



NEW HORIZON COLLEGE OF ENGINEERING



Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC

Accredited by NAAC with 'A' Grade, Accredited by NBA

New Horizon Knowledge Park, Ring Road, Bellandur Post, Bengaluru 560 103



Department of Civil Engineering **SELF ASSESSMENT REPORT (SAR)**

Submitted to



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SELF ASSESSMENT REPORT (SAR) FORMAT
UNDERGRADUATE ENGINEERING PROGRAMS (TIER-I)
FIRST TIME ACCREDITATION

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PART A: Institutional Information**1. Name and Address of the Institution:**

New Horizon College of Engineering,
Ring Road, Kadubisanahalli, Bellandur Post, Near Marathalli
Bangalore 560103

2. Name and Address of the Affiliating University:

Visvesvaraya Technological University
Jnana Sangama, VTU Main Rd,
Machhe, Belgaum, Karnataka 590018

3. Year of establishment of the Institution: 2001**4. Type of the Institution:**

Institute of National Importance	<input type="checkbox"/>
University	<input type="checkbox"/>
Deemed University	<input type="checkbox"/>
Autonomous	<input checked="" type="checkbox"/>
Any other (Please specify)	<input type="checkbox"/>

Note:

1. In case of Autonomous and Deemed University, mention the year of grant of status by the authority.
2. In case of University Constituent Institution, please indicate the academic autonomy status of the Institution as defined in 12th Plan guidelines of UGC. Institute should apply for Tier 1 only when fully academically autonomous.

5. Ownership Status:

Central Government	<input type="checkbox"/>
State Government	<input type="checkbox"/>
Government Aided	<input type="checkbox"/>
Self - financing	<input checked="" type="checkbox"/>
Trust	<input checked="" type="checkbox"/>
Society	<input type="checkbox"/>
Section 25 Company	<input type="checkbox"/>
Any Other (Please specify)	<input type="checkbox"/>

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

Name of the Institution(s)	Year of Establishment	Programs of Study	Location
New Horizon Public School	1982	Pre-primary to Standard 10	100 Feet Rd, HAL 2nd Stage, Indiranagar, Bengaluru, Karnataka 560008
New Horizon Pre-University	1982	1st PU and 2nd PU	3rd A Cross, 2nd A Main Rd, East of NGEF Layout, Kasturi Nagar, Bengaluru, Karnataka 560043
New Horizon College of Education	1980	Bachelor of Education	100 Feet Rd, HAL 2nd Stage, Indiranagar, Bengaluru, Karnataka 560008
New Horizon College Marathalli	1998	B.B.A., B.Com., B.C.A.	Ring Rd, near Marathalli, Kaverappa Layout, Kadabeesanahalli, Bengaluru, Karnataka 560103
New Horizon College Kasturinagar	1998	B.B.A., B.Com., B.C.A.	3rd A Cross, 2nd A Main Rd, East of NGEF Layout, Kasturi Nagar, Bengaluru, Karnataka 560043

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

Table A.7

S. No	Program Name	Program Applied level	Year of Start	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation Status*	From	To	Program for consideration	Program for duration
1.	Bachelor of Engineering (BE)	UG	2001	2001	60	Yes	180	Granted accreditation for 3 years for the period (specify period)	2017	2020	Yes	4

*** Write applicable one:**

Applying first time

- *Granted provisional accreditation for two/three years for the period (specify period)*
- *Granted accreditation for 5/6 years for the period (specify period)*
- *Not accredited (specify visit dates, year)*
- *Withdrawn (specify visit dates, year)*
- *Not eligible for accreditation*
- *Eligible but not applied*

8. Programs to be considered for Accreditation vide this application

Table A.8

Sl. No	Level	Discipline	Program
1.	Under Graduate	Engineering & Technology	Civil Engg.
2.	Under Graduate	Engineering & Technology	Computer Science & Engg.
3.	Under Graduate	Engineering & Technology	Electronics & Communication Engg.
4.	Under Graduate	Engineering & Technology	Mechanical Engg.

9. Total number of employees:

A. Regular Employees (Faculty and Staff):

Table A.9a

Items		CAY		CAYm1		CAYm2	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M	124	137	127	141	139	154
	F	107	118	104	115	101	112
Faculty in Maths, Science & Humanities teaching in engineering Programs	M	31	34	27	30	26	28
	F	44	48	42	46	40	44
Non-teaching staff	M	102	113	99	109	103	114
	F	125	138	125	138	123	136

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

CAY- Current Academic Year

CAYm1- Current Academic Year minus1= Current Assessment Year

CAYm2 - Current Academic Year minus2=Current Assessment Year minus 1

B. Contractual Staff Employees (Faculty and Staff):*Table A.9b*

Items		CAY		CAYm1		CAYm2	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M	44	48	33	36	39	43
	F	8	9	5	5	3	3
Faculty in Maths, Science & Humanities teaching in Engineering Programs	M	0	0	0	0	0	0
	F	0	0	0	0	0	0
Non-teaching staff	M	0	0	0	0	0	0
	F	0	0	0	0	0	0

10. Total number of Engineering Students:

Engineering and Technology- UG	Shift1 √	Shift2 √
Engineering and Technology- PG	Shift1 √	Shift2 √
Engineering and Technology- Polytechnic	Shift1	Shift2
MBA	Shift1 √	Shift2
MCA	Shift1 √	Shift2

*Table A.10***Engineering and Technology- UG Shift-1**

Item	2019-20	2018-19	2017-18
Total no. of Boys	740	728	629
Total no. of Girls	224	229	239
Total no. of students	964	957	868

Engineering and Technology- UG Shift-2

Item	2019-20	2018-19	2017-18
Total no. of Boys	134	227	222
Total no. of Girls	47	50	58
Total no. of students	181	277	280

Engineering and Technology- PG Shift-1

Item	2019-20	2018-19	2017-18
Total no. of Boys	7	4	8
Total no. of Girls	3	0	1
Total no. of students	10	4	9

Engineering and Technology- PG Shift-2

Item	2019-20	2018-19	2017-18
Total no. of Boys	2	2	2
Total no. of Girls	2	6	10
Total no. of students	4	8	12

Engineering and Technology- MBA Shift-1

Item	2019-20	2018-19	2017-18
Total no. of Boys	108	117	113
Total no. of Girls	72	62	67
Total no. of students	180	179	180

Engineering and Technology- MCA Shift-1

Item	2019-20	2018-19	2017-18
Total no. of Boys	68	82	96
Total no. of Girls	33	49	36
Total no. of students	101	131	132

Note: In case the institution is running programs other than engineering programs, a separate table giving similar details is to be included.

11. Vision of the Institution:

To emerge as an institute of eminence in the fields of engineering, technology and management in serving the industry and the nation by empowering students with a high degree of technical, managerial and practical competence.

12. Mission of the Institution:

- To strengthen the theoretical, practical and ethical dimensions of the learning process by fostering a culture of research and innovation among faculty members and students.
- To encourage long-term interaction between the academia and industry through the involvement of the industry in the design of the curriculum and its hands-on implementation.
- To strengthen and mould students in professional, ethical, social and environmental dimensions by encouraging participation in co-curricular and extracurricular activities.

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

- i. Name: Dr. Manjunatha
Designation: Principal
Mobile No: 9901916000
Email id: principal@newhorizonindia.edu

- ii. NBA coordinator:
Name: Dr M S Ganesha Prasad
Designation: Dean, Prof & Head – Mechanical Engg.
Mobile No: 9886921136
Email id: dean_mee@newhorizonindia.edu

PART B: Criteria Summary**Name of the program: Electronics & Communication Engineering**

Criteria No.	Criteria	Total Marks	Institute marks
Program Level Criteria			
1.	Vision, Mission and Program Educational Objectives	50	50
2.	Program Curriculum and Teaching-Learning Processes	100	100
3.	Course Outcomes and Program Outcomes	175	175
4.	Students' Performance	100	84.73
5.	Faculty Information and Contributions	200	193.73
6.	Facilities and Technical Support	80	80
7.	Continuous Improvement	75	75
Institute Level Criteria			
8.	First Year Academics	50	46.74
9.	Student Support Systems	50	50
10.	Governance, Institutional Support and Financial Resources	120	120
	Total	1000	976



DEPARTMENT OF CIVIL ENGINEERING

CRITERION 1

VISION – MISSION & PROGRAM EDUCATIONAL OBJECTIVE

CRITERION 1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	50
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1.1. State the Vision and Mission of the Department and Institute (5)

1.1.1. About the Institute

New Horizon College of Engineering is an Autonomous college affiliated to Visvesvaraya Technological University (VTU), approved by the All India Council for Technical Education (AICTE) & University Grants Commission (UGC). It is accredited by NAAC with 'A' grade & National Board of Accreditation (NBA). It is an ISO 9001:2008 certified Institution. New Horizon college of Engineering is located in the heart of the IT capital of India, Bangalore. The college campus is situated in the IT corridor of Bangalore surrounded by MNCs and IT giants such as Intel, Accenture, Cape Gemini, ARM, Symphony, Wipro, Nokia, JP Morgan and Cisco to name a few. NHCE has a scenic and serene campus that provides an environment which is conducive for personal and intellectual growth. The infrastructure acts as a facilitator for the effective delivery of the curriculum. NHCE boasts of state – of – the – art facilities for its students. They are given utmost encouragement in their areas of interest by providing hi-tech facilities backed by faculty support. The institute places highest priority on innovative programs of instructions that include both traditional class room theory and professional skills training. There is a strong impetus on overall personality development of the students with emphasis on soft skills. Students are supported through mentoring and counseling systems. The management offers scholarships to meritorious students. At NHCE, we understand and respect our role as educators and from the moment a student walks into the campus, he/she is well guided to know his/her strengths and choose an area of functional specialization. This enables students to concentrate their efforts and energies to gain the competitive edge. NHCE has a unique distinction of achieving 100% admissions in all its courses year after year.

INSTITUTE VISION

To emerge as an institute of eminence in the fields of engineering, technology and management in serving the industry and the nation by empowering students with a high degree of technical, managerial and practical

INSTITUTE MISSION

- ✓ To strengthen the theoretical, practical and ethical dimensions of the learning process by fostering a culture of research and innovation among faculty members and students
- ✓ To encourage long-term interaction between the academia and industry through the involvement of the industry in the design of the curriculum and its hands-on implementation.
- ✓ To strengthen and mould students in professional, ethical, social and environmental dimensions by encouraging participation in co-curricular and extracurricular activities

1.1.2. About the Department:

The Department of Civil Engineering in New Horizon College of Engineering was started in the year 2009 and it has been accredited by the National Board of Accreditation (NBA) and offers Under Graduate program. The department has a total strength of 454 students, annual intake being 180 students. The curriculum is designed to make the students industry ready and promote a curiosity amongst the students to take up research in the vast and diverse Civil Engineering disciplines. Students are given a holistic understanding by providing them hands on training in basic concepts of Civil Engineering and exposure to the emerging technologies and software tools that are being used in analyzing, designing, planning and scheduling the construction projects.

DEPARTMENT VISION

**To contribute to society by imparting quality education encompassing
Technical, Managerial and Entrepreneurial skill**

DEPARTMENT MISSION

- ✓ To create an environment wherein Faculty and Students engage in cutting edge research.
- ✓ To undertake Collaborative projects in order to develop a partnership between Institute and Industry.
- ✓ To motivate Entrepreneurship and to imbibe Professional Ethics.
- ✓ To promote participation in activities which help in holistic development of the students.

1.1.3 Appropriateness/Relevance of the Statements

One of the most important assets of a country is its engineers, especially if they are well prepared and equipped to take their places in its development (at the economical level, technology level, commercial level, etc...). They have to keep track with the rapid changes and advances of the technology, knowledge and techniques in their respective fields. In this context, the graduate civil engineering program at our institute has made an attempt to respond to the needs of the country, the society and their developments at all levels by preparing the students for a bright future and successful carriers with a good quality programs and provide them with the necessary analytical skills, a strong knowledge in the fundamental of engineering and information in civil engineering. Similarly, the industries/companies are in great needs of well-prepared engineers to be competitive in the market (local, regional as well as international) and to take the lead in the advancement and the development of the industries as well as the country. Subsequently, our department and the industries/companies with their forces and resources are preparing the future engineers to be a sustainable entity.

