textile reinforced concrete	Structural Engineering (Product)
8	Experimental study on lantana camera reinforced concrete	Structural Engineering (Product)

9	Experimental Investigation on carbon fiber reinforced geopolymer concrete	Structural Engineering (Product)
(CAYm2 2022-2023)		
1	Flexural Performance of Geogrid reinforced pervious Concrete beam with different aggregate sizes.	Structural Engineering (Product)
2	Utilization of LECA in GGBS based light weight geopolymer concrete with addition of lime	Structural Engineering (Product)
3	Self-Compacting Concrete using mill scale waste	Structural Engineering (Product)
4	A comparative study on multiblock	Structural Engineering (Product)
5	Impact and Mechanical Properties of carbon fibre reinforced Concrete.	Structural Engineering (Product)
6	Eco-friendly light weight bricks	Structural Engineering (Product)
7	Experimental Investigation on mechanical behavior of fiber-based Roller compacted Concrete and copper slag	Structural Engineering (Product)
8	Study on LEED credits and Certification	Infrastructure Engineering (Product)
9	Experimental Study on Paver Block using Prosopis Juliflora Ash	Structural Engineering (Product)
10	Effect of Specimen size on Compressive strength of pervious concrete with different aggregate sizes	Structural Engineering (Product)
11	Influence of wood ash and fly ash based light weight geopolymer concrete using LECA	Structural Engineering (Product)
12	Impact behavior of GPC Using DMS and M-Sand as fine aggregates	Structural Engineering (Product)
13	Experimental Study on mechanical properties of Textile Reinforced Concrete	Structural Engineering (Product)
14	Treatment of textile effluent in palm fruit cell	Environmental Engineering (Product)

15	Experimental study on the strength behavior of lantana camara reinforced concrete beam	Structural Engineering (Product)
16	Experimental Investigation of Arsenic Removal from water using Iron Oxide Nanoparticles Incorporated in Activated Carbon Synthesized from Natural adsorbents (Grass Cuttings)	Environmental Engineering (Product)
17	Experimental Investigation on stabilization of Black Cotton soil using Borosilicate Glass Powder	Geotechnical Engineering (Product)
(CAYm3 2021-2022)		
1	Experimental study on Microbial fuel cell performance on pollutant removal by utilizing sesame oil cake as Bio-char catalyst	Environmental Engineering (Product)
2	Experimental investigation on packing density of different fine aggregate	Structural Engineering (Product)
3	Experimental Investigation on Mechanical behavior of fibre-based Roller Compacted Concrete	Structural Engineering (Product)
4	Experimental study on Gypsum panel and blocks incorporated with waste recycled plastic	Structural Engineering (Product)
5	Experimental study on mechanical property of mill scale based self-compacting concrete	Structural Engineering (Product)
6	Experimental Study of Performance of Cement-Based Batteries	Structural Engineering (Product)
7	Effect of PVA Fiber on Slag Concrete	Structural Engineering (Product)
8	Experimental Investigation on Stabilized Mud Block incorporated with Copper Slag	Structural Engineering (Product)
9	Experimental investigation on flexural behavior of marine sand based Reinforced Cement Concrete Beam	Structural Engineering (Product)
10	Experimental study on Compressive strength and durability properties of pervious concrete	Transportation Engineering (Product)

2.RIT-Centre of Excellence for Building Information Modelling (BIM)

The Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam has established the **RIT Centre of Excellence for Building Information Modeling (BIM - A Futuristic Lab) in collaboration with Bentley Education and TechApps Consulting, Chennai** with cutting-edge industry-relevant software catering to diverse sub-domains of Civil Engineering. A MoU was signed between **RIT and TechApps for Bentley's software training and knowledge transfer among students and faculty members**. RIT BIM Laboratory has equipped with the Bentley Softwares like STAAD.Pro Connect Edition, Open Buildings Designer, Open Roads Designer and other products available for academics from Bentley Education which facilitates the students to do simulation and projects. Through the Centre of Excellence, Guest lectures, and Value Added Courses conducted periodically for the benefit of students and faculty members.

Fig. 5.10 MoU Between RIT and TechApps Consulting & BIM Lab

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Table 5.18 Activities organized through RIT-CoE for BIM

S.No	Title of the Event	Date & Duration	Resource Person
1	Virtual Webinar on Reality Modeling	18.05.2022 & 4 hours	Mr.S. Rajesh Kumar, Director, Technical Services, TechApps Consulting, Chennai.
2	Standard Operating Procedure for Bentley Certification	19.05.2022 & 4 hours	Mr.S. Rajesh Kumar, Director, Technical Services, TechApps Consulting, Chennai.
3	Hands on Training on Building Information Modelling	23.07.2024-27.07.2024	Mr.Mohammed Muneeb, Senior BIM Consultant Mr.S. Rajesh Kumar, Director Technical Services, TechApps Consulting, Chennai.
4	Big Benefits of Building Information Modelling (BIM)	22.04.2022 & 2 hours	Chandra Shekar, Co-Founder of Turn BIM Engineering Services
5	Hands on Training on Project Planning and Management using Primavera and MS Project	25.10.2024 to 26.10.2024 2 Days	Er.K.Iyappan, Project Lead, Tech Mahindra India Pvt. Ltd., Bengaluru
6	Hands on Training on STAAD.Pro Connect Edition V22	27.06.2023 and 28.06.2023 2 Days	Mr.R.Ganesh Kumar, Sr.Structural Consultant, TechAppss, Consulting, Chennai
7	Value Added Course on Open Building Designer	25.08.20222 & 26.08.2022 2 Days	Mr.Akbar Ali Khader & Mr.S.Rajesh Kumar, TechAppss, Chennai
8	Hands on Training on "STAAD.Pro Connect Edition V22"	27.01.2023 to 28.01.2023 2 Days	Mr.R.Ganesh Kumar, Sr.Structural Consultant, TechAppss, Consulting, Chennai

2.RIT ICT Academy Centre of Excellence for Design Powered by Autodesk

The Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam, has established the **RIT Centre of Excellence for design powered by Autodesk in collaboration with ICT Academy** for cutting-edge industry-relevant software catering to diverse sub-domains of Civil Engineering. RIT Design laboratory has equipped with the Autodesk software like Autodesk Architecture, Engineering & Construction Collection, Robot Structural Analysis professionals, Advance Steel, Structural bridge Design, Navis work, Fabrication CADmep, AutoCAD Takeoff, Geospatial Infracore. The Autodesk provides students with a set of BIM and CAD tools supported by a cloud-based common data environment that facilitates project delivery from early-stage design through to construction. The Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam, has established the RIT Centre of Excellence for design powered by Autodesk in collaboration with ICT Academy during the Academic year 2023-2024 for cutting-edge industry-relevant software catering to diverse sub-domains of Civil Engineering.

Fig.5.11 ICT Academy - Centre of Excellence for Design – Certificate

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Table 5.19 Activities organized through RIT ICT Academy - COE

S.No	Title of the Event	Date & Duration	Resource Person
1	Revit Architecture – Building Information Modelling	07.10.2024 to 11.07.2024 5 Days	Ms.Priya Dharshika Technical Trainer Training and Development ICT Academy

3.Centre for Geospatial Technology

Centre for Geospatial Technology was established in the year 2024 in association with Land Coordinates Technology (LCT), Chennai to provide hands-on experience to students and faculty members on Differential Global Positioning System (DGPS) and Drone Surveying. This hands-on experience helps them to enhance their skills regarding the cutting-edge technologies happening in the Geospatial sector. Through this center, our department completed the following activities which were helpful for the students and society.

Fig. 5.12 MoU Between RIT and Land Coordinates Technology

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Our department faculty members and students engaged in preparing the topographic layout of Kondaneri lake which is situated in city of Rajapalayam in association with Land Coordinates Technology (LCT), Chennai.

Fig. 5.13 Topographical Survey – Kondaneri Lake

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Table 5.20 Activities organized

S. No	Title of the Event	Date & Duration	Remarks
1	Drone and LIDAR based Map Creation	28-07-2023, 1.30 pm – 3.00 pm	
2	Workshop on Total Station and DGPS	11-10-2023 To 12-10-2023 09.00 am – 04.00 pm	
3	One Day Hands On Training On Mapping Using DGPS	24-07-2024, 10.00 am – 04.00 pm	
4	One Day Hands on Training on Drone Surveying	24-10-2024 10.00 am – 04.00 pm	

(C) Instructional materials:

Instructional materials refer to the resources and tools that are used by the faculty to facilitate learning. This includes textbooks, laboratory equipment, software, multimedia resources, Models and Prototypes and other teaching aids.

- Faculty of civil engineering provide students with extensive hand-out for all the courses consisting of important contents of the subject, worked examples, etc., which helps the students to revise the contents during the exams and also understand the subjects in a simpler manner.
- Laboratory Manuals and necessary instructional materials for all the laboratory courses are developed by the respective faculty members for use by the students in order for the better understanding of the laboratory experiments and also to enrich their practical skills and knowledge.

Table 5.21 List of Laboratory Manuals

S.No	Title of the Laboratory Manual
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1	CE3311 - Water and Wastewater Analysis Laboratory
2	CE3411 - Hydraulic Engineering Laboratory
3	CE3412 - Materials Testing Laboratory
4	CE3413 - Soil Mechanics Laboratory
5	CE3511- Highway Engineering Laboratory
6	CE3361 - Surveying and Levelling Laboratory
7	CE3611 - Building Drawing and Detailing Laboratory
8	CE3011 - Digitalized Construction Lab

Library

The institution has a Main Library which is a very good resource center for teaching, learning & research. The main library has a widespread space with good seating capacity, state of art digital content. Reference Section, Circulation Counter, OPAC Search, Journals/Magazines and Newspaper Section are available in the main library. The main library holds a hybrid collection of printed/electronic resources which include books, journals, CDs/DVDs, e-books, previous years question papers, and student project reports. E-learning resources are available to facilitate the access of journal papers and enhance the knowledge of students and faculty. Some of the digital content include:

Science Direct	https://www.sciencedirect.com/ (https://www.sciencedirect.com/)
IEEE	https://ieeexplore.ieee.org/Xplore/home.jsp (https://ieeexplore.ieee.org/Xplore/home.jsp)
DELNET	https://discovery1.delnet.in/ (https://discovery1.delnet.in/)
IEI	https://www.ieindia.org/AdminUI/IEI-Dashboard.aspx (https://www.ieindia.org/AdminUI/IEI-Dashboard.aspx)
NPTEL	http://nptel.ac.in/ (http://nptel.ac.in/)
National Digital Library	https://ndl.iitkgp.ac.in/ (https://ndl.iitkgp.ac.in/)

The college main library is also having the following journals subscriptions to support the students and faculty members in research activities.

SI. No.	Name of the Journal	Frequency
1	ICI Journal Indian Concrete Institute	Quarterly
2	Journal of Structural Engineering	Bi-Monthly
3	Journal of the Institute of Engineers A Series (SCOPUS)	Quarterly
4	Indian Geotechnical Journal (SCOPUS)	Monthly
5	NICMAR Journal of Construction Management	Quarterly
6	Indian Concrete Journal	Monthly

Our Library is extending remote access facility to access multiple e-resources from anywhere and anytime. Access Link: <https://idp.ritrjpm.edu.in/> (<https://idp.ritrjpm.edu.in/>)

Faculty members motivate the students for using open access journals and make them aware about the latest arrivals.

Department library

The civil engineering department has its own library, in addition to the main college library, specifically designed to meet the needs of students and faculty. The following materials are available in the civil engineering department library. It also offers books, e-books, journals, e-journals, project reports and video contents.

Particulars	Count (nos.)
Text books	699
Code books	1082 (Title 75)
E-Books	10
E-Journals	192
Project Reports	273
Industrial Training Report	110
Survey Camp Report	53

D) Working Models

Faculty use models as teaching aids to facilitate better understanding and also encourage the students to create working or display models. Working Models are developed by the faculty and demonstrated to the students for their easy understanding. The Civil Engineering Department has developed the following working models for teaching the subjects Design of Reinforced Concrete Elements & Masonry Structures, Design of Steel Structural Elements & Irrigation and Environmental Engineering Drawing.

Table 5.22 Working Models

Name of the Model	Model Images	Remarks/Specifications
RCC Cantilever Retaining Wall	https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)	Length = 2'6" Breadth = 2' Height=3'
RCC Counter Fort Retaining Wall		Length = 2'6" Breadth = 2' Height=3'
RCC Tee Beam Bridge		Length = 3'2" Breadth = 1'3" Height=1'3"
Plate Girder Bridge		Length = 3'2" Breadth = 1'3" Height=1'3" Track width = 2"
Circular RCC Water Tank		Length = 2'6" Breadth = 1'9" Height=1'2" Two one compartment = 1'x1'3"
Rectangular RCC Water Tank		Length = 3'2" Breadth = 1'3" Height=1'3"
Truss Girder Bridge		Length = 2'11" Breadth = 2'3" Height=1' Truss Height = 9"

Name of the Model	Model Images	Remarks/Specifications
Solid Slab Bridge		Length = 3' Breadth = 1'3" Height=1'6" Road width c-c = 9" Outer = 1'3" Under Road = 8"x1'3"
Hemispherical Bottomed Steel Tank		Diameter = 1'2" Height = 2'
Aqueduct		System that carry water from a source to a distribution point
Canal Regulator		Structure that controls the flow of water and sediment into the canal
Tank Weir		Specialized equipment designed for effective liquid management
Flocculator		A device that mixes and retains water to coagulate and flocculate solids in wastewater or surface water
Trickling Filter		A wastewater treatment system that uses a fixed bed of media to degrade organic compounds in liquid waste
Tank Sluice with Tower Head		A large valve in which a rectangular or circular gate slides across the opening
Sluice Gate		A movable barrier that controls the flow of water through a channel, river, canal, or dam
Septic Tank		An underground chamber made of concrete, fiberglass, or plastic through which domestic wastewater (sewage) flows for basic sewage treatment

Charts

Teaching the contents through charts in the classroom/laboratories made the interaction between students and teachers more effective. The charts available in the department are shown in the table below 5.23

Table 5.23 Charts

Concept	Images	Remarks
Types of Footing	https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)	A chart showing the various types of footing used in construction
Staircase Reinforcement		A pictorial representation of staircase detailing along with its dimensions
Beam Reinforcement		The chart displaying reinforcement details of beam under various loading condition
Column Reinforcement		The chart showing various types of columns reinforcement details
Construction Joints		Different types of joints in concrete construction
Types of Roof Trusses		Different types of roof trusses in building structures
Reinforcement in Footing		Reinforcement detailing of various types of footing
Types of Foundation		Various types of foundation used in construction
Direct Shear Test		Procedure for determining the shear strength of soil materials by Direct shear test
Standard Proctor Compaction Test		Procedure for determining optimum moisture content soils by Standard Proctor Compaction Test
Reference Code Books for Experiments		List of Indian Standard Codal Provisions for the tests related to Soil Mechanics laboratory are shown
Brick Bonding		A pictorial representation of the various types of brick bonding has been helpful in studying the subject construction materials
Types of Flooring		A pictorial representation of the various types of Flooring with its pros and cons has been helpful in studying the subject CE construction materials
CBR		Procedure of CBR Value test are shown for evaluating the strength of subgrade soil and base course
Tests on Bitumen		The various test on bitumen are displayed to determine the bitumen properties
Flakiness and Elongation Index		Flakiness and Elongation Index test procedure is shown to determine Particle shape of the aggregate specimen
Door and its types		A pictorial representation of the various types of Doors and its specification

Concept	Images	Remarks
Types of Windows		A pictorial representation of the various types of Windows and its specification
Theodolite and Levelling Instruments		A pictorial representation details about the instruments such as Theodolite, Automatic Level and Laser Level
Total Station Instrument		Principle of Total Station and its parts are shown
Standard Proctor Compaction Test		Theory and Principle behind the Standard Proctor Compaction Test is shown
Direct Shear Test		Theory and Principle behind the Direct Shear Test is shown
Reference Code Books for Experiments		List of Indian Standard Codal Provisions for the tests related to Water and Wastewater Analysis laboratory are shown
Reference Code Books for Experiments		List of Indian Standard Codal Provisions for the tests related to ensure the quality of construction materials

Monograms

Monograms are study materials that consist of a collection of formulas used to solve problems. They are useful for students to recall important information while appearing for End Semester University Examinations and competitive examinations. In this way, some monograms are prepared by the faculty members in the Department of Civil Engineering and it is verified by the Head of the Department. The details of the same are shown in the table 5.24

Table 5.24 Monograms

S. No.	Title	Prepared by
1	CE3301 Fluid Mechanics	Mrs.B.Bharani Baanu
2	CE3503 Foundation Engineering	Mr.V.Jeevanantham

5.7.2 Sponsored Research (5)

Institute Marks : 5.00

2023-24 (CAYm1)

Project Title	Duration	Funding Agency	Amount
Figure Diminishing Geopolymer Products	1 Year	Ministry of MSME	1400000.00
Sustainable Light-weight Building Block (SLBB) and its Manufacturing Method	1 Year	Ministry of MSME	900000.00
Experimental study on the future of sustainable building using textile reinforced concrete (TRC)	6 Months	Tamil Nadu Council for Science and Technology	7500.00
			Total Amount(X): 2307500.00

2022-23 (CAYm2)

Project Title	Duration	Funding Agency	Amount
Eco friendly light weight bricks	6 Months	Tamil Nadu Council for Science and Technology	7500.00
			Total Amount(Y): 7500.00

2021-22 (CAYm3)

Project Title	Duration	Funding Agency	Amount
Cement Battery	6 Months	Tamil Nadu Council for Science and Technology	7500.00
			Total Amount(Z): 7500.00

Cumulative Amount(X + Y + Z) = 2322500.00

5.7.3 Development Activities (10)

Institute Marks : 10.00

(A) Product Development:

Table 5.16 Details of Product Developed

S. No.	Name of the Faculty and Students	Type of the Product	Applications	Academic Year
1	Mrs.C.Subha Mrs.R.Kalaimani Balaji Devar Piran M Arun Kumar S	Household Waste Composter	It will convert kitchen waste into manure	2023-2024
2	Dr.G.Karthikeyan Suresh Anand J Bhasheer Mohamad M	Textile Reinforced Concrete	It can be used for Structural Elements, Facades and Thin-shell Structures, Retrofitting and Strengthening, Precast Elements Noise Barriers, Sustainability Initiatives, Pavements and Roadways, Footbridges and Pedestrian Walkways, Molds and Formworks, Artistic and Architectural Designs	2023-2024
3	Mr.T.Chockalingam P.Aakash	Pervious Concrete	It can be used for Parking Lots, Driveways, Sidewalks and Pathways, Roadways, Stormwater Management, Green Building Projects, Paving for Parks and Recreational Areas, Pool Decks Low-Impact Development (LID) Solutions, Landscaping Features	2022-2023
4	Mr.G. Karthikeyan M.Paartha Sarathi	Paver Blocks using supplementary cementitious material (Prosopis Juliflora)	Promising sustainable solution for the construction industry in the production of paver block by replacing cement	2022-2023
5	Mrs.C.Subha Abdhur Rahman, K.Dinesh	Microbial Fuel Cell	A Single Chamber Microbial Fuel Cell is employed for treating distillery wastewater with simultaneous power generation.	2021-2022
6	Dr.S.Dharmar Mrs.R.Kalaimani G.Mohanrajan S.Srivarshan M.RA.Suresh Kumar	Cement Battery	Cement matrix batteries are cost-effective because they generate electricity by interacting with water, which contributes to the development of sustainable energy solutions.	2021-2022

S. No.	Name of the Faculty and Students	Type of the Product	Applications	Academic Year
7	Mrs.A.Leema Margret Balaji B Charu Mahesh M Mahesh Murugan R Parthiban M	Translucent Concrete	It observes the natural light source during the daytime and discharge the same during the night time, which leads to energy conservation.	2020-2021

(B) Research laboratories:

A workplace to conduct research to create products to solve problems related to sustainability. By means of that faculty members and students will nourish their Research and development activities specifically providing opportunities for the students to participate in Cube contest, design competition, project contest. Also, it provides opportunities to publish journals and conferences.

In Ramco Institute of Technology, Rajapalayam Department of Civil Engineering is having four research laboratories they are as follows:

- Project & Consultancy Lab
- RIT-Centre of Excellence for Building Information Modelling (BIM)
- RIT ICT Academy Centre of Excellence for Design Powered by Autodesk
- Centre for Geospatial Technology

1.Project & Consultancy Lab

Project and consultancy laboratory was established in the year 2022.This laboratory is mainly focused on enhancing the project work of the students as well as Faculty those who are doing the research works. The major equipment in the laboratory includes Rapid Chloride Penetration Test equipment, Concrete Impact testing equipment, Rebound Hammer, Total Station, Line Laser Level, Standard Penetration test equipment, Rapid Moisture Meter. In addition, various consultancy works like Field Density Test, Bearing Capacity of Soil, Topographical Survey, Compressive strength of existing structures etc., have been carried with the help of our faculty members. Project lab facilities are shown in Figure 5.9

Figure 5.9 Project Lab Facilities

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Table 5.17 List of Projects

S.No.	Name of the Project	Type & Relevance of Project
(CAYm1 2023-2024)		
1	Mechanical Behavior of Roller compacted concrete using copper slag	Structural Engineering (Product)
2	Household Waste Composter	Environmental Engineering (Product)
3	Experimental investigation of High strength concrete using mill scale tailings	Structural Engineering (Product)
4	Experimental investigation of Geological Light weight Geopolymer Concrete Blocks	Structural Engineering (Product)

5	Influence of heat on mechanical properties of pervious concrete with different aggregate sizes	Structural Engineering (Product)
6	Experimental Investigation on mechanical properties of Geomortar-Ready Mix Powder	Structural Engineering (Product)
7	Experimental study on flexural behavior of textile reinforced concrete	Structural Engineering (Product)
8	Experimental study on lantana camera reinforced concrete	Structural Engineering (Product)
9	Experimental Investigation on carbon fiber reinforced geopolymer concrete	Structural Engineering (Product)
(CAYm2 2022-2023)		
1	Flexural Performance of Geogrid reinforced pervious Concrete beam with different aggregate sizes.	Structural Engineering (Product)
2	Utilization of LECA in GGBS based light weight geopolymer concrete with addition of lime	Structural Engineering (Product)
3	Self-Compacting Concrete using mill scale waste	Structural Engineering (Product)
4	A comparative study on multiblock	Structural Engineering (Product)
5	Impact and Mechanical Properties of carbon fibre reinforced Concrete.	Structural Engineering (Product)
6	Eco-friendly light weight bricks	Structural Engineering (Product)
7	Experimental Investigation on mechanical behavior of fiber-based Roller compacted Concrete and copper slag	Structural Engineering (Product)
8	Study on LEED credits and Certification	Infrastructure Engineering (Product)
9	Experimental Study on Paver Block using Prosopis Juliflora Ash	Structural Engineering (Product)
10	Effect of Specimen size on Compressive strength of pervious concrete with different aggregate sizes	Structural Engineering (Product)

11	Influence of wood ash and fly ash based light weight geopolymer concrete using LECA	Structural Engineering (Product)
12	Impact behavior of GPC Using DMS and M-Sand as fine aggregates	Structural Engineering (Product)
13	Experimental Study on mechanical properties of Textile Reinforced Concrete	Structural Engineering (Product)
14	Treatment of textile effluent in palm fruit cell	Environmental Engineering (Product)
15	Experimental study on the strength behavior of lantana camara reinforced concrete beam	Structural Engineering (Product)
16	Experimental Investigation of Arsenic Removal from water using Iron Oxide Nanoparticles Incorporated in Activated Carbon Synthesized from Natural adsorbents (Grass Cuttings)	Environmental Engineering (Product)
17	Experimental Investigation on stabilization of Black Cotton soil using Borosilicate Glass Powder	Geotechnical Engineering (Product)
(CAYm3 2021-2022)		
1	Experimental study on Microbial fuel cell performance on pollutant removal by utilizing sesame oil cake as Bio-char catalyst	Environmental Engineering (Product)
2	Experimental investigation on packing density of different fine aggregate	Structural Engineering (Product)
3	Experimental Investigation on Mechanical behavior of fibre-based Roller Compacted Concrete	Structural Engineering (Product)
4	Experimental study on Gypsum panel and blocks incorporated with waste recycled plastic	Structural Engineering (Product)
5	Experimental study on mechanical property of mill scale based self-compacting concrete	Structural Engineering (Product)
6	Experimental Study of Performance of Cement-Based Batteries	Structural Engineering (Product)
7	Effect of PVA Fiber on Slag Concrete	Structural Engineering (Product)
8	Experimental Investigation on Stabilized Mud Block incorporated with Copper Slag	Structural Engineering (Product)

9	Experimental investigation on flexural behavior of marine sand based Reinforced Cement Concrete Beam	Structural Engineering (Product)
10	Experimental study on Compressive strength and durability properties of pervious concrete	Transportation Engineering (Product)

2.RIT-Centre of Excellence for Building Information Modelling (BIM)

The Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam has established the **RIT Centre of Excellence for Building Information Modeling (BIM - A Futuristic Lab) in collaboration with Bentley Education and TechApps Consulting, Chennai** with cutting-edge industry-relevant software catering to diverse sub-domains of Civil Engineering. A MoU was signed between **RIT and TechApps for Bentley's software training and knowledge transfer among students and faculty members**. RIT BIM Laboratory has equipped with the Bentley Softwares like STAAD.Pro Connect Edition, Open Buildings Designer, Open Roads Designer and other products available for academics from Bentley Education which facilitates the students to do simulation and projects. Through the Centre of Excellence, Guest lectures, and Value Added Courses conducted periodically for the benefit of students and faculty members.

Fig. 5.10 MoU Between RIT and TechApps Consulting & BIM Lab

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Table 5.18 Activities organized through RIT-CoE for BIM

S.No	Title of the Event	Date & Duration	Resource Person
1	Virtual Webinar on Reality Modeling	18.05.2022 & 4 hours	Mr.S. Rajesh Kumar, Director, Technical Services, TechApps Consulting, Chennai.
2	Standard Operating Procedure for Bentley Certification	19.05.2022 & 4 hours	Mr.S. Rajesh Kumar, Director, Technical Services, TechApps Consulting, Chennai.
3	Hands on Training on Building Information Modelling	23.07.2024-27.07.2024	Mr.Mohammed Muneeb, Senior BIM Consultant Mr.S. Rajesh Kumar, Director Technical Services, TechApps Consulting, Chennai.
4	Big Benefits of Building Information Modelling (BIM)	22.04.2022 & 2 hours	Chandra Shekar, Co-Founder of Turn BIM Engineering Services
5	Hands on Training on Project Planning and Management using Primavera and MS Project	25.10.2024 to 26.10.2024 2 Days	Er.K.Iyappan, Project Lead, Tech Mahindra India Pvt. Ltd., Bengaluru
6	Hands on Training on STAAD.Pro Connect Edition V22	27.06.2023 and 28.06.2023 2 Days	Mr.R.Ganesh Kumar, Sr.Structural Consultant, TechAppss, Consulting, Chennai
7	Value Added Course on Open Building Designer	25.08.2022 & 26.08.2022 2 Days	Mr.Akbar Ali Khader & Mr.S.Rajesh Kumar, TechAppss, Chennai

8	Hands on Training on "STAAD.Pro Connect Edition V22"	27.01.2023 to 28.01.2023 2 Days	Mr.R.Ganesh Kumar, Sr.Structural Consultant, TechAppss, Consulting, Chennai
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2.RIT ICT Academy Centre of Excellence for Design Powered by Autodesk

The Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam, has established the **RIT Centre of Excellence for design powered by Autodesk in collaboration with ICT Academy** for cutting-edge industry-relevant software catering to diverse sub-domains of Civil Engineering. RIT Design laboratory has equipped with the Autodesk software like Autodesk Architecture, Engineering & Construction Collection, Robot Structural Analysis professionals, Advance Steel, Structural bridge Design, Navis work, Fabrication CADmep, AutoCAD Takeoff, Geospatial Infraworks. The Autodesk provides students with a set of BIM and CAD tools supported by a cloud-based common data environment that facilitates project delivery from early-stage design through to construction. The Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam, has established the RIT Centre of Excellence for design powered by Autodesk in collaboration with ICT Academy during the Academic year 2023-2024 for cutting-edge industry-relevant software catering to diverse sub-domains of Civil Engineering.

Fig.5.11 ICT Academy - Centre of Excellence for Design – Certificate

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Table 5.19 Activities organized through RIT ICT Academy - COE

S.No	Title of the Event	Date & Duration	Resource Person
1	Revit Architecture – Building Information Modelling	07.10.2024 to 11.07.2024 5 Days	Ms.Priya Dharshika Technical Trainer Training and Development ICT Academy

3.Centre for Geospatial Technology

Centre for Geospatial Technology was established in the year 2024 in association with Land Coordinates Technology (LCT), Chennai to provide hands-on experience to students and faculty members on Differential Global Positioning System (DGPS) and Drone Surveying. This hands-on experience helps them to enhance their skills regarding the cutting-edge technologies happening in the Geospatial sector. Through this center, our department completed the following activities which were helpful for the students and society.

Fig. 5.12 MoU Between RIT and Land Coordinates Technology

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Our department faculty members and students engaged in preparing the topographic layout of Kondaneri lake which is situated in city of Rajapalayam in association with Land Coordinates Technology (LCT), Chennai.

Fig. 5.13 Topographical Survey – Kondaneri Lake

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

Table 5.20 Activities organized

S. No	Title of the Event	Date & Duration
1	Drone and LIDAR based Map Creation	28-07-2023, 1.30 pm – 3.00 pm
2	Workshop on Total Station and DGPS	11-10-2023 To 12-10-2023 09.00 am – 04.00 pm

3	One Day Hands On Training On Mapping Using DGPS	24-07-2024, 10.00 am – 04.00 pm
4	One Day Hands on Training on Drone Surveying	24-10-2024 10.00 am – 04.00 pm

(C) Instructional materials:

Instructional materials refer to the resources and tools that are used by the faculty to facilitate learning. This includes textbooks, laboratory equipment, software, multimedia resources, Models and Prototypes and other teaching aids.

- Faculty of civil engineering provide students with extensive hand-out for all the courses consisting of important contents of the subject, worked examples, etc., which helps the students to revise the contents during the exams and also understand the subjects in a simpler manner.
- Laboratory Manuals and necessary instructional materials for all the laboratory courses are developed by the respective faculty members for use by the students in order for the better understanding of the laboratory experiments and also to enrich their practical skills and knowledge.

Table 5.21 List of Laboratory Manuals

S.No	Title of the Laboratory Manual
1	CE3311 - Water and Wastewater Analysis Laboratory
2	CE3411 - Hydraulic Engineering Laboratory
3	CE3412 - Materials Testing Laboratory
4	CE3413 - Soil Mechanics Laboratory
5	CE3511- Highway Engineering Laboratory
6	CE3361 - Surveying and Levelling Laboratory
7	CE3611 - Building Drawing and Detailing Laboratory
8	CE3011 - Digitalized Construction Lab

Library

The institution has a Main Library which is a very good resource center for teaching, learning & research. The main library has a widespread space with good seating capacity, state of art digital content. Reference Section, Circulation Counter, OPAC Search, Journals/Magazines and Newspaper Section are available in the main library. The main library holds a hybrid collection of printed/electronic resources which include books, journals, CDs/DVDs, e-books, previous years question papers, and student project reports. E-learning resources are available to facilitate the access of journal papers and enhance the knowledge of students and faculty. Some of the digital content include:

Science Direct	https://www.sciencedirect.com/ (https://www.sciencedirect.com/)
IEEE	https://ieeexplore.ieee.org/Xplore/home.jsp (https://ieeexplore.ieee.org/Xplore/home.jsp)
DELNET	https://discovery1.delnet.in/ (https://discovery1.delnet.in/)
IEI	https://www.ieindia.org/AdminUI/IEI-Dashboard.aspx (https://www.ieindia.org/AdminUI/IEI-Dashboard.aspx)
NPTEL	http://nptel.ac.in/ (http://nptel.ac.in/)

National Digital Library	https://ndl.iitkgp.ac.in/ (https://ndl.iitkgp.ac.in/)
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The college main library is also having the following journals subscriptions to support the students and faculty members in research activities.

Sl. No.	Name of the Journal	Frequency
1	ICI Journal Indian Concrete Institute	Quarterly
2	Journal of Structural Engineering	Bi-Monthly
3	Journal of the Institute of Engineers A Series (SCOPUS)	Quarterly
4	Indian Geotechnical Journal (SCOPUS)	Monthly
5	NICMAR Journal of Construction Management	Quarterly
6	Indian Concrete Journal	Monthly

Our Library is extending remote access facility to access multiple e-resources from anywhere and anytime. Access Link: <https://idp.ritrjpm.edu.in/> (<https://idp.ritrjpm.edu.in/>)

Faculty members motivate the students for using open access journals and make them aware about the latest arrivals.

Department library

The civil engineering department has its own library, in addition to the main college library, specifically designed to meet the needs of students and faculty. The following materials are available in the civil engineering department library. It also offers books, e-books, journals, e-journals, project reports and video contents.

Particulars	Count (nos.)
Text books	699
Code books	1082 (Title 75)
E-Books	10
E-Journals	192
Project Reports	273
Industrial Training Report	110
Survey Camp Report	53

(D) Working Models

Faculty use models as teaching aids to facilitate better understanding and also encourage the students to create working or display models. Working Models are developed by the faculty and demonstrated to the students for their easy understanding. The Civil Engineering Department has developed the following working models for teaching the subjects Design of Reinforced Concrete Elements & Masonry Structures, Design of Steel Structural Elements & Irrigation and Environmental Engineering Drawing.

Table 5.22 Working Models

Name of the Model	Model Images	Remarks/Specifications
RCC Cantilever Retaining Wall	https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)	Length = 2'6" Breadth = 2' Height=3'
RCC Counter Fort Retaining Wall		Length = 2'6" Breadth = 2' Height=3'
RCC Tee Beam Bridge		Length = 3'2" Breadth = 1'3" Height=1'3"
Plate Girder Bridge		Length = 3'2" Breadth = 1'3" Height=1'3" Track width = 2"
Circular RCC Water Tank		Length = 2'6" Breadth = 1'9" Height=1'2" Two one compartment = 1'x1'3"
Rectangular RCC Water Tank		Length = 3'2" Breadth = 1'3" Height=1'3"
Truss Girder Bridge		Length = 2'11" Breadth = 2'3" Height=1' Truss Height = 9"

Name of the Model	Model Images	Remarks/Specifications
Solid Slab Bridge		Length = 3' Breadth = 1'3" Height=1'6" Road width c-c = 9" Outer = 1'3" Under Road = 8"x1'3"
Hemispherical Bottomed Steel Tank		Diameter = 1'2" Height = 2'
Aqueduct		System that carry water from a source to a distribution point
Canal Regulator		Structure that controls the flow of water and sediment into the canal
Tank Weir		Specialized equipment designed for effective liquid management
Flocculator		A device that mixes and retains water to coagulate and flocculate solids in wastewater or surface water
Trickling Filter		A wastewater treatment system that uses a fixed bed of media to degrade organic compounds in liquid waste
Tank Sluice with Tower Head		A large valve in which a rectangular or circular gate slides across the opening
Sluice Gate		A movable barrier that controls the flow of water through a channel, river, canal, or dam
Septic Tank		An underground chamber made of concrete, fiberglass, or plastic through which domestic wastewater (sewage) flows for basic sewage treatment

Charts

Teaching the contents through charts in the classroom/laboratories made the interaction between students and teachers more effective. The charts available in the department are shown in the table below 5.23

Table 5.23 Charts

Concept	Images	Remarks
Types of Footing	https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)	A chart showing the various types of footing used in construction
Staircase Reinforcement		A pictorial representation of staircase detailing along with its dimensions
Beam Reinforcement		The chart displaying reinforcement details of beam under various loading condition
Column Reinforcement		The chart showing various types of columns reinforcement details
Construction Joints		Different types of joints in concrete construction
Types of Roof Trusses		Different types of roof trusses in building structures
Reinforcement in Footing		Reinforcement detailing of various types of footing
Types of Foundation		Various types of foundation used in construction
Direct Shear Test		Procedure for determining the shear strength of soil materials by Direct shear test
Standard Proctor Compaction Test		Procedure for determining optimum moisture content soils by Standard Proctor Compaction Test
Reference Code Books for Experiments		List of Indian Standard Codal Provisions for the tests related to Soil Mechanics laboratory are shown
Brick Bonding		A pictorial representation of the various types of brick bonding has been helpful in studying the subject construction materials
Types of Flooring		A pictorial representation of the various types of Flooring with its pros and cons has been helpful in studying the subject CE construction materials
CBR		Procedure of CBR Value test are shown for evaluating the strength of subgrade soil and base course
Tests on Bitumen		The various test on bitumen are displayed to determine the bitumen properties
Flakiness and Elongation Index		Flakiness and Elongation Index test procedure is shown to determine Particle shape of the aggregate specimen
Door and its types		A pictorial representation of the various types of Doors and its specification

Concept	Images	Remarks
Types of Windows		A pictorial representation of the various types of Windows and its specification
Theodolite and Levelling Instruments		A pictorial representation details about the instruments such as Theodolite, Automatic Level and Laser Level
Total Station Instrument		Principle of Total Station and its parts are shown
Standard Proctor Compaction Test		Theory and Principle behind the Standard Proctor Compaction Test is shown
Direct Shear Test		Theory and Principle behind the Direct Shear Test is shown
Reference Code Books for Experiments		List of Indian Standard Codal Provisions for the tests related to Water and Wastewater Analysis laboratory are shown
Reference Code Books for Experiments		List of Indian Standard Codal Provisions for the tests related to ensure the quality of construction materials

Monograms

Monograms are study materials that consist of a collection of formulas used to solve problems. They are useful for students to recall important information while appearing for End Semester University Examinations and competitive examinations. In this way, some monograms are prepared by the faculty members in the Department of Civil Engineering and it is verified by the Head of the Department. The details of the same are shown in the table 5.24

Table 5.24 Monograms

S. No.	Title	Prepared by
1	CE3301 Fluid Mechanics	Mrs.B.Bharani Baanu
2	CE3503 Foundation Engineering	Mr.V.Jeevanantham

5.7.4 Consultancy(from Industry) (5)

Institute Marks : 1.00

Project Title	Duration	Funding Agency	Amount
Testing on Concrete Cubes	28.08.2023	SLN INFRA CONMIX PVT LTD	750.00
Testing on Concrete Cubes	28.08.2023	ICON READYMIX CONCRETE	750.00
Testing on Concrete Cubes	18.10.2023	SLN INFRA CONMIX PVT LTD	750.00
Testing on Concrete Cubes	18.10.2023	SLN INFRA CONMIX PVT LTD	750.00
Testing on Concrete Cubes	18.10.2023	Mr.Mahadeer Ismail	750.00
Testing on Concrete Cubes	19.10.2023	SLN INFRA CONMIX PVT LTD	750.00
Testing on Concrete Cubes	31.10.2023	SLN INFRA CONMIX PVT LTD	750.00
Testing on Concrete Cubes	01.11.2023	SLN INFRA CONMIX PVT LTD	750.00
Testing on Concrete Cubes	08.11.2023	Mr.Mahadeer Ismail	750.00
Testing on Concrete Cubes	08.11.2023	SLN Infra conmix pvt ltd	750.00
Testing on Concrete Cubes	09.11.2023	SLN Infra conmix pvt ltd	750.00
Testing on Concrete Cubes	28.11.2023	Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	28.11.2023	Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	28.11.2023	Icon Ready Mix Concrete	750.00
Test on water sample	21.12.2023	M/s.Ananya Construction,srivilliputtur,	1750.00
Testing on Concrete Cubes	22.12.2023	Karupiah site(SLN Infra conmix pvt ltd)	750.00
Testing on Concrete Cubes	29.12.2023	M/s.Shreevenkateshwaraa constructions	750.00
Testing on Concrete Cubes	29.12.2023	M/s.Shreevenkateshwaraa constructions	750.00
Test on water sample	30.12.2023	M/s.Ananya Construction,srivilliputtur,	1750.00
Testing on Concrete Cubes	01.02.2024	M/s.Shreevenkateshwaraa constructions	500.00
Testing on Concrete Cubes	12.01.2024	Er.Karuppaiah	750.00
Testing on Concrete Cubes	22.01.2024	M/s.Shreevenkateshwaraa constructions	750.00
Testing on Concrete Cubes	22.01.2024	M/s.Shreevenkateshwaraa constructions	750.00
Field Density Test	20.01.2024	Mr.T.Raja,DCE.,RJ Builders, Rajapalayam	4000.00
Field Density Test	29.01.2024	Mr.T.Raja,DCE.,RJ Builders, Rajapalayam	3000.00
Testing on Concrete Cubes	29.01.2024	M/s.Shreevenkateshwaraa constructions	750.00
Testing on Concrete Cubes	01.02.2024	Government Hospital,Rajapalayam	750.00
Test on Interlocking Bricks	26.02.2024	BRICKSA	1500.00
Testing on Concrete Cubes	02.02.2024	Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	06.02.2024	Icon Ready Mix Concrete	750.00

Testing on Concrete Cubes	18.01.2024	Shree venkateshwaraa construction	500.00
Testing on Concrete Cubes	10.02.2024	Er.Karppaiah	750.00
Testing on Concrete Cubes	16.02.2024	M/S.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	24.02.2024	Er.Andrew Celestine Paul	750.00
Testing on Concrete Cubes	24.02.2024	Er.Ganesan, srivillputhur,	750.00
Testing on Concrete Cubes	24.02.2024	Er.Ganesan, srivillputhur,	750.00
Testing on Concrete Cubes	22.02.2024	M/s.Shreevenkateshwaraa constructions	500.00
Testing on Concrete Cubes	12.03.2024	M/s.Shreevenkateshwaraa Constructions	750.00
Testing on Concrete Cubes	12.03.2024	Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	16.03.2024	SLN INFRA	750.00
Testing on Concrete Cubes	16.03.2024	Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	16.03.2024	M/s.Shree Siva Builders	750.00
Testing on Concrete Cubes	15.03.2024	M/s.Shreevenkateshwaraa Constructions	750.00
Testing on Concrete Cubes	21.03.2024	Icon Ready Mix Concrete	750.00
Standard penetration test	21.03.2024	Mrs.Shyamala	5000.00
Testing on Concrete Cubes	22.03.2024	Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	27.03.2024	M/s.Shree Siva Builders	750.00
Testing on Concrete Cubes	04.04.2024	Shree Siva Builders(ANJAC)	750.00
Testing on Concrete Cubes	05.04.2024	Shree Siva Builders(ANJAC),new sf block	750.00
Testing on Concrete Cubes	01.04.2024	Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	03.04.2024	Shree Siva Builders(ANJAC),new sf block	750.00
Testing on Concrete Cubes	05.04.2024	Shree Siva Builders(ANJAC),new sf block	750.00
Testing on Concrete Cubes	05.04.2024	Shree Siva Builders(ANJAC),new sf block	750.00
Testing on Concrete Cubes	25.04.2024	M/S.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	27.04.2024	M/s.Shree Siva Builders	750.00
Testing on Concrete Cubes	18.04.2024	M/s.Shree Siva Builders	750.00
Testing on Concrete Cubes	27.04.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	29.04.2024	M/s SLN Infra conmix private Limited	750.00
Testing on Concrete Cubes	27.04.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	29.04.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	25.04.2024	M/s.Icon Ready Mix Concrete	750.00

Testing on Concrete Cubes	27.04.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	27.04.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	09.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	09.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	10.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	10.05.2024	M/s.Icon Ready Mix Concrete	750.00
Test on Interlocking Bricks	10.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	10.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	14.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	11.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	14.05.2024	M/s SLN Infra conmix pvt.Ltd	750.00
Testing on Concrete Cubes	20.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	20.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	20.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	20.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	31.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	31.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	31.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	31.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	31.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	31.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	31.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	31.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	31.05.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	01.06.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	01.06.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	05.06.2024	M/s.Icon Ready Mix Concrete	750.00
Testing on Concrete Cubes	11.06.2024	Aruna multi Hospital	2250.00
Testing on Concrete Cubes	10.06.2024	M/s.Icon Ready Mix Concrete	2250.00
Testing on Concrete Cubes	11.06.2024	SLV Ready mix concrete	750.00
Testing on Concrete Cubes	15.06.2024	M/s.Icon Ready Mix Concrete	1500.00

Testing on Concrete Cubes	15.06.2024	SLVReady Mix Concrete	2250.00
Testing on Concrete Cubes	20.06.2024	M/s.Icon Ready Mix Concrete	1500.00
Testing on Concrete Cubes	15.06.2024	M/s.Icon Ready Mix Concrete	1300.00
Testing on Concrete Cubes	25.06.2024	M/s.Icon Ready Mix Concrete	1500.00
Testing on Concrete Cubes	25.06.2024	M/s.SLN Infra concrete mix	3000.00
Testing on Concrete Cubes	19.03.2024	Icon Ready Mix Concrete	750.00
			Total Amount(X): 94800.00

2022-23 (CAYm2)

Project Title	Duration	Funding Agency	Amount
Test on water	22.07.2022	DAVINCH Builders, Rajapalayam.	150.00
Field Density Test	02.08.2022	Sabari Construction	4000.00
Standard penetration Test, Survey works	28.09.2022	Archana Blocks	12500.00
Testing of Bricks	14.10.2022	SRJ & Chola packaging pvt.,Ltd	1500.00
Field Density Test	28.11.2022	RML Fabrics Division	3000.00
Testing of Bricks	14.02.2023	KVP Flyash Bricks	3250.00
Testing of Bricks	16.02.2023	Sree Kumaran Flyash Bricks	2500.00
Test on water sample	22.02.2023	Sam Builders	1750.00
Test on water sample	23.02.2023	Sam Builders	1750.00
Test on water sample	10.03.2023	Sam Builders	1750.00
Test on Mortar cube & cylinder	16.03.2023	Mr.E.vipurajan & J.N.Puvaneshwaran	2500.00
Test on water sample	13.03.2023	Mrs.Premalatha (Research scholar)	150.00
Test on Concrete cube & cylinder	21.03.2023	Mrs.Premalatha (Research scholar)	1500.00
			Total Amount(Y): 36300.00

2021-22 (CAYm3)

Project Title	Duration	Funding Agency	Amount
Testing on Bricks	17.08.2021	Ayyan Bricks	1000.00
Field Density Test	18.08.2021	RVP Builders	11000.00
Field Density Test	25.08.2021	RVP Builders	4000.00
Field Density Test	27.08.2021	RVP Builders	2000.00
Testing on Bricks	31.08.2021	Darling Bricks	2250.00
Field Density Test	01.09.2021	RVP Builders	24000.00
Field Density Test	16.10.2021	RVP Builders	29000.00
Field Density Test	19.11.2021	RVP Builders	8000.00
Field Density Test	20.12.2021	RPS & Co Southern Railway	10000.00
Field Density Test	31.12.2021	RPS & Co Southern Railway	10000.00
Standard penetration Test	05.01.2022	ESSARR Associates	18000.00
Testing on Concrete cube	07.02.2022	Thenmozhi (Research scholar)	500.00
Standard penetration Test	09.02.2022	Chitra multi- specialty hospital	18000.00
Test on sand	30.03.2022	Rajapalayam Municipality	1000.00
Test on water sample	21.04.2022	Government Hospital, Rajapalayam	4100.00
Field Density Test	12.05.2022	RVP Builders	2000.00
Field Density Test	08.06.2022	RVP Builders	3000.00
Field Density Test	13.06.2022	RVP Builders	6000.00
Field Density Test	30.06.2022	Sabari constructin	3000.00
Field Density Test	30.06.2022	Sabari constructin	3000.00
			Total Amount(Z): 159850.00

Cumulative Amount(X + Y + Z) = 290950.00

5.8 Faculty Performance Appraisal and Development System (FPADS) (30)

Total Marks 30.00

The Ramco Institute of Technology have a well-defined and transparent Faculty Performance Appraisal and Development System. The faculty members asked to submit the well-structured self-appraisal form for each academic year for evaluation by Head of the Department, Principal and Governing Council members. Eligible faculty members are asked to submit the Application for promotion under career advancement scheme along with the self-appraisal form. The newly recruited faculty members complete their probation after one year. The faculty members will get eligible for promotion/career advancement after attaining the required norms. The performance of each and every faculty member will be evaluated every year through a centralized appraisal system, apart from the feedback received from students for each semester.