The civil engineering program will serve the society by providing a quality engineering education that enables students to enter a profession that can improve the civil infrastructure, and economic welfare. Our civil engineering program will maintain a strong emphasis on undergraduate education with the goal that our program will be recognized for quality instruction in civil engineering analysis and design in a professional and ethical way. An important emphasis of the civil engineering program is preparation of students for professional engineering licensure and practice, and we expect that most of our students will pursue this objective following graduation.

The mission of the civil engineering program is to provide students with a broad and thorough education in civil engineering fundamentals, applications, and design that prepares them for the practice of civil engineering at the professional level with the confidence and skills necessary to meet the technical and social challenges of the future. Graduates will attain the skills for entry-level civil engineering positions leading to professional engineering registration, and will have a solid undergraduate foundation in general civil engineering principles, enabling continued education at advanced levels

1.1.4 Consistency of Department Vision and Mission statement with Institute Vision and Mission

Table 1.1 Consistency of Vision of the Department with that of Institution

Components of Vision Statement of NHCE	Components of Vision Statement of Department
To emerge as an institute of eminence in the fields of engineering, technology and management in serving the industry and the nation by empowering students with a high degree of technical, managerial and practical competence.	To contribute to society by imparting quality education encompassing Technical, Managerial and Entrepreneurial skills.

Table 1.2 Consistency of Mission of the Institute with that of department

Components of Mission Statement of NHCE	Components of Mission Statement of Department
<ul style="list-style-type: none"> To strengthen the theoretical, practical and ethical dimensions of the learning process by fostering a culture of research and innovation among faculty members and students. To encourage long-term interaction between the academia and industry through the involvement of the industry in the design of the curriculum and its hands-on implementation. To strengthen and mould students in professional, ethical, social and environmental dimensions by encouraging participation in co-curricular and extracurricular activities 	<ul style="list-style-type: none"> To create an environment wherein Faculty and Students engage in cutting edge research. To undertake Collaborative projects in order to develop a partnership between Institute and Industry. To motivate Entrepreneurship and to imbibe Professional Ethics. To promote participation in activities which help in holistic development of students.

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

PEO1: Graduates will be able contribute to the development of sustainable infrastructure.

PEO2: Graduates as part of an organization or as Entrepreneurs, will continue to learn to hone-up evolving technologies

PEO 3: Graduates will be professional Civil Engineers with ethical and societal responsibility

PEO 4: Graduates will be able to work as a team in intra and interdisciplinary endeavours for development of new ideas and products for the betterment of society

PSO 1: Enhancing the employability skills by making the students find innovative solutions for challenges and problems in various domains of Civil Engineering.

PSO 2: Inculcating in students tech suaveness to deal with practical aspects of Civil Engineering

1.3 Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (15)

The Vision and Mission are widely displayed at the following places:

- Institute website: <http://newhorizonindia.edu/nhengineering/>
- Department website: <http://newhorizonindia.edu/nhengineering/department-of-civil-engineering/>
- Office of HOD
- Institute Prospectus
- Laboratories
- Curriculum and Syllabus copies
- Course file
- Corridors
- Lab records
- Internal blue books

- Staff rooms

The PEOs are displayed in:

- Dept websites (<http://newhorizonindia.edu/nhengineering/department-of-civil-engineering/>)
- Curriculum and Syllabus Copies
- Office HOD
- Laboratories
- Laboratory Manuals
- Corridors
- Lab records
- Internal blue books

Vision and Mission of the Department are conveyed to stakeholders as follows:

- ✓ Special sessions are organized before starting of the academic session, where faculty members and Lab staffs are explained the Vision and Mission.
- ✓ The Vision and Mission statements are explicitly communicated to the newly enrolled students and the parents during orientation and induction program.
- ✓ Alumni are updated about any changes during Alumni interaction.
- ✓ The statements are communicated to the industry/employers through presentations during industrial visits and with other industry-institute interactions.

Additionally, dissemination of PEOs to various stakeholders of the program is done at the meetings of faculty members, Board of Studies (BOS), Program Assessment Committee (PAC) and Department Advisory Board (DAB).

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

1.4.1 The Process for defining the Vision and Mission of the Department

The department establishes the vision and mission through a review process involving the stakeholders, the future scopes of the department and the societal requirements

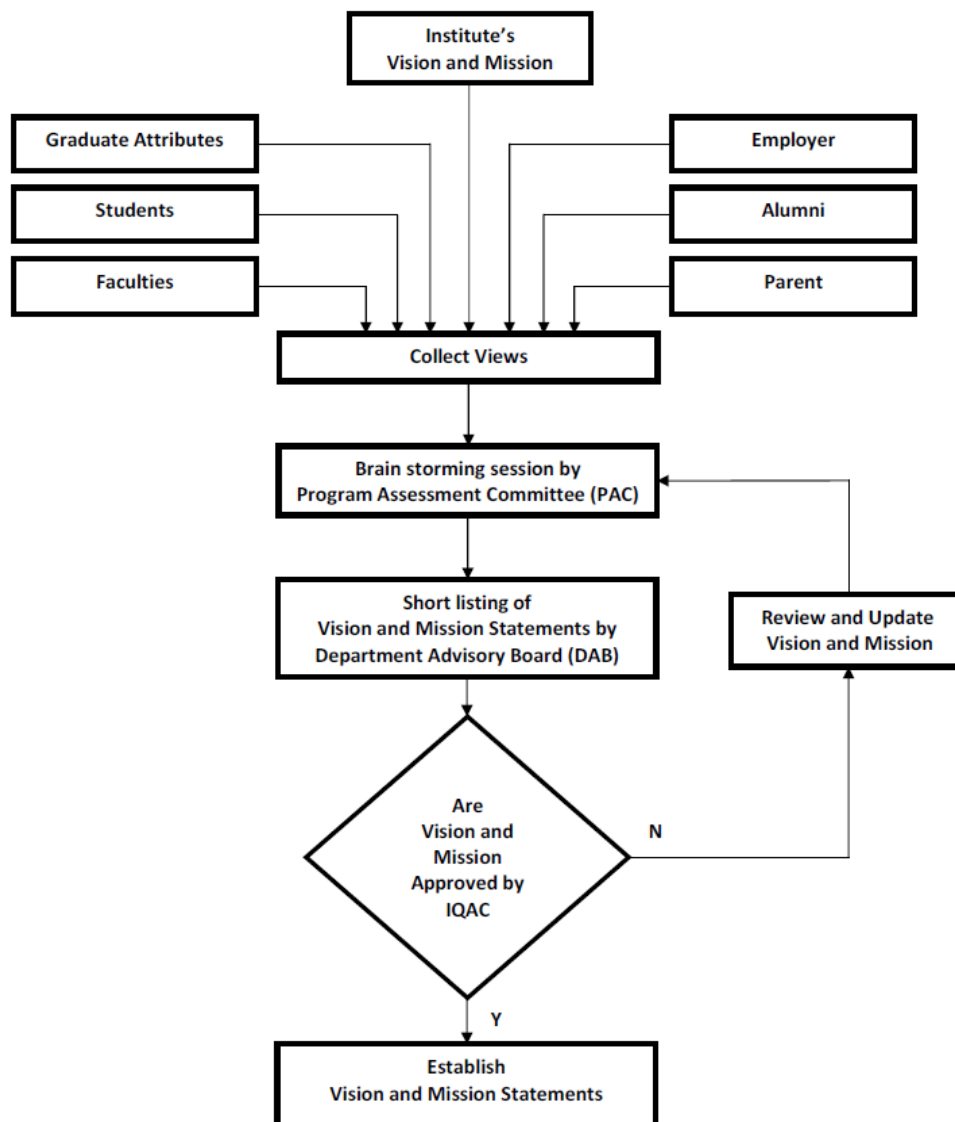


Fig 1.1: Establishing Vision and Mission

The department establishes the vision and mission through a review process involving the stakeholders, the future scopes of the department and the societal requirements.

Step 1: Vision and Mission of the institution are taken as the guiding base.

Step 2: The Program Assessment Committee (PAC) collects data on current and future trends related to the programs being run by the Department, and prepares a draft Vision / Mission statement.

Step 3: The draft statement is circulated among all stakeholders; students, alumni, employee's/ Industry experts, management members, parents and professional bodies for suggestions

Step 4: The views are analyzed and reviewed to check the consistency with the vision and mission of the institution as a whole.

Step 5 : PAC finalizes the Vision & Mission statements

Step 6 : Departmental Advisory Board (DAB) endorses the final of vision and mission statements, and submits to the HOD

Program Assessment Committee (PAC) comprises the following members:

- ✓ Head of the Department –Chairperson/ Coordinator for PAC
- ✓ Professors, Associate Professors & Assistant Professors in the department associated with the program

Departmental Advisory Board (DAB) comprises of the following members:

- ✓ Head of the Department –Chairperson/ Program coordinator
- ✓ External Academicians
- ✓ Industry Experts /Employees
- ✓ Students
- ✓ Alumni

1.4.2 The process for defining the PEOs

The program educational objectives (PEOs) were formally established in a process carried out before the launch of the program. PEO's were formulated as a result of a series of meetings, comprising of faculty, Program Assessment Committee (PAC), and Students, Alumni and Industry Experts/ Employees.

PEO's are formulated / reviewed through a consultative process involving the stakeholders including students, alumni, industry experts/employers, faculty and staff members. The PEOs are reviewed through the following process:

Step 1: Program outcomes defined by NBA as well as Vision and Mission of the Department are taken as the basic guide for consultation with various

stakeholders.

Step 2: PAC collects the inputs from all stake holders and prepares draft PEOs, which is circulated among all stake holders for suggestions

Step 3: PAC collects the views and presents the same to the Departmental Advisory Board (DAB).

Step 4: The Dean / HOD presents the PEOs to the Board of Studies (BOS) and submit the final version to the Academic council for approval.

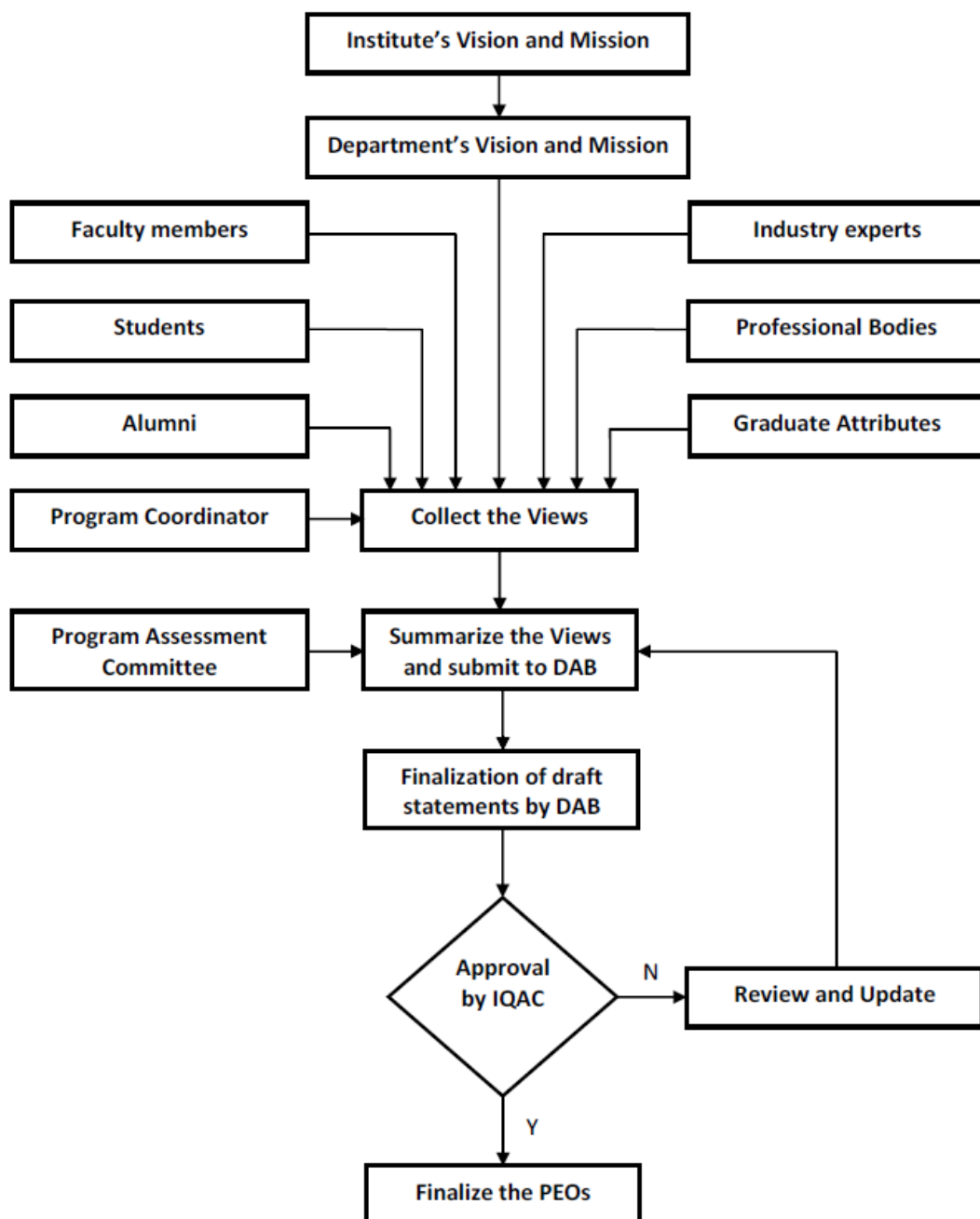


Fig 1.2: Establishing PEOs

1.5 Establish consistency of PEOs with Mission of the Department (10)

The department made sure that the program educational objectives serve the mission of the department. To ensure that, the mapping between mission and Program Educational Objectives (PEOs) was developed with justification.

Table 1.3 Mapping between Mission and PEOs

Mission Statements → PEOs Statements ↓		M1	M2	M3	M4
		<i>To create an environment wherein Faculty and Students engage in cutting edge research.</i>	<i>To undertake Collaborative projects in order to develop a partnership between Institute and Industry.</i>	<i>To motivate Entrepreneurship and to imbibe Professional Ethics.</i>	<i>To promote participation in activities which help in holistic development of students.</i>
PEO1	<i>Graduates will be able contribute to the development of sustainable infrastructure.</i>	PEO1 which is concerned with development of sustainable infrastructure in Civil engineering maps substantially with M1 , which focuses engage in cutting edge research.	PEO1 maps moderately with M2 as it is concerned with promoting related interactions with industries	PEO1 maps substantially with M3 as it gives opportunities for students to develop the ability to come out with eco-friendly construction techniques and products.	PEO1 maps substantially with M4 as it connects strongly with the holistic development of students.
		Correlation Level: 3	Correlation Level: 2	Correlation Level:3	Correlation Level: 3
PEO2	<i>Graduates as part of an organization or as Entrepreneurs, will continue to learn to hone-up evolving technologies</i>	PEO2 maps substantially with M1 wherein the involvement of faculty and students in research activities help them to refine their knowledge and identify the future evolving technologies.	PEO2 maps moderately with M2 as the interactions with industries give them a firsthand knowhow about the working of construction industries.	PEO2 maps substantially with M3 as the entrepreneurial abilities in the students can be properly connected to evolving technologies.	PEO2 maps substantially with M4 , since the holistic personality of students related especially to communication skill, critical thinking skill and analytical skill help them to develop into Entrepreneurs.
		Correlation Level: 3	Correlation Level: 2	Correlation Level: 3	Correlation Level:3
PEO3	<i>Graduates will be professional Civil Engineers with ethical and societal responsibility</i>	PEO3 maps substantially with M1 , since cutting edge research activities mainly hinge on ethical and societal responsibility.	PEO3 maps substantially with M2 as the collaborative projects helps one to imbibe ethical and societal responsibilities.	PEO 3 maps substantially with M3 as the mission statement concentrates on developing entrepreneurial skills, imbibing professional ethics.	PEO 3 maps substantially with M4 , since holistic development of students encourage them to become efficient professional engineers with ethical and societal responsibility

		Correlation Level: 3	Correlation Level: 3	Correlation Level: 3	Correlation Level:3
PEO4	<i>Graduates will be able to work as a team in intra and interdisciplinary endeavors for development of new ideas and products for the betterment of society</i>	PEO 4 maps substantially with M1, since the cutting edge research, activities are oriented towards development of new ideas and products for the betterment of society.	PEO 4 maps substantially with M2, since the collaborative projects helps one to identify the significance of working in team interdisciplinary.	PEO 4 maps substantially with M3, as the intra and interdisciplinary working skills can be put into practice to test their entrepreneurial abilities.	PEO 4 maps substantially with M4, since attributes of students can be honed up to achieve success while working in teams as well as developing ideas and products for the betterment of society
		Correlation Level: 3	Correlation Level: 3	Correlation Level: 3	Correlation Level: 3

Slightly (Low) =1, Moderate (Medium)=2, Substantial (High)=3

M1: To create an environment wherein Faculty and Students engage in cutting edge research.

- ✓ PEO1 is concerned with development of sustainable infrastructure in Civil engineering which focuses on engaging in cutting edge research activities leading to **substantial mapping with M1.**
- ✓ PEO2 deals with the involvement of faculty and students in research activities, which helps them to refine their knowledge and identify the future evolving technologies **and hence maps substantially with M1.**
- ✓ PEO3 maps substantially with M1, since the research activities mainly hinge on ethical and societal responsibility.
- ✓ PEO3 maps substantially with M1, as research, activities are oriented towards development of new ideas and products for the betterment of society.

M2: To undertake Collaborative projects in order to develop a partnership between Institute and Industry.

- ✓ PEO1 maps moderately as it is concerned with promoting related interactions with industries
- ✓ PEO2 maps moderately as the interactions with industries give them a firsthand knowhow about the working of construction industries.
- ✓ PEO3 maps substantially, as the collaborative projects help one to imbibe ethical and societal responsibilities.
- ✓ PEO 4 maps substantially, since the collaborative projects help one to identify the significance of working in team of interdisciplinary areas.

M3: To motivate Entrepreneurship and to imbibe Professional Ethics.

- ✓ **PEO1 maps substantially**, as it gives opportunities for students to develop the ability to come out with eco-friendly construction techniques and products.
- ✓ **PEO2 maps substantially**, as the entrepreneurial abilities in the students can be properly connected to evolving technologies.
- ✓ **PEO 3 maps substantially**, as the mission statement concentrates on developing entrepreneurial skills, imbibing professional ethics.
- ✓ **PEO 4 maps substantially**, as the intra and interdisciplinary working skills can be put into practice to test their entrepreneurial abilities.

M4: To promote participation in activities which help in holistic development of students.

- ✓ **PEO1 maps substantially** as it connects strongly with the holistic development of students.
- ✓ **PEO2 maps substantially**, since the holistic personality of students related especially to communication skill, critical thinking skill and analytical skill help them to develop into Entrepreneurs.
- ✓ **PEO 3 maps substantially**, since holistic development of students encourage them to become efficient professional engineers with ethical and societal responsibility.
- ✓ **PEO 4 maps substantially**, since attributes of students can be honed up to achieve success while working in teams as well as developing ideas and products for the betterment of society



DEPARTMENT OF CIVIL ENGINEERING

CRITERION 2

PROGRAM CURRICULUM AND TEACHING – LEARNING PROCESSES

CRITERION 2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	100
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2.1. Program Curriculum (30)

2.1.1. State the Process for designing the program curriculum (10)

New Horizon College of Engineering is an autonomous college affiliated to Visvesvaraya Technological University (VTU) and has its own curriculum comprising Basic sciences, Engineering sciences, Humanities, Program core, Program electives, Open electives and Mandatory courses along with Projects, Mini-projects & Internships.

The Department frames its program curriculum based on the vision and mission of the Institution and the Department. The curriculum is designed to make the students industry ready and promote a curiosity amongst the students to take up research in the vast and diverse Civil Engineering discipline. Students are imbued holistic understanding by providing those hands on training in basic concepts of Civil Engineering and exposing them to the emerging technologies and software tools that are being used for analysing, designing, planning and scheduling of the construction projects.

The programme curriculum is designed and structured by the Department according to the UGC, AICTE and VTU guidelines in order to fulfil the PEO's, POs and PSOs. The course coordinator prepares the course contents, CIE & SEE evaluation rubrics in compliance with various Revised Blooms Taxonomy Level and maps course outcomes with POs and PSOs. The feedbacks from stake holders such as external academicians, industrial experts, alumni, parents, internal BOS members and students, are considered for the final drafting of syllabus in PAC (Program Assessment Committee) meeting. The draft of syllabus content with respect to the curriculum will be discussed further for any modification in DAB (Department Advisory Board) meeting. The finalized Curriculum and syllabus content will be presented in the BOS (Board of Studies) meeting for approval with corrections if any. The finalized version of the same will be forwarded to the Academic Council for the approval, for implementation.

The PAC meets at the end of every semester. The DAB meets at the end of each academic year to review the course and syllabi prepared by the PAC. The DAB meeting will be followed by BOS meeting for ratification and forwarding the same to AC (Academic Council) for approval and implementation.

The BOS consists of HOD, in house faculty members at different level with different specialization, subject experts from outside the college nominated by academic council, academic expert from outside the college nominated by VTU, representatives from industries/corporation sector/allied area related to placements nominated by academic council, UG meritorious Alumni nominated by principal and co-opted members with academic and research experts. Flow chart for design/revision of program curriculum is shown in Figure. 2.1.

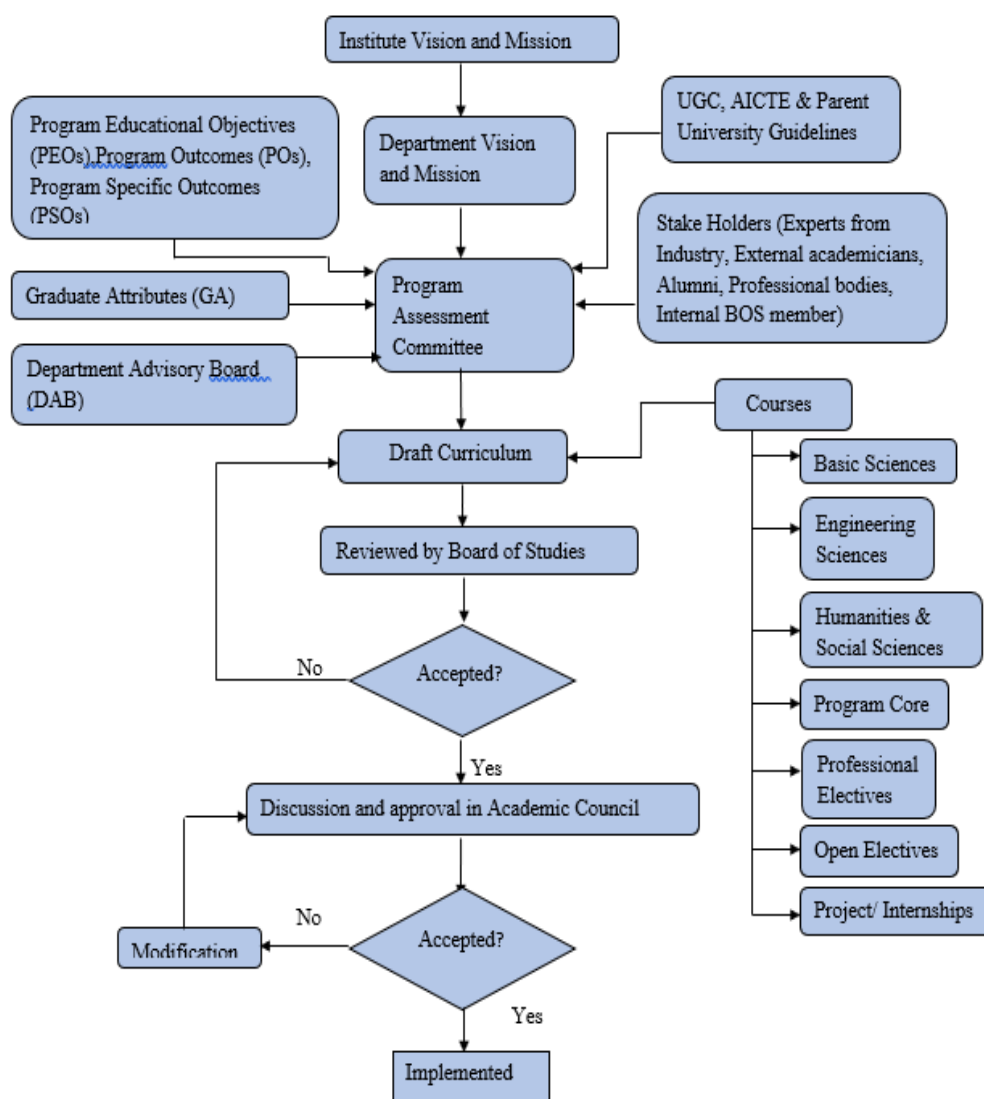


Figure 2.1: Flow chart for design/ revision of Program Curriculum.