The main highlights of the appraisal system are listed below

Table 5.25 Evaluation criterion and indices for faculty performance appraisal and development

S.No.	Criteria for Evaluation	Indices
1	Teaching, Learning and Evaluation related activities	<ol style="list-style-type: none"> 1. Innovations/Contributions in Teaching 2. Teaching performance 3. CO Attainment 4. Supervisory support and Project guidance provided 5. Activities participated (Seminars/Webinars/ Workshops/ FDPs/STTPs) 6. Online Course Details 7. Additional Certification Course 8. Contribution towards Identification of curricular gap/ addressed by content beyond syllabus tc. (Theory/practical) 9. Activities that contribute to student success in the form of improved and Measurable learning outcomes. 10. Mentoring effectiveness
2	Research, Publications and Academic contributions	<ol style="list-style-type: none"> 1. Ph.D. Guidance 2. Papers presented in International / National Conference 3. Research Papers published in National/ International Journal 4. Research Papers Communicated to National/ International Journal 5. Book/Book Chapter published, Monographs, Lab Manuals authored 6. Research Grants/ Funded Projects applied 7. Research Grants/ Funded Projects obtained 8. IP Rights filed / granted 9. Research related service (Reviewing journals, editorial roles, organizing research seminars, conferences, etc.) 10. Contribution to industrial interactions in the form of consultancy/ sponsored R&D

S.No.	Criteria for Evaluation	Indices
3	Career Enhancement/ Extension activities	<ol style="list-style-type: none"> 1. Contribution in organizing seminar/webinar/ workshops/ conferences/ symposium/ FDPs/STTPs/ other programme 2. Participation as Resource Person for delivery of special lectures / Chairing sessions/ Jury etc. 3. Contribution to Society 4. Achievements / Awards received during the period 5. Recognition received during the period 6. Initiation of MoU with reputed universities/ research centres/organizations 7. Contribution to improvement in Training & Placement/Career Guidance cell/ EDC/ IIC etc.
4	Administration	<ol style="list-style-type: none"> 1. Institutional Development Elements: College level / Department Level 2. Industry/ Institute Contribution: Effectiveness of MOU/ Industrial Collaboration Outcome 3. Activities that support institute accreditation/ other development contributions 4. Interaction outside RIT
5	Evaluation of Faculty Performance by the HoD	Assessment of Faculty Members by the HOD and Assessment of HOD by the Principal

1. Sample of Annual Performance Appraisal form:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

2. Sample of application for promotion under career advancement scheme form:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_V.pdf)

(B) Implementation and Effectiveness:

After obtaining the faculty members self-appraisal forms and career advancement form for promotion, an interview will be arranged and the concerned faculty will be informed.

A scrutiny committee comprising senior professors / other department HoDs will to check and verify details furnished in the self-appraisal forms and promotion form. Further this committee will submit one-page consolidated report to the interview panel

The interview panel, comprising the Chief Educational Officer or Chief Operating Officer of the Trust, a Governing Council Member, the Principal, the Vice-Principal, and the Head of the Department, discusses each faculty member based on the appraisal form and the report received from the scrutiny committee. Based on the overall performance rating, the following decisions are recommended by the panel for further action.

1. Rating with Outstanding, Excellent, Very Good performance are recommended for

- Promotion through career advancement scheme
- Registering for Ph.D.

The following suggestions for improvement are given

- Getting Funding proposals
- Suggestions for getting Awards and achievements

- Promotion through career advancement scheme

Promotion through career advancement scheme

Based on the career advancement scheme, the promotion offered is give in table 5.26

Table 5.26 Details of faculty members promoted through career advancement scheme for the past three assessment years

S. No.	Name of the Faculty Member	Designation	Promoted as	Since from
1	Dr.S.Dharmar	Assistant Professor (Senior Grade)	Associate Professor	01.01.2023
2	Dr.M.Indhumathi	Assistant Professor	Associate Professor	01.01.2023
3	Mr.T.Chockalingam	Assistant Professor	Assistant Professor (Senior Grade)	01.01.2023
4	Dr.G.Karthikeyan	Assistant Professor (Senior Grade)	Associate Professor	01.02.2024

Faculty members Registering for Ph.D.

Table 5.28 Details of Ph.D. Registration

S. No.	Name of the Faculty	Register No.	Date of Registration
1	Mrs.A.Leema Margret	23241791141	Jan 2023
2	Mr.A.Manicka Mamallan	22141797115	July 2022
	Mr.R.Muruganatham	22141797113	July 2022

2.Rating with Good and Average performance the following suggestions for improvement is given

- Identification of training needs
- Presenting and publishing Papers in Conference and Journals

Based upon the recommendation given by the committee, the need for various training programme or higher qualification requirements are identified. The HODs review these with the individual training records. These are forwarded to the Principal with their recommendation. Based on this, the desired training, or skill enhancement opportunities are provided to the faculty members to enhance their knowledge in the emerging technology.

3.Rating with satisfactory and poor

The faculty members with satisfactory and poor rating will be given a chance for improvement and if the same scenario is continued further actions are taken.

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

Total Marks 10.00

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

The department and institute have realized the need for the provision of appointing adjunct faculty in order to enhance the efficiency of the department. In this regard, the department has appointed Er. B. Muthukumarasamy, Structural consultant & contractor, Absara Consultancy, Rajapalayam as **adjunct faculty**. In addition, **few more members visited** the department and handled training classes for the students of the Civil Engineering department for the past three academic years. Moreover, the department have **honorary professor** Dr. Mahmoud Nawaf Al-Khazaleh, Assistant Dean of Scientific Research, Department of Civil Engineering, Munib and Angela Masri Faculty of Engineering, University of Technology, Aqaba-Jordan, to enhance Academic and Research collaboration.

Table 5.29 Details of content delivery by Adjunct / Visiting Faculty

S. No.	Handled by	Course Title	Date	No. of hours handled	Content Delivered
1	Er. B. Muthukumarasamy, Proprietor, Absara Consultancy, Rajapalayam	CE3501 Design of Reinforced Concrete Structural Elements	24.10.2024	8 hours	Design of different types of Columns as per IS codal provisions
2.	Mr. K. Iyappan, Project Lead, Tech Mahindra India Pvt. Ltd., Bengaluru	Hands on Training on Project Planning and Management using Primavera and MS Project	25.10.2024 to 26.10.2024	16 hours	Project Planning, Network diagram, Project Scheduling, Roles & Resources, and Report Preparation in PPM and Hands-on Training in Primavera and MS Project.
3	Mr. M.Senthil Murugan, Founder & CEO, BEYCAN Technical Training Institute, Rajapalayam	Internet of Things (IoT) in Civil Engineering	22.08.2023	2 Hours	Importance of (IoT) in Civil Engineering
4	Mr. R. Ganesh Kumar, Senior Structural Consultant TechAppss Consulting, Chennai	Two-day Hands-on Training on STAAD.Pro Connect Edition V22	27.06.2023 to 28.06.2023	2 Days (16 Hours)	Structural Analysis and Design
5	Ms.R.Abinaya, Tekla Modeller, Struct Mech Engineers Pvt. Ltd., Bangalore Alumni – Batch 2016-2020	An overview on TEKLA Software	26.04.2023	3 Hours	1.Structural Design and Detailing 2.Collaboration and Coordination 3. Enhancing Accuracy and Reducing Errors. 4. Support for Precast, Steel, and Concrete Design.
6	Er.M.Ponkumaran, Pilot Drone Trainer Alumni – Batch 2015-2019	Third Eye in the sky	04.03.2023	3 Hours	Drone Surveying
7	Mr. R. Ganesh Kumar, Senior Structural Consultant TechAppss Consulting, Chennai	Hands-on Training on STAAD.Pro Connect Edition V22	27.01.2023 to 28.01.2023	16 Hours	Structural Analysis and Design

8	Mr. Akbar Ali Khader, Senior Application Engineer TechApps Consulting, Chennai	Value added course on Open Building Designer	25.08.2022 to 26.08.2022	2 Days (16 Hours)	BIM workflows to provide information-rich models for the design, analysis, simulation, and documentation of buildings.
9	Mr. K. Iyappan, Project Lead, IBM India Pvt Ltd, Bangalore	Project Planning and Management using Primavera (P6)	25.07.2022 to 30.07.2022	6 Days (48 Hours)	Project planning, scheduling and resource management to budgeting and risk management.
10	Mr.S.Rajesh Kumar, Director, Technical services, TechApps Consulting Services, Chennai	Standard Operating Procedure for Bentley Certification	19.05.2022	3 Hours	Delivered Preparedness for the Certification Exam
11	Mr.S.Rajesh Kumar, Director, Technical services, TechApps Consulting Services, Chennai	Reality Modeling	18.05.2022	3 Hours	Delivered detailed, accurate digital representations of existing structures or landscapes, enabling stakeholders to visualize the environment in 3D.
12	Chandra Shekar, Co-Founder of TurnBIM Engineering Services	Big Benefits of Building Information Modelling (BIM)	22.04.2022	3 Hours	Building Information Modelling
13	Er. S.Suganya, Infinity PMC Solutions Pvt. Ltd., Chennai	Value Added Course on Project Planning and Management using Primavera (P6)	11.11.2021 to 15.11.2021	5 days (40 hours)	Project planning, scheduling and resource management to budgeting and risk management.
14	Dr. Mahmoud Khazalah Assistant Professor in Civil Engineering, Munib & Angela Masri Faculty of Engineering, Aqaba University of Technology, Jordan.	International Conference on Smart Technologies and Applications (ICSTA 2022)	12.03.2022	2 Hours	Invited Talk on Soil Reinforcement in Road Construction Using Geogrids & Geosynthetics Material
15	Dr. Mahmoud Khazalah Assistant Professor in Civil Engineering, Munib & Angela Masri Faculty of Engineering, Aqaba University of Technology, Jordan.	International Web Conference on Smart Engineering Technologies	17.06.2020	2 Hours	Invited Talk on Recent Trends in construction

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 80.00

6.1 Adequate and well equipped laboratories, and technical manpower (30)

Total Marks 30.00

Institute Marks : 30.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	CONCRETE AND HIGHWAY ENGINEERING LABORATORY (146 Sq.m) (i) CE3412 Materials Testing Laboratory (odd) (4 Hours / Week) (ii) CE3511 Highway Engineering Laboratory (Odd) (4 Hours / Week) (iii) CE8811 Project Work (Even) (34 Hours / Week)	3	Concrete Mixer, Slump Cone, Flow Table (Motorized), Vibrating Table, Compression Testing Machine 2000KN, Vee Bee Consistometer, Aggregate Impact Testing Machine, CBR Apparatus, Blains Apparatus, Los Angels Abrasion Testing Machine, Marshall Stability Apparatus, Compressometer, Compaction Factor Test Apparatus, Sieve Shaker, Universal Penetrometer, Softening (Ring & Ball Apparatus), Ductility With Elastic Recovery Mould, Flash & Fire Point, Viscometer, Pycnometer, Needle Vibrator, Mechanical Extensometer, Film Stripping Device, Cylindrical Metal Measures, Rebound Hammer, RCPT Apparatus.	42 Hours (Odd Semester - 8 hours, Even Semester - 34 hours)	Mr.Nagaraj	Lab Technician	Bach Engir (C Engir
2	ENVIRONMENTAL ENGINEERING LABORATORY/WATER AND WASTE WATER ANALYSIS LABORATORY (109 Sq.m) (i) CE3311 Water and Wastewater Analysis Laboratory (Odd) (3 Hours / Week) (ii) CE8811 Project Work (Even) (34 Hours / Week)	3	BOD Analyzer, COD Digester, Spectrophotometer, Flame Photometer, Gas Chromatography, Autoclave, Bacteriological Incubator, BOD Incubator, Sterilization Chamber	37 hours (Odd Semester - 8 hours, Even Semester - 34 hours)	Mr.A.Arumuga Ganesh	Lab Technician	Dipl (C Engi
3	SOIL MECHANICS LABORATORY (105 Sq.m) (i) CE3413 Soil Mechanics Laboratory (Even) (3 Hours / Week)	3	Triaxial Test Apparatus, Direct Shear Apparatus, Unconfined Test Apparatus, Standard Penetration test Apparatus	3 Hours (Even Semester - 3 Hours)	Mr.V.Krishna kumar	Lab Technician	B.Te C Engir

4	FLUID MECHANICS & MACHINERY LABORATORY/HYDRAULIC ENGINEERING LABORATORY (181 Sq.m) CE3411 Hydraulic Engineering Laboratory (Even) (3 Hours/Week)	3	Submersible Pump Test Rig, Orifice and Mouthpiece Setup, Rotameter Test Rig, Orifice and Venturimeter Setup, Pipe Friction Apparatus(Major Losses), Pipe Friction Apparatus(Minor Losses), Francis Turbine Test Rig(Electrical Loading), Kaplan Turbine Test Rig(Electrical Loading), Pelton Wheel Turbine Test Rig, Centrifugal Pump Test Rig, Reciprocating Pump Test Rig, Vane and Gear Pump Test Rig, Bernoullis Apparatus.	3 Hours (Even Semester - 3 Hours)	S.Manibharathi	Lab Technician	Dip (Engi
5	SURVEYING LABORATORY (68 Sq.m) (i) CE3361 Surveying and Levelling Laboratory (Odd) (3 Hours / Week)	4	Total Station, Theodolite, Dumpy Level, Prismatic Compass, Surveyor Compass, LDM, GPS	3 Hours (Odd Semester - 3 Hours)	Mr.K.Mareeswaran	Lab Technician	Dip Eng
6	Strength of Materials Laboratory (124 Sq.m) (i) CE3412 Materials Testing Laboratory (odd) (4 Hours / Week)	3	Universal Testing Machine, Torsion Testing Machine, Impact (Izod/Charpy) Testing Machine, Rockwell Hardness Testing Machine, Brinell Hardness Testing Machine, Spring Testing Machine, Deflection Testing Machine with dial gauge, Longitudinal Compressometer, Extensometer, Le Chatelier Apparatus, Vicats apparatus,	3 Hours (Odd Semester - 3 Hours)	P. Murugesan	Lab Technician	Dipl Mecl Engir
7	Construction Practices Lab (66 Sq.m) (Odd) (3 Hours / Week), (Even) (2 Hours/Week)	3	Adjustable Telescopic Prop - Normal Head, Adjustable Telescopic Prop - Beam Head, Span - 8', Floor Farms - Normal (900 X 600), Floor Farms - Adjustable (900 X 150), General Purpose Scaffolding, H - Frame Cup Lock Scaffolding.	5 Hours (Odd Semester - 3 Hours, Even Semester - 2 Hours)	Mr.Nagaraj	Lab Technician	Bach Engir ((Engir
8	Centre for Geospatial Technology (110 Sq.m) (Even) (2 Hours/Week)	3	Differential Global Positioning system, Avio-M1 Professional Mapping Drone with PPK system, IntelCore/i7Processor/14700vPro/64GB;7200rpm harddisk drive- 24" monitor,	3 Hours (Even Semester - 3 Hours)	Mr.K.Mareeswaran	Lab Technician	Dip Eng

9	CAD – DIGITALIZED CONSTRUCTION LABORATORY (110 Sq.m) (i) CE8711 Creative and Innovative project (Odd) (4 Hours / Week) (ii) Building Information Modelling (Odd) (5 Hours / Week) (iii) CE3611 Building Drawing and Detailing Laboratory (Even) (4 Hours / Week) (iv) Building Information Modelling (Even) (1 Hours / Week)	1	(i) Dell OptiPlex 3020-Intel Core/ i3-4130 Processor/4GBMemory/500GB Hard DD/Keyboard and Optical Mouse / DVD RW /18.5" Monitor. (ii) HP LaserJet 1020 Plus Printer (iii) AutoCAD 2023 (iv) Bentley STAAD.Pro Academic Software- 5 Users Perpetual Licenses Configurable up to 100 Users of Student Server Licenses. (v) Primavera Contractor P6 (Latest) – Product (vi)Epson S31 Projector (vii) ETABS Ultimate V-17-10 Users Education and Research License (viii) Bently BIM Software (Latest)	14 hours (Odd Semester - 9 hours, Even Semester - 5 hours)	Mrs.M.Thirumalai Selvi	Lab Technician	E

6.2 Additional facilities created for improving the quality of learning experience in laboratories (25)

Total Marks 25.00

Institute Marks : 25.00

Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	ETABS software	ETABS Ultimate V-17-10 Users Education and Research License	Students are able to analysis and design the structure.	For Projects & Consultancy work	To enhance the technical knowledge in analyzing and design the structure.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
2	Primavera software	Primavera P6 Project planning software, 75 Users	Students are able to use this software for project planning, Scheduling, progress tracking and resource management.	For Projects & Consultancy work	To enhance the technical knowledge in analyzing and design the structure.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
3	Bentley BIM Software 2024	Bentley BIM Software refers to a suite of tools developed by Bentley systems,	Students are able to enhance project visualization and coordination, also improve the design accuracy and efficiency	For Projects & Consultancy work	To enhance the technical knowledge in analyzing and design the structure.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
4	Ansys	Ansys Structural FEA (Finite Element Analysis) 60 Users	Students are capabilities for linear and nonlinear structural analysis, including static, dynamic and thermal analyses	For Projects & Consultancy work	To enhance the technical knowledge in Numerical Studies.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
5	Abaqus 6.14	Abaqus 6.14 – SIMULIA – Finite Element Software 60 Users	Students are capabilities for linear and nonlinear structural analysis, including static, dynamic and thermal analyses.	For Projects & Consultancy work	To enhance the technical knowledge in Numerical Studies.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
6	Rebound Hammer	To Perform Non-Destructive Tests on concrete and other specimens, existing structural components, etc.	Students are able to understand the procedure of conducting non destructive testing for their project work and to test the specimens without braking them and also they learn to do the tests in existing structural components.	For Project & Consultancy work	Non Destructive Testing (NDT) Studying the compressive strength of a specimen or a building component without causing damage and to find out the rate of development of compressive strength of concrete cubes.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

7	RCPT Apparatus	To perform durability tests on concrete and particularly to find out the chloride penetration.	Students are able to do projects on durability properties of concrete with various partial replacements and also useful for carrying out researches.	For Project & Consultancy work	Durability Studies Acquire knowledge in durability study of concrete and to conduct chloride penetration test.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
8	Flow table motorized	To measure the consistency and workability of cement and concrete. It helps determine the flow characteristics of the material by subjecting it to a series of mechanical movements.	To assess the workability, consistency, and ease of handling of fresh cement and concrete mixtures.	For Project & Consultancy work	The motorized flow table adheres to standard guidelines for flowability testing, ensuring that students can work within the recognized testing parameters used in the construction industry	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
9	Vee bee Consistometer	Device used to measure the workability or consistency of concrete, specifically for mixes that are too stiff for traditional slump testing	By measuring how concrete behaves under vibration, it helps determine how easily it can be placed and compacted, ensuring the quality and performance of the final concrete product.	For Project & Consultancy work	By developing a Vee-Bee Consistometer, students gain insight into both the theoretical and practical aspects of concrete workability testing, contributing to a well-rounded understanding of material testing and quality control in construction	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
10	Blains Apparatus	Determining the specific surface area of materials, particularly fine powders or cement. It is commonly used in the study of materials that have very small particles, such as those in cement, which require measurement of their surface area for various quality control and material characterization purposes.	To assess the fineness of cement. Finer particles in cement result in a higher surface area, leading to a faster setting time and greater strength development.	For Project & Consultancy work	Blain's apparatus would allow students to gain practical experience in designing scientific equipment and understanding the underlying principles of material science, fluid dynamics, and laboratory techniques	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
11	Compressometre	To measure the deformation or strain in the longitudinal direction (along the length) of a material or specimen when it is subjected to compressive forces.	It is commonly used in materials testing to assess how a material behaves under compression, which is particularly important for understanding the elastic properties and structural integrity of materials like concrete, metal, polymers, and composites.	For Project & Consultancy work	Students use a longitudinal compressometer, they are engaging with an essential tool for understanding how materials behave under compressive stress.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
12	Compaction factor apparatus	To measure the workability of fresh concrete by determining its compaction factor. It is especially used in cases where the concrete mixture is too stiff to measure workability using the slump test.	TO determine the Workability of the concrete	For Project Work	This test is particularly useful for mixes where the concrete's consistency cannot be easily determined using traditional slump tests, such as high-density, low-slump concrete mixtures.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
13	Flash & Fire Point	To evaluate the flammability and fire hazards of liquids, especially in fuels, oils, and chemicals. These two properties help determine the temperature at which a substance can ignite and sustain combustion.	<input type="checkbox"/> To determine the flammability hazards of the bitumen	For Consultancy work	Pensky-Martens Flash Point Tester (Closed Cup Method): The sample is heated in a closed container, and the temperature at which a spark causes a flash is recorded	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

14	Mechanical Extensometer	To measure the elongation (strain) or deformation of a material when subjected to mechanical stress.	<input type="checkbox"/> To determine the Elongation of th Concrete	For Consultancy work	A mechanical extensometer is an essential tool for measuring the strain (elongation or deformation) of materials under load. It is especially useful in tensile testing and other material property evaluations.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
15	Benkelman beam with dial gauge	To measure the deflection of road pavements under a moving wheel load.	<input type="checkbox"/> To determine the Deformation of the Road Pavement	Academic & Consultancy	The Benkelman Beam is an essential tool for studying the deflection of flexible pavements under load, and students can learn a lot about road design, maintenance, and material behavior through its application	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
16	Concrete Impact machine	To assess the impact resistance or toughness of concrete materials	<input type="checkbox"/> To Determine the Impact Resistance of the Concrete Disk	Project & Consultancy work	It measures how well concrete can withstand sudden, short-duration forces, which is essential for determining the material's performance in environments subjected to shock loads, such as roads, pavements, and industrial floors.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
17	Coating thickness gauge	To measure the thickness of coatings (such as paint, plating, or other protective layers) on a substrate material (such as metal, plastic, or concrete).	<input type="checkbox"/> To determine the surface Tension behaviour of the material	For Project & Consultancy work	Students can accurate and non-destructive way to measure coating thickness and ensure that materials meet performance and safety standards.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
18	Spectrophotometer	To determine the concentration of various compounds in water and wastewater sample like phosphate, ammonia nitrogen, fluorides etc	<input type="checkbox"/> To understand the correlation about the concentration of pollutants and its light absorption and transmittance capacity. <input type="checkbox"/> To estimate the unknown sample concentration by comparing standard solutions using Beer-Lambert law.	For Project & Consultancy work	Characterization of chemical parameters of water and wastewater samples.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
19	Flame Photometer	An analytical instrument used to measure the concentration of certain metal ions, such as sodium (Na), potassium (K), calcium (Ca).It works on the principle of flame emission spectroscopy, where the sample is introduced into a flame, and the emitted light from the excited ions is measured to determine their concentration.	<input type="checkbox"/> Measure elements like sodium, potassium, calcium	For Project & Consultancy work	The application of flame photometry in their studies helps develop both technical skills and theoretical knowledge, and fosters a deeper understanding of scientific principles.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

20	Desiccator	A desiccator is a sealed container used in laboratories to store moisture-sensitive materials in a dry environment.	<input type="checkbox"/> Preserving, drying, and storing moisture-sensitive materials in a controlled environment.	For Project & Consultancy work	Students gain hands-on experience with essential scientific tools and techniques, fostering deeper engagement with topics like chemistry, biology, and material science. The use of desiccators helps develop critical lab skills, enhances understanding of environmental control in experiments, and encourages the application of theoretical knowledge to real-world problems.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
21	Water Bath Rectangular	It consists of a container filled with heated water in which smaller containers (such as test tubes, flasks, or beakers) can be submerged. The water provides a uniform, controlled temperature environment, ensuring gentle and even heating	<input type="checkbox"/> Heating substances or maintaining a stable temperature over an extended period.	For Project & Consultancy work	Students learn how to apply theoretical knowledge in practical contexts, enhancing their understanding of temperature-dependent processes, reactions, and biological systems.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
22	Distillation Unit	A system designed to purify water by separating impurities, salts, and other contaminants through the process of distillation. In this process, water is boiled to produce steam, which then condenses back into liquid water, leaving impurities behind. The purified water is collected as distilled water.	<input type="checkbox"/> Distilled water is used for mixing reagents, preparing solutions, and rinsing glassware to avoid any residues or ions that could affect reactions.	For Project & Consultancy work	Using a distillation unit enhances students' learning across a variety of disciplines, including chemistry, biology, environmental science, and engineering. They develop practical laboratory skills, enhance their understanding of fundamental scientific principles, and learn to apply these skills to real-world problems.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
23	Filtration Assembly	A system designed to remove impurities, particles, and contaminants from liquids or gases by passing them through a filter medium.	<input type="checkbox"/> Filtration is widely used in various applications, such as water purification, air filtration, chemical processing, and laboratory work.	For Project & Consultancy work	By using a Filtration Assembly, students enhance their learning in chemical separation techniques, laboratory skills, environmental science, and industrial applications. They develop practical, technical skills in handling and optimizing filtration processes, making this fundamental technique essential for students pursuing careers in chemistry, biology, environmental science, and engineering.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
24	Spectroquant Thermo reactor	A device used in laboratory settings to facilitate various types of chemical analyses, particularly for water quality testing,	<input type="checkbox"/> Spectroquant Thermo Reactor is in the determination of COD in water. COD is a measure of the organic matter in water and is a critical parameter for assessing water quality, especially in wastewater treatment facilities.	For Project & Consultancy work	Using a Spectroquant Thermo Reactor in laboratory settings provides students with a wealth of opportunities to enhance their learning in areas such as analytical chemistry, environmental science, water quality analysis, and instrumental techniques. They develop valuable skills in data interpretation, instrumentation, quality control, and environmental monitoring.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
25	Gas Chromatography	Gas Chromatography works on the principle of separation based on the interaction of compounds with a stationary phase and the flow of a mobile phase (usually a gas, often helium or nitrogen).	<input type="checkbox"/> Gas Chromatography (GC) is a widely used analytical technique for separating, identifying, and quantifying volatile and semi-volatile compounds in a mixture.	For Project & Consultancy work	The use of Gas Chromatography (GC) in student laboratories enhances learning in a wide array of scientific fields, ranging from analytical chemistry to environmental science, forensic science, and food chemistry. Students acquire hands-on experience with advanced instrumentation, chemical separations, and quantitative analysis, gaining practical skills that are widely applicable in research, industry, and environmental monitoring.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

26	Kjeldhal Digestion Unit	The Kjeldahl Digestion Unit is an essential laboratory apparatus used in the Kjeldahl method, which is designed to determine the nitrogen content in organic and inorganic samples.	<input type="checkbox"/> Measures nitrogen in wastewater, sludge, and sediments to monitor pollution levels.	For Project & Consultancy work	The Kjeldahl method is foundational in various scientific fields, and mastering it enhances students' practical knowledge and critical thinking, preparing them for advanced study and careers in research, agriculture, environmental science, and food industries.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
27	Kjeldhal Distillation Unit	The Kjeldahl Distillation Unit is a critical component of the Kjeldahl method, used to quantify nitrogen in a sample after the digestion step. This unit focuses on converting ammonium ions (produced during digestion) into ammonia gas, which is then captured and measured for nitrogen content determination.	<input type="checkbox"/> Quantifies nitrogen compounds in water bodies, wastewater, and sludge, aiding in pollution monitoring and treatment efficiency evaluations.	For Project & Consultancy work	The use of a Kjeldahl Distillation Unit enhances student learning in a variety of scientific fields, from analytical chemistry and biochemistry to environmental science and agriculture. Students gain practical experience in nitrogen analysis, distillation, titration, and experimental design, while deepening their understanding of nitrogen's role in biological systems, soil health, and food chemistry.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
28	Ion 6+PH/Ion/ORP Meter	The Ion 6+ pH/Ion/ORP Meter is a versatile analytical device used to measure pH, ion concentration, and oxidation-reduction potential (ORP) in various samples.	<input type="checkbox"/> Monitoring pH and ORP to control treatment processes. Measuring ion concentrations (e.g., fluoride, chloride) in water supplies.	For Project & Consultancy work	The use of an Ion 6+ pH/Ion/ORP Meter enhances students' understanding across a broad range of scientific disciplines, including chemistry, environmental science, biology, and industrial applications. By learning how to measure pH, ion concentration, and ORP, students gain practical skills	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
29	Chlorine Comparator	A Chlorine Comparator is a portable device used to measure the concentration of chlorine in water.	<input type="checkbox"/> Ensures proper chlorination in drinking water and wastewater systems.	For Project & Consultancy work	The use of a chlorine comparator in laboratory exercises helps students develop a range of skills in chemical analysis, data interpretation, and scientific problem-solving.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
30	Compound Microscope	An essential tool in biology, medicine, materials science, and education.	<input type="checkbox"/> Observing cells, tissues, microorganisms, and pathological samples.	For Project & Consultancy work	A compound microscope enhances student learning in a variety of scientific areas, from practical laboratory techniques to theoretical knowledge in optics, biology, and material science.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
31	Standard penetration test Apparatus	To measure the resistance of the soil strata to the penetration undergone. To provide information on geotechnical engineering properties of soil	<input type="checkbox"/> To understand the correlation between the soil properties and the penetration resistance. <input type="checkbox"/> To determine the Actual soil behaviour using SPT values	For Consultancy Work	Foundation Engineering - Acquire knowledge in selection of suitable foundation method	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

32	Dry Sieve Test (Sieve Shaker)	Mechanical Shaker	<input type="checkbox"/> To segregate the soil mass under different sizes (Soil Classification)	Academic & Consultancy	Geotechnical Engineering : Index Properties of Soils	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
33	Interface Friction measurement Apparatus for modified direct shear test	Mechanical device Specially designed to evaluate both 'frictional' as well as 'pull out resistance' of soil reinforcing	<input type="checkbox"/> To find the pullout resistance of other materials	Academic, Research & Consultancy	Soil Reinforcements : Mechanically Stabilized Walls	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
34	Geotextile Permeameter	Mechanical device Specially designed to test the requirements of water permeability of coir geotextile	<input type="checkbox"/> To find the water permeability of coir geotextile	Academic, Research & Consultancy	Soil Reinforcements : Mechanically Stabilized Walls	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
35	Hydrodynamic Sieve Test Apparatus	Mechanical device	<input type="checkbox"/> For determining the porometry of the geotextile	Academic, Research & Consultancy	Soil Reinforcements : Mechanically Stabilized Walls	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
36	<input type="checkbox"/> GPS	<input type="checkbox"/> Model: Garmin Etrex -10. Memory:1000 points. The etrex® 10 allows for the transfer of waypoint and track data between the GPS and the computer	<input type="checkbox"/> To find out the Latitude and Longitude of the points.	During Survey camp	Surveying – To enhance the technical skill in field of survey and to obtain knowledge in handling the advanced equipment available in the Surveying Laboratory.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
37	<input type="checkbox"/> Laser distance meter	<input type="checkbox"/> Measuring Range: 0.05m – 150m both indoors and outdoors <input type="checkbox"/> Measuring Accuracy \pm 1 mm <input type="checkbox"/> Digital Pointfinder / Viewfinder with 4x zoom. <input type="checkbox"/> Measuring Units m, in, ft & 20 Points Memory	<input type="checkbox"/> To do the projects work in the field of surveying.	For affiliation and accreditation works	Surveying – To enhance the technical skill in field of survey and to obtain knowledge in handling the advanced equipment available in the Surveying Laboratory.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

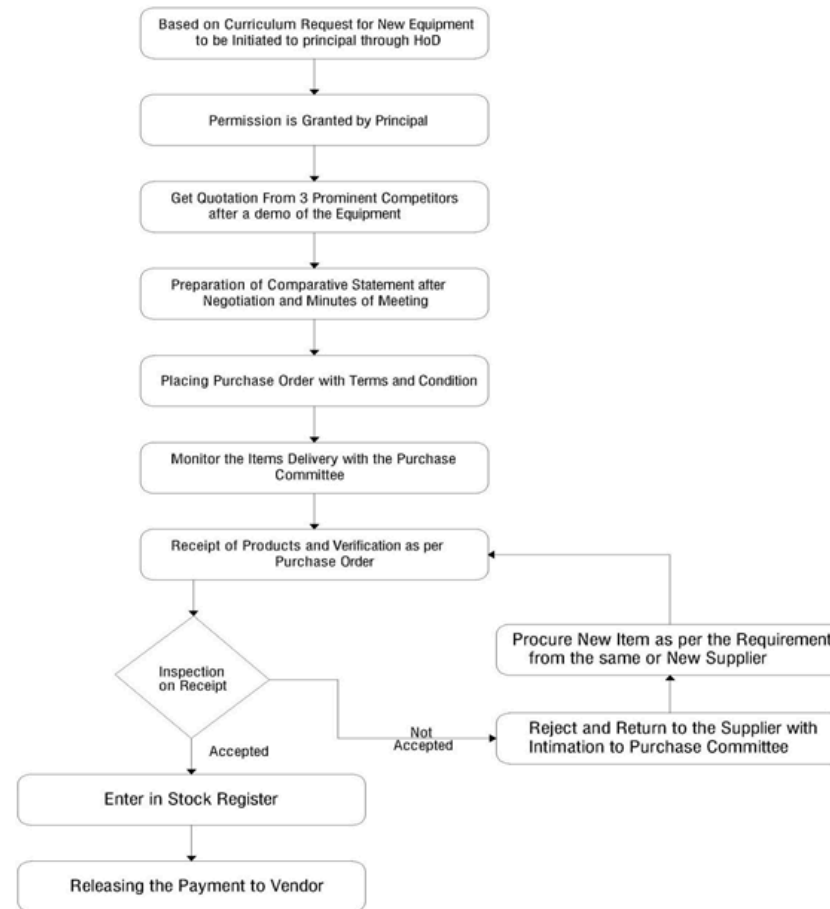
38	<input type="checkbox"/> Total Station	<input type="checkbox"/> Model: Sokkia.2LS CygnusKS -102 <input type="checkbox"/> Accuracy: 2" Least count: 1" Measuring Distance (approx.): 200m & Reflectorless mode: 2Km. (with single prism). <input type="checkbox"/> Int. memory: 24000 pts.	<input type="checkbox"/> Foundation Marking, Levelling Work, and Contouring work carried out for our college, schools and consultancy works.	For establishment of playground	Surveying – To enhance the technical skill in field of survey and to obtain knowledge in handling the advanced equipment available in the Surveying Laboratory.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
39	<input type="checkbox"/> Differential Global Positioning system,	<input type="checkbox"/> Model: Geomate SG7 Handheld GNSS Data Collector	<input type="checkbox"/> Students need to Kown Recent survey system and How to survey the land with less time <input type="checkbox"/> Consultancy work	VAC & Consultancy work	Used in mapping, land surveying, and infrastructure planning, where accurate spatial data is critical.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
40	<input type="checkbox"/> Drone	<input type="checkbox"/> Avio-M1 Professional Mapping Drone with PPK system,	<input type="checkbox"/> Students need to Kown Recent survey system and How to survey the land with less time <input type="checkbox"/> Consultancy work	VAC & Consultancy work	Used in mapping, land surveying, and infrastructure planning, where accurate spatial data is critical.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
41	<input type="checkbox"/> Impact of Jet on Vanes	<input type="checkbox"/> To study the force and momentum change when a fluid is striking a vane	<input type="checkbox"/> The hydrodynamic force created will enable the graduates to have better understanding on working of turbines	<input type="checkbox"/> To get Practical Exposure in Water Resource Engineering	<input type="checkbox"/> Turbomachinery studies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
42	<input type="checkbox"/> Pitot Tube Setup	<input type="checkbox"/> To measure the local fluid flow velocity	<input type="checkbox"/> To have better understanding flow rate measurements	<input type="checkbox"/> To get Practical Exposure in Water Resource Engineering	<input type="checkbox"/> Discharge measuring devices	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
43	<input type="checkbox"/> Multi-Stage Centrifugal Pump Test Rig	<input type="checkbox"/> To increase the fluid pressure and to produce high head	<input type="checkbox"/> To enhance the knowledge on various types and stages of pumps	<input type="checkbox"/> To get Practical Exposure in Water Resource Engineering	<input type="checkbox"/> Turbomachinery studies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
44	<input type="checkbox"/> Venturiflume Apparatus	<input type="checkbox"/> To measure the flow rate in rivers streams	<input type="checkbox"/> To have better understanding venturi effect and flow rate measurements	<input type="checkbox"/> To get Practical Exposure in Water Resource Engineering	<input type="checkbox"/> Discharge measuring devices	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

45	<input type="checkbox"/> Kaplan Turbine Test Rig (Electrical Loading)	<input type="checkbox"/> To determine the characteristic curves and efficiency of turbines	<input type="checkbox"/> Develop knowledge on conversion of hydraulic energy to electrical energy	<input type="checkbox"/> To get Practical Exposure in Water Resource Engineering	<input type="checkbox"/> Turbomachinery studies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
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6.3 Laboratories: Maintenance and overall ambiance (10)

Total Marks 10.00

All the laboratories in the department are equipped with state of the art instruments. The department follows a well-structured consumables/equipment purchase system. Fig.6.3.1 shows the equipment purchase process followed. (Link : https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VI.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VI.pdf))



6.3.2 Maintenance of Laboratory Equipment

The Department of Civil engineering is maintained daily with sufficient numbers of housekeeping persons other additional task are summarized below

- All the laboratories are equipped with continuous power supply ensuring uninterrupted operation of machines.
- One teaching faculty and minimum of one laboratory instructor take care of the overall functioning / maintenance of the laboratory.
- Stock registers are maintained in the laboratory for capital goods and consumables
- Separate maintenance records are available for each and every laboratory where maintenance activities are recorded.
- Cleaning of machine and equipment is carried out by the lab assistant and it is recorded in separate Equipment maintenance register.
- Cleaning of floors, doors, windows, carpentry work, and painting work are carried out by the Housekeeping and Estate Office, and the details are recorded in the General Maintenance Register
- Regular checkup of equipment / computer is carried out as and when required.

- Weekly oil level check-up is done in certain laboratories by the lab assistant.
- Major repairs of machines are carried out by authorized agencies or service engineers, and the details of the work are recorded in the Service Register.
- The utilization of laboratories and machinery/equipment is recorded in a separate Utilization /Student Login Register.
- Licensed Software is updated whenever required and all the latest software is uploaded to meet the industrial needs in certain labs.
- All computers in CAD lab are uploaded with latest analysis and design software with correlation with Bentley Systems to meet the Industrials Needs.

Fig 6.3.2 Steps Involved in Maintenance and Repair Work

(Link : https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VI.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VI.pdf))

Fig.6.3.3 Sample Maintenance record for Concrete laboratory

(Link : https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VI.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VI.pdf))

6.3.3 Overall Ambience

CAD – DIGITALIZED CONSTRUCTION LABORATORY

- CAD laboratories are equipped with fans, good ventilation and ambience
- Cad laboratory have adequate number of furniture's, ergonomics benches/ chairs.
- Preventive maintenance are carried out for all system hardware and software
- Maintain the sufficient hardware and licensed versions of software in the laboratory.
- Edibles are strictly prohibited inside the laboratory.
- Display Boards are provided for displaying the course syllabus.
- Good quality window glasses with curtains are provided to avoid direct exposure of sunlight inside the laboratory.
- Provided with sufficient lighting facilities for better luminance.
- Provided individual MCB for handling emergency situations.
- Vision, Mission, PEO's, PO's, signboard display for better understanding
- Equipped with rolling chair and good finish floor tiles for better appearance.
- Movable sliding keyboard drawer are provided for ease access of hardware of the computer.
- Wooden furniture's foot holders are provided to rest the foot during the system operation. Servicing of each laboratory is doing frequently.
- Each Laboratory are equipped with First Aid Box and Fire Extinguisher.
- Each Lab is equipped with white/black board.

Concrete And Highway Engineering Laboratory, Soil Mechanics Laboratory:

- Experienced and trained technicians are employed in the laboratory for carry out maintenance work.
- Excess spare parts, consumables are procured for immediate replacement, if it is needed, adequate inventories are maintained in the laboratory to address the maintenance issue.
- After machining, the machines are cleaned and derbies are removed.
- Oil lubrication level, water level is checked regularly, Adequate oil are procured and stock should be maintained before commencement of laboratory classes in the semester.
- The machines are arranged with prescribed layout for easy access.
- The machines specifications are provided for easy identification of Machines.
- Measuring equipment are calibrated with standard. Servicing of each laboratory is doing frequently.
- Each Laboratories are equipped with First Aid Box and Fire Extinguisher.
- Each Lab is equipped with white/black board.

Strength of Materials Laboratory, Fluid Mechanics & Machinery Laboratory/Hydraulic Engineering Laboratory:

- Machines are arranged in prescribed layout to easily exercise machines.
- Instruments are calibrated and necessary trainings or given to technicians to calibrate the equipment, if needed.
- Issues, breakdown of engines are immediately addressed with technicians or with experts from engine suppliers end, if needed
- Enough ventilation is provided for enough air circulation inside the laboratory and removing exhaust gases.
- Ensure all the pipelines are leak proof and use proper gaskets for arresting leakage.

- Maintain water pressure within safe range.
- Properly clean the equipment for preventing first and periodically clean the water storage tank to avoid corrosion.
- Oil lubrication level, water level is checked regularly, Adequate oil are procured and stock should be maintained before commencement of laboratory classes in the semester.
- Servicing of each laboratory is doing frequently.
- Each Laboratories are equipped with First Aid Box and Fire Extinguisher.
- Each Lab is equipped with white/black board.

Surveying Laboratory:

- Experienced and trained technicians are employed in the laboratory for carry out maintenance work.
- Excess spare parts, consumables are procured for immediate replacement, if it is needed, adequate inventories are maintained in the laboratory to address the maintenance issue.
- The survey laboratory provides with ample space for equipment, workstations, and movement. This ensures ease of access to tools and instruments, as well as the ability to conduct experiments without feeling cramped.
- The laboratory situated on stable floor, away from sources of vibrations or disturbances that could affect instruments and measurements.
- Proper storage facilities for equipment, tools, and materials contribute to an efficient and organized laboratory environment. This includes designated areas for storing survey instruments, reference materials, etc.,
- The laboratory equipped with the necessary technical infrastructure, including computers, software for data analysis, and internet connectivity for research and collaboration.
- Enough ventilation is provided for enough air circulation inside the laboratory and removing exhaust gases.
- Servicing of each laboratory is doing frequently.
- Each Laboratories are equipped with First Aid Box and Fire Extinguisher.
- Each Lab is equipped with white/black board.

Environmental Engineering Laboratory/Water and Waste Water Analysis Laboratory

- The laboratory equipped with appropriate safety equipment such as eyewash stations, safety showers, and fire extinguishers. Additionally, personnel are trained in proper safety protocols.
- Provided with A well-designed ventilation system for maintaining air quality and removing hazardous fumes and odors generated during testing and analysis. Adequate ventilation helps protect personnel and ensures accurate results.
- Provided with sufficient lighting facilities for better luminance.
- Excess spare parts, consumables are procured for immediate replacement, if it is needed, adequate inventories are maintained in the laboratory to address the maintenance issue.
- Instruments are calibrated and necessary trainings or given to technicians to calibrate the equipment, if needed.
- Servicing of each laboratory is doing frequently.
- Each Laboratories are equipped with First Aid Box and Fire Extinguisher.
- Each Lab is equipped with white/black board.

Table 6.3. List of Classrooms and Laboratories

SI. No.	Name of the Laboratory	Location	Lab No.	Area (Sq.m)
1.	Concrete and Highway Engineering Laboratory	Ground Floor	C0R04	140
2.	Fluid Mechanics and Machinery Laboratory	Ground Floor	C0L01	181
3.	Surveying Laboratory	First Floor	C1L01	165
4.	Water and Wastewater Analysis Laboratory	First Floor	C1L05	109
5.	Soil Mechanics Laboratory	First Floor	C1L04	148
6.	CAD – Digitalized Construction Laboratory	First Floor	C1L01-B	110

7.	Strength of Materials Laboratory	Ground Floor	C0L03	124
8.	Construction Practice Lab	Ground Floor	CPL-01	66
9.	Centre for Geospatial Technology	First Floor	C1L01-A	68
10.	HOD Room & Department	First Floor	C1L02	122
11.	Project Laboratory	Ground Floor	C0R06	23.6
12.	Department Library	First Floor	C1L06	57.6
13.	Seminar Hall	Second Floor	B2L04	152
14.	Class Room -I	First Floor	B1L02	82
15.	Class Room – II	Third Floor	B3L05	82
16.	Class Room – III	Third Floor	B3L03	82
17.	Class Room – IV	Third Floor	B3L04	82
18.	Research Centre	First Floor	C1L09	21.93

6.4 Project laboratories (5)

Total Marks 5.00

6.4.1 Facilities provided for projects

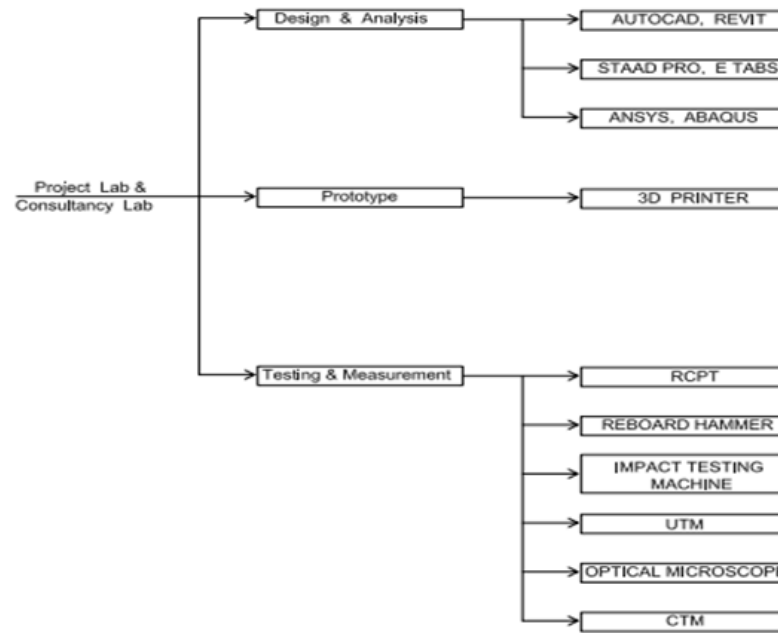


Fig.6.4.1 Facilities provided for projects

(Link : https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VI.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VI.pdf))

Table 6.4.1-Additional facilities

Sl. No.	Facilities	Utilization
1.	Project Laboratory	Utilized for Student projects and Faculty Research work
	• Rapid Chloride Penetration Test equipment	
	• Concrete Impact testing	
	• Rebound Hammer	
	• Standard Penetration test equipment	
	• Rapid Moisture Meter	

SI. No.	Facilities	Utilization
2.	COMPUTER AIDED BUILDING DRAWING LABORATORY	Utilized for Student projects and Faculty Research work
	<ul style="list-style-type: none"> • AutoCAD (2023), 	
	<ul style="list-style-type: none"> • STAAD.Pro V8i, 	
	<ul style="list-style-type: none"> • Revit Architecture 2016 	
	<ul style="list-style-type: none"> • ETABS 17 	
	<ul style="list-style-type: none"> • Primavera Contractor P6 	
	<ul style="list-style-type: none"> • ANSYS 17.0 	
	<ul style="list-style-type: none"> • Abaqus 	
3.	CONCRETE AND HIGHWAY ENGINEERING LABORATORY	Utilized for Student projects and Faculty Research work
	<ul style="list-style-type: none"> • Concrete impact testing machine 	
	<ul style="list-style-type: none"> • SCC testing equipments (L box, U box, V- funnel, J Ring & Flow table) 	
	<ul style="list-style-type: none"> • CTM 2000 KN capacity 	
	<ul style="list-style-type: none"> • Los angles abrasion testing machine 	
	<ul style="list-style-type: none"> • Universal penetrometer 	
	<ul style="list-style-type: none"> • Marshall stability 	
	<ul style="list-style-type: none"> • Benkelman beam 	
	<ul style="list-style-type: none"> • Bitumen centrifuge extractor 	
	<ul style="list-style-type: none"> • Standard tar viscometer 	
	<ul style="list-style-type: none"> • Flash & fire point 	
	<ul style="list-style-type: none"> • Ring and ball apparatus 	
	<ul style="list-style-type: none"> • Sieve Analysis 	

SI. No.	Facilities	Utilization
4.	WATER AND WASTEWATER ANALYSIS LABORATORY	Utilized for Student projects and Faculty Research work
	• Oxygen Analyzer	
	• Spectrophotometer	
	• Ion selective Electrode	
	• Flame Photometer	
	• Gas Chromatography	
	• Digital Turbidity Meter	
	• BOD Analyzer, COD Analyzer	
	• Muffle Furnace, pH Meter	
	• Bacteriological Incubator	
	• Conductivity Meter	
5.	Consultancy Laboratory	Utilized for Consultancy Works
	• Total Station	
	• Line Laser Level	
	• GPS	
	• DGPS	
	• Compression Testing Machine	
	• Spectrophotometer	
	• Ion selective Electrode	
	• Flame Photometer	
	• BOD Analyzer, COD Analyzer	
	• pH Meter	

6.4.2 Utilization and outcomes

Project works are being carried out in individual laboratories and industries by students. Also, a separate project laboratory of size 23.6m with library for reference, systems and internet facilities to process the results/data, Laboratories can offer students and faculty valuable opportunities for projects beyond traditional academic work, fostering innovation and skill-building in practical, hands-on settings. By utilizing the lab space and resources, students can engage in research projects, independent study, or extracurricular projects that deepen their knowledge and technical skills. Faculty can also benefit by using the lab for professional development or to collaborate on interdisciplinary projects with colleagues and students, often leading to publications, prototypes, or innovative solutions to real-world problems. Additionally, labs can host workshops, seminars, or community engagement events, providing a space to experiment with new ideas, mentor students, and build networks. This broader use of lab resources not only enriches the academic environment but also promotes a culture of curiosity, creativity, and continuous learning.

**Facilities Provided:

The Following Facilities are created for doing projects in this laboratory

Table 6.4.2-STUDENTS PROJECTS WITH OUTCOMES (2021 – 2024)

Sl.No.	Team Members	Details of the Project	Facilities Utilized	Outcome of the projects	Achievements of PO/PSO
1.	Balaji K Devar Piran M Arun Kumar S Deena Dhayalan R	Household Waste Composter	pH meter, Conductivity Meter	Won Cash prize worth Rs.5000 in the event of Current Environmental Challenges and solution towards sustainability, EUPHORIA'24 organized by the Department of Civil Engineering, Kalasalingam Academy of Research and Education.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
2.	A. Keerthi roja	Impact and Mechanical Properties of carbon fibre reinforced Concrete.	CTM (2000 kN capacity), Impact Testing Machine	Leema Margret, A. & Keerthi, Roja (2024). Effect of Addition of Carbon Fibre on Mechanical Properties of Concrete. Journal of Science Technology and Research (JSTAR) 5 (1):535-541.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
3.	S.Muthu Sanjay	Eco-friendly light weight bricks	CTM (2000 kN capacity),	Got fund for the project under TNSCST Students Project Scheme	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
4.	K. Jeevanbabu	Figure Diminishing Geopolymer products	CTM (2000 kN capacity),	Funded project Granted in the scheme of MSME Idea Hacathon	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

SI.No.	Team Members	Details of the Project	Facilities Utilized	Outcome of the projects	Achievements of PO/PSO
5.	M.Paartha Sarathi	Experimental Study on Paver Block using Prosopis Juliflora Ash	CTM (2000 kN capacity), UTM, Vicat and Lechatlier Apparatus	Presented at International Conference on Sustainable Technology in Civil Engineering and Applied Sciences 2023 (ICSTCA2023)& Published in the conference of Global Nest Journal	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
6.	V.Vineeth	Experimental Study on mechanical properties of Textile Reinforced Concrete	CTM (2000 kN capacity), UTM	Presented at International Conference on Sustainable Technology in Civil Engineering and Applied Sciences 2023 (ICSTCA2023' & Published in the journal of E3 Web of conferences	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
7.	K. Hariharasudhan	Treatment of textile effluent in palm fruit cell	COD analyser, Muffle Furnace, Digital Turbidity meter, pH meter, Conductivity Meter	Subha, C. & Hariharasudhan, K. (2024). Textile Waste Water Treatment Using Biochar. Journal of Science Technology and Research (JSTAR) 5 (1):547-551.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
8.	S.Ajandha Devi G.Jenitha M.Subalakshmi	Numerical study of flexural behavior of reinforced concrete beam using MATLAB	MAT Lab	Presented at the International Conference on Smart Technologies and Applications 2022 and accepted for publication in AIP Conference Proceedings	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

SI.No.	Team Members	Details of the Project	Facilities Utilized	Outcome of the projects	Achievements of PO/PSO
9.	S.Ajandha Devi G.Jenitha M.Subalakshmi	Experimental investigation on packing density of different fine aggregate	Sieve analysis, CTM 2000kN capacity	Indhumathi, M. ; Leema Margret, A. ; Ajandhadevi, S. ; Jenitha, G. & Subalakshmi, M. (2024). Experimental Investigation on Packing Density of Different Fine Aggregate In Geopolymer Concrete. Journal of Science Technology and Research (JSTAR) 5 (1):552-566.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
10.	B.Jacksingh Dharma K.Thanga Guru P.Karthick Raja	Experimental and Numerical Studies on Gypsum Board using ABAQUS	Numerical analysis done by Abaqus software, Flexure Testing Machine	Presented at the International Conference on Smart Technologies and Applications 2022	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
11.	A.Abdhur Rahman K.Dinesh	Experimental study on Microbial fuel cell performance on pollutant removal by utilizing sesame oil cake as Biochar catalyst	BOD and COD analyser, Muffle furnace, pH meter	ICISDG23: International Conference on Innovation Towards Sustainable Development Goals	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
12.	G.Mohanrajan S.Srivarshan M.RA.Suresh Kumar	Experimental Study of Performance of Cement-Based Batteries	Voltmeter	Got fund for the project under TNSCST Students Project Scheme	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

Students and Faculty members are insisting to do their project work and research work in project laboratory. They presented their work in seminar, symposium and published in journal papers. Some of the projects are got funding from funding agencies. Some of the Important projects are listed below:

Table 6.4.3-STUDENTS PROJECTS WITH OUTCOMES

Sl. No.	Team Members	Details of the Project	Facilities Utilized	Outcome of the projects	Achievements of PO/PSO
1.	Anto Vasanthan K Ayyanar G Karthik Raja M Muneeswaran M	Experimental Study on Concrete by Partial Replacement of Sand With Bottom Ash	"Compression Testing Machine, Slump Cone"	"Presented in National Conference on Innovations in Engineering, Science and Technology NCIEST, Ramco Institute of Technology, Rajapalayam"	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
2.	Sheelarani T, Vishalini K, Yamini S	Experimental Investigation on Properties of Pervious Concrete	CTM, Los Angeles Abrasion Testing Machine	Presented a conference paper titled "Laboratory Study of Porosity and Strength Properties of Pervious Concrete" in National Conference on Innovations in Engineering, Science and Technology NCIEST, Ramco Institute of Technology, Rajapalayam	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
3.	Keerthana C, Pavithra S, Subhalakshmi L V	Experimental Study on Induction Concrete	CTM, Furnace and Oven Systems, Thermometer	Presented in National Science day Projects	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
4.	Dhanalakshmi S, Jaya Priya Bharathy R, Ponpriya M	Android Application For Agriculture	CAD lab Systems for developing the application	won Second Prize Rs. 50,000 from Dr.A.P.J.Abdul Kalam Innovative Ecosystems under the category of Agriculture at Sri Sairam Engineering College, Chennai on 08.04.2017.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
5.	Anusuya R Chandraleka D Sarumathi S	Experimental study on concrete by replacement of fine aggregate with copper slag, GGBS and M-Sand	CTM,	"Published a journal International Journal of Innovative Science and Research Technology in Volume 3, Issue 3, March– 2018"	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

Sl. No.	Team Members	Details of the Project	Facilities Utilized	Outcome of the projects	Achievements of PO/PSO
6.	Arun Priyan T Ganesh S Gnanaraj S Gopal Raj S	Reduction of fluoride content in ground water using papaya leaf charcoal and creating an android application	pH meter, Conductivity meter, TDS meter, Muffle Furnace, BOD Analyser, COD Analyser	1. Won First Prize in the National Science Day Project Contest held at college level on 28.02.20218 2. Got a fund of Rs 7,500 under TNSCST Students Project Scheme.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
7.	Deepa Jothi P Keerthana A R Latha M Nandhini R	Behaviour of plate girder bridge with and without retrofitting	"Deflection measurement device"	"Presented a conference paper titled ""Behaviour of Plate Girder Steel Bridge with and without Retrofitting"" in National Conference on Sustainability in Construction – NACSIC 2018, Kalasalingam Academy of Research and Education, Krishnankoil"	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
8.	Loga Ganesh S Mahalakshmi S Muthu Selvi R	Effect of specimen size on mechanical properties of pervious concrete	CTM	"Presented a conference paper titled ""Shape and Size effect on Mechanical Properties of Pervious Concrete" in National Conference on Sustainability in Construction – NACSIC 2018, Kalasalingam Academy of Research and Education, Krishnankoil."	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
9.	Chinthamani.M, Daniel G, Ganapathi Subramaniam M	Power generation from wastewater by Microbial Fuel Cell	pH meter, COD Analyser. Muffle Furnace, TDS meter	Presented a paper titled Power Production from Wastewater By Microbial Fuel Cell in one Day National Conference on Sustainability in Construction - NASIC 2018 organized by Kalasalingam Academy of Research and Education, Krishnankoil, 13.04.2018	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

Sl. No.	Team Members	Details of the Project	Facilities Utilized	Outcome of the projects	Achievements of PO/PSO
10.	Amrutha P K, Anisa Shifana D R, Jeyasneha J, Sharatha P	Effect of silica fume on mechanical properties of Pervious Concrete	CTM	Presented a Conference paper titled "Effect of Silica Fume on Mechanical Properties of Pervious Concrete" National Conference on Recent Trends in Civil Engineering (NCRTE'19), Mother Teresa College of Engineering and Technology, Pudukottai, Tamilnadu	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
11.	Dharini R, Gokula Nandhini G	Experimental Study on Utilization of Palm Fibre in Concrete	CTM	Presented a paper titled " Experimental Study on Utilization of Palm Fibre in Concrete" in a National Level Conference on Emerging Trends in Engineering Design & Manufacturing on 23.06.2019	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
12.	Karankumar M, Sujith S	Structural rehabilitation and strengthening of column using micro concrete and additional reinforcement	Staad Pro, E tabs	"Presented a conference paper titled ""Structural Rehabilitation and strengthening of column using Micro Concrete and additional reinforcement", National conference on Emerging Trends in Engineering Design and Manufacturing, Hindusthan Institute of Technology, Coimbatore"	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

Sl. No.	Team Members	Details of the Project	Facilities Utilized	Outcome of the projects	Achievements of PO/PSO
13.	Raghul T, Ramkumar K, Vijaya Kumar K, Ajaykumar E.R	An eco friendly solution for sewage water treatment using natural herbs and Ag nanoparticles	pH meter, TDS meter, Conductivity Meter, Oven, Muffle Furnace,	"Presented a Conference paper titled ""An eco-friendly solution for sewage water treatment using Natural herbs and Ag nanoparticles"" International conference on advanced topics in interdisciplinary research in Chemistry and Physics, Sri. S. Ramasamy Naidu Memorial College, Sattur"	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
14.	Ram Prasad A, Selvakumar T, Shiva Surya Vignesh M.N, Suryaprakash M	Experimental study on light weight aggregate in concrete	CTM	Published paper titled, " Experimental Study on Light Weight Aggregate in Concrete", International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181,ETEDM - 2019 Conference Proceedings, Volume 7, Issue 06, DOI : 10.17577/IJERTCONV7IS06010	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
15.	Aarthi T C R, Madhumitha M, Muthuselvi K	Effect of cement content and chemical admixture on pervious concrete	CTM	Presented a conference paper titled "Effect of Chemical Admixture on Pervious Concrete Properties" International Web Conference on Smart Engineering Technologies-2020, Ramco Institute of Technology, Rajapalayam. (ISBN: 978-93-5407-648-0)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

Sl. No.	Team Members	Details of the Project	Facilities Utilized	Outcome of the projects	Achievements of PO/PSO
16.	Abinaya Parasakthi P, Kaleeswari M, Priyatharshani M, Sivapriya M	Pervious concrete pavement block for Rain Water Harvesting	CTM	Presented a conference paper titled "Effect of Wire Mesh on Properties of Pervious Concrete Pavement Blocks" International Web Conference on Smart Engineering Technologies-2020, Ramco Institute of Technology, Rajapalayam. (ISBN: 978-93-5407-648-0)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4
17.	Thamotharan A, Arunachalaeswaran K, Ramesh Kumar R	Micro pores activated carbon production from waste ANANAS COMOSUS crown for water hardness removal	pH meter, TDS meter, Conductivity Meter, Oven, Muffle Furnace,	Won Second Prize in the National Science Day Competition held at college level at Ramco Innstitute of Technology, Rajapalayam, 28.02.2020	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3, PSO4

6.5 Safety measures in laboratories (10)

Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
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1

CONCRETE AND HIGHWAY ENGINEERING LABORATORY

First Aid: First Aid kits are placed in the laboratory. It is maintained and replenished periodically Necessary First Aid training is provided to the lab instructors. General Safety Measures: Standard Operating Procedure is strictly followed for all the equipment. For emergency situations, contact numbers of Ambulance, Fire service and security officers are displayed at every floor entrance and exit point. Machine capacity and details are displayed in each machine. Students are instructed to follow the proper Lab dress codes. The students are instructed not to use any equipment unless they are trained and approved as a user by the lab assistant.

Electrical Safety: All electrical equipment and components are inspected and approved by competent authority. Formal training and awareness programs are arranged on electrical appliances. Working space around Lab equipment and machines are maintained properly. All electrical panels, cables and devices are thoroughly checked periodically. Earth Connections are checked periodically. Circuit breaker is provided in each and every main supply panel. Electrical Installation is periodically monitored to avoid the leakage. There are sufficient lightning arresters installed and maintained at various locations within the Institution. The operation circle of the lightning arresters covers the safety of all the buildings and structures in the campus. Proper disposal of scrap metals Keep pathways clear by placing extra items (books, bags, etc.) on the shelves or under the work tables. If under the tables, make sure that these items can not be stepped on. Proper disposal of scrap metals Provide machine guard in all equipments to avoid accidents. Instruct the students to remove ID card during machining operations. To allot members (3 or 4 students) in a group. So overcrowding of the machines can be avoided. To wear leather gloves and goggles for sand moulding preparation in concrete casting process. Fire Safety Measures: Each floor is equipped with 4 Nos of Fire Extinguishers that are placed at accessible locations. The Fire Extinguishers are replaced periodically based on the expiry date. Fire hydrant tube and valves are placed at accessible location Work instructions and supervisions are provided. Effective Safety arrangements are made with multiple exists and ventilation/exhausts in laboratories. Computer Safety: Uninterrupted power supply is provided to the computers in the laboratories. Regular backup of data and information is taken. Protective antivirus is installed in all the computers. House Keeping: Equipment, staff bench, computers and other work areas are regularly cleaned. Working area and equipment are cleanly maintained and organized. Leave your work station clean and in good order before leaving the laboratory. Green Campus & Building

Safety: The campus is certified with green campus certificate and the safety of the building is certified by the authorities of the Government of Tamilnadu.

2

COMPUTER AIDED BUILDING DRAWING LABORATORY

First Aid: First Aid kits are placed in the laboratory. It is maintained and replenished periodically Necessary First Aid training is provided to the lab instructors. General Safety Measures: Standard Operating Procedure is strictly followed for all the equipment. To sit the chair comfortably during operate the systems. To provide well air conditioning to improve performance of the systems. To ask the students away from electric control panels. To remove their shoes outside. To give proper space to move from one location to another location in the laboratory area. To provide proper workspace for creating comfortability and good ambience. To close the glass doors and curtains to improve the efficiency of air coolers. Provide exit way for emergency purpose. Be aware of the various experiment controls (start button, stop button, speed control) for each lab. To educate the students to use all accessories in proper way in this laboratory. For emergency situations, contact numbers of Ambulance, Fire service and security officers are displayed at every floor entrance and exit point. Students are instructed to follow the proper Lab dress codes. Ensure ergonomic furniture to prevent musculoskeletal issues. Chairs should be adjustable and support good posture. Workstations have adequate space to avoid overcrowding. Electrical Safety: All electrical equipment and components are inspected and approved by competent authority. Formal training and awareness programs are arranged on electrical appliances. Working space around Lab equipment and machines are maintained properly. All electrical panels, cables and devices are thoroughly checked periodically. Earth Connections are checked periodically. Circuit breaker is provided in each and every main supply panel. Electrical Installation is periodically monitored to avoid the leakage. There are sufficient lightning arresters installed and maintained at various locations within the Institution. The operation circle of the lightning arresters covers the safety of all the buildings and structures in the campus. Proper disposal of scrap metals Keep pathways clear by placing extra items (books, bags, etc.) on the shelves or under the work tables. If under the tables, make sure that these items can not be stepped on. Fire Safety Measures: Each floor is equipped with 4 Nos of Fire Extinguishers that are placed at accessible locations. The Fire Extinguishers are replaced periodically based on the expiry date. Fire hydrant tube and valves are placed at accessible location Work instructions and supervisions are provided. Effective Safety arrangements are made with multiple exists and ventilation/exhausts in laboratories. Computer Safety: Uninterrupted power supply is provided to the computers in the laboratories. Regular backup of data and information is taken. Protective antivirus is installed in all the

computers. House Keeping: Equipment, staff bench, computers and other work areas are regularly cleaned. Working area and equipment are cleanly maintained and organized. Leave your work station clean and in good order before leaving the laboratory. Green Campus & Building Safety: The campus is certified with green campus certificate and the safety of the building is certified by the authorities of the Government of TamilNadu.

3

Surveying Laboratory

First Aid: First Aid kits are placed in the laboratory. It is maintained and replenished periodically Necessary First Aid training is provided to the lab instructors. General Safety Measures: Standard Operating Procedure is strictly followed for all the equipment. For emergency situations, contact numbers of Ambulance, Fire service and security officers are displayed at every floor entrance and exit point. Students are instructed to follow the proper Lab dress codes. The students are instructed not to use any equipment unless they are trained and approved as a user by the lab assistant. The students are instructed that if an instrument or piece of equipment fails during use, or isn't operating properly, report the issue to a technician right away. Never try to repair an equipment problem on their own. Electrical Safety: All electrical equipment and components are inspected and approved by competent authority. Formal training and awareness programs are arranged on electrical appliances. Working space around Lab equipment and machines are maintained properly. All electrical panels, cables and devices are thoroughly checked periodically. Earth Connections are checked periodically. Circuit breaker is provided in each and every main supply panel. Electrical Installation is periodically monitored to avoid the leakage. There are sufficient lightning arresters installed and maintained at various locations within the Institution. The operation circle of the lightning arresters covers the safety of all the buildings and structures in the campus. Proper disposal of scrap metals Keep pathways clear by placing extra items (books, bags, etc.) on the shelves or under the work tables. If under the tables, make sure that these items can not be stepped on. Proper disposal of scrap metals Provide machine guard in all equipments to avoid accidents. Instruct the students to remove ID card during machining operations. To allot members (3 or 4 students) in a group. So overcrowding of the machines can be avoided. To wear leather gloves and goggles for sand moulding preparation in concrete casting process. Fire Safety Measures: Each floor is equipped with 4 Nos of Fire Extinguishers that are placed at accessible locations. The Fire Extinguishers are replaced periodically based on the expiry date. Fire hydrant tube and valves are placed at accessible location Work instructions and supervisions are provided. Effective Safety arrangements are made with multiple exists and ventilation/exhausts in laboratories. Computer Safety: Uninterrupted power supply is provided to the computers in the laboratories. Regular backup of data and information is taken. Protective antivirus is installed in all the computers. House Keeping: Equipment, staff bench, computers and other work areas are regularly cleaned. Working area and equipment are cleanly maintained

and organized. Leave your work station clean and in good order before leaving the laboratory. Green Campus & Building Safety: The campus is certified with green campus certificate and the safety of the building is certified by the authorities of the Government of TamilNadu.

4

Strength of Materials Laboratory

First Aid: First Aid kits are placed in the laboratory. It is maintained and replenished periodically Necessary First Aid training is provided to the lab instructors. General Safety Measures: Regularly check the condition of the testing machines to avoid undue accidents. Calibrate the equipments and checking with standards To store the destructive test specimens in separate place and disposed off in regular interval. To check the hydraulic oil level of equipments for smoothness of its operations. The students are instructed to follow the proper procedures for disposing lab waste. To instruct the students to wear goggles, gosses, proper cotton clothes to handle cast metal in stir casting equipments. To check the inert gas level in stir casting to find any leakages. To check the furnace temperature level and switched off when the temperature level reaches its level. Instruct the students to remove ID card during machining operations. Proper disposal of scrap metals. The students are instructed that if an instrument or piece of equipment fails during use, or isn't operating properly, report the issue to a technician right away. Never try to repair an equipment problem on their own. Electrical Safety: All electrical equipment and components are inspected and approved by competent authority. Formal training and awareness programs are arranged on electrical appliances. Working space around Lab equipment and machines are maintained properly. All electrical panels, cables and devices are thoroughly checked periodically. Earth Connections are checked periodically. Circuit breaker is provided in each and every main supply panel. Electrical Installation is periodically monitored to avoid the leakage. There are sufficient lightning arresters installed and maintained at various locations within the Institution. The operation circle of the lightning arresters covers the safety of all the buildings and structures in the campus. Proper disposal of scrap metals Keep pathways clear by placing extra items (books, bags, etc.) on the shelves or under the work tables. If under the tables, make sure that these items can not be stepped on. Provide machine guard in all equipments to avoid accidents. To allot members (3 or 4 students) in a group. So overcrowding of the machines can be avoided. To wear leather gloves and goggles for sand moulding preparation in concrete casting process. Fire Safety Measures: Each floor is equipped with 4 Nos of Fire Extinguishers that are placed at accessible locations. The Fire Extinguishers are replaced periodically based on the expiry date. Fire hydrant tube and valves are placed at accessible location Work instructions and supervisions are provided. Effective Safety arrangements are made with multiple exists and ventilation/exhausts in laboratories. Computer Safety: Uninterrupted power supply is

provided to the computers in the laboratories. Regular backup of data and information is taken. Protective antivirus is installed in all the computers. House Keeping: Equipment, staff bench, computers and other work areas are regularly cleaned. Working area and equipment are cleanly maintained and organized. Leave your work station clean and in good order before leaving the laboratory. Green Campus & Building Safety: The campus is certified with green campus certificate and the safety of the building is certified by the authorities of the Government of Tamilnadu. To give enough ventilation to the laboratory.

5

Soil Mechanics Laboratory

First Aid: First Aid kits are placed in the laboratory. It is maintained and replenished periodically Necessary First Aid training is provided to the lab instructors. General Safety Measures: Regularly check the condition of the testing machines to avoid undue accidents. Calibrate the equipments and checking with standards To store the destructive test specimens in separate place and disposed off in regular interval. To check the hydraulic oil level of equipments for smoothness of its operations. The students are instructed to follow the proper procedures for disposing lab waste. To instruct the students to wear goggles, glasses, proper cotton clothes to handle cast metal in stir casting equipments. To check the inert gas level in stir casting to find any leakages. To check the furnace temperature level and switched off when the temperature level reaches its level. Instruct the students to remove ID card during machining operations. Proper disposal of scrap metals To give enough ventilation to the laboratory The students are instructed that if an instrument or piece of equipment fails during use, or isn't operating properly, report the issue to a technician right away. Never try to repair an equipment problem on their own. Electrical Safety: All electrical equipment and components are inspected and approved by competent authority. Formal training and awareness programs are arranged on electrical appliances. Working space around Lab equipment and machines are maintained properly. All electrical panels, cables and devices are thoroughly checked periodically. Earth Connections are checked periodically. Circuit breaker is provided in each and every main supply panel. Electrical Installation is periodically monitored to avoid the leakage. There are sufficient lightning arresters installed and maintained at various locations within the Institution. The operation circle of the lightning arresters covers the safety of all the buildings and structures in the campus. Proper disposal of scrap metals Keep pathways clear by placing extra items (books, bags, etc.) on the shelves or under the work tables. If under the tables, make sure that these items can not be stepped on. Provide machine guard in all equipments to avoid accidents. To allot members (3 or 4 students) in a group. So overcrowding of the machines can be avoided. To wear leather gloves and goggles for sand moulding preparation in concrete casting process. Fire Safety Measures: Each floor is equipped with 4 Nos of Fire Extinguishers that are placed at accessible locations. The Fire Extinguishers are replaced periodically based on the expiry date. Fire hydrant tube and valves are placed at accessible location Work instructions and supervisions are provided. Effective Safety arrangements are made with multiple exists and ventilation/exhausts in laboratories. House Keeping:

Equipment, staff bench, computers and other work areas are regularly cleaned. Working area and equipment are cleanly maintained and organized. Leave your work station clean and in good order before leaving the laboratory. Green Campus & Building Safety: The campus is certified with green campus certificate and the safety of the building is certified by the authorities of the Government of TamilNadu.

6

Environmental Engineering Laboratory/Water and Waste water
Analysis Laboratory

First Aid: First Aid kits are placed in the laboratory. It is maintained and replenished periodically Necessary First Aid training is provided to the lab instructors. General Safety Measures: Avoid wearing any costly things. Wear gloves when using any hazardous or toxic agent. Wash your hands before you leave the lab. You must wear a lab coat (and do it up) in labs. Footwear must completely cover the foot and heel (no sandals, open-toed footwear, etc.). Do not return used chemicals back to the stock container. Do not heat, measure or mix any chemicals in front of your face. Many chemicals (solid, liquid or vapour) are poisonous. Do not taste chemicals. If it is necessary to smell a chemical, do so by fanning the vapours towards your nose. Never inhale directly. Avoid inhaling dust or fine powders. Use fume hoods and personal protective equipment when necessary. Maintain clean and orderly laboratories and work area. Discard immediately unwanted items. Leave coats, books and note books in the lecture room. Make sure all spilled liquids are wiped up immediately. Be aware of the various experiment controls (start button, stop button, speed control) for each lab. Do not leave experiments running unattended. Be mentally alert, always read the safety instructions and pay attention to safety signs. Ask lab instructors if you are not sure about what to do. Eye wash stations, emergency showers, fire extinguishers, and exits are always unobstructed and accessible. Electrical Safety: All electrical equipment and components are inspected and approved by competent authority. Formal training and awareness programs are arranged on electrical appliances. Working space around Lab equipment and machines are maintained properly. All electrical panels, cables and devices are thoroughly checked periodically. Earth Connections are checked periodically. Circuit breaker is provided in each and every main supply panel. Electrical Installation is periodically monitored to avoid the leakage. There are sufficient lightning arresters installed and maintained at various locations within the Institution. The operation circle of the lightning arresters covers the safety of all the buildings and structures in the campus. Proper disposal of scrap metals Keep pathways clear by placing extra items (books, bags, etc.) on the shelves or under the work tables. If under the tables, make sure that these items can not be stepped on. Provide machine guard in all equipments to avoid accidents. To allot members (3 or 4 students) in a group. So overcrowding of the machines can be avoided. To wear leather gloves and goggles for sand moulding preparation in concrete casting process. Fire Safety Measures: Each floor is equipped with 4 Nos of Fire Extinguishers that are placed at accessible locations. The Fire Extinguishers are replaced periodically based on the expiry

date. Fire hydrant tube and valves are placed at accessible location Work instructions and supervisions are provided. Effective Safety arrangements are made with multiple exists and ventilation/exhausts in laboratories. House Keeping: Equipment, staff bench, computers and other work areas are regularly cleaned. Working area and equipment are cleanly maintained and organized. Leave your work station clean and in good order before leaving the laboratory. Green Campus & Building Safety: The campus is certified with green campus certificate and the safety of the building is certified by the authorities of the Government of Tamil Nadu

7

Fluid Mechanics & Machinery Laboratory/Hydraulic Engineering
Laboratory

First Aid: First Aid kits are placed in the laboratory. It is maintained and replenished periodically Necessary First Aid training is provided to the lab instructors. General Safety Measures: Regularly check voltage and current during running of the components. Regularly check the condition of the testing machines to avoid undue accidents. To check the lubricating oil level periodically to eliminate wear and tear of the parts of the machines. The machines are cleaned after every machining operation is over. Calibrate the equipments and checking with standards. To store the destructive test specimens in separate place and disposed off in regular interval. To check the hydraulic oil level of equipments for smoothness of its operations. The students are instructed to follow the proper procedures for disposing lab waste. To instruct the students to wear goggles, gloses, proper cotton clothes to handle cast metal in stir casting equipments. To maintain cleanliness in equipment's to avoid spillages of oil and water. Instruct the students to remove ID card during machining operations. To give enough ventilation to the laboratory The students are instructed that if an instrument or piece of equipment fails during use, or isn't operating properly, report the issue to a technician right away. Never try to repair an equipment problem on their own. Electrical Safety: All electrical equipment and components are inspected and approved by competent authority. Formal training and awareness programs are arranged on electrical appliances. Working space around Lab equipment and machines are maintained properly. All electrical panels, cables and devices are thoroughly checked periodically. Earth Connections are checked periodically. Circuit breaker is provided in each and every main supply panel. Electrical Installation is periodically monitored to avoid the leakage. There are sufficient lightning arresters installed and maintained at various locations within the Institution. The operation circle of the lightning arresters covers the safety of all the buildings and structures in the campus. Keep pathways clear by placing extra items (books, bags, etc.) on the shelves or under the work tables. If under the tables, make sure that these items can not be stepped on. Provide machine guard in all equipments to avoid accidents. To allot members (3 or 4 students) in a group. So overcrowding of the machines can be avoided. To wear leather gloves and goggles for sand moulding preparation in concrete casting process. Fire Safety Measures: Each floor is equipped with 4 Nos of Fire Extinguishers that are placed at accessible locations. The Fire Extinguishers are replaced periodically based on the expiry date. Fire hydrant tube and valves are placed at accessible location Work instructions and supervisions are provided. Effective Safety arrangements are

made with multiple exists and ventilation/exhausts in laboratories. House Keeping: Equipment, staff bench, computers and other work areas are regularly cleaned. Working area and equipment are cleanly maintained and organized. Leave your work station clean and in good order before leaving the laboratory. Green Campus & Building Safety: The campus is certified with green campus certificate and the safety of the building is certified by the authorities of the Government of Tamil Nadu.

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 50.00

7.1 Actions taken based on the results of evaluation of each of the POs & PSOs (20)

Total Marks 20.00

Institute Marks : 20.00

POs Attainment Levels and Actions for Improvement- (2023-24)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	1.6	2.58	<input type="checkbox"/> Target attained <input type="checkbox"/> 91% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.98 & by indirect assessment is 0.6
Action 1: Bridge course were conducted before the commencement of first year to enhance the prerequisite knowledge in Engineering. Action 2: Special Coaching classes were conducted for the courses C301, C310, C403 in order to make the slow learners understand the topics much better. Action 3: For better understanding of the basics concepts in core subjects, students are being taught lab experiments along with the theory subjects.			
PO 2 : Problem Analysis			
PO 2	1.6	2.13	<input type="checkbox"/> Target attained <input type="checkbox"/> 83% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.53 & by indirect assessment is 0.6
Action 1: Tutorials has been planned and given to the students for solving more problems in the course C310. Action 2: Practical sessions were conducted for the course C403 for better understanding of the concepts. Action 3: More number of problems were asked in assignment and the monitoring of the same on a regular basis for the course C408. Action 4: Additional contents are being taught apart from the syllabus to analyse complex problems.			
PO 3 : Design/development of Solutions			
PO 3	1.6	1.93	<input type="checkbox"/> Target attained <input type="checkbox"/> 81% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.33 & by indirect assessment is 0.6
Action 1: Students are being given design projects which will enhance their design capacity. Action 2: Special classes were conducted to improve the student skills in complex problems for the problematic courses C201, C312 in order to improve the overall course outcome. Action 3: Faculty has been advised to give application-based assignments to students in the course C408. Action 4: Workshop on "Designing and Detailing of Structures" on 31.08.2023 in order to overall attainment of CO in the course C403.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.6	1.91	<input type="checkbox"/> Target attained <input type="checkbox"/> 78% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.31 & by indirect assessment is 0.6
Action 1: Conducted cube contest from ICI in association with Ramco Cements on 06.10.2022. Action 2: Content Beyond/Additional Experiments were included in laboratory courses. Action 3: Student projects are being reviewed by external industrial expert to improve the overall CO attainment and the quality of the project. Action 4: Motivated students to do L&T Edutech Online course.			
PO 5 : Modern Tool Usage			
PO 5	1.6	1.88	<input type="checkbox"/> Target attained <input type="checkbox"/> 79% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.28 & by indirect assessment is 0.6

Action 1: Hands on Training on “STAAD.Pro Connect Edition V22” from ICI Student chapter from 27.01.2023 to 28.01.2023 was conducted for improving the attainment of C403. Action 2: One-week AU approved VAC on “Project Planning and Management using Primavera” from ICI Student chapter from 25.01.2023 to 30.01.2023. Action 3: Nan Mudhalvan course on Building Information Modelling, Architectural Visualization using AR/VR and Concrete Building Design were conducted to expose knowledge on different software among the students. Action 4: Faculty members underwent training and workshops on modern tool usage to effectively teach students.

PO 6 : The Engineer and Society

PO 6	1.6	2.07	<input type="checkbox"/> Target attained <input type="checkbox"/> 89% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.47 & by indirect assessment is 0.6
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Action 1: Students are being involved in club activities like NSS, Eco club etc., to give engineering solutions to the society. Action 2: Programs are being organized through the Center for Women's Welfare to raise awareness about health and safety. Action 3: One hour per week are being allotted for improving student's Personality and Character Development. Action 4: Real-world projects like Household Waste Composter has been carried out by the students for environmental up gradation and to develop the societal need. Action 5: Students participated in Blood Donation Camps which was organized by NSS. Action 6: Students were made to understand Integrated Solid Waste Management, Handling Separation and storage at source and Incineration through NPTEL videos.

PO 7 : Environment and Sustainability

PO 7	1.6	2.02	<input type="checkbox"/> Target attained <input type="checkbox"/> 85% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.42 & by indirect assessment is 0.6
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Action 1: Students are encouraged to analyse the global and Environmental issues to provide solutions in their final year projects in C410 Action 2: Conducted Innovative Practices on Reflective journal on the topic Desalination treatment units for the students to meet the current and future needs considering economic, environmental and sustainable aspects Action 3: Virtual Session on “Green Railway Stations – Sustainable Transport at the heart of Sustainable development goals” was organized on 19.10.2023. Action 4: Virtual Expert Lecture on “A Career in Sustainable Building Industry” on 09.03.2023.

PO 8 : Ethics

PO 8	1.6	1.98	<input type="checkbox"/> Target attained <input type="checkbox"/> 81% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.38 & by indirect assessment is 0.6
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Action 1: Students attended a seminar on “Basics of Vibration Analysis and Seismic Resistant Structures” able to apply ethical principles in real-world scenarios, particularly in the design and construction of RCC and steel structures. Action 2: Students were encouraged to participate in the Cube Contest to arrive the mix proportion by IS code principle. Action 3: Encouraged the students to pursue “Professional Ethics in Engineering” course as elective. Action 4: Students are being followed the code-of conduct in examination process and all our engineering practices.

PO 9 : Individual and Team Work

PO 9	1.6	1.91	<input type="checkbox"/> Target attained <input type="checkbox"/> 79% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.31 & by indirect assessment is 0.6
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Action 1: The students are being encouraged to organize and lead various technical events to groom their leadership, team work, coordination, and commitment. Action 2: The group of students were encouraged to participate in various events such as Cube Contest, Smart India Hackathon, EUPHORIA' 24 etc., Action 3: Encouraging students to participate in various Co-curricular activities in other colleges and promotion of various clubs and activities. Action 4: Students undergone Industrial Visit in Ramco Cements Limited, Virudhunagar, Surgical Cotton Mills Limited, Rajapalayam and L&T Construction Project – Cochin Dry Dock Site, Kerala to acquire knowledge in Industrial Practice.

PO 10 : Communication

PO 10	1.6	2.09	<input type="checkbox"/> Target attained <input type="checkbox"/> 93% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.49 & by indirect assessment is 0.6
Action 1: Students are being encouraged to do morning presentation (8.50 AM – 9.00 AM) during regular working days. Action2: Students are constantly motivated to participate in Conference/Seminar/Workshops/Symposiums. Action 3: Students were given Seminar on the topic like Structural Drafting Using CAD, Preface to ArcGIS etc., Action 4: Students involved in preparation of Newsletter and Magazine. Action5: Soft skill training are being imparted to students to enhance various aspects of communication.			
PO 11 : Project Management and Finance			
PO 11	1.6	1.98	<input type="checkbox"/> Target attained <input type="checkbox"/> 79% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.38 & by indirect assessment is 0.6
Action 1: Under the TNSCST Student Project Scheme, students received fund for the project “Textile Reinforced Concrete” and they obtained a utilisation certificate for the procurement of materials, testing, and transportation. Action 2: Projects were guided by the faculty members for the benefit of students which incorporates budget, period of project work and factor of delay in project. Action 3: One week AU Approved VAC on “Project Planning and Management using Primavera” from 25.07.2022 to 30.07.2022 was conducted for sharing the concepts of project management skills.			
PO 12 : Life-long Learning			
PO 12	1.6	1.76	<input type="checkbox"/> Target attained <input type="checkbox"/> 72% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.16 & by indirect assessment is 0.6
Action 1: Conducted Webinar “GATE CIVIL 2023 – Strategies and Preparation” on 02.02.2023 in association with Pyramid IAS Academy, Karaikudi. Action 2: The resource person from Ramki IAS Academy, Chennai was invited to create Awareness about “UPSC and TNPSC Civil Service Examination” which was organised on 07.02.2023. Action 3: Awareness Program titled “Sustainable Development in Student’s career – Opportunities to study and Work Abroad” was conducted on 03.05.2023. Action 4: Students are being encouraged to do online courses to engage themselves as independent learners. Action 5: Alumni are being invited to share their views and experiences.			

PSOs Attainment Levels and Actions for Improvement- (2023-24)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Communicate and present civil engineering projects effectively			
PSO 1	1.6	1.78	<input type="checkbox"/> Target attained <input type="checkbox"/> 81% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.18 & by indirect assessment is 0.6
Action 1: Conducted regular project review sessions to provide constructive feedback on communication and technical presentation skills. Action 2: Students were encouraged to present their projects in Smart India Hackathon.			
PSO 2 : Use the techniques, Skills and modern engineering tools necessary for civil engineering practice and project management.			
PSO 2	1.6	1.97	<input type="checkbox"/> Target attained <input type="checkbox"/> 83% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.37 & by indirect assessment is 0.6
Action 1: As Civil Engineers rely on complex and sophisticated software to develop designs, and manage projects, workshops like Total station, DGPS etc., were conducted to enhance the students' technical proficiency to meet industry standards. Action 2: Civil engineering profession needs creative real-world-problem-solving skills by generating multiple solutions for major projects. Opportunities were provided to students to showcase their creative ideas to solve the pressing societal issues through projects. Action 3: Hands on Training titled "STAAD.Pro Connect Edition V22" was conducted on 27.01.2023 & 28.01.2023. Action 4: Industrial visits and Internship are being arranged for students in core industries for getting practical exposure.			
PSO 3 : Provide sustainable solutions to civil engineering problems			
PSO 3	1.6	1.81	<input type="checkbox"/> Target attained <input type="checkbox"/> 78% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.21 & by indirect assessment is 0.6
Action 1: Technical seminar was conducted on the topic "Alternative Building Technologies" on 04.11.2022. Action 2: Virtual Knowledge Sharing Session was organized in the topic "Integrating Geo-spatial and ML Techniques in Irrigation & Water Resources Engineering" on 06.04.2023 in order to improve the overall attainment of C312.			
PSO 4 : Perform as design consultants in construction industry for the design of civil engineering structures.			
PSO 4	1.6	2.05	<input type="checkbox"/> Target attained <input type="checkbox"/> 89% of courses attained the target level by direct assessment (courses attained the target level+ courses attained less than target level - if the attainment is more than 90% of its mapped level) <input type="checkbox"/> Attainment by direct assessment is 1.45 & by indirect assessment is 0.6
Action 1: Site visit to the Steel Structures Construction at Surgical Cotton Mills Limited, Rajapalayam was arranged to improve the overall attainment of course outcome in the subject C311. Action 2: Organized a Workshop titled "Designing and Detailing of Structures" on 31.08.2023 to improve the overall attainment of course outcome in the subject C403. Action 3: Conducted a Value-added course on "Open Building Designer" from 25.08.2022 to 26.08.2022. Action 4: Virtual Webinar on the topic "Reality Modelling" was organized on 18.05.2022. Action 5: Guest Lecture on "Ergonomics in Construction" was conducted on 25.03.2022.			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10)

Total Marks 10.00

The Institution is certified with ISO 9001:2015 Quality management system with process owners, reviewing and approval authorities for 27 academics and supporting procedures. Internal Audit are conducted in line with ISO 9001:2015 (Academic Procedure, Examination Procedure, Training & Placement Procedure, Research & development Procedure etc., and External Surveillance Audit. 45 Faculty members are Certified Internal auditors in our institution from TUV Rhineland. With the support of these auditors, 2 Internal Audits every semester will be conducted and auditors from TUV Rhineland will do annual surveillance audit. One of the important aspects of these audits is **Academic Process** auditing.

ACADEMIC PROCESS AUDIT ASSESSMENT CRITERIA

Is based on Plan-Do-Check-Act Process

Planning Process

- Subject Preference
- Subject Allocation
- Academic Schedule Preparation in line with Anna University Schedule
- Timetable preparation
- Course file Preparation
- Course Plan – (AC 05a)
- Course Objectives and Course Outcomes, Learning Outcomes, Course Target, CO-PO Matrices, CO-PSO Matrices
- Lecture Plan, Bridge Course Plan (optional), Content Beyond Syllabus Plan, Tutorial Plan (if applicable), Assignment Plan, Details of e-learning sources (Videos), Mini project plan (if applicable), Innovative Practice plan and Session plan.
- Course Assessment – (AC 06a)
- Assessment Methods, Course Assessment Plan, Evaluation Plan and Rubrics for Assessment.
- Question Bank, Syllabus and other required materials for course handling

This stage will be verified by the department HOD, Vice Principal and Approved by the Principal.

Do Process

- Course delivery as per plan is executed using ICT tools and Innovative Teaching Methodologies.
- Transparent Assessment Methods by through Direct and Indirect Assessment are used to know the leaning levels of the students.
 - Direct Assessments- Internal Assessment Tests, Tutorials, Online Quiz, Assignments etc., (to be selected based on course nature)
 - Indirect Assessments - Program Exit Survey, Course Exit Survey etc., (to be selected based on course nature)

Check Process:

- The conduct of classes is monitored using Class register
- Performance in Internal Assessment test is monitored periodically and analyzed in Class Committee Meeting and Department Review Meeting.
- Quality of Question paper and evaluation is reviewed by HODs and Senior Faculty members.
- The regular Activities are reviewed by the HODs with the support of ISO 9001:2015 Quality management System.

Act Process:

- Preventive and corrective actions are Planned and executed.
- The reforms in the system, if required is incorporated.
 - The Quality Management System is Risk Based which has 4 modules
- Risk Identification
- Risk Analysis
- Risk Evaluation
- Risk Treatment

through which in case of any risk identification related to academic, it will be analysed and accordingly corrective and preventive actions are taken.

ACADEMIC AUDIT FREQUENCY AND CONDUCT MECHANISM:

Table 7.1 Academic Audit Frequency

SI.No.	Audit Particulars	Audit frequency	Responsibility
1	Course file verification (Lecture Plan, Assignment Plan, Tutorial Plan, Practical Plan, e-Lecture's Plan etc.,)	Beginning of every Semester	HOD/Principal
2	Log book verification	Completion of each unit	HOD/Principal
3	Class register verification	Once in a week	CA/HOD
4	Continuous Internal assessment question paper verification	Before each Internal Assessment tests	HOD
5	Internal assessment tests evaluated answer script samples verification	Completion of each Internal Assessment Tests	HOD
6	Stock verification	One per Year	Internal auditors/ Lead auditor
7	ISO Internal audit	Two per Semester	Internal auditors/ Lead auditor
8	Academic audit	One per Year	External Auditor/HOD
9	External Surveillance audit	One per Year	Lead auditor - TUV Rhineland
10	ISO certification audit	One per three Years	Lead auditor - TUV Rhineland
11	IQAC Meeting	Two per Semester	HOD's/ Principal

Implementation of the academic audit process**Academic Audit:**

An **academic audit** is a systematic process designed to evaluate, assess, and improve the quality of academic practices, processes, and outcomes. The main objective is to ensure that academic standards are met, that the curriculum is relevant and effective, and that teaching, learning, and assessment practices align with the institutions goals and regulatory requirements. Academic audits help identify strengths, weaknesses, and areas for improvement in the educational system.