2.1.2. Structure of the Curriculum (05)

B.E. in Civil Engineering Program is spread over eight semesters. The detailed curriculum for the batches 2018- 2022 and 2017-2021 are shown in Table 2.1 and Table 2.2.

Table 2.1. Curriculum structure for batch 2018-2022 (175 Credits)

Semester	Course Code	Course Title	Total Number of contact hours				Theory Credits	Practical Credits	Total Credits
			Lecture (L)	Tutorial (T)	Practical # (P)	Total hours			
I	18MAT11	Applied Mathematics - I	2	2	0	4	3	0	3
	18CHE12	Engineering Chemistry	3	0	0	3	3	0	3
	18CSE13	Introduction to Programming with C	3	0	0	3	3	0	3
	18MEE14	Computer Aided Engineering Drawing	1	0	4	5	1	2	3
	18ECE15	Basic Electronics	3	0	0	3	3	0	3
	18HSS16	Professional Communication	2	0	0	2	2	0	2
	18CHL17	Engineering chemistry Lab	0	0	4	4	0	2	2
	18CSL18	Programming with C lab	0	0	4	4	0	2	2
	18HSS172	Constitution of India & Professional Ethics	0	0	0	0	0	0	0
Total			14	2	12	28	15	6	21
II	18MAT21	Applied Mathematics - II	2	2	0	4	3	0	3

	18PHY22	Engineering Physics	3	0	0	3	3	0	3
	18MEE23	Elements of Mechanical Engineering	3	0	0	3	3	0	3
	18CIV24	Elements of Civil Engineering	3	0	0	3	3	0	3
	18EEE25	Basic Electrical Engineering	3	0	0	3	3	0	3
	18PHL26	Engineering Physics Lab	0	0	4	4	0	2	2
	18EEL27	Basic Electrical Engineering Lab	0	0	4	4	0	2	2
	18HH271	Essential English	0	0	0	0	0	0	0
Total			14	2	8	24	15	4	19
III	19CIV31	Applied Mathematics-III	2	2	0	4	3	0	3
	19HSS321	Economics for Engineers	2	0	0	2	2	0	2
	19HSS323	Environmental Science and Awareness	1	0	0	1	1	0	1
	19CIV33	Building Materials & Construction	3	0	0	3	3	0	3
	19CIV34	Strength of Materials	2	2	0	4	3	0	3
	19CIV35	Plane Surveying	3	0	0	3	3	0	3
	19CIV36	Mechanics of Fluids	2	2	0	4	3	0	3

	19CIVL37	Material Testing Lab	0	0	4	4	0	2	2
	19CIVL38	Plane Surveying Lab	0	0	3	3	0	1.5	1.5
	19CIVL39	Mechanics of Fluids Lab	0	0	3	3	0	1.5	1.5
	19DMAT31	Basic Applied Mathematics-I	0	0	0	0	0	0	0
Total			15	6	10	31	18	5	23
IV	19CIV41	Applied Mathematics-IV	2	2	0	4	3	0	3
	19HSS422	Life Skills for Engineers	3	0	0	3	3	0	3
	19CIV43	Concrete Technology	3	0	0	3	3	0	3
	19CIV44	Analysis of Determinate Structures	2	2	0	4	3	0	3
	19CIV45	Higher Surveying	3	0	0	3	3	0	3
	19CIV46	Applied Hydraulics and Machinery	2	2	0	4	3	0	3
	19CIVL47	Higher Surveying Lab	0	0	3	3	0	1.5	1.5
	19CIVL48	Applied Hydraulics and Machinery Lab	0	0	3	3	0	1.5	1.5
	19CIVL49	Mini Project - I	0	0	4	4	0	2	2
	19DMAT41	Basic Applied Mathematics-II	0	0	0	0	0	0	0
Total			15	6	10	31	18	5	23

V	20CIV51	Hydrology & Irrigation Engineering	3	0	0	3	3	0	3
	20CIV52	Design of RCC Structural Elements	2	2	0	4	3	0	3
	20CIV53	Analysis of Indeterminate Structures	2	2	0	4	3	0	3
	20CIV54	Basics of Geotechnical Engineering	2	2	0	4	3	0	3
	20CIV55	Highway Engineering	3	0	0	3	3	0	3
	20CIV56*	Professional Elective-I	3	0	0	3	3	0	3
	20CIV57	Concrete Technology Lab	0	0	3	3	0	1.5	1.5
	20CIV58	Basics of Geotechnical Engineering Lab	0	0	3	3	0	1.5	1.5
	20CIV59	Mini Project - II	0	0	4	4	0	2	2
Total			15	6	10	31	18	5	23
VI	20CIV61	Environmental Engineering	3	0	0	3	3	0	3
	20CIV62	Design and Detailing of RC Structural Element	2	2	0	4	3	0	3
	20CIV63	Applied Geotechnical Engineering	2	2	0	4	3	0	3
	20CIV64*	Professional Elective-II	3	0	0	3	3	0	3
	20CIV65*	Professional Elective-III	3	0	0	3	3	0	3

	NHOPXX	Open Elective-I	3	0	0	3	3	0	3
	20CIVL66	Environmental Engineering-Lab	0	0	3	3	0	1.5	1.5
	20CIV67	Mini project - III	0	0	3	3	0	1.5	1.5
	20CIV68	Mini project - IV	0	0	4	4	0	2	2
Total			16	4	10	30	18	5	23
VII	21CIV71	Construction Management & Engineering Economics	3	0	0	3	3	0	3
	21CIV72	Design and drawing of Steel structural elements	2	2	0	4	3	0	3
	21CIV73	Estimation & Valuation	2	2	0	4	3	0	3
	21CIV74*	Professional Elective-IV	3	0	0	3	3	0	3
	21CIV75*	Professional Elective-V	3	0	0	3	3	0	3
	NHOPXX	Open Elective-II	3	0	0	3	3	0	3
	21CIVL75	Drawing of Steel structural elements	0	0	3	3	0	1.5	1.5
	21CIVL76	Highway Materials Lab	0	0	3	3	0	1.5	1.5
	21CIVL77	Project Phase-I	-	-	-	-	-	2	2
Total			16	4	6	26	19	4	23

VIII	21CIV81*	Professional Elective-V	3	0	0	3	3	0	3
	21CIV82*	Professional Elective-VI	3	0	0	3	3	0	3
	21CIV83	Internship	-	-	-	-	-	4	4
	21CIV84	Project Work phase-II	-	-	-	-	-	10	10
Total			6	0	0	6	13	7	20
Total number of Credits			175						

Table 2.2. Curriculum structure for batch 2017-2021 (200 Credits)

Semester	Course Code	Course Name	Total Number of contact hours					Theory Credits	Practical Credits	Total Credits
			Lecture (L)	Tutorial (T)	Practical (P)	Self-study (S)	Total hours			
I	17MAT11	Engineering Mathematics - I	4	2	0	0	6	5	0	5
	17CHE12	Engineering Chemistry	3	0	4		7	3	2	5
	17CSE13	Introduction to programming with C	3	0	4		7	3	2	5
	17MEE14	Computer Aided Engineering Drawing	2	2	2	0	6	3	1	4
	17ECE15	Basic Electronics	3	2	0	0	5	4	0	4
	17HSS161	Environmental Science & Awareness	2	0	0	0	2	2	0	2
	17HSS171	Essential English	2	0	0	0	2	0	0	0
Total			19	6	10		35	20	5	25

II	17MAT21	Engineering Mathematics - II	4	2	0	0	6	5	0	5
	17PHY22	Engineering Physics	3	0	4		7	3	2	5
	17MEE23	Elements of Mechanical Engineering	3	0	4		7	3	2	5
	17CIV24	Elements of Civil Engineering	3	2	0	0	5	4	0	4
	17EEE25	Basics of Electrical Engineering	3	2	0	0	5	4	0	4
	17HSS262	Professional Communication	2	0	0	0	2	2	0	2
	17HSS272	Constitution of India & Professional Ethics	2	0	0	0	2	0	0	0
Total			20	6	8		34	21	4	25
III	MAT31	Engineering Mathematics - III	4	2	0	0	6	5	0	5
	HSS321	Economics for Engineers	2	0	2		4	2	1	3
	CIV33	Building Materials & Construction	3	0	2		5	3	1	4
	CIV34	Strength of Materials	3	0	4	0	7	3	2	5
	CIV35	Plane Surveying	2	0	4	0	6	2	2	4
	CIV36	Mechanics of Fluids	3	0	4	0	7	3	2	5
	DMAT31	Basic Applied Mathematics-I	2	0	0	0	2	0	0	0
Total			19	2	16		37	18	8	26

IV	MAT41	Engineering Mathematics - IV	4	2	0	0	6	5	0	5
	HSS422	Life Skills for Engineers	2	0	2		4	2	1	3
	CIV43	Earth Science Engineering	3	0	0	0	3	3	0	3
	CIV44	Analysis of Determinate Structures	3	0	0	0	3	3	0	3
	CIV45	Higher Surveying	3	0	4	0	7	3	2	5
	CIV46	Applied Hydraulics and Machinery	3	0	4	0	7	3	2	5
	CIV47	Building Planning & Drawing	0	0	4	0	4	0	2	2
	DMAT41	Basic Applied Mathematics-II	2	0	0	0	2	0	0	0
Total			20	2	14		36	19	7	26
V	CIV51	Concrete Technology	3	0	4	0	7	3	2	5
	CIV52	Design of RCC Structural Elements	3	0	0	0	3	3	0	3
	CIV53	Highway Engineering	3	0	0	0	3	3	0	3
	CIV54	Analysis of Indeterminate Structures	2	2	2	0	6	3	1	4
	CIV55	Basics of Geotechnical	3	0	4	0	7	3	2	5
	CIV56*	Professional Elective-I	2	0	2		4	2	1	3

	CIV57*	Professional Elective-2	2	0	2		4	2	1	3
Total			18	2	14		34	19	7	26
VI	CIV61	Environmental Engineering-I	3	0	4	0	7	3	2	5
	CIV62	Design and Detailing of RC Structural Elements	3	0	4	0	7	3	2	5
	CIV63	Design of Pre Stressed Concrete Structure	3	0	0	0	3	3	0	3
	CIV64	Applied Geotechnical Engineering	3	0	0	0	3	3	0	3
	CIV65*	Professional Elective-III	3	0	2		5	3	1	4
	NHOPXX	Open Elective-I	3	0	2		5	3	1	4
	CIV67	Mini Project (Extensive survey)	0	0	8	0	8	0	4	4
Total			18	0	20		38	18	10	28
VII	CIV71	Environmental Engineering-II	2	0	0	0	2	2	0	2
	CIV72	Design and Drawing of Steel Structural Elements	3	0	4	0	7	3	2	5
	CIV73	Estimation & Valuation	3	0	0	0	3	3	0	3
	CIV74*	Professional Elective-IV	3	0	0	0	3	3	0	3
	CIV75*	Professional Elective-V	3	0	2		5	3	1	4
	CIV76	Highway Materials Lab	0	0	4	0	4	0	2	2

	CIV77	Project Phase-I	0	0	6	0	6	0	3	3
	NHOPXX	Open Elective-II	3	0	2		5	3	1	4
Total			17	0	18		35	17	9	26
VIII	CIV 81	Pavement Design	3	0	0	0	3	3	0	3
	CIV82*	Professional Elective VI	3	0	2		5	3	1	4
	19CIV83	Project Work Phase-II	0	0	14	0	14	0	7	7
	19CIV84	Internship	0	0	8	0	8	0	4	4
Total			6	0	24		30	6	12	18
Total number of Credits			200							

The list of professional elective and open elective courses offered for the batches 2018-2022 and 2017-2021 are given in table 2.3, 2.4, 2.5 and 2.6.

Table 2.3. List of Professional Elective courses for the batch 2018-2022 (175 Credits)

Course Code	Course Name	Hours / Week				Credits
		L	T	P	Total Hours	
20CIV561	Advance Surveying	3	0	0	3	3
20CIV562	Pavement Material and construction					
20CIV563	Open Channel Hydraulics					
20CIV564	Advanced Concrete Technology					
20CIV641	Traffic Engineering					
20CIV642	Alternate building material and technology					
20CIV643	Ground improvement techniques					
20CIV644	Mechanization in construction					
20CIV651	Structural dynamics					
20CIV652	Pre-fabricated structures					
20CIV653	Design of pre-stressed concrete structures					
20CIV654	Urban transport planning					
21CIV741	Matrix method of structural analysis					
21CIV742	Design of masonry structures					
21CIV743	Solid waste management					
21CIV744	Design and drawing of hydraulic structures					
21CIV745	Transportation systems					
21CIV751	Retrofitting and rehabilitation of structures					
21CIV752	Construction quality and safety					
21CIV753	Theory of Elasticity					
21CIV754	Water resources Engineering					
21CIV755	Recycling of waste water					
21CIV821	Industrial waste water treatment					
21CIV822	Numerical method of Civil Engineering					
21CIV823	Earth and Earth Retaining structures					
21CIV824	Bridge Engineering					
21CIV825	Air Pollution					
21CIV831	Pavement Design					
21CIV832	Rural water supply and sanitation					
21CIV833	Advanced R.C. Structures					
21CIV834	Ground Water Hydrology					
21CIV835	Advanced Pre-Stressed Concrete Structures					

Table 2.4. List of Professional Elective courses for the batch 2017-2021 (200 credits)

Course Code	Course Name	Hours / Week				Credits
		L	T	P	Total Hours	
CIV561	Advanced Surveying	3	0	0	3	3
CIV562	Pavement Materials and Construction					
CIV563	Construction Management and Engg Economics					
CIV564	Rock Mechanics					
CIV565	Mechanization in Construction					
CIV566	Retrofitting and Rehabilitation of Structures					
CIV571	Traffic Engineering					
CIV572	Alternative Building Materials					
CIV573	Open Channel Hydraulics					
CIV574	Hydrology and Irrigation Engg					
CIV575	Construction Quality and Safety					
CIV576	Prefabricated Structures					
CIV651	Theory of Elasticity					
CIV652	Ground Improvement Techniques					
CIV653	Advanced Concrete Technology					
CIV654	Water Resources Engineering					
CIV655	Urban Transport Planning					
CIV656	Structural Dynamics					
CIV741	Matrix Method of Structural Analysis					
CIV742	Design of Masonry Structures					
CIV743	Solid Waste Management					
CIV744	Design and Drawing of Irrigation Structures					
CIV745	Highway Geometric Design					
CIV751	Industrial Waste Water Treatment					
CIV752	Numerical Method of Civil Engineering					
CIV753	Earth and Earth Retaining Structures					
CIV754	Transportation Systems					
CIV755	Advanced Pre-Stressed Concrete Structures					
CIV821	Rural Water Supply and Sanitation					
CIV822	Advanced R.C Structures					
CIV823	Ground Water Hydrology					
CIV824	Air Pollution					

Table 2.5. List of Open Elective courses for the batch 2018-2022 (175 Credits)

Course Code	Course Name	Hours / Week				Credits
		L	T	P	Total Hours	
NHOP01	Big Data Analytics using HP Vertica-1	3	0	0	3	3
NHOP02	VM Ware Virtualization Essentials-1					
NHOP03	Adobe Experience manager-1					
NHOP04	Big Data Analytics using HP Vertica-2					
NHOP05	VM Ware Virtualization Essentials-2					
NHOP06	Adobe Experience manager-2					
NHOP07	SAP					
NHOP08	Schneider-Industry Automation					
NHOP09	Cisco-Routing and Switching-1					
NHOP10	Data Analytics					
NHOP11	Machine learning					
NHOP12	CISCO-Routing and switching - 2					
NHOP13	IIOT Embedded Systems					
NHOP14	Block chain					

Table 2.6. List of Open Elective courses for the batch 2017-2021(200 Credits)

Course Code	Course Name	Hours / Week					Credits
		L	T	P	S	Total Hours	
NHOP01	Big Data Analytics using HP Vertica-1	3	0	0	1	3	4
NHOP02	VM Ware Virtualization Essentials-1						
NHOP03	Adobe Experience manager-1						
NHOP04	Big Data Analytics using HP Vertica-2						
NHOP05	VM Ware Virtualization Essentials-2						
NHOP06	Adobe Experience manager-2						
NHOP07	SAP						
NHOP08	Schneider-Industry Automation						
NHOP09	Cisco-Routing and Switching-1						
NHOP10	Data Analytics						

2.1.3 State the components of the curriculum (05)

The curriculum offered at the Department of Civil Engineering, is set in line with UGC/ AICTE / VTU guidelines. The components of the curriculum comprise courses from Basic Sciences, Engineering Sciences, Humanities and Social Sciences, Core Civil Engineering, Electives from various specializations (professional and interdisciplinary), Projects, Project Based Learning and mandatory internships. Credit Split-up for various components offered for the batch 2018-2022 and 2017-2021 is shown in Table 2.7 and 2.8 and pie chart is shown in Figure 2.2a and 2.2b.

Table 2.7. Course components of the Curriculum for the batch 2018-2022 (175 Credits)

Course Component	Curriculum content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic sciences	13	30	22
Engineering sciences	13	28	22
Humanities and social sciences	5	8	8
Program Core	41	99	72.5
Program Electives	12	21	21
Open Electives	3	6	6
Project (s)	11	-	19.5
Internship/Seminars	2	-	4
Any other (Please specify) Mandatory courses (18HSS172,18HH271, 19DMAT31/41)	0	-	0
	100	200	175

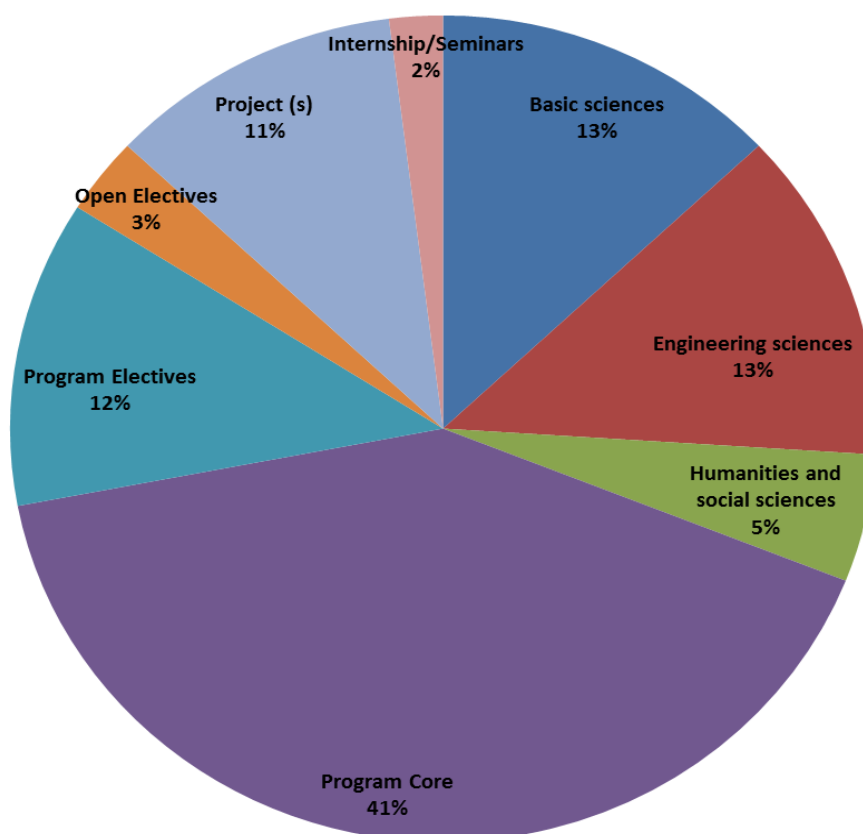


Figure 2.2a: Components of the Curriculum for the batch 2018-2022 (175 Credits)

Table. 2.8. Course components of the Curriculum for the batch 2017-2021 (200 Credits)

Course Component	Curriculum content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic sciences	15	38	30
Engineering sciences	13	35	26
Humanities and social sciences	5	12	10
Program Core	43.5	114	87
Program Electives	10.5	26	21
Open Electives	4	10	8
Project (s)	7	28	14
Internship/Seminars	2	8	4
Any other (Please specify) Mandatory courses (17HSS171, DMAT31/41)	0	8	0
Total	100	279	200

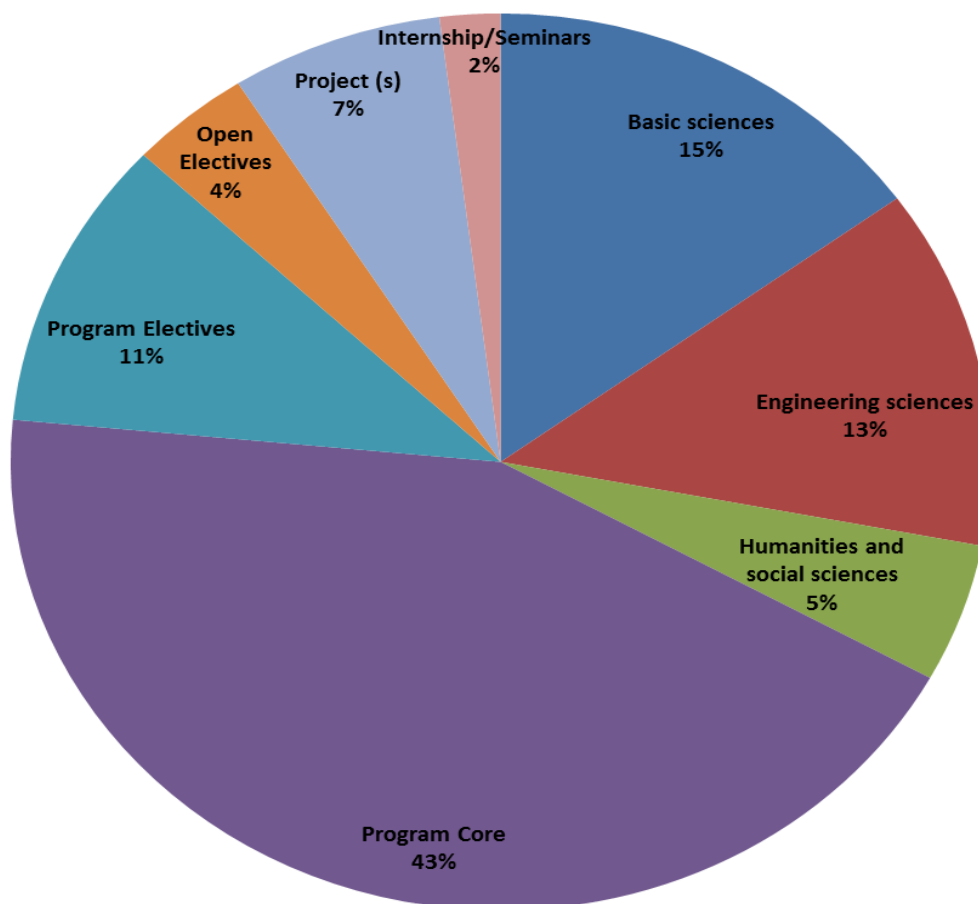


Figure 2.2b: Components of the Curriculum for the batch 2017-2021 (200 Credits).

2.1.4. State the process used to identify extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes (10)

The curriculum for B. E. in Civil Engineering maintains a balance among various categories of courses from Science, Mathematics, Engineering, Humanities and Management, Projects and Internship components. The syllabus for each course has been designed to meet compliance of the curriculum for attaining the POs and PSOs defined for the program.

PROGRAM OUTCOMES:

PO1 Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4 Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11 Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12 Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES:

PSO1. Enhancing the employability skills by making the students find innovative solutions for challenges and problems in various domains of Civil Engineering.

PSO2. Inculcating in students' tech suaveness to deal with practical aspects of Civil Engineering.