The academic audit will be conducted once a year by external academic experts. The list of academic experts from various institutions will be selected by the department, and the nominations will be made by the head of the institution.

- A **detailed audit schedule** will be prepared by the Academic Coordinator at least one week before the commencement of the audit. This schedule will be circulated to the department academic coordinator, head of the department, and faculty members.
- **An opening meeting** for the auditors will be conducted by the Academic Coordinator on the day the audit begins.
- The experts will review the academic processes using the **Academic Audit Checklist – THEORY (AC 26a)** and **Academic Audit Checklist – LABORATORY (AC 26b)**.
- Auditors will record their **suggestions for improvement** and overall performance in all checklists by verifying the course file.
- During the academic audit, all processes related to academics, based on the audit checklist, will be reviewed, including:
 - **Verification of the plan and execution of activities**
 - **Review of previous audit findings** and actions taken
 - **Identification of any risk factors** related to academics

- The audit process will conclude with a **closing meeting**, summarizing the audit outcomes.
- A **detailed academic audit report** will be prepared by the department academic coordinator, based on the good practices followed and the scope for improvement identified in the audited theory and laboratory course checklists.
- **Overall observations** and suggestions for improvement will be reviewed by the Academic coordinator, HOD and Principal.

Internal Audit:

An internal audit will be conducted twice, once after the Internal Assessment Test I and once during the vacation period. A detailed audit schedule, prepared by the management representative, will be circulated 15 days prior to the audit. The process will begin with an opening meeting, and any schedule changes will be communicated as needed. Each departments academic process will be audited for half a day to a full day by auditors from other departments. Auditors will record their observations in an audit notes document, covering areas such as plan execution, previous audit findings, quality objectives, risk identification, and performance comparison with the previous year and university exam results. The audit concludes with a closing meeting summarizing the findings. Auditors will submit a detailed report within a week, highlighting good practices, non-conformances, and improvement potential. A consolidated report will then be prepared by the management representative.

External Annual Surveillance Audit:

TUV Rhineland will send the audit schedule and plan 15 days before the audit date. An opening meeting will be held on the first day with management and process owners. Two auditors for one day, or one auditor for two days, will assess the ISO procedures and quality management system, focusing on the teaching and learning process and suggesting improvements. The closing meeting will summarize the audit findings, including good practices, observations or non-conformances, and improvement potential. A detailed report will be sent within a week, and corrective and preventive actions will be taken based on the audit outcome.

ACTION PLAN BASED ON AUDIT:

- Based on the Audit Report, the corrective actions and preventive measures are taken for Observations, Findings and Non Conformance (if any).
- In case of any Risk Identified during the Audit will be analysed and Preventive actions will be taken.
- The outcomes of Internal Audits and External Surveillance Audits will be reviewed in CAC Meeting, Department Review Meeting and Management Review Meeting.

Conducted Academic Audits:

In our department, 3 academic audits are conducted from 2021 to 2024. The audit observation, Action taken and Effectiveness are as follows:

Table 7.2 Academic Audit (2023-2024),(2022-2023),(2021-2022)

Observations	Action taken for Continuous Improvement	Effectiveness
2023-2024		
Good Practices:		
<ul style="list-style-type: none"> • Course Materials and Log books are well organized and maintained in all the aspects systematically. • Mark split up in students record notebook are well organized and planned. • Efforts taken for slow learners are appreciable. • Innovative practices followed in TLP is appreciated. • Virtual lab and NPTEL videos are planned well for laboratory courses. 	Planned to continue the recorded good practices	<ul style="list-style-type: none"> • Continuous improvement in TLP. • Innovative practices in analytical courses helps to improve peer learning. • Providing student learning environment on cutting edge technologies.

Findings:		
Suggested to include hand written notes in unit wise study materials.	Prepared Hand written Notes for most of the problematic subjects.	Enhanced clarity and understanding for students.
Along with Assignment releasing date, submission date with faculty signature also can be added for evaluation and assessment purpose.	For better evaluation and assessment purpose, the assignment submission date has been included in the AC09b Assignment sheet.	Improved tracking and assessment of student submissions.
Models/demo videos can be included for better understanding and visualization of concepts.	Conducted demo session on the topic (Reciprocating Pump) in CE3401 – Applied Hydraulics Engineering subject.	Better understanding and visualization of concepts.
Field oriented Mini project and can be included for better involvement and brain storming among students.	Mini project in the topic Stabilization of soil were conducted in the laboratory course CE3413 – Soil Mechanics Laboratory.	Increased student involvement and brainstorming.
Individual CO and overall CO attainment to be updated for both semesters.	Individual CO and overall CO attainment were updated for both semesters.	Improved tracking of course progress.
Content beyond syllabus can be well planned and managed for some of the problematic courses.	Content beyond syllabus were identified and conducted in several domain subject.	Enriched student knowledge.
More students can be encouraged for doing more number of Online NPTEL courses.	More students will be encouraged for doing more number of Online NPTEL Courses in the upcoming semester.	Improvement in student pursuing online courses through Edx / Coursera / NPTEL platform.
Repeated lab exercises and doubt clearing sessions can be added to support weak students for better understanding.	Special class has been planned and conducted for the course CE3611 – Building Drawing and Detailing Laboratory for doubt clearing.	Improved support for weaker students.
Innovative practices planned in laboratory course plan to be conducted effectively.	For lab courses, innovative practices has been planned and conducted.	Innovative practices in laboratory courses helps to improve student engagement and learning.

Drone surveying and DGPS like advanced training can be taught for more exposure.	Professional Development Training on DGPS Technology has been conducted on 19.02.2024 to 23.02.2024 for IV Year Students, Faculty and Lab Technicians.	Increased exposure to advanced surveying techniques.
Suggested to include inference and interpretation of results with respect to standard values in lab manuals.	Inference and Interpretation of Results have been done in the all-laboratory courses.	Strengthened students' analytical skills.
2022-2023		
Good Practices:		
<ul style="list-style-type: none"> • All parts of the course materials' organisation and upkeep are excellent. • The course plan has properly planned out. • Manual, Log Book, and Student Records has been organized and planned systematically. • TLP is acknowledged for its innovative techniques • Giving students project individually is a good practice. • Efforts taken for bright and slow learners are appreciable. 	Planned to continue the recorded good practices.	<ul style="list-style-type: none"> • Continuous improvement in TLP • Improvement in academic performance
Findings:		
Suggested to include mini projects/mini practical sessions for laboratory courses wherever required.	Practical sessions were conducted on the topics like Design and detailing of structures, Quality Assurance and Quality Control in Construction, Total Station & DGPS for students through Professional societies.	Improved practical knowledge and hands-on experience.

Suggested to give case studies/mini projects on sustainability.	Students have undertaken Household Waste Composter project and Real time case studies related to sustainability were discussed among students by the various experts from sustainability field through IGBC student chapter.	Promoted sustainability awareness.
Gate questions can be asked in Internal Assessment Tests.	Gate questions has been included in the Highway and Railway Engineering, Soil Mechanics, Water supply and Wastewater Engineering IAT questions.	Improved preparation for competitive exams.
Teaching Aids can be included in the course plan.	Instructional Methods and Teaching Aids were included in both course plan and log book in all theory and laboratory courses.	Enhanced teaching effectiveness through varied aids.
Suggested to include more tutorial and assignments for problematic papers.	Planned and conducted more tutorials and assignments for the problematic papers.	Continuous improvement in TLP.
Publication of students' project needs follow-up	5 students project has been published in SCI/Scopus/UGC journals.	Improved academic visibility and recognition.
Suggested to do the follow up measurable action for the activities implemented.	Academic quality policy has been revised as AC10b Rev.No.2 for Regulation 2021.	
2021-2022		
Good Practices:		
<ul style="list-style-type: none"> Course file well maintained in all the aspects systematically. Course content are well organised. Document entry & signature completely filled. Lab manual file and log book well maintained. 	Planned to continue the recorded good practices.	<ul style="list-style-type: none"> Continuous improvement in TLP Providing student learning environment on cutting edge technologies.
Findings:		

Beyond curriculum, topics can be taught if possible and to be documented.	Conducted Value added course on Open Building Designer and Skill development training programs on BIM Software were conducted beyond the Curriculum.	Broadened skill sets and industry exposure for students.
	Industrial Visit on Ramco Industries Limited, Gangaikondan, L&T Construction Project – Cochin Dry Dock Site, Kerala and RDC Concrete (India) Pvt. Ltd, Cochin.	Provided real-world exposure to students.
Field visit & real time inspection & Surveying can be initiated.	Field Visit and Real time Inspection were carried out by students on Mine surveying using Total Station in Pandalgudi and Preparation of topographical layout and bund profile for Kondeneri Kanmayee Lakes using DGPS & Drone, Rajapalayam.	Reinforced practical learning in real-world contexts.
Beyond curriculum, case studies and site visit can be initiated for better understanding.	Beyond curriculum 34 students have completed the L&T EduTech online courses like Concreting Techniques and Practices, Design of Reinforced Concrete Buildings & Practice, and Formwork Engineering Practices.	Enhanced student understanding of industry practices.
During laboratory courses, students may be demonstrated with standard operating procedure.	For the benefit of students, codal references for all experiment has been prepared for every laboratory course and is displayed in each lab.	Standardized practices and reinforced technical knowledge.

Conducted Internal Audits:

In our department, 7 internal audits are conducted from 2021 to 2024. The date of auditing, auditors and report are as follows.

Internal Auditing- 1 (2021-2022)**Table 7.3 Internal Auditing - 1 (2021-2022)**

Date of Auditing	Auditors	Report
ISO Audit 30.10.2021	Dr.M.Gomathy Nayagam, ASP/CSE Mrs.N.Nithya, AP/CSE Mr.N.Ganesh, AP(SG)/EEE	1.PO-PSO mapping can be done for the events conducted by the professional society 2.Opinion of the HOD has to be filled in the AC02a –Faculty subject preference
Action Taken:		
1. PO-PSO mapping was included in all the event circular conducted through Professional societies and Department Association.		
2. The opinion of the HOD in AC02a –Faculty subject preference was updated.		

Internal Auditing- 2 (2021-2022)**Table 7.4 Internal Auditing - 2 (2021-2022)**

Date of Auditing	Auditors	Report
ISO Audit 26.05.2022	Dr.A.Azhagu Jaisudhan Pazhani, ASP/ECE Mr.R.Arun Kumar, AP/Mech, Dr.U.Kumaran, AP(SG)/Maths	1.More students can be encouraged do online courses 2.Minutes can be drafted in such a way that, retrieval of information is ease
Action Taken:		
1.Most of the students were completed the online course in various platforms like L&T Edutech, Imarticus, Coursera etc.,		
2.All meeting minutes were written so that information could be easily retrieved.		

Internal Auditing- 3 (2022-2023)**Table 7.5 Internal Auditing - 3 (2022-2023)**

Date of Auditing	Auditors	Report
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ISO Audit 02.11.2022	Dr.A.Azhagu Jaisudhan Pazhani, ASP/ECE Mr.R.Arun Kumar, AP/Mech, Dr.U.Kumaran, AP(SG)/Maths	<ol style="list-style-type: none"> 1. Only IAT based performance is alone used for categorizing students. It can be penetrated in further aspects including other direct assessments, assignment/tutorial performance, classroom assessments and attendance. 2. Faculty members can be motivated to pursue online course based on the domain their having expertise which can be helpful for them to get domain certification in any platform including NPTEL and Coursera. 3. The same can be suggested to students also. 4. Students can be do projects on other domains 5. Insisted to prepare consolidated document for placement and training, Research activities, publication in each year
<p>Action Taken:</p> <ol style="list-style-type: none"> 1. Faculty members were completed the online courses based on their domain and students also done online courses in various platform like NPTEL, Coursera etc., 2. Few students had done projects in various domain such as Structural, Environmental, Infrastructure, Geotechnical etc., 3. Consolidated document for placement and training and Research activities for each year were updated. 		

Internal Auditing- 4 (2022-2023)**Table 7.6 Internal Auditing - 4 (2022-2023)**

Date of Auditing	Auditors	Report
ISO Audit 16.02.2023	Mr.R.Arun Kumar, AP/Mech, Mrs.M.Swarna SudhaAP(SG)/CSE	<ol style="list-style-type: none"> 1. Feedback for the VAC course has to be collected from the students along with report of each course. 2. Internship report has to be collected from the students and the review has to be conducted as part of assessment. 3. Appointment of Adjunct Faculty is initiated, yet to be taken further process. <p>Website has to be updated at regular interval</p>

Action Taken:

1. VAC Feedback were collected from the students along with report.
2. Collected the internship report and the review were conducted as part of assessment.
3. Appointment of Adjunct Faculty was completed.
4. Updated the department activities in website.

Internal Auditing- 5 (2022-2023)**Table 7.7 Internal Auditing - 5 (2022-2023)**

Date of Auditing	Auditors	Report
ISO Audit 15.06.2023	Dr.L.Sathikala ASP/Maths Mrs.G.Gnanapriya. AP(SG)/ECE	1. In CE3403 Concrete technology course, pre assessment marks, assignment question & marks, AC10b form needs to be updated 2. For R2021, in course plan the weightage given for End Semester and Internal Assessment is not as per the form AC06a for few courses. 3. Internship Details has to be collected from the students and consolidation is missing.
Action Taken:		
1. Pre assessment marks, assignment question & marks, AC10b form were updated in CE3403 Concrete technology course.		
2. In course assessment form AC06a, all the courses followed the same weightage for End Semester and Internal Assessment Test.		
3. Student Internship Details were collected and consolidated the same.		

Internal Auditing- 6 (2023-2024)**Table 7.8 Internal Auditing - 6 (2023-2024)**

Date of Auditing	Auditors	Report
ISO Audit 27.11.2023	Dr.M.Swarna Sudha AP(SG)/CSE Dr.J.Jerold John Brito AP(SG)/Mech Mr.B.Kannan, AP(SG)/ECE	Suggested to organise subject-specific events for CO-PO mapping calculations.
Action Taken:		
Conducted subject-specific events for CO-PO Mapping calculations.		

Internal Auditing- 7 (2023-2024)**Table 7.9 Internal Auditing - 7 (2023-2024)**

Date of Auditing	Auditors	Report
ISO Audit 19.06.2024	Mrs.V.Srirenga Nachiyar. AP(SG)/ECE Mr.K.Vignesh Saravanan AP(SG)/CSE	1. CE3601- Design of Steel Structural Elements – Proof can be included for the lecture delivered by Alumni. 2. CE3602 Structural Analysis II Content beyond syllabus from DAC members proof has to be included. 3. Placement – Need to prepare consolidated with current mobile number of the student and collect the appointment order. 4. Suggested to tie up with the industry to conduct VAC and improve placement through internship. 5. Suggested to do more student online courses.
Action Taken:		
<ol style="list-style-type: none"> 1. Event report and proof documents were updated. 2. Content beyond syllabus from DAC members proof was included. 3. Prepared the consolidated data along with the appointment order and current mobile number were updated. 4. Conducted VAC along with industry and improved the placement through industry. 5. More number of II & III year completed the online course through NPTEL, Coursera etc., 		

External Audit Comments for College:

Three External audits were conducted from 2021 to 2024 for continuous improvement are given to college. The date of auditing, auditors and report are as follows.

Academic Year: 2021-2022**Table 7.10 External Audit (2021-2022)**

Date of Auditing	Auditors	Audit points
19.01.2022 & 20.01.2022	Dr.Viswanathan V TUV Rheinland(India) Pvt.Limited,Coimbatore	Positive Findings: Support and continual improvement focus by the management. Improvement Potential: Improvement in capturing student data from ERP to be done.
Actions taken:		
ERP processes are updated to collect students' data like elective preference and final elective list, feedback collection etc., from students.		

Academic Year: 2022-2023

Table 7.11 External Audit (2022-2023)

Date of Auditing	Auditors	Audit points
08.12.2022 & 09.12.2022	Dr.Viswanathan V TUV Rheinland(India) Pvt.Limited,Coimbatore	<p>Positive Findings:</p> <ol style="list-style-type: none"> 1. The top management and leadership teams strategic direction for strengthening the system and process. 2. Implementation of every internal audit observation from the past. 3. Participation of the auditee team in the audit and transparency. 4. This years successful admissions and newly started courses are applauded. <p>Improvement Potential:</p> <ol style="list-style-type: none"> 1. Micro level planning, Execution of contents may also be reviewed strongly. Sample: Theory – Problems. 2. During the execution of practical subjects' evaluation on the core objective may be done. 3. Allocation of hours for a subject during individual timetable may always be without decimal value. 4. Class committee meeting, Disciplinary process in the department may adhere to its respective regulations.
<p>Actions taken:</p> <ol style="list-style-type: none"> 1.New Course Plan design work initiated. 2.Sharing hours in Timetable is removed 3.CCM/ CoCM meetings conducted and recorded as per ISO standards. 		

Academic Year: 2023-2024

Table 7.12 External Audit (2023-2024)

Date of Auditing	Auditors	Audit points
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26.12.2023 & 27.12.2023	1.Dr.Viswanathan V TUV Rheinland(India) Pvt.Limited,Coimbatore	<p>Positive Findings:</p> <ol style="list-style-type: none"> 1. Achievements by the college including academics, sports, research and overall rating has been excellent this year 2. Budget allocated to all departments including library and its usage 3. Support and transparency by the auditee team was excellent. <p>Improvement Potential:</p> <ol style="list-style-type: none"> 1. Documents and execution transparency may be given to parent department on subjects handled by other departments 2. Scrutiny of the internal examination question papers to be taken care by the respective department.
<p>Actions taken:</p> <ol style="list-style-type: none"> 1. The parent department is provided with complete access to relevant documents and execution details for subjects handled by other departments to enhance oversight and coordination. 2. The responsibility for the thorough review and approval of all internal examination question papers before submission to the exam cell has been assigned to the respective department HOD. 		

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10)

Total Marks 10.00

Placement, higher studies and Entrepreneurship have distinct focus of students. The department frequently organizes various events for the development of students in all aspects. The detailed statistics of placement, higher studies and entrepreneurs are given in the table 7.13.

Table.7.13 Details of Placement, Higher studies and Entrepreneurship

Item	CAY m1 (2023-2024)	CAYm2 (2022- 2023)	CAYm3 (2021- 2022)
Total No. of Final Year Students (N)	21	17	22
No. of students placed in companies or Government Sector (x)	15	12	11
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.,) (y)	1	1	3
No. of students turned entrepreneur in engineering/technology (z)	1	-	-
x + y + z =	17	13	14

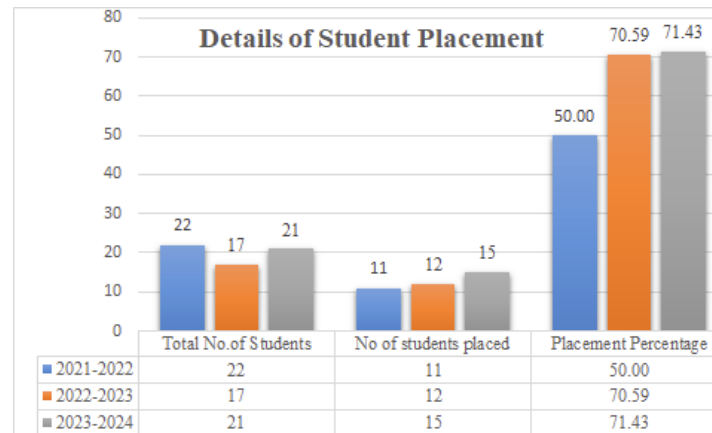


Figure 7.1 Details of Student Placement

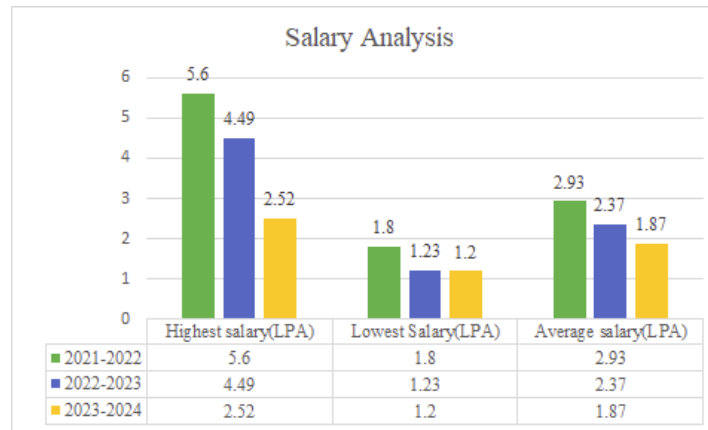


Figure 7.2 Placement Comparison with Salary Analysis

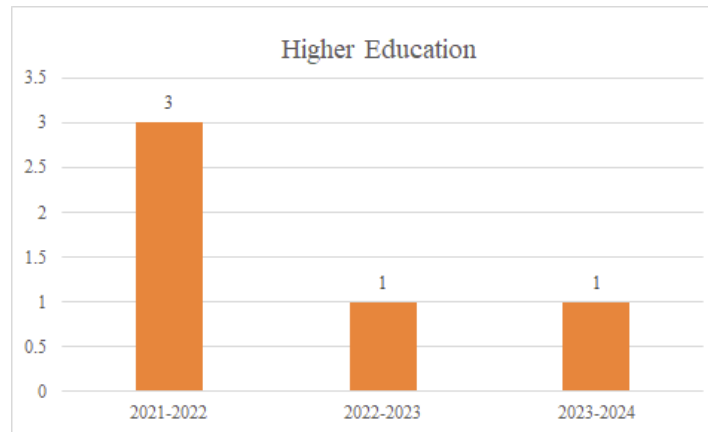


Figure 7.3 Details of Higher Studies

Table 7.14 Salary break-up details

Category	CAYm1 (2023-2024)	CAYm2 (2022-2023)	CAYm3 (2021- 2022)
Total No. of Final Year Students	21	17	22
No. of Students Placed	15	12	11
No. of students in the salary range 1 – 2 LPA	9	6	4
No. of students in the salary range 2 – 3 LPA	6	3	3
No. of students in the salary range 3 – 4 LPA	Nil	2	1
No. of students in the salary range 4 – 5 LPA	Nil	1	1

No. of students in the salary range 5 – 6 LPA	Nil	Nil	2
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Table 7.15 (2020 – 2024) Batch Placement details

Sl. No.	Name of the Company	Core / Software	Number of Students Placed	Salary (LPA)
1	Ambal Construction	Core	1	1.44
2	Ayothi Consultancy	Core	2	1.98
3	Pramoda Rebar Private Limited	Core	1	1.20
4	Pinnacle Infotech Solutions	Core	3	2.70
5	Absara Consultancy	Core	2	2.04
6	RCI Digital Solutions	Core	1	2.52
7	Sivam Builders	Core	2	1.80
8	RAROVAH Engineering PVT.LTD	Core	1	1.92
9	Shri Vetri Builders	Core	1	1.68
10	Balaji Construction	Core	1	1.44
Highest Salary (in LPA)				2.52
Lowest Salary (in LPA)				1.20
Average Salary (in LPA)				1.87

Table 7.16 (2019 – 2023) Batch Placement details

Sl. No.	Name of the Company	Core / Software	Number of Students Placed	Salary (LPA)
1	R.K.M Powergen Pvt.Ltd	Core	1	3.6
2	Pinnacle Infotech Solutions	Core	2	2.40
3	The Ramco Cements Limited	Core	1	3.50
4	Jasper International Engineering Consultants	Core	1	1.23
5	The Ramco Cements Limited	Core	1	4.49
6	SANSONS-Civil Construction	Core	1	1.80
7	Ambal Construction	Core	1	1.44
8	P.P Builders	Core	1	1.80

9	Shri Vetri Builders	Core	1	1.68
10	RD ASSOCIATES	Core	1	2.16
11	River Construction & Consultancy	Core	1	1.98
Highest Salary (in LPA)				4.49
Lowest Salary (in LPA)				1.23
Average Salary (in LPA)				2.37

Table 7.17 (2018 – 2022) Batch Placement details

Sl. No.	Name of the Company	Core / Software	Number of Students Placed	Salary (LPA)
1	Absara Consultancy	Core	1	2.04
2	The Ramco Cements, Limited	Core	1	5.03
3	The Ramco Cements, Limited	Core	1	5.60
4	Maruthi Builders	Core	1	1.80
5	AEON Integrated Building Design LLP ("AIBDC")	Core	1	4.66
6	RiDh Engineering Services	Core	1	3.41
7	Innowell Engineering International Pvt Ltd.	Core	1	2.22
8	Sivam Builders	Core	1	1.80
9	SANSONS-Civil Construction	Core	1	1.80
10	RD ASSOCIATES	Core	1	2.04
11	River Construction & Consultancy	Core	1	1.80
Highest Salary (in LPA)				5.60
Lowest Salary (in LPA)				1.80
Average Salary (in LPA)				2.93

Table 7.18 Higher Studies details

Year	Number of students enrolling into higher education	Student Name	Program to be graduated from	Name of Institution Joined
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CAYm1 (2023-2024)	1	Dheena Dhayalan R	M.E. Structural Engineering	Kumaraguru College of Technology, Coimbatore
CAYm2 (2022-2023)	1	Hari Hara Pandiyan V	M.E. Structural Engineering	Mepco Schlenk Engineering College, Sivakasi
CAYm3 (2021-2022)	3	Jenitha G	M.E. Structural Engineering	Thiagarajar College of Engineering, Madurai
		Meenaa Bharathi S	M.E. Construction Management	Thiagarajar College of Engineering, Madurai
		Sudhakaran A	M.E. Structural Engineering	Alagappa Chettiar Government College of Engineering and Technology, Karaikudi,

Table 7.19 Entrepreneur details

Sl.No.	Name of the student Entrepreneur	Year of passed out	Type of Business	Designation
1	S.Arun Kumar	2024	Family Business	Partner

7.4 Improvement in the quality of students admitted to the program (10)

Total Marks 10.00

Institute Marks : 10.00

Item		2024-25	2023-24	2022-23
National Level Entrance Examination No. of Students admitted	No of students admitted	0	0	0
	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
State/ University/ Level Entrance Examination/ Others State/University/Level Entra	No of students admitted	38	43	31
	Opening Score/Rank	180	172	178
	Closing Score/Rank	92	92	81
Name of the Entrance Examination for Lateral Entry or lateral entry details Name of the Entrance Exan	No of students admitted	3	4	3
	Opening Score/Rank	96	90	75
	Closing Score/Rank	77	68	67
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		63	65	64

8 FIRST YEAR ACADEMICS (50)

Total Marks 44.28

8.1 First Year Student-Faculty Ratio (FYSFR) (5)

Total Marks 5.00

Institute Marks : 5.00

Please provide First year faculty information considering load for the particular program

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
							CAY	CAYm1	CAYm2			
Mrs.G Ranjitha	CCCPG5441B	MA	22/06/2016	English	Assistant Professor	26/04/2024	33	0	0	Yes	Regular	
Dr.N Nagaman	BEBPN1416F	M.A and Ph.D	31/03/2022	Mathematics	Assistant Professor	05/09/2024	50	0	0	Yes	Regular	
Ms.M Preethi F	EAEP2510N	M.E/M.Tech	05/07/2023	Computer Science and Business Systems	Assistant Professor	03/07/2024	43	0	0	Yes	Regular	
Dr.S.Erana Vee	AAXPF0108R	ME/M. Tech and PhD	21/09/2021	Computer Science and Business Systems	Associate Professor	28/07/2022	25	0	0	Yes	Regular	
Dr.S.Gomathi	BFLPG4155F	M.A and Ph.D	03/04/2017	English	Assistant Professor	28/07/2022	0	50	40	Yes	Regular	
Dr.R.Subasree	GGMPS7294L	M.Sc. and PhD	12/10/2017	Mathematics	Assistant Professor	01/06/2016	0	100	0	Yes	Regular	
Mrs.B.Yazhini	AHNPY5044Q	M.E/M.Tech	10/06/2014	Computer Science and Business Systems	Assistant Professor	01/07/2023	0	22	0	Yes	Regular	
Dr.K.Jeyapapp	ASPPJ3299R	M.Sc. and PhD	21/08/2019	Physics	Associate Professor	04/11/2020	33	45	45	Yes	Regular	
Dr. M. Venkate	ASRPV9671M	M.Sc. and PhD	03/12/2012	Chemistry	Associate Professor	01/06/2016	38	38	50	Yes	Regular	
Mrs.V.Krishna l	DMSPK8318A	M.E/M.Tech	07/07/2017	VLSI DESIGN	Assistant Professor	31/07/2023	0	22	0	Yes	Regular	
Dr.K.Karthikeya	AVWPK4872F	M.E/M.Tech	25/09/2017	Electrical Engineering	Professor	09/05/2013	0	11	0	Yes	Regular	
Dr.D.Karthik Pr	BOUPK2043G	ME/M. Tech and PhD	27/07/2023	Electrical Engineering	Associate Professor	02/01/2014	0	13	0	Yes	Regular	
Mr.A.Manicka l	AZGPM5936Q	M.E/M.Tech	25/05/2017	Structural Engineering	Assistant Professor	01/06/2017	0	33	38	Yes	Regular	
Dr. L.Sathikala	BRSPS5656J	M.Sc. and PhD	19/02/2016	Mathematics	Associate Professor	30/05/2013	0	0	100	Yes	Regular	
Dr.M.Swarnasi	DTPPS8936A	ME/M. Tech and PhD	03/11/2023	Computer Science and Engineering	Associate Professor	02/06/2014	0	0	33	Yes	Regular	

Mrs.K.Jeyagee	AZTPJ9217E	M.E/M.Tech	06/07/2011	Computer Science and Engineering	Assistant Professor	18/11/2023	0	0	13	Yes	Regular	
Mr.A. Guna	COGPG2187C	M.E/M.Tech	19/06/2019	Control and Instrumentation Engineering	Assistant Professor	02/11/2020	0	0	33	No	Regular	02/03/2024
Mrs.V.Srirenga	EJHPS1350B	M.E/M.Tech	11/07/2012	ECE	Assistant Professor	01/12/2015	0	0	9	Yes	Regular	
Mrs.R.Chandrz	BLKPC7743J	M.E/M.Tech	17/06/2020	Communication systems	Assistant Professor	28/07/2022	0	0	8	Yes	Regular	
Mrs. K.Usharar	AFEPU2965H	M.E/M.Tech	16/06/2016	CSBS	Assistant Professor	08/05/2023	0	8	0	Yes	Regular	
Dr.E.Emerson	ACSPE0095R	ME/M. Tech and PhD	21/07/2023	ECE	Assistant Professor	01/07/2023	0	6	0	No	Regular	26/06/2024

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment=(5*20)/FYSFR(Limited to Max.5)
2022-23(CAYm2)	60	4	15	5
2023-24(CAYm1)	60	4	15	5
2024-25(CAY)	60	3	20	5
Average	60	3	16	5

8.2 Qualification of Faculty Teaching First Year Common Courses (5)

Total Marks 2.00

Institute Marks : 2.00

Year	x (Number Of Regular Faculty with Ph.D)	y (Number Of Regular Faculty with Post graduate Qualification)	RF (Number Of Faculty Members required as per SFR of 20:1)	Assessment Of Faculty Qualification [(5x + 3y) / RF]
2022-23	2	0	3	3.00
2023-24	2	0	3	3.00
2024-25	0	0	3	0.00

Average Assessment: 2.00

8.3 First Year Academic Performance (10)

Total Marks 7.28

Institute Marks : 7.28

Academic Performance	2024-25	2023-24	2022-23
Mean of CGPA or mean percentage of all successful students(X)	7.32	7.60	6.93
Total Number of successful students(Y)	43.00	31.00	42.00
Total Number of students appeared in the examination(Z)	43.00	31.00	42.00
API [X*(Y/Z)]	7.32	7.60	6.93

Average API[(AP1+AP2+AP3)/3] : 7.28

Assessment [1.5 * Average API] : 7.28

8.4 Attainment of Course Outcomes of first year courses (10)

Total Marks 10.00

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5)

Institute Marks : 5.00

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5)

(Examples of data collection processes may include, but are not limited to, specific exam questions, laboratory tests, internally developed assessment exams, oral exams assignments, presentations, tutorial sheets etc.)

Assessment processes

Performance in each course of study shall be evaluated based on

- Continuous Internal Assessment Test throughout the semester and
- University examination at the end of the semester.

The Internal marks are awarded for a particular course based on the tools listed below

CO Attainment Process is shown below in figure 8.1 as flowchart.

Figure 8.1 Process of CO Attainment (Flowchart)

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VIII.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VIII.pdf)

Direct Assessment:

Table 8.1 Evaluation Methods with process

Evaluation Methods	Process
Internal Assessment Tests	Internal Assessment Tests are conducted to evaluate the course outcomes. Questions are mapped to Course Outcome. Two tests planned per semester per course and each test questions are mapped with Cos. Test papers are distributed to students within three days after completion of corresponding test.
Assignments & Tutorials	Assignment and tutorial questions are prepared by faculty member based on the course outcome. Tutorials are mandatory for four credit subjects. Assignment and Tutorial marks are recorded for assessing the attainment of COs.
Laboratory Course	Each Laboratory Experiments are mapped with COs by faculty member. Marks are distributed to the students for each experiment based on Rubrics like performance, Viva Voce and Record. Total Marks considered for Practical Internal Assessment are Experiment wise marks and Model Practical examination marks.
University Examination	At the end of each semester, final examination is conducted for Theory and Laboratory courses by Anna University. The question paper covers the entire syllabus and all the COs.

Attainment Level:

Level	Description
1	60% of Students \geq 60 Marks
2	70% of Students \geq 60 Marks
3	80% of Students \geq 60 Marks

Theory courses

For each theory course, faculty member calculates the course outcome attainment using university examination and Internal Assessment test. The attainment level will be calculated based on the average performance levels of both university examination and internal assessment test. The evaluation process of Internal Assessment Tests/Assignments/Tutorials/Group Discussion is used as tool with weightage of 40% and 60% weightage will be given for university examination. Based on the level of CO attainment, the faculty member will decide either to increase the competency level or changing the content delivery method, Assessment methods to improve attainment level for the course.

	Assessment Tool	Weightage	Frequency
CO Attainment	Internal Assessment Tests	40%	Twice in a Semester
	University Examination	60%	Once in a Semester

Laboratory Courses

For laboratory courses, the course outcome will be calculated based on, performance, viva-voce, record work and model practical examination with the weightage of 40% for Continuous Internal assessment and 60 % weightage for University Practical Examination. Based on the CO attainment level, the faculty member will decide either to increase the competency level or enhances the practical knowledge of the students in order to improve attainment level for the Laboratory course.

	Assessment Tool	Weightage	Frequency
CO Attainment	Continuous Internal Assessment	40%	Every Week
	University Practical Examination	60%	Once in a Semester

Internal Marks Calculation:

The Internal marks are awarded for a particular subject as per the rules and regulations of the Anna University for all theory and practical courses (including project work). The continuous internal assessment shall be for a maximum of 20 marks.

Parameters	Weightage
Internal Assessment Tests	80%
Assignments/Tutorials	20%

CO Attainment Calculation:

The course outcome for the all courses in terms of percentage is calculated by the ratio between Marks obtained by the students in COx to the Maximum marks allotted to COx. The course outcome is calculated for all the students for all the courses.

$$\text{COx in \%} = \left[\frac{\text{Marks obtained by the students in COx}}{\text{Maximum Marks allotted in COx}} \right] \times 100$$

Where, x= [1 to N], N= Number of COs.

CO Attainment level is defined by the following table.

COx Attainment Level	3	80% of the Students Scoring more than or equal to 60% of Marks in COx
	2	70% of the Students Scoring more than or equal to 60% of Marks in COx
	1	60% of the Students Scoring more than or equal to 60% of Marks in COx

Internal Assessment Attainment level is the ratio between sum of all COs attained by students to total number of COs.

$$\text{IAT Attainment Level} = \frac{\text{Sum of all COs attained by students}}{\text{Total Number of COs}}$$

University Attainment level is defined by the following table.

University Attainment Level	3	80% of the Students Scoring more than or equal to 60% of Marks
	2	70% of the Students Scoring more than or equal to 60% of Marks
	1	60% of the Students Scoring more than or equal to 60% of Marks

Overall Attainment is calculated by sum of 40% of Internal Assessment Test Attainment Level and 60% of University Attainment Level.

Overall Attainment Level =	(40% of IAT Attainment Level) + (60% of University Attainment Level)
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Figure 8.2 First Year Academic Calendar 2022-23 (ODD Semester)

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VIII.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VIII.pdf)

Sample Course for Calculation of CO Attainment:

Course Code & Title : CY3151 & Engineering Chemistry

Semester & Year of study : I & I year 2022-23

Course Index : C104

Figure 8.3 Sample Attainment taken from online software tool

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VIII.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VIII.pdf)

The CO attainment level is calculated by as follows

CO1	3	100% of Students scored more than or equal to 60 Marks
CO2	3	80% of Students scored more than or equal to 60 Marks
CO3	3	90% of Students scored more than or equal to 60 Marks
CO4	3	80% of Students scored more than or equal to 60 Marks
CO5	3	80% of Students scored more than or equal to 60 Marks

The course outcomes attainment for the sample course taken above is calculated as per the table mentioned below.

Continuous Internal Assessment Methods (CIAM)	Weightage						CIAM	End Semester
	CO1	CO2	CO3	CO4	CO5			
IAT	60%	60%	60%	60%	60%	90%	40%	60%
Assignment	30%	30%	30%	30%	30%			
CO End Survey	10%	10%	10%	10%	10%			
Total	100 %	100 %	100 %	100 %	100 %	100 %		100%

Sample Calculation:

COx in % = [(Marks obtained by the students in COx) / (Maximum Marks allotted in COx)]×100

Where, x= [1 to N], N= Number of Cos

Continuous Internal Assessment Methods (CIAM)	Reg. No of the student: 953622103007					
	CO1	CO2	CO3	CO4	CO5	
IAT (60% Weightage)	CO1 in % = 21/40 = 53.00	CO2 in % =9/24 =38.00	CO3 in % =15/40 = 38.00	CO4 in % =9/40 =23.00	CO5 in % =14/40 = 35	-

Assignment (30% Weightage)	CO1 in % =30/30 = 100	CO2 in % =30/30 =100	CO3 in % =(28.5)/30 =95	CO4 in % =30/30 = 100	CO5 in % =30/30 = 100	
CO End Survey(10% Weightage)	100	100	100	100	100	
Total	72	63	61	54	61	
Continuous Internal Assessment Methods (CIAM)	Reg. No of the student: 953622103026					
	CO1	CO2	CO3	CO4	CO5	
IAT (60% Weightage)	CO1 in % =39/40 =98.00	CO2 in % =32/40 = 80.00	CO3 in % =20/38 = 53.00	CO4 in % = 30/40 = 75.00	CO5 in % = 26/40 = 65.00	-
Assignment (30% Weightage)	CO1 in % = 30/30 = 100	CO2 in % = 30/30 = 100	CO3 in % = 30/30 = 100	CO4 in % =30/30 = 100	CO5 in % = 30/30 = 100	
CO End Survey(10% Weightage)	100	100	100	100	100	

Figure 8.4 IAT1 Question Paper: PH3151 Engineering Physics

Figure 8.5 IAT2 Question Paper: PH3201 Physics for Civil Engineering

Figure 8.6 IAT2 Retest Question Paper: MA3251 Statics and Numerical Methods

Figure 8.7 Semester Question Paper: PH3201 Physics for Civil Engineering

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VIII.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_VIII.pdf)

8.4.2 Record the attainment of Course Outcomes of all first year courses (5)

Institute Marks : 5.00

(The attainment levels shall be set considering average performance levels in the university examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect the COs of a subject plus the performance in the University examination)

The attainment level for each course is decided by the respective faculty in-charge. The attainment of COs for all subjects of I year during the academic year 2021-22, 2022-23, 2023-24 are assessed by having 60% weightage for university examination and 40% weightage to internal assessment tests.

Table 8.2 Attainment of Course Outcomes (AY 2021-22)

Course Code NBA	Subject code	Subject title	Target Level for CO Attainment	Total CO Attainment	Remarks
C101	HS3251	Professional English I	1.8	2.9	Attained
C102	MA3151	Matrices and Calculus	1.8	2.14	Attained
C103	PH3151	Engineering Physics	1.8	2.57	Attained
C104	CY3151	Engineering Chemistry	1.8	2.82	Attained
C105	GE3151	Problem solving and Python Programming	1.8	2.58	Attained
C107	GE3171	Problem Solving and Python Programming Laboratory	1.8	3	Attained
C108	BS3171	Physics and Chemistry Laboratory	1.8	2.76	Attained
C109	GE3172	English Laboratory	1.8	3	Attained
C110	HS3251	Professional English II	1.8	3	Attained
C111	MA3251	Statistics and Numerical Methods	1.8	2.28	Attained
C112	PH3201	Physics for Civil Engineering	1.8	2.5	Attained
C113	BE3252	Basic Electrical, Electronics and Instrumentation Engineering	1.8	0.833	Not attained
C114	GE3251	Engineering Graphics	1.8	2.18	Attained
C116	GE3271	Engineering Practices Laboratory	1.8	3	Attained
C117	BE3272	Basic Electrical, Electronics and Instrumentation Engineering Laboratory	1.8	3	Attained
C118	GE3272	Communication Laboratory /Foreign Language	1.8	3	Attained

8.5 Attainment of Program Outcomes from first year courses (20)

Total Marks 20.00

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15)

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	PO1	PO2	PO3	PO4	PO5	PO6	PO7	0.8	1.6	PO10	PO11	PO12
C102	2.15	2.15	2.42	0.80	PO5	PO6	PO7	PO8	0.80	PO10	PO11	0.80
C103	2.09	1.71	PO3	PO4	PO5	PO6	PO7	PO8	PO9	1.62	PO11	2.57
C104	1.6	PO2	0.8	0.8	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.8
C105	2.28	1.52	1.52	1.14	1.52	PO6	PO7	0.76	0.76	0.91	PO11	0.76
C107	3	3	2.2	2	2.2	PO6	PO7	1	2	1.2	PO11	1
C108	2.57	1.38	2.14	2.76	PO5	1.22	PO7	PO8	1.52	1.38	PO11	1.95
C109	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	0.8	2.6	PO11	PO12
C110	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	0.69	1.38	PO11	PO12
C111	3	2	2	2	2	2	PO7	PO8	1	PO10	PO11	1
C112	2.24	1.46	PO3	PO4	PO5	PO6	PO7	PO8	PO9	1.66	PO11	2.63
C113	3	2	1	PO4	1	PO6	PO7	1	2	1	PO11	1
C114	2.03	2.18	PO3	PO4	1.45	PO6	PO7	PO8	PO9	2.18	PO11	0.72
C116	1.83	1	1	1	PO5	PO6	2.83	2	2	PO10	2	PO12
C117	3	2	1	PO4	1	PO6	PO7	1	PO9	1	PO11	1
C118	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	0.8	2.6	PO11	PO12

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.40	1.85	1.56	1.50	1.53	1.61	2.83	1.09	1.27	1.59	2	1.29
CO Attainment	2.40	1.85	1.56	1.50	1.53	1.61	2.83	1.09	1.27	1.59	2	1.29

PSOs Attainment:

Course	PSO1	PSO2	PSO3	PSO4
C101	PSO1	PSO2	PSO3	PSO4
C102	PSO1	0.80	0.80	0.80
C103	PSO1	PSO2	PSO3	PSO4
C104	PSO1	1.06	PSO3	PSO4
C105	PSO1	PSO2	0.76	PSO4
C106	PSO1	PSO2	PSO3	PSO4
C107	PSO1	PSO2	2	PSO4
C108	1.22	PSO2	PSO3	PSO4
C109	PSO1	PSO2	PSO3	PSO4
C110	PSO1	PSO2	PSO3	PSO4
C111	PSO1	PSO2	1	PSO4
C112	PSO1	PSO2	PSO3	PSO4
C113	PSO1	PSO2	PSO3	PSO4
C114	1.45	PSO2	PSO3	PSO4
C115	PSO1	PSO2	PSO3	PSO4
C116	PSO1	PSO2	PSO3	PSO4
C117	PSO1	PSO2	PSO3	PSO4
C118	PSO1	PSO2	PSO3	PSO4
PSO Attainment	1.34	0.93	1.14	0.80

PSO Attainment Level

Course	PSO1	PSO2	PSO3	PSO4
Direct Attainment	1.34	0.93	1.14	0.80

8.5.2 Actions taken based on the results of evaluation of relevant POs (5)

Institute Marks : 5.00

POs Attainment Levels and Actions for Improvement- (2023-24)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	1.6	2.40	Target Attained
Actions taken: Nil			
PO 2 : Problem Analysis			
PO 2	1.6	1.86	Target Attained
Actions taken: Nil			
PO 3 : Design/development of Solutions			
PO 3	1.6	1.56	Students need to acquire knowledge in developing solutions for the given problem in engineering graphics course, etc.
Actions taken: • More tutorial classes / assignments are conducted to expose the students to solve more problems			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.6	1.62	Target Attained
Actions taken: Nil			
PO 5 : Modern Tool Usage			
PO 5	1.6	1.43	Modern tools & software tools are introduced in a minimum level to the students which made them to feel difficult in understanding Engineering Graphics, Python Programming, Engineering mechanics etc.
Actions taken: 1. Awareness was given on Digital drawing platforms such as AutoCAD, Revit Architecture for Engineering Graphics course 2. Google Classroom and Canvas are used for posting course materials 3. Google meet tool is used for webinar conduction 4. Virtual Labs are used in Physics, Chemistry & Communication Laboratories			
PO 6 : The Engineer and Society			
PO 6	1.6	1.22	Students are need to be exposed in social, health, safety and cultural awareness.
Actions taken: 1. One hour per each week was separately conducted for personality improvement and Character Development. 2. Awareness posters on food waste in the hostel has been made. 3. Students are encouraged to participate in the socialistic activities through RIT clubs & NSS. 4. Students are encouraged to showcase their performance through various club activities.			
PO 7 : Environment and Sustainability			
PO 7	1.6	2.83	Target Attained
Actions taken: Nil			
PO 8 : Ethics			
PO 8	1.6	1.15	Need to impart moral values and ethical principles in students
Actions taken: 1. Students are educated with concept of Universal Human Values/ Holistic living to help them to have a better understanding of life and practical ethical values 2. By taking part in special seminar, students explore their truth, inner strength and potential, so that they seem to be very confident, and exhibit love and respect for fellow peers 3. Through Mentoring, the students are educated on Ethical values			
PO 9 : Individual and Team Work			

PO 9	1.6	1.29	Students need to learn the power of working as a team to learn skills and knowledge from others.
Actions taken: • Students are encouraged to participate & organize co-curricular and extracurricular activities as individuals and as well as a team.			

PO 10 : Communication

PO 10	1.6	1.39	It is found that for a considerable strength of students admitted from State board education lag in communication skills
Actions taken: 1. Group Activities are conducted to enhance presentation skills & thinking skill etc. 2. Each day 10-min presentation is given by the students of their own topic to improve self confidence in their communication. 3. Events are organized through Elite Club and students are encouraged to participate. 4. Tamil Mandram club organizes various events to improve communication skills and students are encouraged to participate.			

PO 11 : Project Management and Finance

PO 11	1.6	2.00	Target Attained
Actions taken: Nil			

PO 12 : Life-long Learning

PO 12	1.6	1.30	Some strength of students is found learning only through the academic courses offered by the institute. Usage of Library resources like newspapers and magazines are found low.
Actions taken: 1. Overview of Online Courses like NPTEL, etc are shared and they are encouraged to participate. 2. 10-min presentations are made compulsory as daily practice, which motivate them to do a Life Long Learning.			

PSOs Attainment Levels and Actions for Improvement- (2023-24)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Communicate and present civil engineering projects effectively			
PSO 1	1.6	1.34	Target not attained
Actions taken: • Students are encouraged to participate in project expo, mini projects, short-term IPT, Industrial visits, webinars, etc. related to civil engineering projects.			
PSO 2 : Use the techniques, Skills and modern engineering tools necessary for civil engineering practice and project management.			
PSO 2	1.6	0.94	Target not attained
Actions taken: • Students are encouraged to practice AutoCAD software tool to improve their skills and learn basic technology and its principles used in field practices through guest lectures, webinars, etc.			
PSO 3 : Provide sustainable solutions to civil engineering problems			
PSO 3	1.6	1.14	Target not attained
Actions taken: • Students are encouraged to practice AutoCAD software tool to improve their skills and learn basic technology and its principles used in field practices through guest lectures, webinars, etc.			
PSO 4 : Perform as design consultants in construction industry for the design of civil engineering structures.			
PSO 4	1.6	0.80	Target not attained
Actions taken: • Students are encouraged to plan a residential building using drawing tools and AutoCAD software. • They are also encouraged to do a case study of institution building and its components.			

9 STUDENT SUPPORT SYSTEMS (50)

Total Marks 50.00

9.1 Mentoring system to help at individual level (5)

Total Marks 5.00

Table 9.1 Types of Mentoring

S.No.	Types of Mentoring	Nature of Mentoring
1	First Year Orientation and Counselling	<ul style="list-style-type: none"> Promoting smooth transition from school to college environment Conducting bridge courses for Science, English and Mathematics Introduction of Professional societies & chapters UHV classes Motivational Speeches Alumni Interaction Parents Meeting
2	Mentor System	<ul style="list-style-type: none"> One to One Interaction Communications with Parents Personal Support Academic progress All round development
3	Academic & Cocurricular Guidance	<ul style="list-style-type: none"> Class Committee Meetings Mentor Meetings Guidance from course handling faculty & all the department faculty members
4	Support for Lateral Entry students	<ul style="list-style-type: none"> Mentor Meetings Guidance from course handling faculty & all the department faculty members
5	Personal/Psychological Counselling	<ul style="list-style-type: none"> Personal / Psychological counselling through Psychologist
6	Personality & Character Development	<ul style="list-style-type: none"> It's a specific course with 80 hours duration included in the curriculum for students' self-development
7	Mentoring for Career Planning	<ul style="list-style-type: none"> Career Guidance Cell Entrepreneur Development Cell Higher Education Entrance Exams BEC Exams
8	Placement Training for students who opted for Placement	<ul style="list-style-type: none"> Training on Aptitude, Soft skills, Communication, Programming and Technical Competency Interaction with Industry Experts / Alumni
9	Mentoring for Competitive Exam	<ul style="list-style-type: none"> Providing Awareness on GATE, TANCET, etc. Training on Technical Contents
10	Mentoring for Extra Curricular Activities	<ul style="list-style-type: none"> Guidance by the Physical Department Trainers Guidance by the NSS / NCC / Club Coordinators

9.1.1 First Year Orientation and Counseling:

- Orientation and Induction of the first-year students is organized to promote smooth transition from school to college environment.
- First year students are acquainted with professional societies and chapters which help them develop professional excellence, promote growth and networking opportunities and also raise awareness of their profession.

Following are the features of the induction program:

- About the Academic & Curriculum
- Familiarization to Institute and department
- Self-Learning Areas
- Human Value sessions
- Motivational speeches by expert speakers
- Interactive sessions with alumni
- Bridging the gap (Proficiency Modules) - Coding, Mathematics, English, Applied Science
- Cultural and club activities
- Visits to local areas
- Freshers' day Program including parents

Figure 9.1 Special Speech by the Eminent Speaker Puzhavar Ramalingam, Motivational Speaker & National Best Teacher Awardee during Freshers Day on 14.09.2024

(Access Link to figure 9.1 : https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf))

9.1.2 Mentor System:

- To monitor the student progress, faculty members are designated as Mentors, each Mentor is allotted with 15- 20 students under the mentoring system, tabulated in 9.2 & 9.3 and also there is a Class Advisor, who act a mentor as well as Coordinator for the whole class.
- Mentors are using a specialized Mentoring Register to assess the students' performance continuously

Table 9.2 Student Mentor Ratio

Academic Year	Number of Faculty Mentors	Number of students per mentor	Frequency of meeting
2024-25	12	15-20	biweekly
2023-24	12	15-20	biweekly
2022-23	12	15-20	biweekly
2021-22	12	15-20	biweekly

Table 9.3 Mentor list for the Academic year 2024-2025

Year of Study	Strength	Mentor

IV Year	47	Mrs.M.Indhumathi, ASP/Civil Mr.T.Chockalingam AP(Sr.Gr.)/Civil Mr.R.Muruganatham AP/Civil Dr.Dharmar, Prof & Head Civil
III Year	35	Mr.V.Ragavan, AP/Civil Mrs. B. Bharani Baanu, AP/Civil Dr.Dharmar, Prof & Head Civil
II Year	46	Mrs.Leema Margret, AP/Civil Mrs R.. Kalaimani, AP/Civil Dr.G.Karthikeyan, ASP/Civil Dr.Dharmar, Prof & Head Civil
I Year	38	Mr.V.Jeevanantham, AP/Civil Mrs.C.Subha AP(Sr.Gr.)/Civil Dr.M.Venkatesh Perumal (ASP/Chemistry)

The lists of details maintained by the mentors in the student record (**Figure 9.2**) are as follows:

- Personal details of the student
- Attendance Percentage
- Academic performance semester-wise (Internal & External marks)
- Co-curricular and extra-curricular records
- Placement particulars
- Semester-wise Evaluation of Behavioral aspects
- Strength & Weakness of the students

Figure 9.2 Sample Student Mentoring Book

(https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf))

Roles of Class Advisor & Mentors:

- Encourage the students for their improvement in Academic, Curricular, Co-curricular, Extra-Curricular activities, social activities.
- Any discrepancies such as disciplinary issues, health issues, sense of insecurity, lack of attendance etc are discussed and counselled with utmost care. Guide them to go for psychological counselling, if necessary.
- Students' Attendance percentage is monitored.
- Frequent absentees are informed to HoD and their parents.
- Conduction of Parent Teacher Meeting
- Monitor the student Academic progress and communicate the same with their parents.
- It is the responsibility of a Class Advisor to Conduct Class Committee Meetings (three times in a semester).

During the Class Committee meeting,

- Achievements of the students are appreciated.
- Issues related to difficulty in understanding and learning any subject are discussed.
- Guidance to overcoming such issues is discussed.

- Internal Test performance is discussed.
- Special coaching class arrangements are discussed.
- Students are given an opportunity to communicate their personal issues and strategies for coping up are provided.

Efficacy of the Mentoring System

The prevailing mentoring system helps us in the following ways:

- Enhances the teaching-learning process by making it more student-centric
- Provides impartial advice and encouragement to students
- Provides individual and personal care to the students
- Improves students' performance in internal assessment test and end semester exam
- Reduces the risk of failures and drop-outs and improves academic performance.
- Promotes improvement in attendance percentage of students
- Helps to identify students' interests and create opportunities of growth in relevant areas
- Motivates students to participate in various co-curricular and extracurricular activities.
- Creates a positive work environment.
- Facilitates information gathering and dissemination.

9.1.3(a) Academic Guidance by the Department

Academic Guidance is given to the students through Mentor Meetings, Class Committee Meetings, all the subject handling faculty members and by the HOD.

- Good performers are advised to help the slow learners whenever possible, which enables peer learning among the students.
- Toppers are motivated to score good GPAs in all the semester and secure university ranks.
- Slow learners are advised to attend coaching classes for better understanding of the subjects.
- Scholarships and certificates are given to Class Toppers/Meritorious Students.
- College Toppers are awarded based on the academic performance.
- Best Outgoing Student Award is also presented to motivate the students.
- All the department faculty members are serving as a project guide and mentor the student for the particular work and encourage them to do their best.

Efficacy:

- The performance of the students in the internal assessment tests has improved
- Slow learners have also shown improvement in their test performance because of peer learning. They are motivated to perform better for further improvement.
- Topper maintained their CGPA and achieved Distinctions, list shown in **Table 9.4**

Table 9.4 ACADEMIC DISTINCTIONS

Batch	Distinctions
2017 - 2021	R. Harshani (University Rank 27) G.Abirami
2018 - 2022	S. Meenaa Bharathi G.Mohanrajan
2019 - 2023	K. Sivaramakrishnan
2020 - 2024	V.S.Priyadharshini R. Rakavi

Figure 9.3 Anna University Rank Certificate
(Harshini R, Batch 2017-2021 secured university 27th rank)

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)

9.1.3(b) Co-curricular Guidance by the Department

Co-curricular Guidance is given to the students through Mentor Meetings, Class Committee Meetings, all the subject handling faculty members and by the HOD.

- Students' participation in co-curricular activities are periodically monitored.
- Suitable events are identified and intimated to the students.
- Students are motivated to participate in multiple activities to enhance their technical and life skills.
- Students are encouraged to do inter-departmental projects and take value-Added Courses based on their interest.
- All the department faculty members are serving as a mentor for their External / internal participations in Cocurricular activities.
- Department faculty members also organize cocurricular events including Industrial visits to enrich their subject and field knowledge, which are detailed in the upcoming **section 9.7**

Efficacy

- Students have actively participated in various state and national level symposiums, seminars, conferences, contests, training programmes, workshops, etc. which made them industry-ready.

Table 9.5 Samples of Achievements in Co-Curricular Activities

Title of the Event	Position	Year of Participation
Light Weight Concrete Contest Organizer: Kalasalingam Academy of Research and Education, Krishnankovil	I	2024
Environmental Challenges Organizer: Kalasalingam Academy of Research and Education, Krishnankovil	II	2024
3D-Modelling - National Technical symposium (TECH-ELITE 23) Organizer: SRM Madurai College for Engineering and Technology, Sivagangai	III	2023
CONCRETA23 - National Level Inter College meet SurveQue Event Organizer: M.Kumarasamy College of Engineering, Karur	I	2023
National Level Symposium INFOTRAZ2K23 Technical Quiz Organizer: V.S.B Engineering College, Karur	III	2023
National level online Poster Competition Recent Advances in Civil Engineering Organizer: SSN College of Engineering, Chennai	III	2023
Ramco Concrete Contest Organizer: Ramco Cements	I & II	2022

Figure 9.4 Students receiving awards at the event organized by Kalasalingam University

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)

9.1.4 Support for lateral entry students

The lateral entry students entering directly the second year were briefed about the department facilities and activities. They were allotted with the mentors to discuss their academic and non-academic related matters. They come from polytechnic background, their challenges generally are mathematics and lack of communication skills.

- Interactions with the Course instructors & Special Coaching classes
- Teaming up with the regular students in labs

1. Personal/Psychological Counseling

- Professional counselor is available in the institute to counsel the students individually, aided therapeutically.
- Students are encouraged to engage in Service-Related activities like NSS, Blood Donation etc., they are able to come out of the psychological issues.
- Centre for Women Welfare, Safety and Progress club mentor the young women in campus by helping them to build character, improve self-awareness, and gain confidence within one's self.
- The club functions to review the existing arrangements for the safety and security of girls & women in particular and of the entire youth in general.
- It strives to promote the general welfare of the student community while creating a positive, intellectual, social, and cultural environment among women.

Efficacy

- It helps to improve their mental well-being, become more self-aware, and develop better coping mechanisms.
- Counseling involves a safe and confidential relationship where the students can explore their thoughts, feelings and behaviors.
- They pick up the fundamentals from this Counseling and excel in Leadership initiatives. Efforts are taken to collect Evidence based Transformation.

1. Personality & Character Development

As per regulation R 2021, all students shall enroll, on admission, in any one of the personality and character development programmes (NCC/NSS/NSO/YRC) and undergo training for about 80 hours and attend a camp of about seven days. The training shall include classes on hygiene and health awareness and also training in first-aid. PCD hour allocation in the timetable is shown in the **Figure 9.5**

Figure 9.5 First year class timetable with allocation of PCD hours

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)

9.1.7 Support for Career Planning

Mentors through the Career Guidance Cell and Entrepreneurship Development Cell and all the department faculty members guide the students to achieve their career aim.

Following types of Events are arranged,

- Motivational & Guidance programme
- Alumni Interactions
- Value Added Courses
- Business English Certificate Programme
- Higher Studies Opportunities

The activities relating to the career planning are furnished in the upcoming Career guidance **section 9.5**.

Efficacy

- Several students have enrolled for Business English Certificate Exam.
- Students have pursued higher studies.

Table 9.6 Samples of Students Chosen Higher Studies

Name	Programme	PG Batch	Institute
S.Saravanan	Structural Engineering	2021-2023	Mepco Schlenk Engineering College
P.Aarthi	Structural Engineering	2022-2024	P.S.R. Engineering College, Sivakasi
R.Harshini	Structural Engineering	2021-2023	Mepco Schlenk Engineering College
Anto Sherlina S	Environmental Engineering	2021-2023	Anna University, CEG CAMPUS
Sriranjith kumar	Structural Engineering	2021-2023	Sethu Institute of Technology
Sanjay Maadhavan V	Structural Engineering	2021-2023	Mepco Schlenk Engineering College
Fathima Haseena M	Structural Engineering	2021-2023	Mepco Schlenk Engineering College
Jenitha	Structural Engineering	2022-2024	Thiagarajar college of Engineering
Meenaa Bhaarathi S	Construction Engineering & Management	2022-2024	Thiagarajar college of Engineering
A.Sudhakaran	Structural Engineering	2022-2024	Alagappa Chettiar Government College of Engineering & Technology
Hariharapandiyan V	Structural Engineering	2023-2025	Mepco Schlenk Engineering College
R. Dheenadayalan	Structural Engineering	2024-2025	Kumaraguru College of Technology

9.1.8 Placement Training for students

- Department faculty members & External Agencies mentor the students for better performance in the placement drives
- The trainings offered relevant to the placement are furnished in the upcoming Career guidance **section 9.5**.

9.1.9 Competitive Exam Support

The students who are interested in competitive exams were given special coaching and motivation by the internal faculty members and which made them appear in those exams.

Figure 9.6 Gate Scorecard 2024 of Ms. Aathilaxmi, III Yr Civil

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9. Mentoring for Extracurricular Activities

- Physical Education department supports, Trains and mentors the identified potential students in their interested sport.

- Interested students enroll themselves in the various extra-curricular activities under NSS, NCC, Club activities and they are mentored by the respective Coordinators.
- Activities relevant to the extra-curricular are furnished in the upcoming Extracurricular **section 9.7**

ficacy

- Students emerge physically and mentally strong.
- Students have participated in various zonal, district, state and national level events and have also won prizes.
- Students have started their own NGOs and are involved in several social service activities. Senior students have addressed and encouraged juniors to be part of their NGOs and start their own NGOs
- Students have involved in many village welfare activities, cleanliness drives, health & hygiene programmes in and around Rajapalayam.

Table 9.7 Samples of Achievements in Sports Activities

Name of the Student	Name of the Event	Year of Participation	Remarks
M Aashik Anton	Anna University Sports Board Cricket Tournament	2023	State Level (III Position)
Saravanakumar G	5000 mts - 11th Sports Day	2024	Institute Level (I Position)
M.Janarathanan	Ball Badminton	2022	Institute Level (Winner)
Sibibala P	Chess	2023 2024	Zonal Level 4 th Place 5 th Place
N M Nana shree Srija Yugabharathi	Ball Badminton	2024	Zonal Level (III Position)

Figure 9.7 M.Aashik Anton, III Civil secured 3rd place in “Anna University Sports Board Cricket Tournaments” held at Anna University Regional Camp Site, Tirunelveli during 27-30 Sep 2023

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)

Outcomes of All types of Mentoring

Table 9.8 Samples from passed out batches

Name & Reg.no	Achievement	Batch
SUDHAKARAN	Cleared TANCET Exam Pursued Higher Studies	2018-2022

RAKAVI	Distinction & Placed in Pinnacle InfoTech	2020-2024
SIVARAMAKRISHNAN K	Distinction & Placed in Ramco Cements	2019-2023

1. Testimonial from SUDHAKARAN,

I, Sudhakaran, completed my Bachelor of Engineering in Civil Engineering at Ramco Institute of Technology. During my undergraduate studies, I worked on a project titled "*Analysis of Natural Coolant on the Rooftop to Lower Room Temperature*" under the guidance of Mr. Manicka Mamallan, Assistant Professor in the Department of Civil Engineering. This project sparked my interest in pursuing advanced studies, motivating me to specialize in the structural engineering field. Through TANCET, I secured admission to **Alagappa Chettiar Government College of Engineering and Technology, Karaikudi, for my Master's degree.**

During my Master's coursework, I aspired to enter prestigious institutions like IITs. My first breakthrough came when my undergraduate project was shortlisted for a paper presentation at IIT-Bombay, marking my debut in intercollegiate academic platforms. While facing setbacks such as a backlog, I encountered challenges in recruitment by MNCs. However, with my professors' encouragement, I made a determined decision to pursue a Doctor of Philosophy (PhD) at an IIT or NIT institution.

Currently, I am working as a Research Assistant at IIT-Dhanbad, contributing to innovative research. The unwavering support and mentorship from my professors at RIT, not only as educators but also as mentors and guides, continue to shape my academic and professional journey long after graduation.

2. Case Study of SIVARAMAKRISHNAN K,

SIVARAMAKRISHNAN K was initially identified as slow learner based on his State Board school level cutoff marks. Later he found lagging in communication, interview and presentation skills. He was also frequently trained on aptitude and technical interview questions. Peer coaching was also put into practice. He involved in this coaching regularly. Slowly, he got motivated and his academic performance improved leading to securing Distinction. This led to his placement in Ramco Cement Pvt Ltd, Andra Pradesh with a good package.

9.2 Feedback analysis and reward /corrective measures taken, if any (10)

Total Marks 10.00

9.2.1 Feedback collected for all courses: Yes**9.2.2 Feedback collection process:**

- Periodical feedback on various aspects of the institution is collected from students in the mode of hard copy as well as online based on the ease of collection.

Table 9.9 lists the various Feedback collected from the stakeholders,

Table 9.9 Types of Feedback

Feedback System	Collection Process & its purpose
Class Committee Meeting	<ul style="list-style-type: none"> • Collection by Oral (Minutes are Recorded) • Thrice in a semester • Regular class committee meetings help in updating the students on syllabus completion, teaching methodology, and conduct of teaching, non-teaching and administrative staff, facilities and infrastructure. • It also leads to prompt action in case of any issues brought to notice by students. • <i>Refer 9.2.2(a) below for details</i>
Programme Exit Survey	<ul style="list-style-type: none"> • Collection by Online Software Tool (5 Point Scale) • Yearly once • To improve facilities, career guidance, teaching-learning process, co-curricular and extra-curricular • <i>Refer 9.2.2(b) below for details</i>
Course Exit Survey- Theory	<ul style="list-style-type: none"> • Collection by Online Software Tool (5 Point Scale) • Once in a semester • Curriculum gap identification and inclusion of content beyond syllabus • <i>Refer 9.2.2(c) below for details</i>
Course Exit Survey- Practical	<ul style="list-style-type: none"> • Collection by Online Software Tool (5 Point Scale) • Once in a semester • To maintain quality of laboratory facilities and improve knowledge • <i>Refer 9.2.2(d) below for details</i>
Parent-Teacher Meeting Feedback Form	<ul style="list-style-type: none"> • Collection by paper-pen (5 Point Scale) • Once in a semester • To assess quality of institute and faculty members • <i>Refer 9.2.2(e) below for details</i>
Alumni Feedback	<ul style="list-style-type: none"> • Collection by Online Software Tool (5 Point Scale) • Yearly once • To assess the quality of knowledge gained and improvements required • <i>Refer 9.2.2(f) below for details</i>
Training Programme Feedback Form	<ul style="list-style-type: none"> • Collection by paper-pen (4 Point Scale) • At the end of each programme • Assess the quality of each programme • <i>Refer 9.2.2(g) below for details</i>

Recruiters' Feedback Form	<ul style="list-style-type: none"> • Collection by paper-pen (5 Point Scale) • After placement drive • Assess the quality placement and training • Refer 9.2.2(h) below for details
Employer's Feedback	<ul style="list-style-type: none"> • Collection by Google form (5 Point Scale) • After student recruitment • Assess the quality placement and training • Refer 9.2.2(i) below for details
Students Feedback on Faculty	<ul style="list-style-type: none"> • Collection by Online Software Tool (10 Point Scale) • Once per semester • To improve the teaching-learning process

The below sections 9.2.2 (a) to (i) with Figures from 9.8 to 9.16 provide the supporting documents, which can be accessed using the link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)

9.2.2 (a) Class Committee Meeting Minutes

9.2.2 (b) Program Exit survey

9.2.2 (c) Course Exit Survey- Theory

9.2.2 (d) Course Exit Survey- Practical

9.2.2 (e) Parent-Teacher Meeting Feedback Form

9.2.2(f) Alumni Feedback

9.2.2(g) Training Programmes-Feedback Forms

9.2.2(h) Recruiters Feedback Form

9.2.2(i) Employer Feedback Form

9.2.2(j) Student Feedback on Faculty

Table 9.10 Template of Student Feedback

S.No.	Questionaries	Weightage
1	Level of preparedness (whether adequately prepared for class or not)	10
2	Classroom delivery - whether by reading or interactive communication (use of analogies, examples)	10
3	Use of Training aids like Models, Charts, Video, Animated Computer Graphics, Presentations, Effective Board work, etc.	10
4	Syllabus coverage, teaching content beyond syllabus, guiding students in curricular and co-curricular activities	10
5	Ease of maintenance of order / Class control (without threatening or punishment)	10

6	Involvement in Internal Assessment (fair/partial, whether casual or involved fully in marking with corrective remarks)	10
7	Intellectual stature (commands respect of students by intellectual and maturity levels)	10
8	Integrity (honesty) and Impartiality	10
9	Fairness	10
10	Time Management	10

9.2.3 Percentage of students participating: 100 %

9.2.4 Feedback analysis process

- The average value for each question and overall feedback is calculated.
 - Online tool consolidated program exit survey is shown below in **Figure 9.17**
 - Consolidated report is viewed and analysed by HoD, Principal & Vice principal.
 - Students feedback is prepared,
- a. For an individual faculty as a summary sheet, sample is shown in **Figure 9.18** and
- b. As a Consolidated report for a class with all the courses per semester, sample is shown in **Figure 9.19**

Figure 9.17 Sample Consolidated Responses of Program Exit Survey

Figure 9.18 Summary sheet prepared for an individual faculty member

(Mr.T.Chockalingam AY 23-24 Even Semester)

Refer: Table 9.10

Figure 9.19 Consolidated Class Feedback for all the courses in a semester

(IV Year Feedback: AY 23-24, ODD Semester)

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9.2.5 Basis of Reward/ Record of Corrective Measures

Basis of Rewards:

- Faculty members with higher feedback score are Appreciated

Corrective Measures:

- The individual score of each questionnaire and the average score for the feedback should be greater or equal to 70%. The score which is less than 70% is treated as unsatisfactory and analysis is to be made by the faculty member to take corrective actions. Sample is shown in **Figure 9.20**
- The faculty member is asked to submit a self-reflection report to the Head of the Department to correct the content delivery, usage of additional teaching aids or software tools and any other teaching methodology to improve the teaching learning process.
- A sample of faculty self-reflection form for the theory / laboratory course is presented below in **Figure 9.21**

Figure 9.20 Consolidated Class feedback consist of a low scored course

Figure 9.21 Self-Reflection form by faculty for improvement

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9.3 Feedback on facilities (5)

Total Marks 5.00

9.3.1 Student Feedback Collection Process:

- Students meeting is conducted every month to address their problems related to the infrastructure and for improving the quality of laboratories, library, medical care, hostels, mess, gymnasium, sports, etc.
- Suggestion box is also placed to collect feedback from the students.
- More over Complaints cum Grievance Redressal Committee meeting is conducted once in a semester.

9.3.2 Analysis

- The feedback given by the students is consolidated and analysed. The respective department in-charges, DGM, Vice-Principal and Principal discuss the findings in the consolidated report with the management and come out with necessary actions.

9.3.3 Corrective Measures:

Based on feedback from students,

1.Common & Academic Areas

- No of Drinking Water Dispensers are increased.
- Bus routes are extended based on the student & parent requests.
- Display charts have been increased in laboratories for better comprehension.
- Damaged equipment is identified and serviced at the earliest.
- Based on students' request, internet usage time has been extended after the regular working hours for the hostellers.

2.Library

Based on the Students and Faculty feedback, the Library Committee suggested the following corrective actions,

- Number of computer systems increased from 10 to 22 in digital library
- Implemented KOHA web-based automation software
- Subscribed for IEEE (ASPP) and Science Direct journals
- Established Separate Civil Service Exam books section
- Installed LCD projector in reading room
- Purchased one Kindle E-Reader device for library
- Subscribed Quillbot paraphrase tool with 50 users
- 200 users were awarded with appreciation certificates for the best library user

Moreover, Implemented INFED remote access facility through INFLIBNET (Information Library Network) to access e-resources like IEEE & Science Direct outside the campus at 24/7, based on NAAC Expert team suggestions.

3.Medical care

- Campus vehicle facilities are available 24/7 for medical needs.
- In case of additional medical need, provisions have been created for students to avail medical service at Ramco Hospitals, Rajapalayam.

4.Sports:

- Cricket Net Practice is established.
- Fencing for Basket Ball Court is provided.
- Sports kits are serviced and some of the items are replaced with new ones.
- A new indoor stadium is under consideration.

5.Gymnasium

- Gymnasium equipment is serviced.

6.Hostel

- Number of Washing Machines is increased in the hostels.

- Electrical issues (Fans & Tube lights) are attended as and when required. Replacements are made, if necessary.
- Water Heater service is carried out.
- Carpentry related problems are attended as and when required.
- The recommendations of Hostel welfare committee are incorporated in ensuring food quality in boys and girls hostel.
- Softening plant is installed in the premises to treat water for multi-purpose usage.

Figure 9.22 Student's Complaint Register at Hostels

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)

7.Mess

- Menu modifications are carried out in discussion with the Mess Committee consisting of Student representatives and Staff members.
- Faculty members are deputed during lunch hours to boys' and girls' hostels to check the quality of food preparation.
- A Register is placed in the mess hall, in which, the students and faculty can give their suggestions. Suitable action is taken after reviewing them.

9.4 Self-Learning (5)

Total Marks 5.00

9.4.1 Scope for Self – Learning

- MOOC courses / online courses
- Internship
- Experiential learning
- Co-Curricular activities
- Extra-Curricular activities
- Self – Learning assignments
- Seminar presentations
- 10-minute presentations

1.MOOC courses / online courses

- Students are encouraged to take MOOC courses / online courses from platforms such as Edx, Coursera and NPTEL.

Table 9.11 Details of Online Courses by Students

Academic Year	2024-25	2023-24	2022-23	2021-22
Number of Courses Completed	15*	69	25	27

*Odd Semester data

2.Internships

- Students are allowed to take the internship from II year onwards to explore the field practices. Details furnished in the upcoming **section 9.5**

3.Experiential learning

- Department of civil engineering have three different special labs such as Construction Practices Lab, Centre for Geospatial Technology and Project Lab for experiential learning.

Refer Figures 9.23

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)

4.Co-Curricular activities

- Participations in Cocurricular activities such as Technical Contests, Hands on Training, Workshops, Industrial Visits, etc.

Table 9.12 Samples of Technical Contests Participated

Organizing institute	Title of the content	Academic Year	Participants
Ministry of Jal Shakti	Smart India Hackathon- Greywater management-Implementing low-cost technical solutions to mitigate water contamination especially removal of contaminants before discharge into rivers and lakes	2024-2025	II year Malini, Srija, Lavanya, Sathiswari, Bharathi

Eswar Engineering College, Coimbatore	Thinkathon - Energy Efficient Adaptor	2024-2025	II year - AriKara Moorthy
Velammal Engineering College, Madurai	Poster Presentation	2024-2025	Jeevika, Samyuktha - III prize
SRM Madurai College for Engineering and Technology, Sivaganagai	3D-Modelling - National Technical symposium (TECH-ELITE 23)	2023-2024	(III Year) IIIrd Prize S.Yuvaraj M Madasamy Hariharan
Ramco Institute of Technology, Rajapalayam	The Ramco Concrete contest	2023-2024	Runner-up Dineshbabu.S (III Year) Gayathri.V (III Year)
Kalasalingam Academy of Research and Education, Krishnankovil	Light Weight Concrete Contest	2023-2024	(III Year) Won 1st Prize M.Aathi Laxmi A.Ambika G.Gowri

5.Extra-Curricular activities

- Participations in Extra Curricular activities help them to enhance their character and personality. Details Furnished in the upcoming **section 9.7**

6.Self – Learning assignments

- Course handling faculty members are usually providing Self – Learning assignments to the students under their courses, which enable them to self-learning.

7.Seminar presentations

- Course handling faculty members are usually providing seminar presentations to the students relevant to their courses, which enable them to self-learning.

8.10-minute presentations

- 10-minute presentations are given on self-interested topics
- Every day morning between 8:50 AM to 9:00 AM, one student has to do the presentation

9.4.2 Self – Learning Facilities

The following facilities are made available for students to promote self-learning,

- 24/7 Wi-Fi enabled campus
- Department Library
- Central Library
- Enabling the Central Library facilities on Holidays
- Providing Technical Magazines at the Library
- Access to Journals
- Digital Library
- E-journals
- The following are the practices followed under Learning Management System (LMS).
- Providing Newspapers to the hostels
- Use of Learning Management Systems like CANVAS, Google Classroom, Google Sites, etc.
- Google site is created for specific courses, which comprises various sections.

- In the lecture section, lecture contents with unit wise learning outcomes, presentations with concept videos are added for better understanding.
- At the reference sections, previous year questions papers, Internal exams question paper with answer key and its marking evaluation pattern, etc. are added.
- Mind map board is created especially for slow learners to understand the contents easily and to get the insight of the content.
- Formative Assessments in the form of quiz (Google form) are enabled at this site. Students are allowed to take the assessment at their convenient time to test their technical knowledge.
- Industry ready expected skills are listed under a section, especially for fast learners to improve their skills. Sections like current trends and case studies are added, which helps them to go beyond the syllabus.
- For the practice of GATE exams, previous year gate questions are enabled.

Efficacy of Self-Learning Practices

- Enriches student Theoretical & Field knowledge.
- Students are able to perform better in competitive examinations and get placed in suitable companies.
- Promotes professional development of students.
- Students are able to scan through the reading material available to them.
- Promotes technology enriched learning.
- Helps in improving collaborative learning, team work, group dynamics etc.
- Helps students to search and locate information relevant to their areas of interest and gain the ability to gather information.

Refer Figures from 9.24 to 9.25

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9.5 Career Guidance, Training, Placement (10)

Total Marks 10.00

RIT have 2 different teams at the institute level to take care of the student's career.

- Career Guidance Cell
- Training and Placement Centre

9.5.1 Career Guidance Cell

RIT- Career Guidance Cell was formulated for the welfare of the students. Department level faculty committee members will conduct specific activities. Institute level coordinator plan and conduct the common activities. On behalf of this cell, the following activities are normally conducted:

- Awareness and Guidance programmes on competitive exams like GATE, etc
- Awareness programmes on Higher Studies in Abroad
- Awareness programmes on Job Opportunities in various sectors
- Motivational lectures
- Career development programmes
- Resume Building

9.5.1(a) Higher Studies (GATE Coaching)

- Importance of higher studies are disseminated with the students through GC committee members, mentoring system, case studies and alumni interactions.
- List of students pursuing/pursued higher studies is already shown in the earlier **section 9.1**
- GATE coaching classes are planned and conducted for interested students by internal faculty members.

Figure 9.26 Students Appearance in GATE Exams

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9.5.1(b) Comprehensive List of Activities Organized by the Career Guidance Cell for All-round Development

AY 2024-2025

Title	Resource Person	Participants
Comprehensive guidance for Overseas Education	R.Kiruthika and Ms.K.Vennila from Edwise International, Coimbatore	III and IV Year RIT students
GATE 2025/JAM 2025 Orientation	IIT PALS	III and IV Year RIT students
Get ready for Entrepreneurship	Mr.Senthil, Founder& Entrepreneur, Honey Builders, Chennai.	III and IV Year RIT students

AY 2023-2024

Title	Resource Person	Participants
GATE 2024/JAM 2024 Examination	Dr.SM.Shiva Nagendra Chairman, Higher studies Admission, IITM	III and IV Year RIT students
Hands -on Workshop on Resume Building	Dr. M. Anish Alfred Vaz, AP(SG)/English, RIT	II year RIT Students
Careers in Management for Engineers	Mr.V.Esakki Ganesh, Managaing Director, Balsus Academy, Madurai	III and IV year

Comprehensive guidance for competitive Examinations	Dr.P.Thiruramanathan AP/Physics, RIT	I year
Opportunities in marine Jobs	Dr. Chandran Murthy Vice principal Dr.Kumarasarny RL institute of Nautical Science., Madurai	III and IV year
Power of Positive Thinking	Dr.T.N.Ramasamy Rtd. HM	I year & II year

AY 2022-2023

Title	Resource Person	Participants
Higher Studies in Abroad	Dr.C.Selvamony ACS International education consultant,Nagercoil.	IV year Students
Awareness Program on Study abroad for a Good Career	Mr.T.Murali, Facilitator for Broad mind Mr.ILA, Director Broadmind	IV year RIT Students
UPSC and TNPSC Civil Service examinations	Mr.A.S.Ramaluishnan, Founder. and Chairman of Ramki IAS Academy, Chennai	RIT Students
Power not Success - an Inspiring Module	Mr.T.Raghunath ,Psychologist	RIT Students
Sustainable Development in student Career opportunities to study and work abroad	Mr.Srinivas Sambandam, Managing Director of Galaxy Educational Consultancy, India	IV Year - RIT Students

AY 2021-2022

Title	Resource Person	Participants
Mind and eager to know about mind	Dr.P.Arjunan, MBBS. M.Sc. (Pshychology), Seithur	RIT I Year Students
Sustainable Developement in Students Career - Higher Education in Abroad	Mr.Srinivas Sambandam, Founder & Managing Director of Galaxy Educational Consultants	RIT Students
Motivational talk on Career opportunities in Civil Engineering	Mrs.M.Karpagam, M.Tech., Director of Pyramid Academy, Karaikudi. Dr.C.Subramanian, Professor(CAS)/Civil, Alagappa Chettiar Government College of Engineering and Technology, Karaikudi	I, II, III & IV year
RIT - Workshop (Presentations & Counselling): Atmaprasara	Pshycology Professionals: Rajesh Raja, Santhosh John, Sumathi AR, Shyamala Raja	Upto III Years
An Introduction Program of BEC Exam	Dr.R.Naganathan, AP/ RIT	Upto III Years
Orientation & Awareness program on Cambridge English & Other Global English Exams	Dr.G.Godson Bedeiah, AP (Sr.G) / RIT	II & III Years

How to face State and Central Government Exams	Dr.T.N. Ramasamy RETD HM	RIT Students
Career Opportunities in Electronics and Communication Engineering	ECE Faculty	I Year RIT Students
Higher Studies in Abroad	Dr.C.Selvamony ACS International education consultant, Nagercoil	IV Year RIT Students
Opportunities for Higher studies in Abroad (IELTS Exam)	Ms.M.Muthumeenakshi Alumni	RIT Students
Internship, UG research and Higher education	Mr.Adithyan Annamalai Imperial College, London	RIT Students
English Language Training Initiative	Dr.Godson Bediah,AP/English,RIT	RIT Students
Career Opportunities in Armed Forces	Major Pravin Singh Chairman of Confluence Military School, Chattisgarh	RIT Students & Faculty
Introduction Program of BEC Exam	Dr.R.Naganatahn,AP/English,RIT	RIT Students
An overview and Career guidance of industrial Safety	Mr.R.Manoj, TUV Rheinland NIFE Academy Mr.Gunasekeran, Master Trainer-TR NIFE Mr.S.Sharavana Balaji, Business development Manager	RIT IV Students
How to face TNPSC Group Examinations	Mr.R.Thilagaraj, Senior Revenue Inspector, Tenkasi	RIT Students

9.5.2 Training and Placement Centre

The Institute has a full-fledged Training and Placement Centre (TPC) for facilitating the students for placement. Training on soft skills is designed and executed for all students, starting from second year onwards, with the help of Experts to meet the standard of industry expectations.

9.5.2 (a) Facilities and Campus Placement Support

The following facilities and practices are available to promote career guidance in college:

- A placement cell with two dedicated staff members to provide career guidance and placement training to students.
- Separate placement Seminar Hall with a seating capacity of more than 400 to conduct group discussions, interviews, presentations and lectures.
- A full-fledged Language Laboratory with centralized AC and multi-media facilities to hone communication skills & verbal aptitude and personality development.
- Well-equipped group discussion rooms for on-campus drives.
- Motivational lectures by alumni and prominent industry personnel.
- Pre-placement visits and training programs in Aptitude, logical reasoning, Personality development etc.
- Regular career guidance programmes on aptitude, TERV tests etc.
- Communication, networking and relationship building with the potential recruiters.
- Enhancing soft skills like resume preparation, group discussion, interview preparation, mock interview through reputed trainers and internal faculty members.
- Providing training on life skills. Students are also given training in the area of quantitative aptitude, logical reasoning and verbal reasoning.
- Signing MoUs with Industries for placement and internship support.
- Training students on software tools required for use in industry.
- Collecting information from Alumni on available openings.

- Obtaining Employers'/ Recruiter's/training providers' feedback.

9.5.2 (b) Infrastructural Facilities for Placement

Figure 9.27(a) Group Discussion Room & 10 Interview Rooms with centralized AC

Figure 9.27 (b) Placement Conference Hall

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9.5.2 (c) Online Aptitude Practices

- Provided through TERV platform by Top freshers, Chennai

9.5.2 (d) Details of Pre-Placement Trainings Provided

Academic year (2024-2025)				
S.No.	Year of Study	Date of Training	Resource Person / Training Institute	Nature of Training
1	IV	17.08.2024	Faculty members of RIT	Technical
2	IV	05.08.2024 - 14.08.2024	Top Freshers, Chennai	Aptitude
Academic year (2023-2024)				
S.No.	Year of Study	Date of Training	Resource Person / Training Institute	Nature of Training
1	III	19.06.2023 - 24.06.2023	Faculty members of RIT	Technical
2	IV	23.06.2023 - 24.06.2023	Faculty members of RIT	Technical
3	IV	26.06.2023 - 28.06.2023	Faculty members of RIT	Technical
4	IV	07.08.2023 - 10.08.2023	Top Freshers, Chennai	Aptitude
Academic year (2022-2023)				
S.No.	Year of Study	Date of Training	Resource Person / Training Institute	Nature of Training
1	II	16.08.2022 - 18.08.2022	Top Freshers, Chennai	Aptitude
2	II	22.08.2022 - 24.08.2022	Top Freshers, Chennai	Aptitude
3	III	02.09.2022 - 04.09.2022	Top Freshers, Chennai	Aptitude
4	IV	07.09.2022 - 09.09.2022	Top Freshers, Chennai	Programming
5	III	07.10.2022 - 08.10.2022, 10.10.2022	Top Freshers, Chennai	Aptitude
6	I	04.11.2022	Top Freshers, Chennai	Aptitude

Academic year (2021-2022)				
S.No.	Year of Study	Date of Training	Resource Person / Training Institute	Nature of Training
1	IV	01.09.2021 - 14.09.2021	Top Freshers, Chennai	Programming
2	IV	23.09.2021 - 24.09.2021	Top Freshers, Chennai	Programming
3	I	12.11.2021 - 13.11.2021	Top Freshers, Chennai	Aptitude
4	I	27.11.2021	Top Freshers, Chennai	Aptitude
5	I	04.12.2021	Top Freshers, Chennai	Aptitude
6	IV	13.12.2021 - 18.12.2021	Top Freshers, Chennai	Programming
7	I	18.12.2021	Top Freshers, Chennai	Aptitude
8	I	05.02.2022	Top Freshers, Chennai	Aptitude
9	I	12.02.2022	Top Freshers, Chennai	Aptitude
10	II	23.04.2022	Top Freshers, Chennai	Aptitude
11	III	26.04.2022 - 28.04.2022	Top Freshers, Chennai	Aptitude
12	I	07.05.2022	Top Freshers, Chennai	Aptitude
13	I	28.05.2022	Top Freshers, Chennai	Aptitude
14	II & III	28.05.2022	Top Freshers, Chennai	Aptitude

9.5.2 (e) Placement Process

1. Designing & Printing Placement Brochures
2. Sending brochures and Invitation for Campus Interview
3. Getting Response from Companies
4. Making Arrangements for Accommodations and Travel
5. Assemble the eligible students for pre placement talk
6. Aptitude and Technical Assessment based Online / Paper-pen Test
7. Group Discussion / Technical Interview for shortlisted students
8. HR Interview
9. Issuing Offers for the selected students

9.5.2 (f) List of Companies offered placement in the assessment years

1. Innowell Engineering International Pvt Ltd
2. PSK Constructions
3. Ridh Engineering Services
4. The Ramco Cements Limited
5. Pinnacle Infotech
6. Jasper International Engineering Consultants
7. Ayothy Consultancy, Rajapalayam
8. ARS Steel
9. Pentalpha Engineering Consultants and Contractors
10. Rebar Design & Detail Pvt. Ltd.

9.5.2 (g) Internship

The following are the industries identified for the internship,

1. Archetype Design Services Pvt. Ltd, Coimbatore
2. Water Resources Department, PWD, Rajapalayam
3. PWD, Building (C&M) Division, Coimbatore
4. RB Infrastructures & Engineering, Chennai
5. Sri Sivasubramaniya Nadar College of Engineering, Chennai
6. Sivam Builders, Madurai
7. Arangacons, Contractors & Engineers, Tuticorin
8. Mani Constructions, Tirunelveli
9. Ayyanar Infra Engineering, Madurai
10. Highways Department, Tenkasi
11. Highways Department, Tirunelveli
12. Water Resources Department, Tirunelveli
13. Block Development Officer, Watrap
14. Sansons Civil Consultant & Contractors, Rajapalayam
15. M D S Goodwillers Engineering Contractors Srivilliputtur
16. Jehovah Nissi Design Build Pvt Ltd Tirunelveli
17. Er.G.Manikandan Engineering Contractor, Srivilliputtur
18. RCI Digital Solutions Pvt.Ltd., Chennai
19. Pramoda Rebar Pvt. Ltd., Namakkal
20. Ayothi Consultancy, Rajapalayam
21. Sterling Indo Tech Consultants Pvt. Ltd., Madurai
22. Innowell Engineering International Pvt. Ltd., Sivakasi
23. Madurai ES consultancy Pvt. Ltd
24. Lathif Contractor, Madurai
25. The Ramco Cements Pvt Ltd, R.R. Nagar, Virudhunagar
26. Lakshmi Constructions, Rajapalayam
27. P&C RPP (JV), Tenkasi
28. RK Construction, Coimbatore
29. Elevation, Pune
30. L&T IDPL, Chennai
31. SPK Constructions & Co, Madurai
32. Sree Subha Construction, Sivakasi
33. Intellipaath Software Solutions Pvt.Ltd., Bengaluru
34. Innowell Engineering International Pvt Ltd., Sivakasi
35. Ridh Engineering Services, Chennai

The internship details are given in the table below.

Table 9.13 Details of Internship

Academic Year	No of Students	No of Industries
2024-25	8	1
2023-24	57	21

2022-23	23	8
2021-22	64	14

9.5.3 Outcome of Career Guidance & Placement Training

Case Study of R. Rakavi (Batch 2020-2024)

- This case study highlights a student, R. Rakavi, who successfully secured a position at Pinnacle infotech solutions through the targeted training programs provided by the institute.
- Dedicated value-added courses such as STAAD Pro, Primavera offered during her third-year study helped her to enhance the software training.
- Technical Training offered by the Department faculty members and Aptitude Training offered by the Top Freshers; Chennai helped her to perform well in the interview procedures
- Mock interviews and discussions with industry experts.
- Guest lectures by industry professionals and Internship at Archetype Design Services Pvt. Ltd, Coimbatore helped her to reach the industry level knowledge and boosted her confidence level.

9.6 Entrepreneurship Cell (5)

Total Marks 5.00

9.6.1 Entrepreneurship Initiatives

Various platforms are made available for the students to develop following entrepreneurship attributes,

- Visionary thinking
- Risk-taking
- Creativity
- Communication
- Networking
- Planning
- Passion

Initiatives

1. Mini-Projects
2. Student Induction Program for first years
3. Entrepreneurship Development Cell
4. Institution Innovation Council (IIC)
5. Learning through Unnat Bharat Abhiyan
6. Project Expo and Contests
7. MSME Activities

1. Mini-Projects

- Being Innovative is an essential aspect for becoming an entrepreneur.
- By doing mini-projects, students have an opportunity to express and experiment their innovative ideas.
- This also helps the students to convert their ideas.

2. Student Induction Program for first years

- An entrepreneur must be passionate towards the industrial organizations and must be updated with the recent trends in industries.
- To orient the students towards this direction, industry experts and alumni interactions with industry background are invited to address the first-year students during the orientation programme

3. RIT - Entrepreneurship Development Cell

RIT - Entrepreneurship Development Cell (RIT ED Cell) was constituted in 2014 with the vision of creating ethical entrepreneurs, technopreneurs and sociopreneurs to cater to the societal needs.