Process used to identify extent of compliance of the curriculum

- Program curriculum and syllabi is approved by Board of Studies and the assessment of the curriculum and syllabus is done by internal and external stake holders.
- The approved syllabus is delivered through various ICT facilities i.e. black board, LCD, Smart board etc.
- Mapping is performed for each assessment (Direct and Indirect) with PO's and PSO's with the courses.
- Through the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination), the attainment of PO's and PSO's are calculated.
- All courses of the program for the batch 2017 – 2021(200 credits) are mapped with the PO's and PSO's along with their level of correlation: 1- Slight (Low), 2 - Moderate (Medium) and 3 – Substantial (High). (Refer Table 2.9a and 2.9b).
- Feedback from Students, Parents, Employers, Industry and Alumni are taken for indirect assessment. From the direct and indirect assessment, attainment of PO's and PSO's are calculated for analyzing to effect changes in the curriculum.
- For the Direct Assessment, the POs and PSOs attainment are calculated through CIE and SEE.
- For the Indirect Assessment, the POs and PSOs attainments are calculated considering feedback from Alumni, Industries and Recruiters.
- The attainments are given due importance while designing the course contents in the PAC, DAB and BOS meetings;

Flow chart depicting the process to identify extent of the curriculum for attaining the POs and PSOs is shown in Figure 2.3.

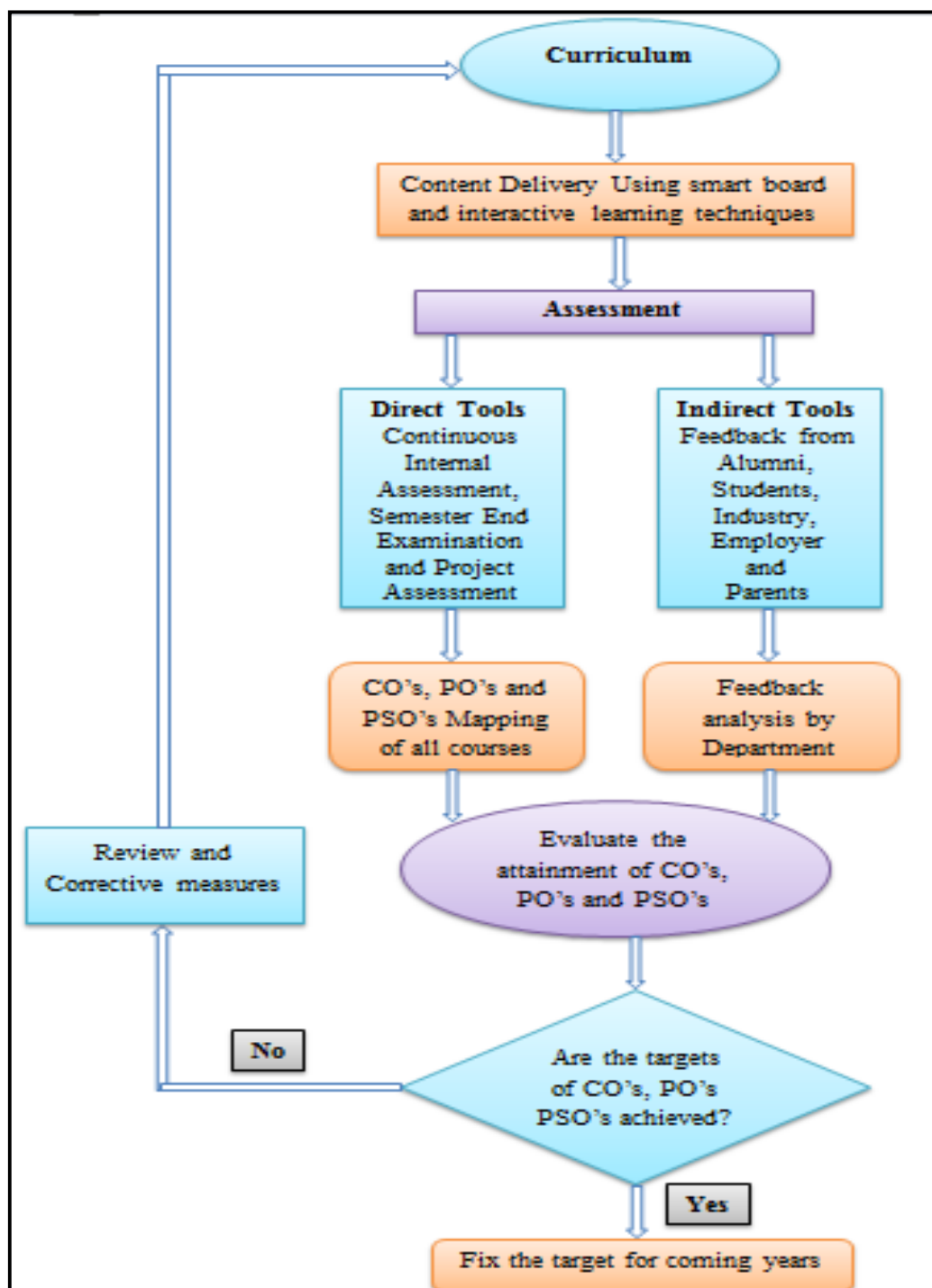


Figure 2.3 Process diagram to identify extent of the curriculum for attaining the POs and PSOs.

**Table 2.9(a): Detailed mapping between courses and POs/PSOs for the batch
2017-2021 (200 credits).**

Sem	Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
I	17MAT11	Engineering Mathematics - I	3	3	3	3	3	-	-	-	3	2	-	3	2	-
	17CHE12	Engineering Chemistry	3	3	3	3	2	3	3	2	2	2	-	3	2	-
	17CSE13	Introduction to programming with C	3	3	2	2	2	3	3	2	2	-	-	3	2	2
	17MEE14	Computer Aided Engineering Drawing	3	3	3	3	3	3	1	1	2	2	2	1	2	2
	17ECE15	Basic Electronics	3	3	3	3	2	3	3	2	3	3	2	2	2	-
	17HSS161	Environmental Science & Awareness	3	3	3	2	2	3	3	3	2	3	2	3	2	-
	17HSS171	Essential English	-	-	-	-	-	-	-	-	3	3	-	3	-	-
II	17MAT21	Engineering Mathematics - II	3	3	3	3	3	-	-	-	2	2	-	2	2	-
	17PHY22	Engineering Physics	3	2	-	-	-	-	-	-	2	1	-	1	2	-
	17MEE23	Elements of Mechanical Engineering	3	3	3	3	2	3	3	-	-	-	-	1	2	-
	17CIV24	Elements of Civil Engineering	3	2	-	-	-	-	-	-	-	-	-	1	3	-
	17EEE25	Basics of Electrical Engineering	3	3	3	2	-	-	-	-	-	2	2	-	2	-
	17HSS262	Professional Communication	-	-	-	-	-	-	-	3	2	3	-	3	-	-
	17HSS272	Constitution of India & Professional Ethics	-	-	-	-	-	1	-	3	1	-	-	1	-	-

III	MAT31	Engineering Mathematics - III	3	3	3	2	2	-	-	-	1	1	-	2	2	-
	HSS321	Economics for Engineers	2	2	1	-	1	-	1	2	2	-	2	2	2	-
	CIV33	Building Materials & Construction	2	2	1	1	2	2	1	1	-	2	-	3	3	2
	CIV34	Strength of Materials	3	3	2	-	-	-	-	-	-	-	-	1	3	3
	CIV35	Plane Surveying	3	2	3	2	2	2	1	2	2	2	3	-	3	3
	CIV36	Mechanics of Fluids	3	3	3	2	2	2	2	2	2	1	1	1	3	3
	DMAT31	Basic Engineering Mathematics -I	3	2	3	2	2	-	-	-	1	1	-	1	2	-
IV	MAT41	Engineering Mathematics - IV	3	2	3	2	2	-	-	-	1	1	-	1	2	1
	HSS422	Life Skills for Engineers	2	3	3	2	3	3	3	3	2	3	3	3	2	-
	CIV43	Earth Science Engineering	3	2	2	3	3	2	2	-	-	-	2	2	2	2
	CIV44	Analysis of Determinate Structures	3	3	2	-	-	-	-	-	-	-	-	1	3	1
	CIV45	Higher Surveying	3	3	2	2	2	2	1	2	2	2	3	-	3	3
	CIV46	Applied Hydraulics and Machinery	3	3	3	3	1	2	2	1	1	1	3	1	3	3
	CIV47	Building Planning & Drawing	3	3	3	2	3	3	2	3	3	3	-	3	3	1
V	DMAT 41	Basic Engineering Mathematics -2	3	2	3	2	2	-	-	-	1	3	-	1	2	-
	CIV51	Concrete Technology	3	2	3	2	1	2	2	-	-	-	-	-	3	3
	CIV52	Design of RCC Structural Elements	3	3	3	-	1	-	-	-	-	1	-	2	3	3
	CIV53	Highway Engineering	3	3	3	3	3	3	1	1	-	-	-	2	3	2

	CIV54	Analysis of Indeterminate Structures	3	3	2	2	3	1	-	-	-	-	1	1	3	2
	CIV55	Basics of Geotechnical	3	2	2	2	2	1	1	-	2	1	2	-	3	3
	CIV561	Advanced Surveying	3	3	-	2	3	1	-	2	2	2	2	3	2	-
	CIV562	Pavement Materials and Construction	3	2	2	3	2	2	-	2	-	-	-	1	2	-
	CIV563	Construction Management and Engg Economics	3	2	-	3	-	1	-	-	1	3	3	-	2	-
	CIV564	Rock Mechanics	3	2	2	2	3	1	2	-	2	-	2	2	2	-
	CIV565	Mechanization in Construction	1	2	-	1	1	3	1	1	1	-	-	-	2	-
	CIV566	Retrofitting and Rehabilitation of Structures	3	2	1	2	3	2	-	1	2	3	2	1	2	-
	CIV571	Traffic Engineering	3	3	2	3	2	2	-	1	-	-	-	1	2	-
	CIV572	Alternative Building Materials	2	2	2	1	3	3	3	-	1	-	3	-	2	-
	CIV573	Open Channel Hydraulics	3	3	2	-	-	-	-	-	-	-	-	1	2	-
	CIV574	Hydrology and Irrigation Engg	3	2	3	3	2	3	2	-	-	-	-	2	2	-
	CIV575	Construction Quality and Safety	3	-	2	2	-	2	-	2	-	-	-	-	2	-
	CIV576	Prefabricated Structures	3	2	3	1	-	-	-	-	1	-	-	1	2	-
VI	CIV61	Environmental Engineering-I	3	2	3	2	-	3	3	-	3	-	-	2	3	3
	CIV62	Design and Detailing of RC Structural Elements	2	3	3	-	2	2	-	-	-	2	-	-	3	3
	CIV63	Design of Pre Stressed Concrete Structure	3	3	3	-	3	2	1	3	-	2	-	1	3	2
	CIV64	Applied Geotechnical Engineering	2	3	3	2	2	1	-	1	2	2	-	-	3	2

	CIV651	Theory of Elasticity	2	3	3	2	-	2	2	-	2	1	-	2	2	-
	CIV652	Ground Improvement Techniques	3	2	2	2	2	2	2	-	1	-	2	-	2	-
	CIV653	Advanced Concrete Technology	3	2	3	2	-	-	-	1	-	-	-	1	2	-
	CIV654	Water Resources Engineering	3	3	1	-	-	2	2	-	-	-	-	2	2	-
	CIV655	Urban Transport Planning	3	3	3	3	1	2	2	1	-	-	-	1	2	-
	CIV656	Structural Dynamics	3	3	3	3	3	3	-	2	2	3	2	-	2	-
	CIV67	Mini project (Extensive survey)	3	2	3	2	-	2	-	1	2	1	-	2	3	3
VII	CIV71	Environmental Engineering-II	3	2	3	1	-	2	2	-	-	-	-	-	3	2
	CIV72	Design and Drawing of Steel Structural Elements	3	3	3	2	3	2	2	3	2	2	2	2	3	3
	CIV73	Estimation & Valuation	3	2	2	2	-	2	-	3	2	2	2	2	3	2
	CIV741	Matrix Method of Structural Analysis	3	1	1	-	2	-	-	-	-	1	1	-	2	2
	CIV742	Design of Masonry Structures	3	3	3	3	3	-	-	-	-	-	-	-	2	2
	CIV743	Solid Waste Management	-	-	-	-	-	3	3	-	-	-	-	2	2	1
	CIV744	Design and Drawing of Irrigation Structures	3	3	3	1	-	1	1	-	-	-	-	1	2	2
	CIV745	Highway Geometric Design	3	2	2	2	-	3	-	2	-	-	2	3	2	2
	CIV751	Industrial Waste Water Treatment	2	1	-	-	-	2	2	-	-	-	-	2	2	1
	CIV752	Numerical Method of Civil Engineering	3	3	3	-	-	2	3	-	2	-	3	3	2	-
	CIV753	Earth and Earth Retaining Structures	3	3	3	3	3	2	3	2	2	-	-	2	2	-