Objectives:

- To conduct entrepreneurial awareness programmes
- To organize entrepreneurial skill development programmes for the students
- To provide a platform to expose the innovative and creative ideas of students by conducting competitions
- To encourage students to participate in various programmes and competitions organized by other renowned institutions and organizations
- To identify potential student projects and assist them in patenting and product development

3(a) Events Organized during the past three academic years

AY 2024-2025	
S.No.	Title
1	VC funding Opportunities for early-stage startups & Entrepreneurs Workshop
2	One day "Exposure Visit to an incubation centre"

3	My story-Motivational session by Successful Entrepreneur
4	Expert talk on Support for MOMSME for early-stage entrepreneurs
5	Panel Discussion on Entrepreneurship and Tamilnadus vision of \$ 1 trillion USD by 2030
AY 2023-2024	
S.No.	Title
1	Familiarization of Entrepreneurship and IPR
2	Workshop on "Entrepreneurship and Innovation" as Career Opportunity
3	Impact of Indian Entrepreneurs in Indian Economy
4	Intellectual Property Rights (IPRs) and IP Management for Start up
5	Workshop on Entrepreneurship Skill, Attitude, and Behavior
6	PALS L2M Entrepreneur Speaks
7	Workshop on Business Model Canvas (BMC)
8	One day Workshop on IPR: A repository for protecting intellects
9	Seminar session on "Accelerators & Incubation – Opportunities for Students and Early-Stage Entrepreneurs" 05.03.2024
10	Seminar Session on "Value Proposition Fit and Business Fit" 05.03.2024
AY 2022-2023	
S.No.	Title
1	Field Visit to an Incubation Centre
2	Workshop on Entrepreneurship and Innovation as Career Opportunity
3	A Seminar on Role of IP in Economy of the nation
4	My Story - Motivational Session by Successful Start-up Founder
5	National-level Workshop on "An Overview of Patents & Procedure for Protection
6	Half Day Workshop on Patent and Copyright registration
7	Workshop on Business Model Canvas
AY 2021-2022	
S.No.	Title
1	Entrepreneurial Impact in Automotive Industry
2	Funding opportunity for early-stage Entrepreneurs
3	Aspiring Entrepreneurs Program 2021 – Motivational live session
4	Entrepreneurship & Innovation as Career Opportunity

5	Students – Alumni Interaction – Entrepreneur Meet
6	SAMBHAV – National Level Awareness Program on Entrepreneurship (e-NLAP)
7	My Story – Motivation Session by an Entrepreneur – Opportunities in Solar Field
8	Invited Talk by Prominent Entrepreneur
9	Entrepreneurship is the Way
10	Exchange of thoughts Lecture on Finance Planning for a Start-up Business

3 (b) Details of Government sponsored programme organized

S. No.	Name of the event	Funding Agency	Organized date	Participants
1	One day Entrepreneurship Development Program for Outgoing Students	EDII	28 th Nov 2022	105
2	Aspiring Entrepreneurs program 2021 – Motivational Live Session	EDII	27 th Oct 2021	27

Figure 9.28 (a) One-day Entrepreneurship Development Program for Outgoing Students

Figure 9.28 (b) Aspiring Entrepreneurs program 2021 – Motivational Live Session

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3(c) Details of Participation by Faculty and Students in Other Institutions / Industry

S. No.	Name of the event	Organized by	Date	Participants
1	One day Workshop on Building Entrepreneurial Culture and Startups in Campus	Anna University, Chennai	07.01.2022	Mr.R.Arun Kumar, AP/Mechanical
2	Two Week FDP on Entrepreneurship and Start-ups	Anna University, Chennai	28.02.22 to 12.03.22	Mr.R.Arun Kumar, AP/Mechanical
3	Spoke College Review Meeting	EDII Hub- AURCT	01.03.2022	Mr.G.Praburam, AP/Mechanical Mr.P.Gunasekaran, AP/EEE

4	Inauguration of Startup-TN Virudhunagar	Kalasalingham University	23.08.2022	Mr.G.Praburam, AP/Mechanical Mr.R.Arun Kumar, AP/Mechanical M.Vishva, III Year Mechanical
5	3 Days Master Trainer Program	EDII, Chennai	05.09.22 to 07.09.22	Mr.R.Arun Kumar, AP/Mechanical
6	Two days Design Thinking Workshop	IEDP, AURCT	01.11.2022 to 02.11.2022	K.Lokeygh Kanna, III Year Civil K.Neerathilingam, III Year ECE
7	Lab 2 Market Conclave	IITM	18.02.2023	Bala Murali Krishnan RN, III Year CSE Mahendra Prakash R, IV Year CSE Alagarsamy Yaswanth TR, III Year EEE Arunkumar S, III Year EEE
8	Ideation Camp TNSI 2022	EDII, Chennai	20.02.23 to 21.02.23	Mr.Prabhu, I Year Mechanical Mr.Brahadeesh Narayanan, I Year Mechanical
9	Orientation & Awareness program on Entrepreneurship	Virudhunagaar District Tiny & Small-Scale Industries Association	06.10.23	6 Faculty & 70 Students
10	Talkathon – EDC Faculty Coordinators Meet	EDII, Chennai	11.10.2023	Mr.T.Chockalingam
11	3 Days Master Trainer Program	EDII, Chennai	11.10.23 to 12.10.23	Mr.R.Arun Kumar, AP/Mechanical

4 (a) Institution Innovation Council (IIC):

MHRD Innovation Council (MIC) has approved to establish Institution Innovation Council (IIC) in our college in September 2019.

Figure 9.29 Certificate of IIC Establishment and event participation

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RIT ED Cell and RIT IPR Cell are functioning under a single umbrella RIT-IIC. Henceforth, the programme to be organized by RIT ED Cell will be planned accordingly based on the guidelines given by IIC members. Committee members of Institution Innovation Council (IIC) are framed and they will meet once in every six months for monitoring the progress and to plan the schedule for next six months. The details of Committee members are enclosed below:

Table 9.14 IIC Committee Members Details

S.No.	Portfolio	Faculty In-charge	Frequency of meeting
-------	-----------	-------------------	----------------------

1	President	Dr.S.Rajakarunakaran, Professor & Head, Mechanical	Once in six months
2	Vice President	Dr.S.Rajakarunakaran, Professor & Head, Mechanical	
3	Convener & IPR Activity Coordinator	Mr.R.Arun Kumar, Assistant Professor, Mechanical	
4	NIRF Coordinator	Mr.P.Gunasekaran Assistant Professor, ECE	
5	Innovation Activity	Mr.C.A.Yogaraja Assistant Professor, CSE	
6	Internship Activity Coordinator	Mr.S.Meenakshi Sundaravel Assistant Professor, EEE	
7	Startup Activity Coordinator & Member	Mr.G.Prabu Ram Assistant Professor, Mech	
8	Social media	Dr.R.Venkatesh Assistant Professor (Sr.Gr.), CSE	
9	Member	Mr.M.Santhana Maruthu Pandian Assistant Professor, Mech	
10	Member	Mr.A.Ramesh Babu Assistant Professor, ECE	
11	Member	Mr.A.Manicka Mamallan Assistant Professor, Civil	
12	Member	Ms.S.Sharmila Kumari Assistant Professor, EEE	
13	Member	Dr.O.Senthilkumar, Associate Professor & Head, Chemistry	
14	Member	Dr.P.Thiruramanathan, Assistant Professor, Physics	

4 (b) IIC Achievements

- From the initiation of IIC, we are maintaining good performances in all the years. As a result, we have received remarkable 4-star rating for 3 years (CY 19-20, CY 20-21 & CY 21-22) and 3.5-star rating for 1 year (CY 22-23)
- RIT had positioned under the band of 151-300 in the NIRF (Innovation Category) during the year 2023

Figure 9.30 Performance Certificates issued by IIC

Figure 9.31 NIRF Certificate – Band of 151 to 300 (Innovation Category)

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5. Learning through Unnat Bharat Abhiyan

- Unnat Bharat Abhiyan aims at emphasizing the need of field work, stake-holder interactions and solutions for societal problems.
- This provides an opportunity for the students to learn the different means of conducting surveys to collect the demands of the residents of nearby villages. Details furnished in the upcoming **section 9.7**
- Based on the demands, students study the possibility of various possible solutions, optimize them and to arrive at the most appropriate solutions.

6. Project Expo and Contests

- Students participations in project Expo and Technical Contests help them to identify and work with the emerging areas, details furnished in the earlier **section 9.4**

7. MSME Activities

- The Ministry of Micro, Small and Medium Enterprises (funding agency) is the ministry in the Government of India, they provide problem statements seeking solutions for all the streams and they welcome new ideas under sustainability as well.
- This activity promotes students to develop a product / process, which may lead them to develop themselves as Entrepreneur in future.

9.6.2 Effectiveness of Entrepreneurship Initiatives:

The following list provides the effectiveness of the Entrepreneurship initiatives taken by the institute in developing the students to a level of an entrepreneur.

Table 9.15 List of Entrepreneurs

S. No.	Name of Student	Name of the Company
1	Ajith Kannan B	A.K.Builders & Licensed Surveyor
2	Guru Kishore	Sri Raga Eco Bricks, Sivakasi
3	Ram Kumar	K.R.Construction, Kovilpatti
4	Ram Prasad	Vijayarama Associates, Coimbatore
5	Deva Murugan	R.R.Planners, Pandalgudi

9.7 Co-curricular and Extra-curricular Activities (10)

Total Marks 10.00

Besides curricular activities, students are engaged in co-curricular and extracurricular activities. Co-curricular and extracurricular activities provide opportunities for students to explore new fields of interest, cultivate leadership skills, and build team playing qualities. Inhouse events are managed by our students, hence they are engaged in developing a dynamic culture, fostering collaboration and cooperation on campus.

9.7.1.1 Co-curricular Activities

- All the co-curricular activities are normally organized through department association (RIT-STRUCTA), professional societies / chapters and IITM PALS. Separate student committee members are constituted every year under department association (RIT-STRUCTA). Students' newsletter and magazine are published to exhibit their talent.
- Typical Co-curricular activities organized by the department association and professional society / chapters: Value Added Courses, Guest Lectures, Workshops, Webinars, Field Visits, Industrial tours, Project contests, Poster Presentations, Technical Quiz Competitions, etc.
- External participants are also encouraged to participate in the RIT events like project contests, Seminars and workshops.
- Training Programs are also conducted for Teaching and Non-Teaching faculty members to improve their knowledge and teaching skills.

2. Department Association - RIT STRUCTA

- RIT STRUCTA that was initiated in 2014 to empower the students with up-to-date knowledge and technological skills in Civil Engineering thrust areas.

Table 9.16 Constitution of RIT STRUCTA

Designation	Association Members
Faculty Advisor	Dr.S.Dharmar, HOD/Civil
Additional Faculty Advisor	Mrs.C.Subha, AP(S.G)/Civil
President	Aashik Anton M R, IV year Civil
Secretary	Ambika A, IV year Civil
Joint Secretary	Srikrishna M, III year Civil
Treasurer	Nishanthi S, III year Civil
Representatives	Surya T, IV year Civil, Valathivaraun E, IV year Civil Gopi Balan R, III year Civil Sudha N, III year Civil Malini V, II year Civil MuniRaj R, II year Civil

3. List of Professional Societies

- Indian Society for Technical Education (ISTE)
- Institution of Engineers (IE (I))
- Indian Concrete Institute (ICI)
- American Concrete Institute (ACI)
- Indian Green Building Council (IGBC)

Table 9.17 Details on Number of Co-Curricular Events Organized by RIT STRUCTA and Professional Societies

Academic Year	Guest Lectures/ Webinars	Workshops/ Seminars/Technical Contests	Value-Added Courses	Industrial Visits

2024-25	10	2	1	Planned
2023-24	3	3	2	6
2022-23	5	3	3	4
2021-22	10	1	1	6

Figure 9.32 Sample Photographs of Guest Lectures & Webinars

Figure 9.33 Sample Photographs of Seminars, Workshops & Contests

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4. IITM PALS

Ramco Institute of Technology is a Partner Institute of IITM PALS. PALS (Pan IIT Alumni Leadership Series) is conducting various events and training programme for students and faculty members to enrich their knowledge. Ramco Institute of Technology has been a Partner Institute of IITM PALS since November 2018.

IITM PALS conducts the following events every year, for students and faculty members to improve the quality of Engineering Education:

- Campus Acquire Lectures
- Theory to Practice (T2P) Lectures
- Residential Student Workshop through Tinkathon
- Student League Workshop
- InnoWAH - Project Innovation Challenge Competition
- Faculty Development Programme
- Industrial Visits for Faculty
- Summer Internships
- Start-up company visits for students
- Campus Analyze Events
- Industry Academia Conclave
- PALS Quest – Quiz Competition

The students and faculty members attend these events to acquire knowledge. The gained knowledge is applied by both faculty and students in doing projects, analyse complex problems, enhance entrepreneurial skills and achieve excellence. Events like 'Tinkathon' help students think critically and creatively. Such events help students to develop their skills. Students acquire practical knowledge of concepts through 'Theory to Practice Lectures'. Students are encouraged to do interdisciplinary projects to promote innovative skills. PALS helps to identify industry related problems through Campus Analyse events. PALS increases the leadership qualities by selecting student leaders based on their performance and constantly motivating them to improve their organizational skills. Faculty members gain knowledge from industrial visits and disseminate the same to the students.

Figure 9.34 Visit of IITM PALS Chairman of RIT

Figure 9.35 Dr.J.Jerold John Britto Received an Appreciation from IITM PALS as a Partner Institute

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Efficacy

- Pals Tinkathon - Batch 2 On 28th November 2023 IITM Pals Conducted Pals Tinkathon Event On 28.11.2023 At Mamcet Trichy. From our institution 10 students (MECH-5, CSBS-2, ECE.1, CIVIL-1, EEE-1) attended the hands on-project-based workshop with activity and 4 students (MECH-3, ECE-1) are qualified to the residential student workshop.
- Hari Hara Pandiyan V of Civil Department secured II Position in the event "Innowah" on 29.09.2022

9.7.2. Extra-Curricular Activities

Extracurricular Activities are normally organized through

1. Physical Department
2. NSS, NCC, YRC
3. RIT clubs
4. Social Welfare Activities

9.7.2 (a) Extra-Curricular Activities- Sports Facilities & Achievements:

Department of Physical Education strives to inculcate skills like leadership, teamwork, problem-solving, responsibility, self-discipline and competitive spirit through various sports and games events. Players are encouraged to participate in events within the campus and events of zonal, district, state and national levels outside. In association with Sports Authority of India (SAI), it has been proposed to construct a mega sports complex comprising of indoor and outdoor facilities at an outlay of Rs. 10 crores are under consideration.

Institute Trainers,

Mrs.Aishwarya Devi R
Physical Director

Mr.Iranaveeran V and Mr.Divya Elsi,
Assistant Physical Director

- Every year, a sports day event is organized by the institute, in which all types of sports activities are conducted, and achievers are awarded medals and certificates
- Students of all streams participate in zonal and district-level tournaments.
- More than 100 students participated and won medals in the various activities over the past 3 years.

Figures 9.36 to 9.38 Overview of Sports Activities & Facilities

Figure 9.39 Jayasurya, Civil played as one of the members in Junior Football Team for an international level at Russia, 2019

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Table 9.18 Achievements of Civil Engineering Students in the RIT Sports day Events

Title	Name of the Student & Position Held
1500 mts - 11th Sports Day	Saravanakumar.G (II Year) Won 2nd Prize
5000 mts - 11th Sports Day	Saravanakumar.G (II Year) Won 1st Prize
Cricket - 11th Sports Day	Saravanakumar.G (II Year) (Runner)
Triple Jump - 11th Sports Day	Saravanakumar.G (II Year) Won 2nd Prize
Long Jump - 11th Sports Day	Saravanakumar.G (II Year) Won 3rd Prize
4 x 400 Mts Relay - 11th Sports Day	Saravanakumar.G (II Year) Won 3rd Prize Vilva Janani.V (I Year) Won 3rd Prize

4 x 100 Mts Relay - 11th Sports Day	Vilva Janani.V (I Year)Won 3rd Prize
800 mts - 11th Sports Day	Srija.S (I Year)Won 3rd Prize
Carrom - 11th Sports Day	Vilva Janani.V (I Year) (Runner)
Football- Annual Sports Day	K.Jeevan Babu (III Civil) Runner Up
400m Annual Sports Day	K.Jeevan Babu (III Civil) III place
800 m Annual Sports Day	K.Jeevan Babu (III Civil) II place
2x400 m Annual Sports Day	K.Jeevan Babu (III Civil) II place
2x400 m Annual Sports Day	M.Janarathanan (I Civil) III place
Ball Badminton Annual Sports Day	M.Janarathanan (I Civil) Winner
4 x 400 mts (Relay) Men	M.Abishek (I Civil) III place
400 m	M.Abishek (I Civil) II place

Table 9.19 Samples of Outside Participation by Civil Engineering Students

Name of the Student	Name of the Event	Year of Participation	Remarks
M Aashik Anton	Anna University Sports Board Cricket Tournament	2023	State Level (III Position)
Sibibala P	Chess	2023 2024	Zonal Level 4 th Place 5 th Place
N M Nana shree Srija Yugabharathi	Ball Badminton	2024	Zonal Level (III Position)

9.7.2 (b) Extra-Curricular Activities – NCC, NSS & YRC Facilities

1.NCC Unit

NCC Senior Division Army wing has been established in our institution in affiliation with 5 TN Sig Coy NCC, Rajapalayam with a sanctioned intake of 50 cadets. The main of this division is to develop organized, trained and motivated youth. As a Cadet being in NCC for a period of three years, he/she will be privileged to attend various training camps, drills which will develop his/her overall qualities. The candidates with NCC C certificate have special entry schemes for joining Indian armed forces and are called directly for SSB interview. The selected cadets undergo drills, training and camps as per NCC requirements to appear for 'B' and 'C' certificate examination. These students also involve in regular parades, training as per NCC norms for a period of three years.

Troop Commander

5 TN SIG Coy NCC Lt. R.Aishwarya devi

- Every year three camps are arranged through institute unit

- Events such as environmental day, unity day, NCC day were organized, where tree plantation and pledge activities were carried out every year.

9.7.2 (b) Extra-Curricular Activities – NCC, NSS & YRC Facilities

1.NCC Unit

NCC Senior Division Army wing has been established in our institution in affiliation with 5 TN Sig Coy NCC, Rajapalayam with a sanctioned intake of 50 cadets. The main of this division is to develop organized, trained and motivated youth. As a Cadet being in NCC for a period of three years, he/she will be privileged to attend various training camps, drills which will develop his/her overall qualities. The candidates with NCC C certificate have special entry schemes for joining Indian armed forces and are called directly for SSB interview. The selected cadets undergo drills, training and camps as per NCC requirements to appear for 'B' and 'C' certificate examination. These students also involve in regular parades, training as per NCC norms for a period of three years.

Troop Commander

5 TN SIG Coy NCC Lt. R.Aishwarya devi

- Every year three camps are arranged through institute unit
- Events such as environmental day, unity day, NCC day were organized, where tree plantation and pledge activities were carried out every year.

List NCC Cadets from Civil Engineering,

1. TN23SDA733873	Gopi kannan S	CIVIL
2. TN23SDA733883	S Karthik Kumar	CIVIL
3. TN23SDA733887	Thulasibalan M	CIVIL
4. TN23SWA733896	Nandhidha D R	CIVIL
5. TN22SDA733851	ABISHEK M	CIVIL
6. TN22SDA733855	ARUN KUMAR J	CIVIL
7. TN22SDA733861	SRIKRISHNA M	CIVIL

Recently Registered candidates from Civil Department

1. Dharun	CIVIL
2. Anbuselvan T	CIVIL
3. Sri Ram Kumar N	CIVIL
4. Saravanakumar P	CIVIL
5. Kathirvel S	CIVIL

Figure 9.40 Promotion & Felicitation Day Ceremony 17.08.2024

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)

2. NSS Unit

The NSS Unit strives for the development of students' personality through community service. The motto of NSS is "NOT ME BUT YOU". It underlines that the welfare of an individual is ultimately dependent on the welfare of the society as a whole. This expresses the essence of democratic living and upholds the need of selfless service and appreciation of the others point of view.

A total of 87 events were organized and conducted by NSS throughout the assessment years.

Academic year	2021-2022	2022-2023	2023-2024
No. of events Organized	36	21	30

Figure 9.41 Glimpses of students involved in the Cleaning Campaign activity on 03.06.2022**Figure 9.42 TN state NSS cell Rc.No. 37495/P2/2022 dated 16.09.2022, Social Justice Day pledge was taken by our students on 17.09.2022****Figure 9.43 The NSS volunteers served food for the people who visited the Sivanandha Gurukulam, Ayyanar Koil, Rajapalayam on Thirukarthigai Day on 06.12.2022**https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)**3. Youth Red Cross (YRC)**

YRC aims to inform youth members and others the roles and responsibilities of the Red Cross. Awareness in health and hygiene is created by this club. Students are encouraged to understand and accept civic responsibilities and act accordingly with humanitarian concern. Students develop spirit of service and sense of duty with dedication and devotion. On the whole, this club helps students to foster better friendly relationship with all, without any discrimination.

Figure 9.44 Blood Donation Camphttps://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)**9.7.2 (c) Extra-Curricular Activities – RIT Clubs**

List of clubs, faculty coordinators and the events conducted throughout the assessment years were listed below.

S.No.	Club	Faculty Co-ordinator	No. of events conducted over the assessment years
1	Tamil Mandram	Dr. R. Subasree AP(SG)/Maths,	23
2	Elite English Learners' Club	Dr, Anand, HoD/English	18
3	Math Experts Club	Mr. T. Selvaganesh, AP/ Maths. Dr. G. Selvaraj. AP/Maths	9
4	Fine Arts and Cultural Club	Dr.G.Kanthimathi ASP / Chemistry	7
5	Science Club	Dr. O. Senthilkumar, Professor & HOD/ Chemistry	
6	ECO Club	Dr. N Revathi ASP/Chemistry	54
7	Photography Club	Dr. M Venkatesh Perumal, ASP/Chemistry	15
8	Centre for Women Welfare, Safety and Progress	Dr.G.Kanthimathi ASP / Chemistry	4

9	RIT-Electoral Literacy Club	Dr. K. Jeyapappa, ASP/Physics	19
10	YOGA CLUB	Mrs.Aishwarya Devi R, Physical Director	4
11	Rotaract Club	Dr. N. Karthikeyan/ASP & HOD/ Physics dept	16
12	Unnat Bharat Abhiyan	Dr. T. Manimaran ASP/Maths	34

1.Tamil Mandram

Tamil Mandram is created with the aim of helping students develop their Tamil language skills. Tamil is regarded as the most ancient language in the world. The club hosts a variety of events for the students to showcase their skills and improve their language.

Figure 9.45 Tamil Debate “The enthusiasm to the students is provided by Relatives! or Friends!” on 10.11.2022

Figure 9.46 Kolam Competition during Pongal Festival (14.01.2023 to 17.01.2023)

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2.Elite English Learners' Club

Elite English Learners Club has been established by the Department of English of Ramco Institute of Technology with the objective of helping students to enhance their communication skills. As a part of the club's initiative, activities are regularly conducted for the students to acquire proficiency over language traits and fine-tune their language skills.

Major Events Organized:

ICT Academy Youth Talk Competition (Regional Pre-finals)

National Online Essay Writing Competition

Hands-On Workshop on Resume Building

Anchorit Competition

Journey to Success: A Workshop on Career Building

Collage Competition

Know your English-Faculty Quiz

Figure 9.47 Club conducted Anchorit (Senior) competition for II, III and IV year students on 28.09.2021 to identify a pool of students who could act as anchors for college events

Figure 9.48 ‘Rap Reckon’, ‘Word Sword’ and ‘One to One Events on 30 & 31 December 2021

Figure 9.49 Know Your English Quiz was conducted on 22.08.22 for the faculty of RIT

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3.Math Experts Club

The purpose of the Math Experts Club is to foster the development of problem-solving abilities among students from all engineering specialties who are interested in mathematics. Raising awareness of logical and critical thinking in mathematics is the goal of the Math Experts Club. Students enjoy the fruitfulness of Mathematics.

Figure 9.50 "Math and Mystery" event on September 6, 2022**Figure 9.51 Paper Presentation on "Application of Matrices" event on December 22, 2022**

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4.Fine Arts and Cultural Club

Our club exists to give the students an artistic outlet and helps to enrich and foster an interest for art and personal expression through art. Cultural activities such as dance, debate, paintings and drawing competitions were organized by the fine arts club.

Figure 9.52 Painting competition "National Leaders of India" on 26.08.2023**Figure 9.53 Pencil sketching competition on 10.10.2023 (Drug Abuse Awareness, Waste Recycling & Management, Culture Rich Tamilnadu)****Figure 9.54 Leave No one Behind Event on 4.12.2023****Figure 9.55 Students participation in Legacy'23, Inter Collegiate Cultural Festival organized by Mepco Schlenk Engineering College, Sivakasi****5 Winners (Extempore, Dance, Photography, Rangoli & Debate Guru)**

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_IX.pdf)

5.Science Club

The club helps to inculcate basic scientific knowledge which leads to enhance thinking skills and also constantly encourages the students to participate in various scientific events and improve their learning skills.

Engineers' Day

The renowned engineer Sir M. Visvesvarayas birthday is celebrated on September 15th. Technical Quiz: Programming Proficiency, Turn Coat, Dumb Charades, Spell Bee, Dumb Charades (Mathematics), Painting Competition, and Art from Wastes are among the events held for RIT students.

Science Day

National Science Day is observed on February 28 on college campuses to honor Sir C. V. Raman, the renowned Indian physicist. Different departments within the college organize a number of technical events and extracurricular activities. Quiz competitions, dumb charades, Just A Minute, group discussions, turncoats, poster creation, stress interviews, paper presentations, technical quiz, coding contest, essay writing, web design, poster design, CAD modeling, structural design, math logic quiz, circuit design, and debugging are a few examples of such events. Additionally, our faculty also conducts scientific quizzes, math quizzes, and Eng-wizard programs for school children.

6.Eco Club

The club facilitates students' participation in activities aiming at preservation and conservation of environment. The club frequently arranges for guest lectures, tree plantation programmes, nature walk programmes and various other events such as painting, poster making, poem writing etc. The club has prepared an inventory of 26 butterflies, 36 birds, 10 lizards and 10 insects through the bird watching and butterflying event.

Figure 9.56 Walking with Butterflies event by Wild Earthlings & ECO Club on 09.07.2023

Figure 9.57 Awareness Programme "Nilgiris Tar" on 7.10.2023

Figure 9.58 Tree Walk – 15.10.2023

Figure 9.59 Wetland Bird Walk – 8.10.2023

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7. Photography Club

The club is set up to encourage students to learn the art of taking photos while simultaneously learning to love the craft more. It provides students and staff a platform to explore and appreciate the world around them through taking photos, making short films and writing screenplays. Various events like campus shoot, photo exhibition, nature capture etc are conducted to give students opportunity to exhibit their creativity. Provisions are made for internal and external events to showcase their talents.

Figure 9.60 National Moth Week Event: To study the beauty, distinctiveness and life cycles of moths and their habitats during 30 and 31 July 2022 from 7 pm to 10 pm

Figure 9.61 Three days Drone Workshop during 18.03.2024 to 20.03.2024

Figure 9.62 Winner Cash Prize Distribution: World Photography Day Event on 19th August 2023

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8. Centre for Women Welfare, Safety and Progress

The clubs purpose is to evaluate the current policies pertaining to the protection and security of women and girls in particular, as well as all young people in general. It aims to foster a supportive, intellectual, social, and cultural environment for women while advancing the overall well-being of the student body. By supporting young women in developing their character, self-awareness, and self-confidence, the group hopes to create a strong campus community.

Table 9.20 Samples of Events Organised

Date	Name of the Event
05.11.22	One – day Skill Development Training Programme for Self - Employment of House wives organized by National Commission for Women, India in association with The Centre for Women Welfare, Safety and Progression
10.11.22	Rangoli Competition
08.03.23	Awareness programme on Womens Health and Hygiene. “Nourish to Flourish-Healthily”organized by RIT Center for Women Welfare, Safety and Progress (CFWWSAP) & POSH Cell
25.3.23	Mehndi and Hair Do” for Girl students

Figure 9.63 One – day skill development training programme for self-employment of house wives on 5th November, 2022

Figure 9.64 Womens health and hygiene on the topic “Nourish to Flourish-Healthily” on 8th March, 2023

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9.RIT-Electoral Literacy Club

All eligible voters must be listed on the voter list, according to the Election Commission of India. Electoral Literacy Clubs (ELCs) are being promoted by the Election Commission of India in schools and colleges around the nation to raise awareness among all first-time voters. The Election Commission of India wants to encourage young voters and students to participate in elections by means of ELC.

The core objective of this club is

- To involve and engage the students to educate their voting rights by conducting various programmes.
- To create awareness to first time voters.
- To familiarize the polling registration and voting processes.

Figure 9.65 Total number of 650 students took the Voter's pledge on 04.03.2024

Figure 9.66 Debate competition: Mera Pehla Vote Desh Ke Liye on 04.03.2024

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10.Yoga Club

Yoga practice increase fitness, improve flexibility and general health, help to reduce stress, frustration and anxiety. Yoga Club conducts various activities to entertain students related with yoga.

Figure 9.67 On June 21, 2022, a team member from the ISHA Yoga group led a yoga training session in the campus auditorium

Figure 9.68 Yoga Practice at the hostels

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11.Rotaract Club

Rotaract club enables students to address local and global challenges through community services, helps skill development, creates awareness, emphasize the respect for others and motivate young students.

Table 9.21 List of Events Conducted

Date	Name of the Event
6.7.2022	Tarun sabha (mock parliament) as a part of NATIONAL YOUTH PARLIAMENT SCHEME-I (NYPS-I)
6.9.2022	Career Guidance Programme
15.9.2022	Public Speaking and Creative Writing
22.9.2022	Public Speaking and Creative Writing
23.9.2022	Marathon Mindset Program
6.10.2022	Tarun sabha (mock parliament)
31.10.2022	Walkathon
2.11.2022	Service and Leadership t
30.11.2022	National Education Day Celebration 2022

6.1.2023-8.1.2023	Rotary Youth Leadership Awards
17.2.2023-19.2.2023	Ryla Rotary youth leadership academy
7.2.2023	International webinar
10.05.2023	Saksham 2023 – NET ZERO EMISSION
20.02.2023	Motivation Talk
27.2.2023	Motivation Talk
23.8.2023	HUMANITY & ENVIRONMENT

Figure 9.69 A Tarun sabha (mock parliament) as a part of NATIONAL YOUTH PARLIAMENT SCHEME-I (NYPS-I) was conducted on 06.07.2022

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9.7.2 (d) Extra-Curricular Activities – Extension Activities (Social Welfare Activities)

1.Non-Governmental Organizations

Apart from academics, students of our institution involve themselves in activities of social concern. As a result, with a view to contribute to various social causes like environmental issues, public welfare, helping the disadvantaged and promoting awareness of health and hygiene, 6 NGOs have been started by students of various branches of Engineering. Their active participation in in-house events and other external public events have won them name and acclaim. Through these NGOs, students actively involve in blood donation camps, tree plantation drives, awareness rallies, orphanage visits and many more activities. The list of NGOs includes:

1. Tamilan Siragugal,
2. Pasumai Vizhigal,
3. Tholkoduppom Thola,
4. Thalir,
5. Malarum Manitham,
6. Maatrathai Vidahipom.

As part of Unnat Bharat Abhiyan initiative, these NGOs intend to conduct Health and Hygiene Campaigns, Awareness on Rain Water Harvesting System and Tree Plantation Drives in 5 adopted villages, namely, Mamsapuram, Pillayarkulam, Zamin Kollankondan, Alangulam and Kallamanayakkanpatti.

2.Unnat Bharat Abhiyan

AISHE CODE: C-49144

Table 9.22 List of Events Conducted

S.No.	Date	Title
1	12.02.2024	Temple Cleaning Work at Mamsapuram
2	13.02.2024	Sculpture Hall Cleaning at Mamsapuram
3	14.02.2024	Yoga Training Program for the students of Pasumpon Thevar Hr. Sec. School, Mamsapuram
4	23.02.2024	Aari Work Training at Zaminkollankondan
5	23.02.2024	Yoga Training at Zaminkollankondan
6	23.02.2024	Workshop on Electrical Energy Conservation in Home Appliances at Zaminkollankondan
7	26.03.2024	Awareness Program on Health and Hygiene
8	01.04.2024	Aari Work Training at Pillaiyarkulam
9	01.04.2024	Workshop on Electrical Energy Conservation in Home Appliances at Pillaiyarkulam
10	26.09.2022	Mamsapuram Village Survey
11	27.09.2022	Zamin Kollankondan Village Survey
12	21.11.2022	Blood Donation Camp
13	25.02.2023	"Training Program on Life Skills and Employability Skills (Spoken English, Maths Aptitude)"
14	02.05.2023	RuTAG Proposals Details
15	13.12.2021	Awareness Program to School Students about rain water harvesting (In Mamsapuram Village)
16	15.12.2021	Awareness Program to School Students about rain water harvesting (In Alangulam Village)
17	17.12.2021	Awareness Program to School Students about rain water harvesting (In Zamin Kollankondan Village)
18	20.12.2021	Workshop on Energy Conservation on Home Appliances (In Mamsapuram Village)
19	21.12.2021	Workshop on Energy Conservation on Home Appliances (In Pillayarkulam Village)
20	21.12.2021	Awareness Program to School Students about rain water harvesting (In Pillayarkulam Village)
21	22.12.2021	Workshop on Energy Conservation on Home Appliances (In Zamin Kollankondan Village)

22	23.12.2021	Awareness Program to School Students about rain water harvesting (In Kallamanaickenpatti Village)
23	31.12.2021	Awareness program on organic farming to villagers and distributing seeds and organic manure (In Alangulam and Kallamanaickenpatti Village)
24	01.01.2022	Started to create rain water harvesting tank
25	01.01.2022	Herbs/Tree Plantation in public places like Schools, Government Hospitals, Panchayat Offices etc. (In Mamsapuram Village)
26	04.01.2022	Herbs/Tree Plantation in public places like Schools, Government Hospitals, Panchayat Offices etc. (In Pillayarkulam and Alangulam Village)
27	07.01.2022	Herbs/Tree Plantation in public places like Schools, Government Hospitals, Panchayat Offices etc. (In Kallamanaickenpatti and Zamin Kollankondan Village)
28	02.02.2022	Workshop on Energy Conservation on Home Appliances (In Alangulam Village)
29	02.02.2022	Workshop on Energy Conservation on Home Appliances (In Kallamanaickenpatti Village)
30	05.02.2022	Training on life skills and employability skills for school students (Computer literacy, Spoken English, Maths Aptitude, Campus visit)
31	10.02.2022	Awareness program on organic farming to villagers and distributing seeds and organic manure (In Pillayarkulam Village)
32	18.02.2022	Awareness program on organic farming to villagers and distributing seeds and organic manure (In Zamin Kollankondan Village)
33	20.02.2022	Awareness program on organic farming to villagers and distributing seeds and organic manure (In Mamsapuram Village)

Figure 9.70 Temple Cleaning Work in its selected village, Mamsapuram on 12.02.2024

Figure 9.71 The Aari work training was given for the school students and the public of Zamin Kollankondan Village on 23.02.2024

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10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120)

Total Marks 120.00

10.1 Organization, Governance and Transparency (40)

Total Marks 40.00

10.1.1 State the Vision and Mission of the Institute (5)

Institute Marks : 5.00

Vision :

To evolve as an Institute of international repute in offering high-quality technical education, research and extension programmes in order to create knowledgeable, professionally competent and skilled Engineers and Technologists capable of working in multi-disciplinary environment to cater to the societal needs.

Mission :

To accomplish its unique vision, the Institute has a far-reaching mission that aims:

M1: To offer higher education in Engineering and Technology with the highest level of quality, professionalism and ethical standards.

M2: To equip the students with up-to-date knowledge in cutting-edge technologies, wisdom, creativity and passion for innovation, and life-long learning skills.

M3: To constantly motivate and involve the students and faculty members in the education process for continuously improving their performance to achieve excellence.

10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies (10)

Institute Marks : 10.00

- Ramco Institute of Technology functions as per the guidelines from the statutory bodies of AICTE, Directorate of Technical Education (DOTE) and Anna University.
- The institution functions under the guidance of the Governing Council (GC) comprising of the Chairman of Ramco group of industries as Chairman and members from eminent academic institutions, members of Raja Charity Trust, nominees from governing and affiliating bodies and experts from the industries. GC makes policy decisions and evolves strategies for the development of the institute.
- Raja Charity Trust, Management and Governing Council provides the support for the continual development of infrastructure, lab facilities and other teaching aids.
- Vision and Mission of the institute is evolved by the Governing Council, IQAC, College Academic Council and Departmental Advisory Committee.
- The internal and external audits are conducted periodically which gives an insight for teaching learning process, fund allocation and utilization.
- ISO Quality Management System (9001:2015) and IQAC take care of the quality objectives, procedures and measures for the continual improvement of the college.
- The institute has decentralized the responsibility among the internal stakeholders and the organogram of the institution with proper organization structure.
- Institute Planning and Development Committee comprises of the Principal, the Heads of the Departments, GM (Admin), Deputy warden(s) and other coordinators from Admission, Research, ISO, NSS, Library, Physical Education and Examination Cell which meets regularly to take decisions on academic matters.
- Various committees, councils, clubs, associations and cells are constituted and they function with defined goals and responsibilities.
- Welfare measures are provided for both faculty and non-teaching members for their academic excellence and professional development which is approved by Governing Council.
- Best social practices are incorporated among the students by engaging them in extension service programmes, co-curricular and extra-curricular clubs.

The list of various committees and respective conveners are listed in table 10.2

Table 10.2 List of Committees and Frequency of Meeting

Sl. No.	Name of the Committee	Chairperson /Convener	Functions and Responsibility	Frequency of Meeting
1.	Governing Council (GC)	Shri. P.R.Venketrama Raja, Chairman	<ul style="list-style-type: none"> • Governs the Institution and provides support for the continual development of infrastructure, lab facilities and other teaching aids. 	Once in a Year
2.	Internal Quality Assurance Cell (IQAC)	Dr. L. Ganesan, Principal	<ul style="list-style-type: none"> • Development of quality benchmarks • Periodical conduct of internal audit and its follow up • Documentation of various activities leading to quality improvement • Dissemination of information and best practices to all stake holders • AQAR preparation and submission to NAAC 	Twice in a Semester
3.	Institute Planning and Development Committee (IPDC)	Dr. L. Ganesan, Principal	<ul style="list-style-type: none"> • Periodical review and monitoring with action taken for the performance related to academic, research, co-curricular, extra-curricular, administrative, placement, discipline and extension activities 	Once in a Week

4.	Programme Assessment and Quality Improvement Committee (PAQIC)	Program Coordinator	<ul style="list-style-type: none"> Monitors the attainment of POs, PSOs and Quality Objectives. Evaluates program effectiveness and proposes necessary changes/revisions. Prepares periodic reports/records on program activities, progress, status or other special reports for management key stakeholders. Motivates the faculty and students towards attending workshops, developing projects, working models, paper publications/presentations and research 	Once in a Semester
5.	Department Advisory Committee (DAC)	Head of the Department	<ul style="list-style-type: none"> Monitor the progress of the programme. Analyses on current and future issues related to the programme Develops and recommends new or revised program goals and objectives. 	Once in a Year
6.	ISO-Management Review Meeting (MRM)	ISO Management Representative	<ul style="list-style-type: none"> Preparation, issue, control and implementation of ISO procedure Process and methods for conducting internal quality management system Review the Plan-Do-Check-Act for teaching learning process 	Once in a Semester
7.	Research Council	Dr.V.Sivakumar Chairperson	<ul style="list-style-type: none"> Improve the Research and Development skills and activities such as publications, funded projects, patent and product development of faculty members and students 	Once in a Quarter

8.	Co-curricular Activities	Dr. M.Gomathy Nayagam, Chairperson	<ul style="list-style-type: none"> Plan and provide facilities for co-curricular activities for students through professional societies and associations. Receiving student's feedback and initiating corrective actions. 	Once in a Quarter
9.	Extra-curricular Activities	Dr. O.Senthilkumar, Chairperson	<ul style="list-style-type: none"> Plan and provide facilities for Extra-curricular activities for students through NSS, YRC, NCC and clubs 	Once in a Quarter
10.	Hostel Committee	Mr.K.S.Selvaraj, GM(Admin)/Deputy Warden	<ul style="list-style-type: none"> Provide hostel facilities for the needy students, staff and faculty members. Maintain discipline applicable to the hostel of Educational Institutions. 	Once in a Semester
11.	Training and Placement cell	Ms.K.B.Uthra, TPO	<ul style="list-style-type: none"> Organize Training and Placement for students. Provide career counseling for students. Arrange campus interviews (On-Campus and Off-Campus) Coordinate Industry Institute interaction activities. 	Once in a Month
12.	Class Committee	Chairperson	<ul style="list-style-type: none"> Goal of improving the teaching-learning process. Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems. 	Thrice in a semester
13.	Student Mentor Meeting	Convener	<ul style="list-style-type: none"> Monitor and review the academic performance Motivate and encourage the students to excel in the academic, placement and career development 	Once in a month

The Governing Council is authorized to implement the recommendations suggested by the Planning and Monitoring Committee. It monitors the academic activities of the institution and plans various faculty and student development programmes. The administrative setup is shown in the Figure 10.1 (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Organization Structure:

Figure 10.1 Organization Chart of administrative setup (Link: https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

The list of members in the governing body is shown in the table 10.3 and participation detail is given in the Figure 10.2. (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Table 10.3 List of Governing Council Members

<https://www.ritrjpm.ac.in/about/govering-council.php> (<https://www.ritrjpm.ac.in/about/govering-council.php>)

Sl. No.	Name	Position	Professional Occupation
Governing Council (2024-2025)			
1	Shri. P.R.Venketrama Raja	Chairman	Chairman, Ramco Group of Companies & Managing Trustee, Raja Charity Trust.
2	The Director, Southern Regional Office, AICTE.	Member	Ex-officio member
3	The Commissioner of Technical Education, Chennai.	Member	Ex-officio member
4	Dr.R.Senthil	University Nominee	Professor, Department of Civil Engineering, CEG Campus, Chennai.
5	Prof.M.S.Ananth	Member	Former Director of IIT, Madras.
6	Shri.S.S.Ramachandra Raja	Member	Trustee, Raja Charity Trust, Rajapalayam.
7	Shri.N.K.Ramasuwami Raja	Member	Trustee, P.A.C. Ramasamy Raja Education Charity Trust, Rajapalayam.
8	Shri.A.V.Dharmakrishnan	Member	CEO, Ramco Cements Ltd., Chennai.
9	Shri.N.K.Shrikantan Raja	Member	Director, Ramco Industries Limited, Chennai
10	Prof.M.S.Palanichamy	Member	Former Vice-Chancellor, Tamil Nadu Open University.
11	Dr.R.Venkatraj	Member	CEO, Ramco Educational Institutions at Rajapalayam
12	Dr.L.Ganesan	Member Secretary	Principal, Ramco Institute of Technology, Rajapalayam.

Figure 10.2 Participation details of Governing Council Members (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

The composition of Institute Planning and Development Committee is given in table 10.4

Table 10.4 List of Institute Planning and Development Committee members

Sl. No.	Name	Category	Profession
Institute Planning and Development Committee (2024-2025)			
1	Dr. L. Ganesan	Chairman	Principal, Ramco Institute of Technology.
2	Dr. S. Rajakarunakaran	Member	Vice-Principal, Professor and Head, Dept. of Mechanical Engineering.
3	Mr. K. S. Selvaraj	Member	GM(A), Ramco Institute of Technology
4	Dr. S. Dharmar	Member	Associate Professor and Head, Dept. of Civil Engineering.
5	Dr. K. Vijayalakshmi	Member	Professor and Head, Dept. of Computer Science and Engineering.
6	Dr. S. Kannan	Member	Professor and Head, Dept. of Electrical and Electronics Engineering.
7	Dr.C.Arunachala Perumal	Member	Professor and Head, Dept. of Electronics and Communication Engineering.
8	Dr.M.Kaliappan	Member	Professor and Head, Dept. of Artificial Intelligence and Data Science
9	Dr.M.Gomathy Nayagam	Member	Associate Profess and Head, Dept. of Computer Science and Business Systems
10	Dr.V.Anusuya	Member	Associate Profess and Head, Dept. of Information Technology
11	Dr. K. Basarikodi	Member	Professor and Head, Dept. of Mathematics.
12	Dr. O. Senthilkumar	Member	Professor and Head, Dept. of Chemistry.
13	Dr. M. Anand	Member	Associate Professor and Head, Dept. of English.
14	Dr. N. Karthikeyan	Member	Associate Professor and Head, Dept. of Physics.
15	Dr.A.Lakshmi	Member	ISO DMR
16	Dr.D.Karthik Prabhu	Member	Admission Coordinator
17	Dr.A.Azhagu Jaisudhan Pazhani	Member	Academic Coordinator
18	Dr. R. Arun Kumar	Member	Controller of Examinations
19	Dr.V.Sivakumar	Member	Research Coordinator
20	Ms.K.B.Uthra	Member	Training and Placement Officer
21	Lt.R.Aishwarya Devi	Member	Physical Director, Dept. of Physical Education
22	Mr. R. Chandran	Member	Librarian

SI. No.	Name	Category	Profession
23	Dr. P. Thiruramanathan	Member	NSS officer

Table 10.5 represents the details of Internal Quality Assurance Cell members, IQAC Meeting Circular and participation details of IQAC members is shown in Figure 10.3 and 10.4 respectively.