	CIV754	Transportation Systems	3	3	2	3	1	2	1	-	-	-	-	-	2	2
	CIV755	Advanced Pre-Stressed Concrete Structures	3	3	3	-	1	-	-	-	-	1	-	2	2	2
	CIV76	Highway Materials Lab	3	3	3	3	-	-	2	3	-	-	2	-	3	3
	CIV77	Project Phase-I	3	3	3	3	3	2	2	3	3	3	3	1	3	3
	NHOP01	Big Data Analytics using HP Vertica-1	3	3	3	2	3	1	-	-	2	-	2	2	3	3
	NHOP02	VM Ware Virtualization Essentials-1	2	2	2	2	2	1	-	-	1	2	1	1	3	2
	NHOP07	SAP	3	2	2	2	3	3	1	1	2	2	3	2	3	3
	NHOP08	Schneider-Industry Automation	2	3	3	1	3	-	-	-	-	2	-	-	3	3
	NHOP10	Data Analytics	3	2	2	2	2	1	-	-	2	2	3	2	3	3
VIII	CIV 81	Pavement design	3	2	2	2	-	3	-	2	-	-	2	3	3	1
	CIV821	Rural Water Supply and Sanitation	-	3	-	-	-	3	3	-	-	-	-	2	2	1
	CIV822	Advanced R.C Structures	3	3	2	-	-	1	-	-	-	2	-	2	3	2
	CIV823	Ground Water Hydrology	3	3	2	2	3	3	2	-	-	-	3	3	2	1
	CIV824	Air Pollution	3	3	3	2	1	3	3	1	-	-	1	1	2	1
	19CIV83	Project Work phase-II	3	3	3	3	3	2	2	3	3	3	3	1	3	3
	19CIV84	Internship	3	3	3	3	3	2	2	3	3	3	3	1	3	3

Table 2.9b: POs/PSOs Vs Courses Mapped with High Correlation for the batch 2017-2021 (200 credits).

POs/ PSOs	Courses mapped significantly
PO1	17MAT11, 17CHE12, 17CSE13, 17MEE14, 17ECE15, 17HSS161, 17MAT21, 17PHY22, 17MEE23, 17CIV24, 17EEE25, MAT31, CIV34, CIV35, CIV36, DMAT31, MAT41, CIV43, CIV44, CIV45, CIV46, CIV47, DMAT41, CIV51, CIV52, CIV53, CIV54, CIV55, CIV561, CIV562, CIV563, CIV564, CIV566, CIV571, CIV573, CIV574, CIV575, CIV576, CIV61, CIV63, CIV652, CIV653, CIV654, CIV655, CIV656, CIV67, CIV71, CIV72, CIV73, CIV741, CIV742, CIV744, CIV745, CIV752, CIV753, CIV754, CIV755, CIV76, CIV77, NHOP01, NHOP07, NHOP10, CIV81, CIV822, CIV823, CIV824, 19CIV83, 19CIV84
PO2	17MAT11, 17CHE12, 17CSE13, 17MEE14, 17ECE15, 17HSS161, 17MAT21, 17MEE23, 17EEE25, MAT31, CIV34, CIV36, HSS422, CIV44, CIV45, CIV46, CIV47, CIV52, CIV53, CIV54, CIV561, CIV571, CIV573, CIV62, CIV63, CIV64, CIV651, CIV654, CIV655, CIV656, CIV72, CIV742, CIV744, CIV752, CIV753, CIV754, CIV755, CIV76, CIV77, NHOP-01, NHOP-08, CIV821, CIV822, CIV823, CIV824, 19CIV83, 19CIV84
PO3	17MAT11, 17CHE12, 17MEE14, 17ECE15, 17HSS161, 17MAT21, 17MEE23, 17EEE25, MAT31, CIV35, CIV36, DMAT31, MAT41, HSS422, CIV46, CIV47, DMAT41, CIV51, CIV52, CIV53, CIV574, CIV576, CIV61, CIV62, CIV63, CIV64, CIV651, CIV653, CIV655, CIV656, CIV67, CIV71, CIV72, CIV742, CIV744, CIV752, CIV753, CIV755, CIV76, CIV77, NHOP-01, NHOP-08, CIV824, 19CIV83, 19CIV84
PO4	17MAT11, 17CHE12, 17MEE14, 17ECE15, 17MAT21, 17MEE23, CIV43, CIV46, CIV53, CIV562, CIV563, CIV571, CIV655, CIV656, CIV574, CIV742, CIV753, CIV754, CIV76, CIV77, 19CIV83, 19CIV84
PO5	17MAT11, 17MEE14, 17MAT21, HSS422, CIV43, CIV47, CIV53, CIV54, CIV561, CIV564, CIV566, CIV572, CIV63, CIV656, CIV72, CIV742, CIV753, CIV77, NHOP-01, NHOP07, NHOP-08, CIV823, 19CIV83, 19CIV84
PO6	17CHE12, 17CSE13, 17MEE14, 17ECE15, 17HSS161, 17MEE23, HSS422, CIV47, CIV53, CIV565, CIV572, CIV574, CIV61, CIV656, CIV743, CIV745, NHOP07, CIV81, CIV821, CIV821, CIV823, CIV824
PO7	17CHE12, 17CSE13, 17ECE15, 17HSS161, 17MEE23, HSS422, CIV572, CIV61, CIV743, CIV752, CIV753, CIV821, CIV824
PO8	17HSS161, 17HSS262, 17HSS272, HSS422, CIV47, CIV63, CIV72, CIV73, CIV76, CIV77, 19CIV83, 19CIV84
PO9	17MAT11, 17ECE15, 17HSS171, CIV47, CIV61, CIV77, 19CIV83, 19CIV84

PO10	17ECE15, 17HSS161, 17HSS171, 17HSS262, HSS422, CIV47, DMAT41, CIV563, CIV566, CIV77, 19CIV83, 19CIV84
PO11	CIV35, HSS422, CIV45, CIV46, CIV563, CIV572, CIV752, CIV77, NHOP07, NHOP-10, CIV823, 19CIV83, 19CIV84
PO12	17MAT11, 17CHE12, 17CSE13, 17HSS161, 17HSS171, 17HSS262, CIV33, HSS422, CIV47, CIV561, CIV745, CIV752, CIV 81, CIV823
PSO1	17CIV24, CIV33, CIV34, CIV35, CIV36, CIV44, CIV45, CIV46, CIV47, CIV51, CIV52, CIV53, CIV54, CIV55, CIV61, CIV62, CIV63, CIV64, CIV67, CIV71, CIV72, CIV73, CIV76, CIV77, NHOP-01, NHOP02, NHOP07, NHOP-08, NHOP10, CIV81, CIV822, 19CIV83, 19CIV84, 19CIV83, 19CIV84
PSO2	CIV34, CIV35, CIV36, CIV45, CIV46, CIV51, CIV52, CIV55, CIV61, CIV62, CIV67, CIV72, CIV76, CIV77, NHOP-01, NHOP07, NHOP-08, NHOP10, 19CIV83, 19CIV84, 19CIV83, 19CIV84

2.2 Teaching-Learning Processes (70)

2.2.1 Describe Processes followed to improve quality of Teaching & Learning (15)

To strengthen the teaching-learning process, following initiatives have been taken:

A. Adherence to Academic calendar

(i) *Preparation of Academic Plan:* Calendar of Events of the Department showing the schedule of the continuous internal examinations (tests), assignments, quizzes, industrial visits, guest lectures, seminars, workshops, symposiums, club activities, professional society activities and extracurricular activities in the Department is prepared in alignment with that of the Institute prior to the commencement of each semester, a sample of which is presented in Table 2.10.

Table 2.10. Sample of Academic Calendar.

NEW HORIZON COLLEGE OF ENGINEERING CALENDAR OF EVENTS FOR ODD SEM 2019-20													Last Working Day: 14.11.2019	
MONTH	Week No.	MON	TUE	WED	THU	FRI	SAT	SUN	Events/Holidays					Activities (Internal Tests, Quizzes & Others)
JUL	1	1	2	3	4	5	6	7						
	2	8	9	10	11	12	13	14						
	3	15	16	17	18	19	20	21						
	4	22	23	24	25	26	27	28	22nd - Commencement of Regular Classes for all the Semesters, Induction Programme for First Year					
	5	29	30	31										
AUG	6	5	6	7	8	9	10	11	9th - Sri Varadachakraborti Vrata					
	7	12	13	14	15	16	17	18	12th - Rakhi, 15th - Independence Day					
	8	19	20	21	22	23	24	25						
	9	26	27	28	29	30	31							
SEP	10	3	4	5	6	7	8	9	2nd - Ganesh Chaturthi					
	11	10	11	12	13	14	15	16	3rd - 5th - 1st Internals					
	12	17	18	19	20	21	22	23	10th - Last Day of Moharom					
	13	24	25	26	27	28	29	30	20, 21st SAGAM, 23rd Graduation Day					
	14	1	2	3	4	5	6	7	24th - Mahalaya Amavasya					
	15	8	9	10	11	12	13	14						
OCT	16	15	16	17	18	19	20	21	2nd - Gandhi Jayanti					
	17	22	23	24	25	26	27	28	3rd - 5th - 2nd Internals					
	18	29	30	31					7th - Ayudha Puja, 8th - Vijayadashami					
	19	5	6	7	8	9	10	11	10th - 12th - 2nd Internals					
	20	12	13	14	15	16	17	18	24th - Deepavali Amavasya, 25th - Balipadyami/Deepavali					
	21	19	20	21	22	23	24	25	25th - Deepavali Amavasya, 26th - Balipadyami/Deepavali					
	22	26	27	28	29	30	31		1st - Karthika Rajyotsava					
NOV	23	3	4	5	6	7	8	9	7th - 9th - 3rd Internals					
	24	10	11	12	13	14	15	16	14th - Last Working Day					
	25	17	18	19	20	21	22	23	14th - 23rd November Practical Exam					
	26	24	25	26	27	28	29	30	25th November - 7th December Theory Exam					
DEC	27	1	2	3	4	5	6	7						
	28	8	9	10	11	12	13	14						
	29	15	16	17	18	19	20	21	25th - Christmas Holiday					
	30	22	23	24	25	26	27	28						
	31	29	30	31										

1. No Separate Circulars will be issued regarding Activities mentioned above.
2. The Industrial Visits and Guest Lectures shall be arranged on Weekends.

DEAN ACADEMICS

PRINCIPAL

NOTE

Commencement of Odd Semester 2019-20

Last Working Day of Odd Semester 2019-20

Holidays

Industrial Visits

Guest Lectures

Graduation Day

Semester End Exam (Practical Exam/Mini Projects/Seminars)

Semester End Exam (Theory)

22-07-2019

14-11-2019

22nd - Commencement of Regular Classes for all the Semesters, Induction Programme for First Year

9th - Sri Varadachakraborti Vrata

12th - Rakhi, 15th - Independence Day

2nd - Ganesh Chaturthi

3rd - 5th - 1st Internals

10th - Last Day of Moharom

20, 21st SAGAM, 23rd Graduation Day

24th - Mahalaya Amavasya

2nd - Gandhi Jayanti

3rd - 5th - 2nd Internals

7th - Ayudha Puja, 8th - Vijayadashami

10th - 12th - 2nd Internals

24th - Deepavali Amavasya, 25th - Balipadyami/Deepavali

25th - Deepavali Amavasya, 26th - Balipadyami/Deepavali

1st - Karthika Rajyotsava

7th - 9th - 3rd Internals

14th - Last Working Day

14th - 23rd November Practical Exam

25th November - 7th December Theory Exam

25th - Christmas Holiday

NOTE

Commencement of Odd Semester 2019-20

Last Working Day of Odd Semester 2019-20

Holidays

Industrial Visits

Guest Lectures

Graduation Day

Semester End Exam (Practical Exam/Mini Projects/Seminars)

Semester End Exam (Theory)

22-07-2019

14-11-2019

22nd - Commencement of Regular Classes for all the Semesters, Induction Programme for First Year

9th - Sri Varadachakraborti Vrata

12th - Rakhi, 15th - Independence Day

2nd - Ganesh Chaturthi

3rd - 5th - 1st Internals

10th - Last Day of Moharom

20, 21st SAGAM, 23rd Graduation Day

24th - Mahalaya Amavasya

2nd - Gandhi Jayanti

3rd - 5th - 2nd Internals

7th - Ayudha Puja, 8th - Vijayadashami

10th - 12th - 2nd Internals

24th - Deepavali Amavasya, 25th - Balipadyami/Deepavali

25th - Deepavali Amavasya, 26th - Balipadyami/Deepavali

1st - Karthika Rajyotsava

7th - 9th - 3rd Internals

14th - Last Working Day

14th - 23rd November Practical Exam


25th November - 7th December Theory Exam

25th - Christmas Holiday

(ii) Preparation of Lesson Plan:

Course co-ordinators prepare the Lesson Plan before the commencement of each semester as per the academic calendar. A sample copy of lesson plan is shown in the Table 2.11.