Table 10.5 List of Internal Quality Assurance Cell members

<https://www.ritrjpm.ac.in/naac-nirf/iqac.php> (%0dhttps://www.ritrjpm.ac.in/naac-nirf/iqac.php)

INTERNAL QUALITY ASSURANCE CELL (IQAC 2024 – 2025)			
SI.No.	Composition	Category	Member
1	Chairperson	Head of the Institution	Dr.L.Ganesan, Principal
2	Teachers to represent all level (Three to eight)	Professor and Head	Dr.K.Vijayalakshmi, CSE
		Professor and Head	Dr.S.Kannan, EEE
		Professor and Head	Dr.M.Kaliappan, AD
		Professor and Head	Dr. K. Basari Kodi, Maths
		Professor and Head	Dr.O.Senthilkumar, Chemistry
		Associate Professor	Dr.S.Dharmar, Civil
		Associate Professor	Dr.P.Sureshkumar, Mech.
		Associate Professor	Dr.L.Sathikala, Maths
		Associate Professor	Dr.M.Ananad, English
		Assistant Professor (S.G)	Mrs.M.Swarna Sudha, CSE
		Assistant Professor (S.G)	Dr.M.Lakshmanan, Mech.
3	One member from the Management	Management Representative	Dr.R.Venakatraj, C.E.O Ramco Group of Educational Institutions
		GM (Admin)	Mr.K.S.Selvaraj
4	Few Senior Administrative officers	Librarian	Mr.K.Chandran
		Asst. Physical Director / NCC Officer	Lt.R.Aishwarya devi
		Training and Placement Officer	Ms.K.B.Uthra
		NSS Officer	Dr.P.Thiruramanathan, ASP/Physics
		Exam Cell In charge	Mr.A.Arunkumar, AP(SG)/ EEE

INTERNAL QUALITY ASSURANCE CELL (IQAC 2024 – 2025)			
SI.No.	Composition	Category	Member
5	One Nominee each from local society, Students and Alumni	Nominee from Local Society	Mr.T.S.Subramaniya Raja, Official of NGO, 170/191, Ramaraj Street, Sakkaraja Kottai, Rajapalayam. Mr. V. Jothikrishna, Tamizhan Siragugal Trust, Reg No:09/2021 2/200/58,Lakshmipathi Nagar, Periyavallikulam, Aruppukkottai (tk), Virudhunagar - 626004
		Nominee from Stakeholders - Students	1. Mr.M.Balaji Reg. No. 953621103301, II / Civil 2. Ms.M.Mahesh Selvalakshmi Reg. No. 953621104026 II / CSE 3. Mr.V.Vimal Anand Reg. No : 953621105058 II / EEE 4. Ms.G.Thivyaa Reg. No : 953621106024 II / ECE 5. Mr.P. Ganesh Kumar Reg. No: 953621114010 II / Mech. 6. Mr. N. Vishakan Reg. No : 953621243060 II / AD
		Nominee from Alumni	Mr.S.Marutharaj, Civil Mr. K.Kandha Vivek Raj, CSE Mr. M. Hariprasath, EEE Mr.P.Muthukrishnan, ECE Mr.K.Raghuram, Mech.

INTERNAL QUALITY ASSURANCE CELL (IQAC 2024 – 2025)			
SI.No.	Composition	Category	Member
6	One Nominee each from Employers/ Industrialists/ Stakeholders	Nominee from Employer	Mr.A.Thulasiram, DGM-Factory Head, Gowri House Metal Works LLP, Rajapalayam
		Nominee from Industrialists	1. Mr.Senthil Ramalingam, Senior Director - Integrated Digital Engineering (IDE), Cognizant, Coimbatore. 2. Mr.Leni Davidson, General Manager - Head Central, Quality Assurance, Wheels India Limited, Chennai.
		Nominee from Stakeholders - Parents	1. Mr.V.Pandimurugan, F/o P.Sibi Bala, II / Civil 2. Mr.G.Muthuraj F/o Ms.M.Mahesh Selvalakshmi, II/ CSE 3. Mr.A.Rajagopal F/o. R. Shree Harish -II /ECE B 4. Mr.K.Selvaraj, F/o. S.Sibirakesh, II / Mech. 5. Mr.S.Muthuramalingam F/o Ms.M.Muthulakshmi, II/AD
		Nominee from Stakeholders – ISO Certification Agency	Dr.V.Viswanathan Assistant General Manager, Certifications of Management Systems, Systems, TUV Rheinland(India) Pvt. Ltd., Coimbatore – 641 037

INTERNAL QUALITY ASSURANCE CELL (IQAC 2024 – 2025)			
SI.No.	Composition	Category	Member
		Nominee from Academic Expert	Mr.R.Jaganathan, Associate Professor, HoD/Mathematics, Coordinator of IQAC, Ayya Nadar Janaki Ammal College, Sivakasi – 626 124
7	Mentoring and Guiding IQAC activities	One of the senior faculty member	Dr.S.Rajakarunakaran, Vice Principal, Prof. and Head/Mech.
8	IQAC Co-ordinator	Nominee from faculty member	Dr.V.Sivakumar, ASP/Mech.

Figure 10.3 15th IQAC Meeting Circular (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Figure 10.4 Participation details of IQAC members (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Table 10.6 represents the details of RIT OBC Cell members, OBC Cell Meeting Circular and participation details of IQAC members is shown in Figure 10.5. and 10.6 respectively. (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Table 10.6 RIT OBC Cell Members

https://www.ritrjpm.ac.in/images/pdf/2023-2024/RIT_OBC_CELL.pdf (https://www.ritrjpm.ac.in/images/pdf/2023-2024/RIT_OBC_CELL.pdf))

SI.No.	Name of the Member	Designation	Position
1	Dr.V.Sivakumar	Asso.Prof/Mech.	Convener
2	Dr.R.Srinivasan	Asst.Prof/Physics	Coordinator
3	Mr.M.Ramar	Asst.Prof./Mech.	Member
4	Mrs.A.Leema Margret	Asst.Prof./Civil	Member
5	Ms.G.Sakthi Priya	Asst.Prof./CSE	Member
6	Dr.A.Lakshmi	Asso.Prof./ECE	Member
7	Mrs.G.Sivapriya	Asst.Prof./EEE	Member
8	Mrs.B.Revathi	Asst.Prof./AI&DS	Member

Figure 10.5 RIT OBC Cell Circular (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Figure 10.6 RIT OBC Cell Meeting Attendance (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

The **RIT Minority Cell** aims to create a supportive environment that ensures the well-being, growth and active participation of individuals from diverse backgrounds. This initiative aligns with our commitment to upholding the principles of equality and promoting a workplace culture that values the unique perspectives and contributions of every member.

Table 10.7 RIT Minority Cell Members

https://www.ritrjpm.ac.in/images/pdf/2022-2023/Minority_Cell-2022-23.pdf (https://www.ritrjpm.ac.in/images/pdf/2022-2023/Minority_Cell-2022-23.pdf)

SI.No.	Name of the Faculty Member	Designation	Position
1	Dr.K.Basarikodi	Prof.and Head/Maths	Convener
2	Mr.J.Jerolod John Britto	AP(SG)/Mech.	Member
3	Mr.A.Arun Kumar	AP(SG)/EEE	Member
4	Dr.M.Anand	ASP & Head/English	Member
5	Mr.G.Sivakumar	AP/ECE	Member
6	Mrs.A.Leema Margret	AP/Civil	Member
7	Dr.I.Getzhi Ahila Poornima	AP(SG)/CSE	Member
8	Dr.L.Sathikala	AP/Maths	Member
9	Mrs.G.Sivapriya	AP/EEE	Member

Figure 10.7 RIT Minority Cell Meeting Circular (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

10.1.2 (B). The published rules, policies and procedures with year of publication:

The institution has well written and published service rules, procedures and promotional policies which were published in institution's faculty members and non-teaching staff handbook. The following service rules are in force since 2013 which is also the year of institute's inception. The service rules, policies and procedures are issued to faculty members and non-teaching staff members along with their appointment letters. The student's handbook for both the day scholar and hostel students is issued separately and the contents are informed through students meetings. The copy of handbook consists of the rules, policies and procedures are published in college website.

The key highlights of the welfare measures provided to the faculty members and non-teaching staff members are given below.

For Teaching Staff Members:

- Providing Provident Fund (PF)
- Fee concession to the extent of 1/3rd of the school fee to the children of teaching staff for a maximum of 2 children in our group's schools.
- Medical insurance cover for a sum assured of 2.5 lakh per year for Professor, 2.0 lakh for Associate Professor, 1.5 Lakh for Assistant Professor, Assistant Professor (Sr.Gr) & Assistant Professor dependent parents and 2 Children.
- 15 days of casual leave in a year apart from vacation.
- A Maternity leave of maximum 6 Months with First month full salary, second month half salary is providing to female faculty members.
- Salary and perquisites are subject to deduction of tax.
- Promotion and increments are given based on the performance appraisal.

- Cash awards and Certificate of Appreciation for academic excellence.
- Reward for producing 100% results.
- On Duty leave.
- Sponsoring the registration fee, boarding expenses and travel expenditure for participation in FDP/Workshop/STTP etc.,
- Sponsoring the online course.
- Sponsoring the complete registration fee for Patent filing.
- Special leave will be granted to the faculty members those who are pursuing Ph.D.
- Incentive for publication of research articles in conference and journals
- Honorarium to Principal Investigator/Co-Investigator of the funded project with 2%of the total grant, the honorarium will be subjected to a ceiling of Rs.2.0 lakh. In case of Consultancy grants, the Investigator shall be eligible for an honorarium of 60% of the revenue earned and the remaining 40% of the revenue has to be retained by the college.
- Providing employees to attend corporate training program.
- Opportunities to all faculty members to conduct / organize guest lectures, conferences/seminars/workshop/FDPs
- Free transport
- Subsidized mess fee
- Free accommodation and food in hostel for residential warden / assistant warden / deputy warden.
- Free medical checkup in Ramco Medical Care hospital
- Wi-Fi internet connectivity.
- Recreational activities.
- Gifts during Teachers' Day/ Engineers Day.
- Felicitated in college functions for special achievements.

For non-teaching staff members:

- Providing PF and ESI.
- Fee concession to the extent of 1/3rd of the school fee to a maximum of 2 children in our group's schools.
- Medical insurance of Rs. 1.0 lakh per year
- 12 days of casual leave in a year apart from vacation
- Salary and perquisites are subject to deduction of tax.
- Increments are given based on the performance appraisal.
- The investigator has to pay 10% incentive for consultancy project.
- On Duty leave.
- Free transport.
- Free medical checkup in Ramco Medical Care Hospital
- Recreational activities.
- Permission to pursue higher education
- Subsidized mess fees
- Free dress materials to all Office Assistants
- Compliments are given to the non-teaching staff during festival times

10.1.2. (C) Minutes of the meetings and action-taken reports:

The samples of minutes of meeting and action taken references are given in the table 10.8.

Table 10.8 Minutes of meeting and action taken references

Sl.No.	Name of the meeting	Date	Figure No.
1	Governing Council	20.02.2019	10.2
2	Institute Planning and Development Committee	28.03.2024	10.9

3	Internal Quality Assurance Cell	21.06.2023	10.10
4	ISO Management Review Meeting	04.11.2023	10.11
5	RIT OBC Cell	23.01.2024	10.12
6	RIT Minority Cell	29.02.2024	10.13

Figure 10.8 - 27th Institute Planning and Development Committee Meeting (IPDC) Circular (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.9 27th Institute Planning and Development Committee Meeting (IPDC) Minutes Cont...(Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.9 - 27th Institute Planning and Development Committee Meeting (IPDC) Minutes Cont... (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.9 - 27th Institute Planning and Development Committee Meeting (IPDC) Minutes Cont... (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.9 - 27th Institute Planning and Development Committee Meeting (IPDC) Minutes Cont... (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

14th IQAC Meeting Minutes

<https://www.ritrjpm.ac.in/naac-nirf/iqac.php> (<https://www.ritrjpm.ac.in/naac-nirf/iqac.php>)

Figure 10.10 IQAC Meeting Action Taken Report Cont... (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.10 IQAC Meeting Action Taken Report Cont ... (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.10 IQAC Meeting Action Taken Report Cont... (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.10 IQAC Meeting Action Taken Report Cont... (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.10 IQAC Meeting Action Taken Report (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.11 Minutes of ISO Management Review Meeting Cont...(Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.11 Minutes of ISO Management Review Meeting (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.12 Minutes of RIT OBC Cell Meeting (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.13 Minutes of RIT Minority Cell Meeting Cont... (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.13 Minutes of RIT Minority Cell Meeting (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

10.1.3 Decentralization in working and grievanceredressal mechanism (10)

Institute Marks : 10.00

A. List the names of the faculty members who have been delegated powers for taking administrative decisions:

The institution has an integrated framework for quality assurance of both academic and administrative activities in the form of various cells and academic bodies. The various committees are independently handled by the concerned faculty coordinators. They will manage the function and responsibilities of the respective committees and periodically register the action reports based on the findings of the meetings. A few of the important committees and the list of faculty coordinators/conveners are given as follows.

<https://www.ritrjpm.ac.in/about/mandatory-disclosure.php> (<https://www.ritrjpm.ac.in/about/mandatory-disclosure.php>)

- Anti-ragging committee
- Internal Complaints Committee and Sexual Harassment Committee
- SC-ST Cell
- Discipline Committee
- Complaints cum Grievance Redressal committee.
- Students Grievance Committee
- RIT – OBC Cell
- RIT Minority Cell

Anti-Ragging Committee and Anti-Ragging Squad ensures the students' safety inside the college premises. The Principal is the Chairman of the committee wherein officers, parents, students and teaching and non-teaching faculty members are a part of the committee. Anti-ragging and anti-ragging squad are constituted as per the revised Affiliation format of Anna University, Chennai based upon the guidelines in Appendix 12 of UGC regulations 2013 and vide clause 4 of AICTE regulations F.No.37-3/Legal/AICTE/2009. The list of members in the Anti-Ragging committee is summarized in table 10.9 and the list of members in the Anti-Ragging Squad is summarized in table 10.10

Table 10.9 Anti-Ragging Committee Members

https://www.ritrjpm.ac.in/images/pdf/2023-2024/Anti_Ragging_Committee_2023-24.pdf (https://www.ritrjpm.ac.in/images/pdf/2023-2024/Anti_Ragging_Committee_2023-24.pdf)

Anti-Ragging Committee (2024 – 2025)						
Sl. No.	Name	Position (Chairman/ Member)	Professional Designation	Telephone numbers	E-mail	Address
1	Dr. L. Ganesan	Chairman	Principal	9489634782	principal@ritrjpm.ac.in	Ramco Institute of Technology
2	Dr. S. Rajakarunakaran	Member	Vice-Principal & Prof. & Head, Dept. Mech. Engg.	9865312352	rajakarunakaran@ritrjpm.ac.in	Ramco Institute of Technology
3	Dr. K. Vijayalakshmi	Member	Prof. & Head, Dept. of CSE	9486604522	kvijayalakshmi@ritrjpm.ac.in	Ramco Institute of Technology
4	Dr. S. Kannan	Member	Prof. & Head, Dept. of EEE	9442440429	kannan@ritrjpm.ac.in	Ramco Institute of Technology
5	Dr. C. Arunachalaperumal,	Member	Prof. & Head i/c, Dept. of ECE	9486610552	arunachalaperumal@ritrjpm.ac.in	Ramco Institute of Technology

6	Dr. S. Dharmar	Member	ASP & Head i/c Dept. of Civil Engg.	9843341662	dharmar@ritrjpm.ac.in	Ramco Institute of Technology
7	Dr. M. Kaliappan	Member	Prof. & Head, Dept. of AD	9003613335	kaliappan@ritrjpm.ac.in	Ramco Institute of Technology
8	Dr. V. Anusuya	Member	Prof. & Head, Dept. of IT	9952384889	anusuyav@ritrjpm.ac.in	Ramco Institute of Technology
9	Dr. M. Gomathy Nayagam	Member	ASP. & Head, Dept. of CSBS	9965672393	gomathynayagam@ritrjpm.ac.in	Ramco Institute of Technology
10	Mr. K.S. Selvaraj	Member	GM(A)	9489634752	gadmin@ritrjpm.ac.in	Ramco Institute of Technology
11	Mr. I. Paul Yesudhasan	Member	Inspector	9498106449	sho.rajapalayamnorth@tncctns.gov.in	North Police Station, Rajapalayam
12	Mr. R. Jayapandian	Member	Tahsildar, Rajapalayam	9445000661	epic_rjpm@yahoo.com	TN Govt. official
13	Mr. R. Sundar Raj	Member	Revenue Inspector	9884951462	sundarrajuck@gmail.com	TN Govt. official
14	Mr. Thamaraikani	Member	Panchayat Official, Krishnapuram	9585595522	-	Local panchayat official
15	Mr. Marimuthu	Member	Health Inspector, Rajapalayam	9578793728	bhsmarimuthu@gmail.com	TN Govt. official
16	Ms. K. Selvi	Member	Social Activist	9944616420	selvi48zenith@gmail.com	MP candidate of Virudhunagar
17	Mr. P. Muthukumar	Member	RIT alumni/NGO	9944638629		
18	Mr. T.S. Subramaniya Raja	Member	Official of NGO	9843839137	tsrajha@gmail.com	Wild Life Association of Rajapalayam
19	Mr. A. Krishnakumar	Member	RIT Alumni	8270596315	krisgopi2001@gmail.com	6/1093 Aasari Colony, 1st Street Satchiyapuram Sivakasi West Virudhunagar District
20	Mr. S. R. Ramesh	Member	Representative of Parents	7305366084	-	33/1, Lakshmana Perumal Kovil Street, Palayapalayam Rajapalayam 626117
21	Mr. A. Kannadasan	Member	Representative of Parents	99445 94416	-	239,Koorai Pillaiyar Kovil Street, Rajapalayam-626117
22	Mr. P. Rajagopal	Member	Representative of Parents	8903669148	-	132/17 Th Street, Rajiv Gandhi Nagar, Srivilliputtur, Virudhunagar 626135

23	Mr. P. Karuppiah	Member	Representative of Parents	8098426635	-	2/4, Marukalvodai Street, Mamsapuram, Srivilliputhur-626110
24	Dr. P. Ravi	Member	Representative of Parents	8056960993	-	4A/4, Pillayar Kovil Street, Sundararajapuram Virudhunagar – 626 142.
25	Mrs. G. Uma Selvi	Member	Representative of Parents	9003321021	-	8/121C Sammandapuram, Rajapalayam 626117
26	Mr. Murugesu Raja	Member	Representative of Parents	9442058762	-	'Amudha Surabhi', Sreirengapalayam, Rajapalayam 626117
27	Dr. P. Suresh Kumar	Member	Prof./Mech	9585636217	sureshkumar@ritrjpm.ac.in	Ramco Institute of Technology
28	Dr. A. Lakshmi	Member	Dy. Warden – Girls Hostel	7708680640	lakshmi@ritrjpm.ac.in	Ramco Institute of Technology
29	Mrs.R.Kalaimani	Member	Asst. Warden – Girls Hostel	9566796464	kalaimani@ritrjpm.ac.in	Ramco Institute of Technology
30	Ms.L.Krishnakumari	Member	Asst. Warden – Girls Hostel	8825483113	krishnakumari@ritrjpm.ac.in	Ramco Institute of Technology
31	Mr.E.Thangam	Member	Asst. Prof./EEE	04563-233427	thangam@ritrjpm.ac.in	Ramco Institute of Technology
32	Lt.R.Aishwarya Devi	Member	Physical Director i/c Representative of Non-Teaching	04563-233400	pd@ritrjpm.ac.in	Ramco Institute of Technology
33	Dr. P. Thiruramanathan	Member	Asst. Professor-Physics/ NSS officer	6383657482	thiruramanathan@ritrjpm.ac.in	Ramco Institute of Technology
34	Aathi Laxmi M IV year Civil	Member	Representative of Students category	9342691562	953621103003@ritrjpm.ac.in	Dept. of CIVIL, Ramco Institute of Technology
35	Mr.A.Muthusamy IV year CSE	Member	Representative of Students category	9789764083	953621105044@ritrjpm.ac.in	Dept. of CSE, Ramco Institute of Technology
36	Sandhiya M IV year EEE	Member	Representative of Students category	8074899400	953621105044@ritrjpm.ac.in (mailto:953621105044@ritrjpm.ac.in)	Dept. of EEE, Ramco Institute of Technology
37	Madhumitha P IV year ECE	Member	Representative of Students category	8667578341	953621106050@ritrjpm.ac.in	Dept. of ECE, Ramco Institute of Technology
38	Jeya Prakash K IV year Mech	Member	Representative of Students category	9585189142	953621114016@ritrjpm.ac.in	Dept. of MECH, Ramco Institute of Technology

39	Sandeep kumar M IV year AI&DS	Member	Representative of Students category	6383075864	21ad047@ritrjpm.ac.in	Dept. of AI&DS, Ramco Institute of Technology
40	Arumuga Kathathar K III year Civil	Member	Representative of Students category	8270696167	kathakumaran007@gmail.com	Dept. of CIVIL, Ramco Institute of Technology
41	S.Janarthanavel III year CSE	Member	Representative of Students category	9080485589	janathanavel72@gmail.com	Dept. of CSE, Ramco Institute of Technology
42	Vivek @ Shree Sujan V III year EEE	Member	Representative of Students category	8248622112	Shreesujan69@gmail.com	Dept. of EEE, Ramco Institute of Technology
43	Nandha Kumar T M III year ECE	Member	Representative of Students category	8778705438	tmnandhu2003@gmail.com (mailto:tmnandhu2003@gmail.com)	Dept. of ECE, Ramco Institute of Technology
44	Brahadeesh Narayan V III year Mech.	Member	Representative of Students category	8610318077	vibbik0357@gmail.com	Dept. of MECH, Ramco Institute of Technology
45	Mathan Kumar M III year AD&DS	Member	Representative of Students category	9345215393	22ad093@ritrjpm.ac.in	Dept. of AD&DS, Ramco Institute of Technology
46	Banu Mathavan V III year CS(IT)	Member	Representative of Students category	7904632437	-	Dept. of CS(IT), Ramco Institute of Technology
47	Gopikaran R III year CSBS	Member	Representative of Students category	9994386370	gopikaran071@gmail.com	Dept. of CSBS, Ramco Institute of Technology
48	A Jeyasurya, II Civil	Member	Representative of Students category	9025795789	23ce013@ritrjpm.ac.in	Dept. of CIVIL, Ramco Institute of Technology
49	P. Sarveshwar, II CSE	Member	Representative of Students category	9790294221	fffstanza@gmail.com	Dept. of CSE, Ramco Institute of Technology
50	S. Muthu, II EEE	Member	Representative of Students category	8637648422	23ee035@ritrjpm.ac.in	Dept. of EEE, Ramco Institute of Technology
51	G. Suresh Raina, II ECE	Member	Representative of Students category	9003993169	23ec102@ritrjpm.ac.in	Dept. of ECE, Ramco Institute of Technology
52	R Amrishi Ram Kumar, II Mech.	Member	Representative of Students category	9344887542	23me005@ritrjpm.ac.in	Dept. of MECH, Ramco Institute of Technology
53	K.Nagalakshmi, II AD-B	Member	Representative of Students category	6385818044	23ad096@ritrjpm.ac.in	Dept. of AD&DS, Ramco Institute of Technology
54	R. Rashika, II IT	Member	Representative of Students category	7339224410	23it039@ritrjpm.ac.in	Dept. of CS(IT), Ramco Institute of Technology
55	V. Vaishnavi, II CSBS	Member	Representative of Students category	8248983287	23cb056@ritrjpm.ac.in	Dept. of CSBS, Ramco Institute of Technology

56	Manoj I Civil	Member	Representative of Students category	9384150706	manoji8@gmail.com	Dept. of CIVIL, Ramco Institute of Technology
57	K. Rahul, I CSE	Member	Representative of Students category	9842879433	-	Dept. of CSE, Ramco Institute of Technology
58	Hari Baskar, I EEE	Member	Representative of Students category	7339023670	bhari1445@gmail.com	Dept. of EEE, Ramco Institute of Technology
59	G. Sri Pal Karthick-I ECE	Member	Representative of Students category	9360285426	sripalkarthikg99420@gmail.com	Dept. of ECE, Ramco Institute of Technology
60	M. Mukesh Bharathi, I-Mech	Member	Representative of Students category	9080263225	mukeshbharathi2005@gmail.com	Dept. of MECH, Ramco Institute of Technology
61	Muthu Vinayagam, I AD	Member	Representative of Students category	9342844947	muthuvinayagam747@gmail.com	Dept. of AD&DS, Ramco Institute of Technology
62	S Pooja Shree – I IT	Member	Representative of Students category	9345650383	Spoojashri2006@gmail.com	Dept. of CS(IT), Ramco Institute of Technology
63	Abinaya – I CSBS	Member	Representative of Students category	9345289164	aabi95887@gmail.com	Dept. of CSBS, Ramco Institute of Technology

Table 10.10 Anti-Ragging Squad Members

Anti-Ragging Squad (2024 – 2025)						
Sl. No.	Name	Position (Chairman/ Member)	Professional Designation	Telephone numbers	E-mail	Address
1	Dr.L.Ganesan	Chairman	Principal	04563-233404	principal@ritrjpm.ac.in	Ramco Institute of Technology
2	Dr.S.Rajakarunakaran	Member	Vice-Principal & Prof. & Head, Dept. Mech. Engg.	04563-233415	rajakarunakaran@ritrjpm.ac.in	Ramco Institute of Technology
3	Dr.K.Basarikodi	Member	Professor Dept. of Mathematics	04563-233416	basarikodi@ritrjpm.ac.in	Ramco Institute of Technology
4	Dr.K.Vijayalakshmi	Member	Prof. & Head, Dept. of CSE	04563-233412	kvijayalakshmi@ritrjpm.ac.in	Ramco Institute of Technology
5	Dr.S.Kannan	Member	Prof. & Head, Dept. of EEE	04563-233413	kannan@ritrjpm.ac.in	Ramco Institute of Technology

Anti-Ragging Squad (2024 – 2025)						
Sl. No.	Name	Position (Chairman/ Member)	Professional Designation	Telephone numbers	E-mail	Address
6	Dr. C. Arunachalaperumal,	Member	Prof. & Head i/c, Dept. of ECE	9486610552	arunachalaperumal@ritrjpm.ac.in	Ramco Institute of Technology
7	Mr.S.Dharmar	Member	AP(SG) & Headi/c Dept. of Civil Engg.	04563- 233411	dharmar@ritrjpm.ac.in	Ramco Institute of Technology
8	Dr.M.Kaliappan	Member	Prof. & Head, Dept. of AD	04563- 233417	kaliappan@ritrjpm.ac.in	Ramco Institute of Technology
9	Dr.V.Anusuya	Member	Prof. & Head, Dept. of IT	9952384889	anusuyav@ritrjpm.ac.in	Ramco Institute of Technology
10	Dr.M.Gomathy Nayagam	Member	Prof. & Head, Dept. of CSBS	9965672393	gomathynayagam@ritrjpm.ac.in	Ramco Institute of Technology
11	Mr.K.S.Selvaraj	Member	GM(Admin) (Non-Teaching Staff)	04563- 233403	gmadmin@ritrjpm.ac.in	Ramco Institute of Technology
12	Dr.P.Suresh Kumar	Member	Asso.Prof. Dept.Mech.Engg.	04563- 233415	sureshkumar@ritrjpm.ac.in	Ramco Institute of Technology
13	Dr.A.Lakshmi	Member	Dy. Warden – Girls Hostel	04563- 233416	lakshmi@ritrjpm.ac.in	Ramco Institute of Technology
14	Lt.R.Aishwarya Devi	Member	Physical Director i/c Representative of Non- Teaching	04563- 233400	pd@ritrjpm.ac.in	Ramco Institute of Technology
15	Mr.R.Chandran	Member	Librarian (Non-Teaching Staff)	04563- 233400	chandran@ritrjpm.ac.in	Ramco Institute of Technology
16	Ms.L.Krishnakumari	Member	Asst. Warden – Girls Hostel	8825483113	krishnakumari@ritrjpm.ac.in	Ramco Institute of Technology
17	Mr.E.Thangam	Member	Deputy. Warden – Boys Hostel	04563- 233427	thangam@ritrjpm.ac.in	Ramco Institute of Technology
18	Dr. P. Thiruramanathan	Member	Asst. Professor-Physics/ NSS officer	6383657482	thiruramanathan@ritrjpm.ac.in	Ramco Institute of Technology

Internal Complaints Committee and Sexual Harassment Committee looks into the complaints and grievances of girl students and women faculty inside the college. The Principal has the right to take decision with regard to the complaints raised by the Chairperson of the committee. It has been constituted upon 'The sexual Harassment of Women at workplace (Prevention, Prohibition, Redressal) Act 2013. The list of members in the Internal Complaints Committee and Sexual Harassment Committee is summarized in table 10.11.

https://www.ritrjpm.ac.in/images/pdf/2023-2024/RIT_IC_2023-2024.pdf (https://www.ritrjpm.ac.in/images/pdf/2023-2024/RIT_IC_2023-2024.pdf)

Table 10.11 Internal Complaints Committee and Sexual Harassment Committee Members

Sl. No.	Name	Designation	Position	Address
1	Dr.G.Kanthimathi	Professor, Dept. of Chemistry	Chairperson	Ramco Institute of Technology, Rajapalayam
2	Mrs.S.Jeyanthi	Associate Professor (SG), Dept. of EEE	Convener	
3	Dr.A.Lakshmi	Professor, Dept. of ECE	Member	
4	Mrs.C.Subha	Asst. Professor (SG), Dept. of Civil Engg.	Member	
5	Dr.M.Swarna Sudha	Associate Professor, Dept. of CSE	Member	
6	Mrs.G.Kavitha	Assistant Professor, Dept. of AI&DS	Member	
7	Mrs.B.Rathina Kumari	Assistant Professor, Dept. of IT	Member	
8	Dr.M.Jeya Sundari	Assistant Professor, Dept. of CSBS	Member	
9	Mrs.N.Muthumari	Junior Assistant/Office	Member	
10	Mrs.T.Gayathri	Junior Assistant/Mechanical	Member	
11	Mrs.S.Gandhimathi	Assistant Librarian	Member	
12	Lt.R.Aishwarya Devi	NCC Officer/ Physical Director	Member	
13	Ms.B.Divya Elsi	APD	Member	

SC-ST cell looks into the complaints and grievances of SC/ST employee and students. The committee provides information about the scholarship and resolves any problems faced by the SC-ST students and employees. It is constituted as per the AICTE/JGC regulations. The list of members in the SC-ST Cell is summarized in table 10.12.

https://www.ritrjpm.ac.in/images/pdf/2024-2025/SC-ST_2024-25.pdf (https://www.ritrjpm.ac.in/images/pdf/2024-2025/SC-ST_2024-25.pdf)

Table 10.12 SC-ST Cell Members

SC-ST Cell (2024 – 2025)			
S. No.	Name	Category	Profession
1	Dr. K. Vijayalakshmi	Chairperson	Professor & Head, CSE
2	Dr. O. Senthilkumar	Convener	Professor & Head, Chem.
3	Mrs. B. Jayalakshmi	Member	Accountant
4	Mrs. N. Muthumari	Member	JA, Office
5	Ms. B Divya Elsi	Member	APD/Hostel
6	Ms. M. Umadevi	Member	IV year AI & DS
7	Ms. S. Nishanthi	Member	III year Civil
8	Ms. R. Kalai Priya	Member	III year CSE-A
9	Mr. P. Mohana Velu	Member	III year AI & DS
10	Mr. S. Raghul	Member	III year EEE
11	Mr. R. Yuva Ganesh	Member	III year Mech.
12	Mr. P. Anantha Narayanan	Member	III year ECE-A
13	Ms. G. Shabna Shree	Member	II AI & DS
14	Mr. K. Shantha Kumar	Member	II Civil
15	Ms. R. Hema Latha	Member	II CSE
16	Mr. C. Kabilan	Member	II ECE
17	Mr. A. Pushparaj	Member	II EEE
18	Mr. Akash	Member	II IT
19	Mr. S. Karthik Raja	Member	II Mech.
20	Ms. A. Dharshini	Member	II CSBS
21	Mr. B. Venkatesh	Member	I Civil
22	Ms. M. Dhanalakshmi	Member	I CSE
23	Mr. M. Karthick	Member	I EEE
24	Ms. V. Anju	Member	I ECE
25	Mr. M. Mukesh Bharathi	Member	I Mech
26	Mr. T. Mathan Raj	Member	I AD
27	Ms. E. Mareeswari	Member	I IT
28	Mr. S. Gokula Kannan	Member	I CSBS

Discipline Committee monitors the professional behaviour of the students. Regular meetings are conducted to maintain the professional code of the students. Both teaching and non-teaching faculty members are involved in the monitoring duty. It is constituted as per the norms of Anna University. The list of members in the discipline committee is summarized in the table 10.13.

https://www.ritrjpm.ac.in/images/pdf/2023-2024/RIT_Discipline_Committee_2023-24.pdf (https://www.ritrjpm.ac.in/images/pdf/2023-2024/RIT_Discipline_Committee_2023-24.pdf)

Table 10.13 Discipline Committee Members

SI.No.	Name	Position	Category	Telephone numbers	E-mail	Address
Discipline Committee (2024 – 2025)						
1	Dr. S. Kannan	Chairman	Head of the Dept.	04563 -233413	kannan @ritrjpm.ac.in	Professor & Head, Dept. of EEE

SI.No.	Name	Position	Category	Telephone numbers	E-mail	Address
2	Mr.K.S.Selvaraj	Members	GM(A)	04563-233403	gmadmin@ritrjpm.ac.in	Office
3	Dr.M.Indhumathi		ASP/Civil	04563 - 233411	indhumathi@ritrjpm.ac.in	Dept. of Civil
4	Mrs.B.Vijayalakshmi		AP(SG)/CSE	04563 - 233412	vijayalakshmb@ritrjpm.ac.in	Dept. of CSE
5	Mrs.R.Ramalakshmi		AP(SG)/ECE	04563-233414	ramalakshmi ramasamy@ritrjpm.ac.in	Dept. of ECE
6	Dr.J.Jerold John Britto		AP(SG)/Mech.	04563-233415	jerold@ritrjpm.ac.in	Dept. of Mech.
7	Mr.M.Ramnath		AP/AD	04563 - 233417	ramnath@ritrjpm.ac.in	Dept. of AD
8	Mrs.B.Yazhini		AP/CSBS	04563 - 233341	yazhine@ritrjpm.ac.in	Dept.of CSBS
9	Mrs.G.Mareeswari		AP/IT	04563 - 233331	mareeswari@ritrjpm.ac.in	Dept. of IT
10	Dr.R.Saravanakumar		AP/Maths	04563-233416	saravanakumar@ritrjpm.ac.in	Dept. of Maths
11	Dr.S.Gomathi		AP/English	04563-233400	sgomathi@ritrjpm.ac.in	Dept. of English
12	Dr.K.Jeyapappa		AP/Physics	04563-233409	kjeyapappa@ritrjpm.ac.in	Dept. of Physics
13	Dr.K.Leeladevi		AP/Chemistry	04563-233400	leeladevi@ritrjpm.ac.in	Dept. of Chemistry
14	Dr.A.Lakshmi		Deputy Warden (Girls Hostel)	04563 -233474	lakshmi@ritrjpm.ac.in	Girls Hostel
15	Mr.E.Thangam		Deputy Warden (Boys Hostel)	04563-233427	thangam@ritrjpm.ac.in	Boys Hostel
16	Dr.K.Karthikeyan		Convener	Student Counsellor	04563-233400	karthikeyank@ritrjpm.ac.in

10.1.3 (B). Specify the mechanism and composition of grievance redressal cell:

The Complaints cum Grievance Redressal Committee works on improving the complaints or the grievance in both academic and non-academic activities faced by the students inside the college. The Principal is the authority in taking decision with regard to the complaints raised by the Chairperson of the committee. It is constituted as per the revised Affiliation format of Anna University, Chennai and based upon AICTE regulations 2012 vide notification F.No. 37-3/Legal/2012 dated 25.5.2012. The committee composed of chairperson, convener, faculty members and assistant warden is listed in table 10.14. It deals with all types of grievances and complaints received from students. The composition is as follows.

<https://www.ritrjpm.ac.in/images/pdf/2024-2025/2024-2025-Complaints-Grievance-Redressal-Committee.pdf> (<https://www.ritrjpm.ac.in/images/pdf/2024-2025/2024-2025-Complaints-Grievance-Redressal-Committee.pdf%0c>)

Table 10.14 The Complaints cum Grievance Redressal Committee Members

The Complaints cum Grievance Redressal Committee (2024 – 2025)						
Sl. No.	Name	Category	Profession	Telephone numbers	E-mail	Address
1	Dr.K.Basarikodi	Chairperson	Professor, Dept. of Mathematics	04563 - 233416	basarikodi@ritrjpm.ac.in	Ramco Institute of Technology, Rajapalayam
2	Mr.K.S.Selvaraj	Member	GM(A)	04563 - 233403	gadmin@ritrjpm.ac.in	Ramco Institute of Technology, Rajapalayam
3	Dr.S.Dharmar	Member & Convener	Associate Professor, Dept. of Civil Engg.	04563 - 233411	dharmar@ritrjpm.ac.in	Ramco Institute of Technology, Rajapalayam
4	Dr.I.GethziAhila Poornima	Member	Associate Professor, Dept. of CSE	04563 - 233412	gethzi@ritrjpm.ac.in	Ramco Institute of Technology, Rajapalayam
5	Mr.C.Gururaj	Member	AP(SG), Dept. of Mech. Engg.	04563 - 233415	gururaj@ritrjpm.ac.in	Ramco Institute of Technology, Rajapalayam
6	Mrs.C.Karpagavalli	Member	AP, Dept. of AI&DS	04563 - 233417	karpagavalli@ritrjpm.ac.in	Ramco Institute of Technology, Rajapalayam
7	Dr.A.Lakshmi	Member	Deputy Warden, Girls Hostel	04563 - 233484	lakshmi@ritrjpm.ac.in	Ramco Institute of Technology, Rajapalayam
8	Mr.E.Thangam	Member	Deputy Warden, Boys Hostel	04563 - 233427	thangam@ritrjpm.ac.in	Ramco Institute of Technology, Rajapalayam

The committee meets as and when required to look into the complaints and grievances reported by the students. The chairperson prepares the report based on the findings of the meeting and submits it to the Principal and forwards the same to Ombudsman and affiliating University. The email id of the chairperson and members are shared in the website for the benefit of students to enable them to register their complaints. The registered email id of the chairperson is basarikodi@ritrjpm.ac.in (mailto:basarikodi@ritrjpm.ac.in) (mail to: basarikodi@ritrjpm.ac.in (mailto:basarikodi@ritrjpm.ac.in))

Besides handling major grievances by this committee as per AICTE regulations, Students Meeting (College Level) is also constituted for the benefit of students to register their day to-day issues and grievances. The composition of the student grievance meeting committee is listed in the table 10.15.

Table 10.15 List of Student grievance meeting (College level) Members

Name	Category	Profession
Dr. K.Basarikodi	Chairperson	Professor and Head, Dept. of Mathematics
Dr. S. Rajakarunakaran	Member	Vice-Principal, Professor and Head, Dept. of Mechanical Engineering.
Mr. K. S. Selvaraj	Member	GM(A), Ramco Institute of Technology.
Dr. S Dharmar	Convener	Associate Professor and Head, Dept. of Civil Engineering.
All HOD's	Members	Head of the concerned department.
Representative Students	Members	Representative from each department.

10.1.3 (C) Action taken report

The circular of Students Grievance Meeting (College level), minutes of the meeting of complaints cum Grievance Redressal committee and student grievance meeting (College Level) are enclosed in Figure given below 10.14 (a-c).

Figure 10.14 a. Circular of Students Grievance Meeting (College level) (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Figure 10.14 b. Attendance of Students Grievance Meeting (College level) Cont... (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Figure 10.14 b. Attendance of Students Grievance Meeting (College level) Cont...(Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Figure 10.14 b. Attendance of Students Grievance Meeting (College level) (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Figure 10.14 c. Minutes of Students Grievance Meeting (College level) Cont...(Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Figure 10.14 c. Minutes of Students Grievance Meeting (College level) (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

The functions and responsibility of few of the important committees, clubs, societies are summarized in table 10.16

Table 10.16 List of Other Various Committees, Clubs and Societies

Sl. No.	Name of the Committee/Club/Cell/Society/ Association/ Chapters	Chairperson /Convener	Functions and responsibility	Frequency of meeting
1	Complaints cum Grievance Redressal Committee	Dr. K. Basarikodi, Professor and Head, Dept. of Mathematics	Works on redressing the complaints or the grievance in both academic and non-academic activities faced by the students inside the college.	As and when required
2	Anti-Ragging Committee	Dr. L. Ganesan, Principal	Ensures the students' safety inside the college premises. Makes the institution compliant to the guidelines published in Appendix 12 of UGC regulations 2013 and vide clause 4 of AICTE regulations F.No.37-3/Legal/AICTE/2009.	Once in a Year
3	Internal Complaints Committee	Dr. B.Deepa Lakshmi, Associate Professor, Dept. of Electrical and Electronics Engineering	Looks into the complaints and grievances of girl students and women faculty inside the college.	Twice in a Year
4	SC/ST Cell	Dr.K.Vijayalakshmi Professor and Head, Dept. of Computer Science and Engineering	Looks in to the complaints of SC/ST students and helps them to receive governmental support including obtaining scholarships for their education.	Twice in a Year
5	Discipline Committee	Dr. S.Kannan, Professor and Head, Dept. of Electrical and Electronics Engineering	Monitors the professional behaviour of the students. Advises students to maintain the professional code of ethics	Minimum Twice in a Year and whenever need arises

6	Malpractices Monitoring Committee	Dr. K.Basarikodi, Professor and Head, Dept. of Mathematics	It regulates and disciplines the malpractices happening in the internal assessment examination	As and when Complaints Registered
7	IITM PALS (Bennett University, Partnering Institute)	Dr.J.Jerold John Britto Associate Professor, Dept. of Mechanical Engineering	Organizes seminars and guest lectures. Encourages participation of faculty members in IITM PALS programs	As and when Required
Civil Engineering				
8	Indian Concrete Institute (ICI)	Dr.M.Indhumathi, ASP/Civil	Organizes workshops and seminars	Minimum once in a semester
9	RIT STRUCTA	Mrs.C.Subha, AP(SG)/Civil	Organizes various programmes/events for the students and also by the students.	Minimum once in a semester
10	RIT IGBC	Mrs..A.Leema Margret, AP/Civil	Organizes Events and webinars	Minimum once in a semester
11	The Institution of Engineers (India)-Student Chapter –Civil (IEI)	Mr.V.Ragavan, AP/Civil	Encourages participation in seminars, workshop, conference	Minimum once in a semester
12	Indian Society For Technical Education (ISTE)	Mr.T.Chockalingam	Provides quality training programmes to teachers and administrators of technical institutions	Minimum once in a semester
CSE				
13	Indian Society For Technical Education ISTE	Ms.S.Manjula, AP(SG)/CSE	Provides quality training programmes to teachers and administrators of technical institutions	Minimum once in a semester
14	The Institution of Engineers (India)-Student Chapter –CSE (IEI)	Mrs.S.Vijaya Amala Devi, AP/CSE	Encourages participation in seminars, workshop, conference	Minimum once in a semester

15	Computer Society Of India (CSI)	Mrs. K.Jeyakarhika, AP.CSE	Organization of various events, workshops and guest lectures	Minimum once in a semester
16	RIT CLUSTRA	Dr.R.Venkatesh, ASP/CSE	Organizes various programmes/events for the students and also by the students.	Minimum once in a semester
17	Redhat Linux	Dr.R.Venkatesh, ASP/CSE	Organization of various events	Minimum once in a semester
EEE				
18	The Institution Of Engineers (India)-Student Chapter EEE (IE)	Mrs.S.Jeyanthi, AP(SG)/EEE	Encourages participation in seminars, workshop, conference	Minimum once in a semester
19	RIT ELECTRA	Mr.A.Guna, AP/EEE	Organizes various programmes/events for the students and also by the students.	Minimum once in a semester
ECE				
20	Indian Society For Technical Education (ISTE)	Mr.P.Venkatesh, AP/ECE	Provides quality training programmes to teachers and administrators of technical institutions	Minimum once in a semester
21	The Institution of Electronics and Telecommunication Engineers (IETE)	Mrs.V.Srirenga Nachiyar, AP (SG)/ECE	Organization of various events, workshops and guest lectures	Minimum once in a semester
22	RIT ELECTRONICA	Mr.P.Venkatesh, AP/ECE	Organizes various programmes/events for the students and also by the students.	Minimum once in a semester
23	The Institution Of Engineers (India)-Student Chapter ECE (IE)	Mr.D.Gopinath, AP/ECE	Organization of various events, workshops and guest lectures	Minimum once in a semester
MECH				
24	Indian Welding Society(IWS)	Mr.S.Maharajan, AP	Organization of various events, workshops and guest lectures	Minimum once in a semester

25	Indian Society of Heating, Refrigerating & Air Conditioning Engineers (ISHRAE)	Mr.M.Sivagaminathan alias Balaji, AP(SG)/Mech	Organization of various events, workshops and guest lectures	Minimum once in a semester
26	Society of Automotive Engineers (SAE)	Mr.L.Karthikeyan, AP(S. G.)	Organization of various events, workshops and guest lectures and encourages participation in automotive competitions.	Minimum once in a semester
27	The Indian Society for Technical Education (ISTE)	Dr.P.Sureshkumar, ASP	Provides quality training programmes to teachers and administrators of technical institutions	Minimum once in a semester
28	RIT MECHANIZO	Mr.S.Kathiravan, AP	Organizes various programmes/events for the students and also by the students.	Minimum once in a semester
AI&DS				
29	RIT NeotricAI	Mrs.S.Selva Birundha, AP	Organization of various events, workshops and guest lectures	Minimum once in a semester
CSBS				
30	RIT Technebiz	Mrs.B.Yazhini, AP	Organization of various events, workshops and guest lectures	Minimum once in a semester
31	Institution of Engineers IE(I) - CSBS	Ms.K.Usharani, AP	Organization of various events, workshops and guest lectures	Minimum once in a semester
32	Computer Society of India (CSI) - CSBS	Dr.S.Erana Veerappa Dinesh, AP	Organization of various events, workshops and guest lectures	Minimum once in a semester
33	Association of Computing Machinery - CSBS	Dr.M.Gomathy Nayagam, ASP	Organization of various events, workshops and guest lectures	Minimum once in a semester
IT				
34	RIT Infotrix	Mr.S.Sakkaravarthi, AP	Organization of various events, workshops and guest lectures	Minimum once in a semester

35	Institution of Engineers IE(I)-IT	Mrs.G.Mareeswari, AP	Organization of various events, workshops and guest lectures	Minimum once in a semester
36	Computer Society of India (CSI) - IT	Mr.S.Sakkaravarthi, AP	Organization of various events, workshops and guest lectures	Minimum once in a semester
37	Association of Computing Machinery (ACM) - IT	Dr.V.Anusuya, ASP	Organization of various events, workshops and guest lectures	Minimum once in a semester
INSTITUTE				
38	Indian Society for Technical Education (ISTE)	Mr.T.Chockalingam, AP(SG)/Civil Ms.S.Manjula, AP(SG)/EEE, Mr.P.Venkatesh, AP/ECE Mr.E.Thangam,AP(SG)/EEE	Organization of various events, workshops and guest lectures	Minimum once in a semester
39	Google Developer Student Clubs (GDSC)	Mr.K.Vignesh Saravanan, AP(SG)	Organization of various events, workshops and guest lectures	Minimum once in a semester
40	Infosys Springboard	Dr.M.Gomathy Nayagam, ASP/CSBS Mr.D.Gopinath, AP/ECE	Organization of various events, workshops and guest lectures	Minimum once in a semester
41	ICTACT	Ms.P.Jothi Thilaga, AP(SG)/CSE	Organization of various events, workshops and guest lectures	Minimum once in a semester
General				
42	Women's Empowerment Club	Dr. G. Kanthimathi, Associate Professor, Chemistry Dr.B.Deepa Lakshmi, Associate Professor, ECE	Conducts motivational programs for women and ensures women's welfare in the campus	Once in a Semester
43	NSS/YRC	Dr. P. Thiruramanathan Associate Professor (S.G.), Physics	Organizes NSS camps, awareness programs, cleanliness drives and Blood donation camps	Once in a Semester

44	ECO Club	Dr. N. Revathi, Assistant Professor (S.G.), Chemistry	Organizes awareness programs regarding conserving the nature, Bird watching, Species census and Tree Plantation drives	Once in a Semester
45	Science Club	Dr. O. Senthil Kumar, Associate Professor, Chemistry	Organizes Science project exhibitions, encourages students to do innovative projects and file patents	Once in a Semester
46	Elite English Learners' Club	Mr.A.Anish Alfred Vaz, AP(SG), English	Organizes events to promote the use of English language in the campus. Trains students in communicative and soft skills	Once in a Semester
47	Maths Experts' Club	Dr. K. Basarikodi, Professor and Head, Dept. of Mathematics	Coaches students in Mathematics and helps them in improving their Mathematical aptitude	Once in a Semester
48	Tamil Mandram	Dr.R.Subasree AP(SG)/Maths	Organises events to improve the Tamil Elocution skills of students	Once in a Semester

A. Financial powers delegated to the Principal, Heads of Departments and relevant in-charges:

The institution has clearly defined policies regarding the delegation of financial powers. Heads of the departments and other Head in-charges of various departments such as library, Physical Education, NSS and Extra-curricular activities, deputy wardens etc. They prepare their department's annual budget including the estimated expenses that will be incurred for augmenting the department infrastructure and labs, for providing financial support to faculty members to attend conferences / workshops, towards the membership fee of professional societies and to conduct various programmes such as value added courses in the college. Need of any new equipment or software are also taking into the consideration during budget preparation. The budget will be authorized by the Principal, Vice-Principal, General Manager (GM(A)) and Chief Educational Officer of the Ramco group of educational institutions and subsequently it will be forwarded to the Chairman for approval. Day-to-day financial transactions are stalked by the Principal, Vice-Principal, GM(A) and Accountant.

Principal, Vice-Principal and GM(A) have the financial power to spend Rs. 2,00,000 per transaction without the need for the Chairman's approval. A Governing Council lead by the Chairman plays a major role in determining the fee structure of the students and salary revision for the faculty members with an efficient scaling mechanism. They also decide new expansion plans in terms of laboratory and infrastructural development.

The institution maintains transparency in the financial, academic and administrative functions which is done through banking transactions. Fee payment, employees' salary, scholarships and other monetary benefits for the students and payment to vendors are made transaction through the bank. The effective functioning of the financial and institutional mechanism is monitored by the Trust. The budget and expenditure is periodically audited by the certified auditing agency. The audited statements are disseminated in the website.

Delegation of financial authority is distributed as mentioned in the following table 10.17.

Table 10.17 Delegation of financial powers

Sl. No.	Positions	Maximum Limit (Rs)	Duration
1	Principal, Vice-Principal and GM (A)	2,00,000	Per transaction
2	Heads of the Departments	10,000	Per semester
3	Accountant	10,000	Per semester
4	Physical Director	5,000	Per semester
5	NSS, YRC, NCC officer	5,000	Per semester
6	Lab In-charges	5,000	Per semester
7	Hostel Deputy Warden	5,000	Per semester
8	Power House In-charge	5,000	Per semester

The utilization of financial powers for each of the assessment years

Chairman approval for the financial delegation is obtained for the academic year 2024 – 2025

and the utilization will be demonstrated.

10.1.5 Transparency and availability of correct/unambiguous information in public domain (5)

Institute Marks : 5.00

A. Information on the policies, rules, processes is to be made available on web site:

The college maintains a dynamic website and an official facebook page where announcements and information are posted regularly in the public domain for the benefit of all the students and the stake holders. The home page is <https://www.ritrjpm.ac.in/> (<https://www.ritrjpm.ac.in/>) and <https://www.facebook.com/RITRajapalayam/> (<https://www.facebook.com/RITRajapalayam/>)

- The home page of college disseminates vision and mission statements and quality policy of the college
- College website disseminates the information about Ramco group, Admission policies, information about the departments, infrastructural facilities, laboratory facilities, faculty members, placement records, recruiters, stakeholders, extracurricular, co-curricular activities and research and development activities.
- The policies, the information of mandatory disclosure and processes are disseminated in the webpage.
- Recent events or programmes conducted in the college, soft copies of weekly newsletters, details of professional societies and student achievements and awards are posted in the website.
- Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) are shared to the public in the department home page.
- The announcement of various events and programmes going to be conducted are also displayed in the home page.
- College events as well as departmental events are circulated to the students, public and alumni through the Facebook.
- College policies, rules and processes are given in the handbooks, which is circulated to students and faculty members.
- Circulars are sent periodically to the students, teaching and non-teaching faculty members regarding academic and non-academic events. If needed, they are also displayed in the main and department notice boards for general information.
- A suggestion box has been placed in the main building and hostel for the students to convey their grievances. The institution has created an individual E-mail id for the students and the faculty members to make an effective communication.
- Various events are published in newspapers.

B. Dissemination of the information about student, faculty and staff:

- Detailed profile of faculty members is posted in our college website.
- Faculty's innovative practice, student's innovative projects, co-curricular and extra curricular activities are posted in the college website.
- The students selected in the campus placement and internship is displayed through banners. The same is also displayed in the placement notice board as well as in the Facebook.
- Achievements and awards of the students are displayed through websites, news paper circulations.
- Regular meetings were conducted for the students, faculty members and non-teaching staff to share the information.
- The minutes of the meeting will be circulated among the stakeholders including faculty members, staff and the students.
- The day-to-day updates are shared through email, website, facebook etc.,
- The leave information, mark statement of the students and any emergency information is communicating to their parents through the SMS services.

Home page

<https://www.ritrjpm.ac.in/home.php> (<https://www.ritrjpm.ac.in/home.php>)

Governing Council

<https://www.ritrjpm.ac.in/about/govering-council.php> (<https://www.ritrjpm.ac.in/about/govering-council.php>)

Mandatory Disclosure

<https://www.ritrjpm.ac.in/about/mandatory-disclosure.php> (<https://www.ritrjpm.ac.in/about/mandatory-disclosure.php>)

Information brochure

<https://www.ritrjpm.ac.in/about/information-brochure.php> (<https://www.ritrjpm.ac.in/about/information-brochure.php>)

Admission Policy

<https://www.ritrjpm.ac.in/admission-/admission-policy.php> (<https://www.ritrjpm.ac.in/admission-/admission-policy.php>)

Scholarship

<https://www.ritrjpm.ac.in/admission-/scholarship-incentives.php> (<https://www.ritrjpm.ac.in/admission-/scholarship-incentives.php>)

Training and Placement

<https://www.ritrjpm.ac.in/placements/training-placement-centre.php> (<https://www.ritrjpm.ac.in/placements/training-placement-centre.php>)

Library

<https://www.ritrjpm.ac.in/infrastructure/library.php> (<https://www.ritrjpm.ac.in/infrastructure/library.php>)

Hostel

<https://www.ritrjpm.ac.in/infrastructure/hostel.php> (<https://www.ritrjpm.ac.in/infrastructure/hostel.php>)

Research

<https://www.ritrjpm.ac.in/research/publication.php> (<https://www.ritrjpm.ac.in/research/publication.php>)

Students

<https://www.ritrjpm.ac.in/club/maths-club.php> (<https://www.ritrjpm.ac.in/club/maths-club.php>)

<https://www.ritrjpm.ac.in/article/awards.php> (<https://www.ritrjpm.ac.in/article/awards.php>)

<https://www.ritrjpm.ac.in/professional-societies/iste-1.php> (<https://www.ritrjpm.ac.in/professional-societies/iste-1.php>)

Instagram page

<https://www.instagram.com/ritrajapalayam/> (<https://www.instagram.com/ritrajapalayam/>)

Whatsapp Group for Faculty and staff members (RIT – NEWS)

<https://chat.whatsapp.com/ERi0L55zQxh9e5BSuGccnA> (<https://chat.whatsapp.com/ERi0L55zQxh9e5BSuGccnA>)

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30)

Total Marks 30.00

Summary of current financial year's budget and actual expenditure incurred (for the institution exclusively) in the three previous financial years

:

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY : (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2024-25

Total Income 413479400.00				Actual expenditure(till...): 352518003.20			Total No. Of Students 2410
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
285011000.00	0	0	128468400.00	279133556.2	73384447.00	0	146273.03

Table 2 - CFYm1 2023-24

Total Income 330919455.18				Actual expenditure(till...): 309030049.13			Total No. Of Students 2026
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
219053100	0	7186657	104679698.18	266770082.13	42259967.00	0	152532.11

Table 3 - CFYm2 2022-23

Total Income 245342029.76				Actual expenditure(till...): 247995850.07			Total No. Of Students 1579
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
166226290	0	162426	78953313.76	215927822.23	32068027.84	0	157058.80

Table 4 - CFYm3 2021-22

Total Income 195253863.90				Actual expenditure(till...): 177827398.57			Total No. Of Students 1239
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
134549725	0	0	60704138.90	167723403	10103995.57	0	143524.94

Items	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till	Budgeted in 2021-22	Actual Expenses in 2021-22 till
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Infrastructure Built-Up	57500000.00	47729514.88	20000000.00	18755298.00	17000000.00	15906723.84	5000000.00	4335370.74
Library	2875000.00	2729119.05	2700000.00	2599161.00	1400000.00	1292886.00	510000.00	504644.00
Laboratory equipment	19550000.00	17133912.60	16500000.00	16318012.00	16500000.00	16161304.00	6000000.00	5768624.83
Laboratory consumables	2875000.00	2875000.00	2500000.00	2494239.00	2300000.00	2195624.00	2500000.00	2347025.00
Teaching and non-teaching staff salary	157738232.00	130798298.40	125000000.00	123940808.00	110000000.00	108844262.00	101000000.00	100230751.00
Maintenance and spares	24725000.00	16372086.15	11500000.00	9857559.00	10500000.00	10203316.00	7500000.00	6951996.88
R&D	14819655.55	8521019.85	10000000.00	8920137	1000000.00	903400.00	700000.00	395704.00
Training and Travel	11500000.00	10368124.20	10000000.00	9712266.00	9000000.00	8647238.50	5100000.00	5091325.00
Miscellaneous Expenses	57500000.00	51985241.94	43000000.00	41647790.21	25000000.00	23397833.86	20000000.00	18167204.25
Others, specify	74750000.00	64261735.55	75000000.00	74784778.92	61000000.00	60443261.87	35000000.00	34034753.03
Total	423832887.55	352774052.62	316200000.00	309030049.13	253700000.00	247995850.07	183310000.00	177827398.73

10.2.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

A. Quantum of budget allocation for three years:

Adequate budget is allocated and expenditure is monitored. In no circumstances, teaching learning process is made to suffer because of fund shortage. The following Table 10.23 represents the adequate fund flow in each financial year.

Table 10.23 Percentage of budget allocation for the assessment years

Sl. No.	Assessment Year	Budget Estimate in Lakhs (Rs.)	Budget Allocated in Lakhs (Rs.)	Adequate/non adequate	Percentage of budget allocation
1	2024-2025	43,00,00,000.00	42,38,32,887.60	Adequate	98.56%
2	2023-2024	32,00,00,000.00	316200000.00	Adequate	98.81%
3	2022-2023	26,00,00,000.00	253700000.00	Adequate	97.57%
4	2021-2022	19,00,00,000.00	183310000.00	Adequate	96.47%

B. Justification of budget allocated for three years:**Infrastructure and Major Equipment Purchase:**

In the beginning of every academic year, each department prepares a budget under the heads of Capital goods, Recurring items, Research and Development (R&D), Training and Travel (Faculty and students), and miscellaneous expenses. The estimated budget of all the departments is consolidated and sent to the Chairman's approval.

The infrastructural development and expansion plans will be discussed in college academic committee, IQAC and planning and monitoring boards and formally recommended to Chairman and Governing Council. On approval from GC, the budget will be allocated and spent.

The cost under this heading will be covered through Raja Charity Trust which is the main contributor in creating the college infrastructure and maintaining it.

From the sanctioned approval, the departments will get their share for the purchase of equipment and other infrastructural development of the respective departments.

As of today, the requested and proposed budget were sanctioned and sufficiently funded by the management and trust for the development of the college. The facilities are developed as per the statutory requirements of AICTE and Anna University. Besides, the facilities were developed and funded by keeping in mind the holistic development of the students.

Employee Cost:

This budget includes salary, wages and employers contribution to PF & ESI, pre-employment medical expenses, welfare schemes of the employee such as fee concession, perks and medical insurance (mediclaime). College right from inception maintains student-staff ratio as per norms. The salary is provided as per the statutory requirements. Major portion of the funds were allotted under this head.

Student Cost:

The students related cost is also adequately funded from the income. This expenditure is categorized as follows. It does not include training and placement cost which is separately funded.

Figure 10.15 Student Cost (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Academic Expenses:

Academic expenses for both faculty members and students are also met from the generated income. The various heads are

Figure 10.16 Academic Expenses (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Co-Curricular

This includes expenses pertaining to organization of training programmes, workshops, symposium, competition to students and faculty members.

Extra-Curricular:

This budget covers procurement of sports good, expenses for participation in sports events, motivational lectures, conducting International Chess tournament and other career guidance, entrepreneurship and counselling activities.

Training and Placement:

Training and placement expenses are also estimated exclusively at the beginning of the year to meet out the adequacy of training. It enables the students to achieve higher placement records.

Governance/Administration:

To meet out the statutory expenses of Anna University, AICTE, consortium of self-financing engineering colleges, accreditation (NAAC and NBA), QMS

Figure 10.17 Governance & Admin (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Regular Expenses and Maintenance:

At the beginning of every year, GM(A) prepares a estimated budget for the regular and maintenance expenses and the consolidated budget proposal is sent for the Chairman's approval.

Approved budget amount is utilized for the regular expenses and maintenance work. This budget head includes the following titles.

Figure 10.18 General Amenities (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Budget preparation and Approval process in RIT

- The department HODs inform about the circular to department coordinators of various association and activities. The department coordinators prepare budget proposal based on their academic plan and submits for review of HoD in the Department Review Meeting (DRM). The HoD reviews the budget proposal and justifies the requirement with the department coordinators. After careful scrutiny, it is submitted to College Academic Committee (CAC) for approval.
- The Physical Education Director of the college prepares a budget approval considering activities planned for the following academic year. The physical director consults with team captains of different games and receives their requirement. After reviewing all the requests, the physical director prepares the budget proposal and submit it to the CAC for approval.
- The Training and Placement officer prepares a budget proposal required for the academic year by considering Training and Travel expenses of trainers and interviewers, travel expenses of industry visits, hospitality expenses etc. The budget prepared is submitted to CAC for approval.
- The college librarian prepares a budget by considering changes in university regulation, requests from HoDs and faculty members of all the departments, request from research coordinator of college regarding journals, e-journals and educational magazines requirements. After consolidating all the requirements, the Librarian then submits the budget proposal to CAC for approval.
- The General Manager – Administration (GM(A)) of the college prepares a budget proposal by considering the request from Deputy wardens of boys and girls hostel, transport officer, electrical maintenance supervisor. After consolidating all the requirements, GM(A) then submits the budget proposal to CAC for approval.
- Budget requests received from all the departments, GM(A), Librarian, Physical Director are consolidated and submitted to CAC members for approval. In the CAC meeting, the entire budget proposal is subjected to detailed discussion. After discussion, the budget proposal is recommended to Planning and Monitoring board for approval with appropriate changes if required. If any changes or modifications are suggested by the committee then the proposals are sent to the concerned department for incorporating the suggestion and then it is forwarded for approval to Planning and Monitoring Board.
- The planning and monitoring board after reviewing the entire budget proposal recommends the budget proposals or forward it to the approval from Governing Council. The budget proposal not recommended by the planning and monitoring board is sent to CAC committee for further review.
- The budget approved by Governing Council is then communicated to all the HODs of the department, GM(A), the Physical Director and Librarian. The budget proposal not approved by Governing Council is forwarded to Planning and Monitoring Board with necessary inputs to make necessary modifications in the proposal.

Figure 10.19 Budget preparation and approval process in RIT (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

10.2.2 Utilization of allocated funds (15)**A. Budget Utilization for Three Years:**

Our institution has effectively utilized the funds allocated for the purpose as shown below

Table 10.24 Percentage of budget utilization (Institute Level)

Sl. No.	Assessment Year	Budget Allocated (Rs.)	Actual Expenditure (Rs.)	Percentage of utilization
1	2024-2025	423832887.55	35,25,18,003.60*	83.17%*
2	2023-2024	316200000.00	309030049.13	97.73%
3	2022-2023	253700000.00	247995850.07	97.75%
4	2021-2022	183310000.00	177827398.73	97%

*Till November 2024

The details of expenses utilized under different heads are explained as follows

Infrastructure, Library, Laboratory Equipment and other Common Capital Items

The expenditure related to these major items is utilized through Raja Charity Trust under which Ramco Institute of Technology is functioning. The fund is additionally invested by the Trust as part of CSR for the benefit of students and overall growth of the institutions besides fee collections. Separate audited statements for these expenses are maintained by the Trust. The student fee collection is utilized only for the following expenses.

Laboratory Consumables

The purchase power below Rs. 2,00,000.00 per transaction is within the purview of Principal, Vice-principal and GM(A). Most of the required laboratory consumables are purchased and allocated amount is utilized properly.

Teaching and Non-Teaching Salary

The expenditure related to salary of employee is allocated and utilized based on the yearly requirements. Major portion of the student fee collection is spent towards the employee's salary.

Maintenance and Spares

Sufficient funds are also allocated and utilized for the maintenance of various items such as electricity, water resource management, sanitary requirements, maintenance and service of laboratory equipment, greenery maintenance, hostel facilities, food etc.,

R&D

The utilization for R&D is presented in Table 10.22. We gradually promote the research and developmental activities in our college and try to improvise R&D map of the college.

Training and Travel

The allocated fund is effectively utilized for both the faculty and students' training and travel activities. The student supportive activities such as value added course, placement training, co-curricular and extra-curricular activities etc., are also utilized from the part of the students' fee collection.

Miscellaneous expenses

The other expenses such as electricity charges, telephone and postage, printing and stationery, audit and accountancy charges, advertisement, interest to bank, student scholarship etc., are utilized under this head.

Other expenses

The expenses related to hostel and transport is mentioned under this head.

10.2.3 Availability of the audited statements on the institute's website (5)**A. Availability of Audited statements on website:**

The audited statements are available in the Institution's website

Table 10.25 Audited Statements

Financial Year	Availability of Statement	URL
CFYm1 2023 - 2024	Yes	https://www.ritrjpm.ac.in/images/NAAC/NAAC_II/6.4.1_Audited_Statements_five_years.pdf
CFYm2 2022 - 2023	Yes	https://www.ritrjpm.ac.in/images/NAAC/NAAC_II/6.4.1_Audited_Statements_five_years.pdf
CFYm3 2021 - 2022	Yes	https://www.ritrjpm.ac.in/images/NAAC/NAAC_II/6.4.1_Audited_Statements_five_years.pdf

https://www.ritrjpm.ac.in/images/NAAC%20DVV/AQAR_2021-22/4.1.4_Expenditure_excluding_salary_Infra_Augumentation.pdf (https://www.ritrjpm.ac.in/images/NAAC%20DVV/AQAR_2021-22/4.1.4_Expenditure_excluding_salary_Infra_Augumentation.pdf)

Figure 10.20 : Balance Sheet for CFYm1 2023 – 2024 (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.21: Balance Sheet for CFYm1 2022 – 2023 (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

Figure 10.22: Balance Sheet for CFYm1 2021 – 2022 (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf)

10.3 Program Specific Budget Allocation, Utilization (30)

Total Marks 30.00

Institute Marks :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY: (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2024-25

6526634.00		Actual expenditure (till...): 2646608.00		Total No. Of Students 164
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
58,02,098.00	7,24,536.00	13,85,980.00	12,60,628.00	16137.85

Table 2 :: CFYm1 2023-24

1199879.00		Actual expenditure (till...): 1080676.35		Total No. Of Students 144
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
8,94,670.00	3,05,209.00	8,60,515.00	2,20,161.35	7504.70

Table 3 :: CFYm2 2022-23

1790862.00		Actual expenditure (till...): 1641420.00		Total No. Of Students 115
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
15,00,537.00	2,90,325.00	14,53,193.00	1,88,227.00	14273.22

Table 4 :: CFYm3 2021-22

518170.00		Actual expenditure (till...): 468967.00		Total No. Of Students 103
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
4,17,956.00	1,00,214.00	3,93,796.00	75,171.00	4553.08

Items	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till	Budgeted in 2021-22	Actual Expenses in 2021-22 till
Laboratory equipment	2592970.00	1200980.00	717670.00	683515.00	1500537.00	1453193.00	152956.00	128796.00
Software	177000.00	177000.00	177000.00	177000.00	0.00	0.00	265000.00	265000.00

Laboratory consumable	46250.00	5196.00	39109.00	37292.35	96045.00	79859.00	19764.00	16330.00
Maintenance and spares	222286.00	156842.00	56100.00	55960.00	34280.00	30174.00	0.00	0.00
R & D	3188128.00	8000.00	65000.00	64000.00	40000.00	8500.00	15000.00	0.00
Training and Travel	220000.00	54920.00	130000.00	56129.00	105000.00	65316.00	50000.00	48225.00
Miscellaneous Expenses	80000.00	1043670.00	15000.00	6780.00	15000.00	4378.00	15450.00	10616.00
Total	6526634.00	2646608.00	1199879.00	1080676.35	1790862.00	1641420.00	518170.00	468967.00

10.3.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

10.3.1 Adequacy of budget allocation (10)**Table 10.26 Budget allocation**

Sl. No.	Assessment Year	Budget in (Rs.)	Expenditure in (Rs.)	Adequate/Non Adequate	Percentage of utilization
1	2024-2025	65,26,634.00	26,46,608.00*	Adequate	40.55%*
2	2023-2024	11,99,879.00	10,80,676.35	Adequate	90.07%
3	2022-2023	17,90,862.00	16,41,420.00	Adequate	91.66%
4	2021-2022	5,18,170.00	4,68,967.00	Adequate	90.50%

*Till November 2024

In the beginning of every academic year, the department budget is prepared under the heads of Capital Goods, Recurring Items, Research and Development (R&D), Training and Travel (Faculty and students) and miscellaneous Expenses.

- The Capital goods budget consists of lab equipment, software, tools and infrastructure.
- The budget for recurring items comprises of lab consumables, maintenance, services, spares, Annual Maintenance Contract (AMC) and Licenses.
- The budget allocated for attending research events (Faculty & Students), organizing research programs (Conferences / Workshops / Seminars / Special lecture / Research Development Programme, purchase of Journals, Magazines and books / standards / code books / encyclopedia / hand books) are accounted under the head of R&D. Further, money for research projects, patent filing, incentives for research achievements, procuring equipment's and establishing advanced R&D laboratories for carrying out research activities inside the campus are covered under the R&D head.
- A separate head, Training and Travel is allocated to enhance the competency of faculty members and students. Under the Training and Travel head, the sponsorship is provided the following:
 - To attend FDP, Short Term Training Programme (STTP) and other training programs.
 - Online Course Fee
 - To conduct Value Added Courses (VAC).
 - To participate in Various National Level Competitions by Students.
 - The Miscellaneous expenses covers, the developmental initiatives such as RIT ED-Cell, RIT-Clustra (CSE Department Association), ICTACT, RIT-CSI, Vehicle design competition registration and IITM PALS. Microsoft license/ Antivirus / Firewall and other expenses are also brought under miscellaneous expenses.
 - The allocation & adequacy of the budget is discussed in the department review meeting. It is submitted by the Head of the Department to the Principal through General Manager-Administration (GM-A) followed by the Vice Principal. The proposed budget for each department is discussed in the College Academic Committee (CAC) meeting.

Principal recommends the budget to the Chief Executive Officer (CEO) & the Chairman for approval. Budget preparation and approval process is shown in the figure 10.23

Figure 10.23 Budget preparation and approval process in RIT (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

10.3.2 Utilization of allocated funds (20)

Table 10.32 Percentage of budget utilization (Program Level)

Sl. No.	Assessment Year	Budget in (Rs.)	Actual Expenditure in (Rs.)	Percentage of Utilization
1	2024-2025	65,26,634.00	26,46,608.00*	40.55%*
2	2023-2024	11,99,879.00	10,80,676.35	90.07%
3	2022-2023	17,90,862.00	16,41,420.00	91.66%
4	2021-2022	5,18,170.00	4,68,967.00	90.50%

*Till November 2024

On receiving the Chairman approval, the allocated fund is utilized under the following heads, are done with the support of purchase committee.

- Capital and Consumable Items.
- Annual Maintenance Contract.
- Co-curricular and Extra-curricular Activities.
- Research and Development.
- Training and Travel.
- Miscellaneous Expenses.

The purchase committee is constituted with Principal, GM (A), Accountant and concern HOD/ concern Department In-charge/Librarian/P.Ed., for purchasing capital items, consumable items and other general purchase related things of the institution. The purchase procedure followed in our institution is shown in figure 10.24.

Procedure for Capital and Consumable Items Fund Utilization:

- HOD/Department In-charge/Librarian/P.Ed., finalize the specifications for the equipment/ consumables to be purchased.
- A request from the institution is raised to the vendors prepared and maintained by the purchase committee based on the quality, delivery and service.
- The vendors send the quotation through sealed cover or email to the concern department/incharge.
- After receiving the Quotations, (at least from three reputed vendors) it is forwarded to the purchase committee for further processing. Based on the Quotations, Comparative statement is prepared by the Lab In-charge or concerned department.
- The vendors are called for negotiation meeting with the purchase committee. After negotiation, Final comparative statement is prepared if required.
- The purchase order is prepared with terms and conditions.
- The purchase committee follows the vendor to ensure timely delivery.
- Once the items are delivered, the working condition of the items are verified by the concerned Lab in-charges and department heads.
- The details of equipment/items are entered in respective stock register.
- Finally payment approval is released.
- In case of any discrepancy, the received items are send back to the vendors for replacement or rejected as decided by the purchase committee.

Figure 10.24: Purchase Procedure (Link:

https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf (https://www.ritrjpm.ac.in/images/civil/2024-2025/NBA/Civil_NBA_Criteria_X.pdf))

Procedure for Annual Maintenance Contract Fund Utilization:

- The details of annual maintenance contract for various equipment's are sent to the purchase committee for further follow-up action.
- The department has to maintain the list of service providers and monitor the services provided.
- The effectiveness of the suppliers at the end of each academic year is measured based on the quality, delivery, service and support provided and the same is reported to the purchase committee.
- Based on the feedback, the lists of approved suppliers are updated.

Procedure for Co-Curricular and Extra-curricular Activities Fund Utilization:

- The respective faculty coordinator prepares the annual budget based on proposed annual plan.
- The proposed estimated budget is submitted to The Principal for allotment by the respective coordinator through GM (A) and Vice principal.
- After allotment based on due considerations, it is forwarded to CEO/chairman for approval.
- After getting the approval, the respective coordinator or in-charge utilize the amount in a sequential manner as per their annual plan with proper sanction by the Principal.
- As per the annual plan, the activities are conducted based on the budget allotted.
- After the conduct of each activity, the utilization is submitted to the coordinator with the following document:
 1. Expenditure along with bills.
 2. Report about the event organized.
 3. Copy of approval to be enclosed for ready reference.

Procedure for Research and Development Fund Utilization:

- The allotted budget under the head of R&D is utilized to promote R&D culture by establishing advanced laboratories and procuring the needed items.
- The intellectual property of the institute is preserved by filing a patent. The patent filing expenditures are funded by the institute.
- The research promotional activities such as publishing papers in the Journals and presenting papers in conferences are met out by the institute itself under the research promotion expenses head.
- The partial financial support to the research oriented student project is awarded under the head of RIT seed money.

Procedure for Training and Travel Fund Utilization

- The Head of the Department prepares the annual budget based on proposed annual plan and recommendations of faculty performance appraisal.
- The proposed estimated budget is submitted to The Principal for allotment by the Head of the Department through GM (A) and Vice principal.
- After allotment based on due considerations, it is forwarded to CEO/Chairman for approval.
- For getting permission to participate in various programs the respective faculty should submit permission request letter to the Principal through the respective HOD, enclosed the following.
 1. Brochure of FDP/Workshop/STTP
 2. Permission letter to use the amount under the Training and Travel expense.
- After getting the approval, the faculties utilize the amount for meeting out registration fees, Travel expenses and boarding charges of FDP/Workshop/STTP as per their annual with proper sanction by the Principal.
- After attending the FDP/workshop/ STTP, the faculty submits the utilization details to the department with the following documents.
 1. Expenditure along with bills
 2. Participation certificate provided by the organizing institute
 3. Report of FDP/workshop/ STTP attended.
- Copy of approval to be enclosed for ready reference

Procedure for Miscellaneous expenses Fund Utilization:

The expenditure towards RIT ED-Cell, RIT-Clustra, RIT-CSI, ICTACT, Vehicle design competition registration, IITM PALS partnership institute registration expenses, Microsoft lice Antivirus firewall expenses, SMS charges are categorized as miscellaneous expenses.

10.4.1 Quality of learning resources (hard/soft) (10)

Indicate whether zero deficiency report was received by the institution for all the assessment years. Effective availability / purchase records and utilization of facilities

Answer: RIT Library follows AICTE norms in the matters of purchasing books, journals and e-journals and satisfies the norms prescribed in every academic year. All learning resources are given free access to students and faculty members, to facilitate effective learning

As per AICTE Norms (Books)	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Books to be added Every Year	1000	1000	1000	500	500	500
Details of Books Added (year wise)	1010	1106	1349	815	1153	72 books added (up to November 2024)

As per AICTE Norms (Journals)	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
6 Journals for Each Branch	36	36	36	36	48	48
Journals Subscribed	66	47	55	50	70	70

Library expenditure on books, journals, magazines and e-journals

Sl.No	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
	Estimated Budget	6,00,000	5,00,000	8,00,000	7,00,000	25,00,000	
1	Books	352349	287235	515945	373309	621032	27000 (Upto Oct 2024)
2	Printed Journals	129535	99639	229183	178297	329268	372573
3	Magazines	22416	26933	30000	38171	55107	66146
4	E-Journals	13570	13570	13570	12420	1290480	
	Total Expenditure (In Rupees)	517870	427377	788698	602197	2295887	438719 (Upto Oct 2024)

Library Utilization Report: (Academic Year wise)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25

User Report	30041	34065	37179	32276	25903	12046+649
Issue Report	4061	5855	7629	7553	5238	986
Digital Library Report	5653	6129	6450	3751	3918	1750

Quality of learning resources (Hard/Soft)**Availability of Resources (Hard):****Books (As on November 2024)**

SI.No.	Department	Titles	Volumes
1	Civil Engineering	519	2254
2	Computer Science and Engineering	699	2929
3	Electrical and Electronics Engineering	550	2397
4	Electronics and Communication Engineering	711	3421
5	Mechanical Engineering	797	4406
6	B.Tech Artificial Intelligence & Data Science	101	893
7	B.Tech Information Technology	79	482
8	B.Tech Computer Science and Business Systems	72	400
9	Science & Humanities	831	3026
10	General	927	1793
	TOTAL	5286	22001

PRINTED JOURNALS

SI. No.	Departments	No.of Journals
1	Civil Engineering	6
2	Computer Science and Engineering	6
3	Electrical & Electronics Engineering	7
4	Electronics & Communication Engineering	11
5	Mechanical Engineering	12
6	B.Tech. Artificial Intelligence & Data Science	8
7	B.Tech Information Technology	7
8	B.Tech Computer Science and Business Systems	8
9	Science & Humanities	5
	TOTAL	70

E-Journals (International Journals)**IEEE ASPP – 195 Titles****Science Direct – 275 Titles (Engineering + Computer Science)****DELNET – 2000 Titles (Science + Engineering)****Institute of Engineers****E-Books - 6200 E-books****Magazines - 39 Magazines****Newspapers - 9 Dailies****Back Volumes - 574****Projects - 962****Book Bank - 320****Institutional Membership**

1. DELNET (Developing Library Network)
2. IEI (Institute of Engineers India)
3. NDL (National Digital Library)
4. CMTI (Central Manufacturing Technology Institute)

Availability of Resources (Soft):

Digital Library Services	Yes
Internet	Yes / 230 Mbps
Total number of computers for public access	25
CD's	1025
Number of e-books	6500 (Engineering, Science, Competitive Exam and General Books)
Availability of exclusive server	Yes
Availability of Internet / Intranet	Yes
Availability of Reading Room	Yes
Number of users per day	120

<p>Digital Library provides e-journals access for students and faculty members</p>	<p>IEEE ASPP – 195 Titles - https://ieeexplore.ieee.org/Xplore/home.jsp</p> <p>ScienceDirect, 275 Titles - https://www.sciencedirect.com/</p> <p>Institute of Engineers - https://www.ieindia.org/index.aspx (https://www.ieindia.org/index.aspx)</p> <p>DELNET - https://discovery.delnet.in/</p> <p>National Digital Library of India. https://ndl.iitkgp.ac.in/ (https://ndl.iitkgp.ac.in/)</p> <p>IEEE ASPP – 195 Titles</p> <p>ScienceDirect, 275 Titles</p> <p>Institute of Engineers – 5 Titles</p> <p>Delnet - Access to 2,50,00,000+ Books available for loan / 40,000+ list of Journals 5,000+ Full-text E-journals / 1,00,000+ Thesis and Dissertations</p> <p>National Digital Library - 7 Lakh e- Lectures / 3 Lakh Articles / 95000+ Thesis / Manuscripts / 18,000+ Video Lectures</p>
<p>Video Courses</p>	<p>NPTEL Courses – 1200 videos, Swayam, MOOC</p> <p>NDL(National Digital Library)</p>
<p>Average number of login to e-resources:</p>	<p>50</p>
<p>Students and faculty members can access the e-journals/e-books with using internet of library</p>	

General Information

<p>Library Area</p>	<p>404 Sq.m</p>
<p>No of seats in reading space</p>	<p>150</p>
<p>Number of users per day</p>	<p>120 (per day)</p>
<p>Number of users (Book Issue) per day</p>	<p>50 (per day)</p>

Library Timing	Working Days : 09.00 am – 06.30 pm
	Holidays : 09.00 am – 01.00 pm
	During Examination : 09.00 am – 06.30 pm
	During vacation : 09.00 am - 05.00 pm
Barcoding facility	Yes

Accessibility to Students:

- Learning materials, reference books, printed journals, magazines and books for competitive examinations and CDs are provided.
- College library is equipped with latest editions of university prescribed books.
- Central computing LAN, internet and digital library facilities are also available.
- Reference
- Web OPAC
- Lending
- Current Awareness Services
- Reprography
- Internet Access
- E-Journals Access
- NPTEL Videos Access
- Inter Library Loan
- User orientation
- Newspaper clippings
- Question bank
- Back Volumes
- Rare Book Collections
- Book Bank
- Information Retrieval / Print out / Scanning

Support rendered to students for self-learning activities:

- NPTEL Videos
- E-Journals Access
- E-Books Access (Available in local server \\ritmem03)
- National Digital Library resource access
- Online courses
- Web OPAC (Link : <http://172.16.1.104>)

Book Bank Facility for Students

Students from economically weaker sections and SC/ST community are eligible to borrow three books from the book bank and they can keep them for a semester.

Library Automation Software

Library materials and services are automated using KOHA Integrated Library Automation Software. All the transactions are fully computerized. The bar-coded ID and the Scanner are used for charging and discharging the books and **Web OPAC (Link : <http://172.16.1.104>)** facilities also available.

Remote Access Facility

The RIT Central Library implemented INFED (Indian Access Management Federation) of provided by INFLIBNET (Information Library Network) in Gujarat, India.

The Shibboleth software is used to on a remote access server to give remote access facility to access subscribed e-resources.

Now we can access these subscribed e-resources from outside of the campus 24/7, with you received notification e-mail with login credentials are username and password by using the below link.

INFED Remote Access Link : <https://idp.ritrjpm.edu.in/> (<http://idp.ritrjpm.edu.in/>)

Federated searching tools to search articles in multiple databases

Yes, the library has multiple federated searching tools has a large and constantly growing collection of online resources such as NPTEL, e-journals, e-books, and so on. These e-resources are accessible anywhere in the campus at any time. We are using campus wide unlimited access.

Number of information literacy trainings organized:

Fresher's library orientation program is conducted every year.

Organized Workshop on Writing Research Papers, Citation Analysis, Plagiarism awareness, Getting Patent & Copyright.

E-Journals access training was given to users' community.

Overall Library Resources Details (Academic Year wise)

Particulars	Academic Year											
	2019-20		2020-21		2021-22		2022-23		2023-24		2024-25	
Books	Titles	Volumes	Titles	Volumes	Titles	Volumes	Titles	Volumes	Titles	Volumes	Titles	Volumes
Added Books	407	1010	346	1106	114	1349	92	815	238	1153	23	72
Total	4366	17530	4712	18636	5058	19985	5172	20800	5264	21953	5287	22025 (Upto October2024)
Printed Journals	66		47		55		50		70		70	
Magazines	35		35		35		40		40		40	

Subscribed e-journals	DELNET	DELNET	DELNET	DELNET	IEEE(ASPP) 197 Titles	IEEE(ASPP) 197 Titles (Valid upto Dec 2024 - To be renew)
	IE -5 Titles	IE -5 Titles	IE -5 Titles	IE -5 Titles	ScienceDirect 275 Titles	ScienceDirect 275 Titles (Valid upto March 2025 - To be renew)
	NDL	NDL	NDL	NDL	DELNET	DELNET (To be renew)
					IE -5 Titles	IE -5 Titles
					NDL	NDL Quillbot (Valid upto May 2025 - To be renew)

Library Committee:

The Library Committee is responsible for advising, developing and monitoring policies on information storage and retrieval and other library issues within the Institute. The committee provides advises in the matters of policy-making constantly gives suggestions for improvements in service provision. The committee members are listed in table.

S. No	Library Committee Members	Designation	
1	Dr.N. Karthikeyan,	Chairperson	HoD/Physics
2	R.Chandran	Convener	Librarian (Senior)
3	Mrs.C.Subha	Members	AP (SG)/CIVIL
4	Mrs. Jeyageetha, K (AP)	Members	AP /CSE
5	Mr.E.Thangam	Members	AP (SG)/EEE
6	Mrs. R. Ramalakshmi	Members	AP (SG) / ECE
7	Mr.G.Praburam	Members	AP (SG)/MECH
8	Ms.Amuthachenthiru	Members	AP/ AI&DS
9	Mr. S. Sakkaravarthi	Members	AP/ IT
10	Mrs.B.Yazhini, (AP)	Members	AP/ CSBS
11	Mr.K.Subramanian	Members	AP (SG)/Maths
12	Dr. R.Srinivasan	Members	ASP/PHYSICS

13	Dr.N. Revathi	Members	ASP/CHEMISTRY
14	Dr.Anish Alfred Vaz	Members	AP (SG)/ENG
Student Members			
1	Kiruthika K	23CE015	I Civil
2	Dharmendra C	22CE005	II Civil
3	Ambika A	21CE008	III/Civil
4	Arundevi M	23CS005	I/CSE A
5	Sarveshwar P	23CS110	I/CSE B
6	Muthu Shankar M	22CS027	II/CSE A
7	Karthikeyan K	22CS022	II/CSE B
8	Muthulakshmi J	21CS029	III/CSE
9	Deepa Karthikeyan S	23EE009	I/EEE
10	Nagussan N	22EE028	II/EEE
11	Govindharaj K	21EE020	III/EEE
12	Kopperundevi N	21EE031	III/EEE
13	Thivya M	21EE053	III/EEE
14	Dhaanya S	23EC024	I/ECE A
15	Yashvanthra Prabha K	23EC121	I/ECE B
16	Benny Joshua S	22EC019	II/ECE A
17	Logamadhureswaran S	22EC054	II/ECE A
18	Sowmiya R	22EC093	II/ECE B
19	Madhumitha P	21EC050	III/ECE A
20	Sundar M	21EC108	III/ECE B
21	Thiyagarajan C	23ME051	I/MECH
22	Sanjithkumar P	22ME030	II/MECH
23	Harish Krishnan R	21ME014	III/MECH
24	Kesavan G	23AD023	I/AD A
25	Selvabalaji S	23AD109	I/AD B
26	Swetha R	22AD054	II AD A
27	Bala Amithesh S	22AD068	II AD B
28	Vishakan N	21AD060	III AD

29	Kirran S T	23IT025	I/IT
30	Swathi S	22IT051	II/IT
31	Manojkumar M	23CB024	I/CSBS
32	Rumana Nachiyar M	22CB034	II/CSBS

Best Practices in RIT Library

- Library Orientation Programme for all I Year students.
- Computerization for library automation software.
- Supporting faculty members and student's research and projects.
- Providing "Best Library User Award" for students and faculty members.
- Conducting workshop for students and faculty members (Internal and External)
- Organizing book exhibitions.
- Displaying newspaper clippings that are relevant to higher education.
- Conducting student Lecture Series
- Posting updates in the WhatsApp Group (**RIT-E-Library**) and providing E-Learning Materials like E-Newspapers, E-Magazines, E-Books, Civil Service, Competitive Exam Materials, Employment News, and information regarding Conferences and Workshops.
- Career development / employment services.
- Getting feedback from students and taking necessary actions.

Events Organized by the Library:

Sl. No.	Event	Period	Resource Persons	Academic Year
1.	National Level Webinar on Open Access Educational E-Resources	06 th June 2020.	Mr.J.Arumugam, Librarian, PSG College of Technology, Coimbatore.	2020-21
2.	Two Day National Level Webinar on Scholarly Communications	09.06.2020 & 10.06.2020	Dr.R.Sevukan, Associate Professor,DLIS. Pondicherry University, Dr.L.Leeladharan, Assistant Professor, DLIS. Pondicherry University, Dr.B.Jayapragash, Associate Professor, DLIS, Bharathidasan University.	2020-21
3.	Webinar on "Effective and efficient writing research paper for Web of science & Scopus indexed journals & conference papers effectively & efficiently using Typeset Research Studio	29.08.2020	Mr.Zeeshan Ahamed, Nexus Subscriptions	2020-21

4.	Awareness Programme on NDLI Resources	19 th July 2021	Dr.M.Kumaran., Assistant Librarian, Tamil Nadu National Law University, Trichy – 620027.	2021-22
5.	Guest Lecture - வாழ்வை வளமாக்கும் வாசிப்பு.	26 th Oct 2021	Mr. Sankaranarayanan, Journalist/Freelancer/Author & Trainer	2021-22
6.	Motivational Lecture on “Read to Lead”	30 th Oct 2021	Dr.N.Karthikeyan, Assistant Professor(Sr), HoD/Physics, Ramco Institute of Technology	2021-22
7.	Motivational Lecture on “Emotional Intelligence : Judge Yourself”	01 st Nov 2021	Dr.V.Venkatramanan, Principal, Rajapalayam Raju’s College	2021-22
8.	National Level Webinar on Strategies and Strategies to Write Research Proposal and Funding Opportunities in India – An Overview	08 th Dec 2021	Dr. T. KUBENDRAN, M.Sc., M.Phil., Ph.D. Scientist - C High Altitude Regional Centre, Zoological Survey of India, Ministry of Environment, Forest & Climate Change Government of India Sapruon, Solan – 173 211, Himachal Pradesh, INDIA	2021-22
9.	Motivational Lecture on Read to Lead	31.10.2022 01.11.2022	Ms. Thivya, II/EEE	2022-23
10.	SAKSHAM 2023 : Energy Conservation towards “Net Zero”	10.05.2023	Dr.N.Karthikeyan, ASP, Head & Physics	2022-23

11.	Two Day National Level Capacity Building Programme on Scholarly Writing : Research Publications, Citation Analysis, Anti Plagiarism, Reference Management Tools and Strategies of Copyright and Patent (IPR)	04-05, August, 2023	<p>Dr. R. Sevukan Pondicherry University, Pondicherry</p> <p>Dr. K. S. Sowmiya Rani Editor, Cactus Communications, Founder Sowmis_AWW incubated at NSRCEL</p> <p>Dr. S. Shankar Head, Research & Development Cell, Dept.of Mechatronics, Kongu Engineering College, Erode</p> <p>Dr. J. Arumugam Librarian, PSG College of Technology, Coimbatore</p> <p>Dr. A. Balaji Ganesh Director-Founder, IPEVER LLP, Director-Co-Founder, Emsensing Technologies Private Limited, Chennai</p> <p>Dr. K. Karthikeyan ASP, Dept.of EEE. RIT</p> <p>Mr. S. Valai Ganesh, AP(SG), Dept.of Mechanical Engineering, RIT</p> <p>Mr. R. Arun Kumar , AP(SG), Dept.of Mechanical Engineering, RIT</p>	2023-24
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12.	Motivational Talk "Power of Reading"	26.09.2023	Dr. Vasudeva Raja Latha Librarian Rajpalayam Rajus College	2023-24
13.	IEEE Xplore Digital Library Training Programme	28.02.2024	Mr.Nanda Lal, T S Senior Training Manager EBSCO Information Services & IEEE	2023-24
14.	Webinar on "QUILLBOT : An Effective Writing Tool"	28.03.2024	Mr. Ashish K Das Business Development Manger QUILLBOT	2023-24
15	One Day Workshop on AI for Faculty Members	29.07.2024	Ms. Ananthi, Deputy Manager, (TamilNadu Apex Skill Development Centre for Logistics)	2024-25
16	An Art of Writing Research Proposals for Various Funding Agencies	02.08.2024	Prof. N. Vijayan, Sr.Principal Scientist, CSIR, New Delhi	2024-25
17	Celebrations of National Librarian's Day	12.08.2024	Event – The Books Hunt Authors Clue Challenge	2024-25
18	Motivational Talk "From Failure to Success"	10.09.2024	Thiru. V. Ramshingh Motivational Speaker & Trainer, NLP P	2024-25
19	Celebrations of Libraries Remember Day	13.09.2024	Event - – Puzzle Library Exit Password Game	2024-25

10.4.2 Internet (10)

Institute Marks : 10.00

Name of the Internet provider	BSNL and Airtel
Available band width	Yes, 1GBPS and 200MBPS provided by BSNL and 200MBPS provided by Airtel
WiFi availability	Yes
Internet access in labs, classrooms, library and offices of all Departments	Yes, 1GBPS and 200MBPS
Security arrangements	Sophos XGS4300 firewall

Annexure I
(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

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

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1	Communicate and present civil engineering projects effectively
PSO2	Use the techniques, Skills and modern engineering tools necessary for civil engineering practice and project management.
PSO3	Provide sustainable solutions to civil engineering problems
PSO4	Perform as design consultants in construction industry for the design of civil engineering structures.

Declaration

The head of the institution needs to make a declaration as per the format given -

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute

Name : Dr. L. Ganesan

Designation : Principal

Signature :



Seal of The Institution :

Prof. Dr. L. GANESAN Ph.D.,
Principal
Ramco Institute of Technology
Rajapalayam - 626 117.
Tamil Nadu

Place : Rajapalayam

Date : 14-12-2024 10:45:04