Table. 2.11. Sample copy of lesson plan.

New Horizon College of Engineering, Bengaluru		 <small>Approved by AICTE, New Delhi, India. Affiliated to VTU, Belagavi, Karnataka. Accredited by NBA, New Delhi, India.</small>														
Department:																
Academic Semester:																
Semester:	Section:	Sub Code:	Subject:													
Course Instructor:		Contact Hours /week:	Total Number of Hours:													
Internal Assessment Marks:		Exam Marks:	Exam Hours:													
Prerequisites if any:																
Content delivery:		Chalk and Board, PPT, Videos														
Module No.	Content of Module		Hrs. COs													
Course Outcomes: At the end of the Course, the student will be able to:																
CO1																
CO2																
CO3																
CO4																
Mapping of Course Outcomes to Program Outcomes:																
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	PO15	
CO1																
CO2																
CO3																
CO4																
Correlation levels: 1-Slight (Low) 2-Moderate (Medium) 3-Substantial (High)																
Assessment Methodologies:																
Sr. No.	Description												Type			
1.	Students Assignment												Direct			
2.	Internal assessment												Direct			
3.	University exam												Direct			
4.	Student feedback												Indirect			
5.	Alumni feedback												Indirect			
6.	Employers feedback												Indirect			
Lesson Plan-B Section																
Lecture	Module	Topics	REY Levels	Course Outcome Mapping	Planned Date	Actual Date	Faculty Sign	Remarks								
Sample Questions:																
Text books:																
Reference books:																

CIE - Continuous Internal Evaluation (Theory 50 Marks)				
Bloom's Category	Test	Assignment	Quiz	Co-Curricular activities
Marks (out of 50)				
Remember				
Understand				
Apply				
Analyze				
Evaluate				
Create				

SEE - Semester End Examination (Theory 50 Marks)	
Bloom's Category	Test
Remember	
Understand	
Apply	
Analyze	
Evaluate	
Create	

Percentage Evaluation of Various Bloom's levels (100 Marks)				
Bloom's Category	CIE	SEE	Total	%
Remember				
Understand				
Apply				
Analyze				
Evaluate				
Create				
Total				

Assessment rubrics that is going to be adopted for direct attainment is depicted in below table		
Level of Achievement	Elaboration on Course Grading Description	Score Mark Set (Out of 25)
Excellent (A)	The Student's performance is outstanding in almost all the intended course learning outcomes	20 to 25
Good (B)	The student's performance is good in most of the intended course learning outcomes.	10 to 19
Fail (F)	The Students performance is inadequate. Student fails to meet many of the intended course learning outcomes	Less than 10

NOTE: Have different Assessment pattern for tests, assignments, quizzes etc.
Staff In-charge

HOD
NHCE/LPT/003

B. Pedagogical Initiatives - Content Delivery (method of instruction)

Pedagogies play an important role in delivering contents of syllabus and it varies with the audience. Course allocation is made based on the choice/ expertise of the faculty members in advance by following a well-defined process before the commencement of each semester. Each faculty member prepares a detailed lesson plan, assignments questions, quiz questions, Course handouts containing teaching materials and question bank comprising previous question papers etc. for the allocated course. Course materials are uploaded in the portal of digital library. Various pedagogical methods adopted for effective teaching and learning process to achieve the expected outcomes of teaching are:

- I. **ICT based learning:** Use of LCD projectors, Smart boards and provision for interactive teaching learning
- II. **Collaborative / Cooperative teaching/ learning:** Students share knowledge by discussing topics in small group or in peer mode.
- III. **Laboratory/ video based demonstration:** Real world system or process /parts of whole system or process are demonstrated using modern tools.
- IV. **Group discussion/ presentation:** Students learn through group discussion or asked to deliver short presentation on a topic.



Figure 2.4. Explanation with models and instruments



Figure 2.5. Hands on training on BIM software

V. Digital Library for self-learning:

← → 🔍 Not secure | newhorizonindia.edu/nhengineering/civil-engineering-lab-videos/ 🔍 ☆ ⓘ

CIVIL ENGINEERING LAB VIDEOS

Home > CIVIL ENGINEERING LAB VIDEOS

19CIVL49 module 1 (Exp 1,2&3)

Basics of AUTO CAD: Drafting & Modify Tools
Building Bye laws (ventilation & lightning.Room size & heights)
Drawing requirements of building planning

19CIVL49 Module 2 (Exp 4,5,6,7 & 8)

Preparation of bubble & line diagram -Health care center
Preparation of bubble & line diagram -School building
Preparation of bubble & line diagram -Canteen building

19CIVL49 Module 3 (Exp 9,10&11)

Develop a Plan, Elevation and section for a residential building

19CIVL49 Module 3 (Exp 9,10&11)

Develop a Plan, Elevation and section for a Office building

19CIVL49 Module 3 (Exp 9,10&11)

19CIVL49 Module 3 (Exp 9,10&11)

19CIVL49 Module 3 (Exp 9,10&11)

Develop a Plan, Elevation and section for a G+1 residential building

19CIVL49 Module 4 (Exp 12&13) Sw...

Preparation of Water supply and sanitation drawings

19CIVL49 Module 3 (Exp 9,10&11) P...

Activate Window
Go to Settings to activate

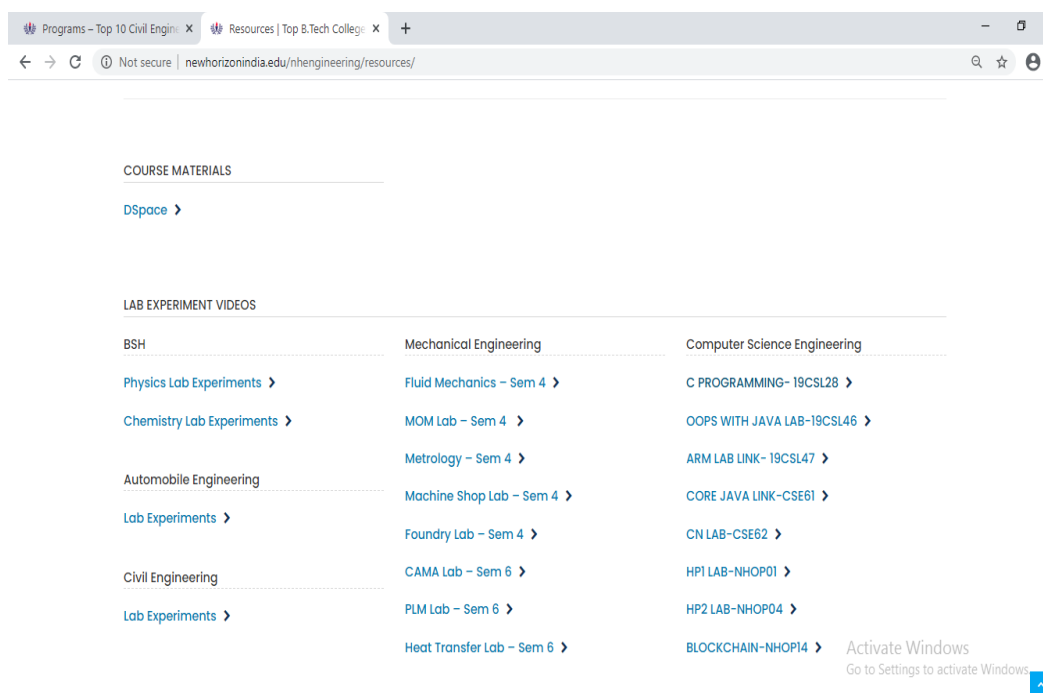


Figure 2.6. Digital Learning –Online LAB videos



Figure 2.7. Digital Learning –Smart Board Classroom

VI. Contineo (Learning Management System):

← → ↻ ⚠ Not secure | 202.62.77.41/sims/index.php?option=com_bvbsims&controller=attendance&task=teachersclassview&semlid=103&seclid=397&subld=930&timeStructId=:

contineo

Attendance Summary

Attendance Filter

From : 16-01-2020 To : 16-05-2020

Above this Attendance Percentage - 0%
Below this Attendance Percentage - 100%

[Search](#) [Download Report](#) [Download Excel](#) [Report Cumulative Report](#)

Civil Engineering DESIGN OF PRE STRESSED CONCRETE STRUCTURE CIV63 Semester 6 - A

From 16 Jan 2020 To 16 May 2020

SORT BY : RollNo ☐ Name ☒ Usn ☐


Note : NC - Not Considered; P - Present; A - Absent; L - Leave;

SL No.	Student Name	Roll No.	USN No.	Total	Present	Attendance	Jan 25	Jan 27	Jan 28	Jan 29	Jan 30	Feb 3	Feb 4	Feb 5
1	ABDUL ROUF WANI		1NH17CV001 Edit	60	59	Individual 98% Overall 98%	P	P	P	P	P	P	P	P
2	ABHINAV DUBEY		1NH17CV002 Edit	60	48	Individual 80% Overall 80%	A	A	A	A	P	P	P	P
3	ABHISHEK B V		1NH17CV003 Edit	60	59	Individual 98% Overall 98%	P	P	P	P	P	P	P	P
4	ABHISHEK P		1NH17CV004 Edit	60	57	Individual 95% Overall 95%	P	A	P	P	P	P	P	P
5	AKRITI NAIK		1NH17CV008 Edit	60	58	Individual 97% Overall 97%	P	P	P	P	P	P	P	P

Figure 2.8a. Contineo Attendance Management System

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Stage 1 Mentoring

 ANKUSH S R
USN : 1NH18CV016
Roll No:
Semester : SEM04
Dept. Name: Civil Engineering

Mentor : Ms. Ramya H S
Date : 22 Jul 2020
Previous Mentor/s : Ms. Subashini, JISHA P. K, Ms. Ramya H S
Others involved :

Observation Summary

[Start New session](#)

Session No.	Mentor Name	Dept.	Semester	Date & Time	Nature of counselling	Issue/Details	Further Action
10593	Ms. Subashini	First Year	1	24 September 2018 02:33:03	Periodic counselling	Scored nine marks in chemistry in first internals.	Case Closed More
14605	Ms. Subashini	First Year	1	09 November 2018 01:52:41	Periodic counselling	Scoring less marks in chemistry, more concentration is required	Case Closed More
18032	Ms. Subashini	First Year	1	07 December 2018 04:36:07	Periodic counselling	Scored good marks in the third internal exam than the last internals.	Case Closed More
22126	JISHA P. K	First Year	2	12 March 2019 04:12:28	Periodic counselling	In first Internal mat ant civ scored less marks. Attending all the classes	Case Closed More
24630	JISHA P. K	First Year	2	08 April 2019 04:43:09	Follow up of previous discussion	Overall performance all subjects in the internal is good but need to improve some subjects	Case Closed More

Activate Windows
Go to Settings to activate Windows.

Figure 2.8b. Contineo Mentoring System

VII. Google Classroom

The Google classroom is an innovative tool which is very effectively used in our campus for few courses. Faculty members add all students to it before commencement of every semester for every course. They also upload course plans, eBooks, course materials, video lectures, question banks etc. It helps the students to come prepared to the class. The tools in the Google class room facilitate online assessment of students, which can be used to measure the outcomes of each course.

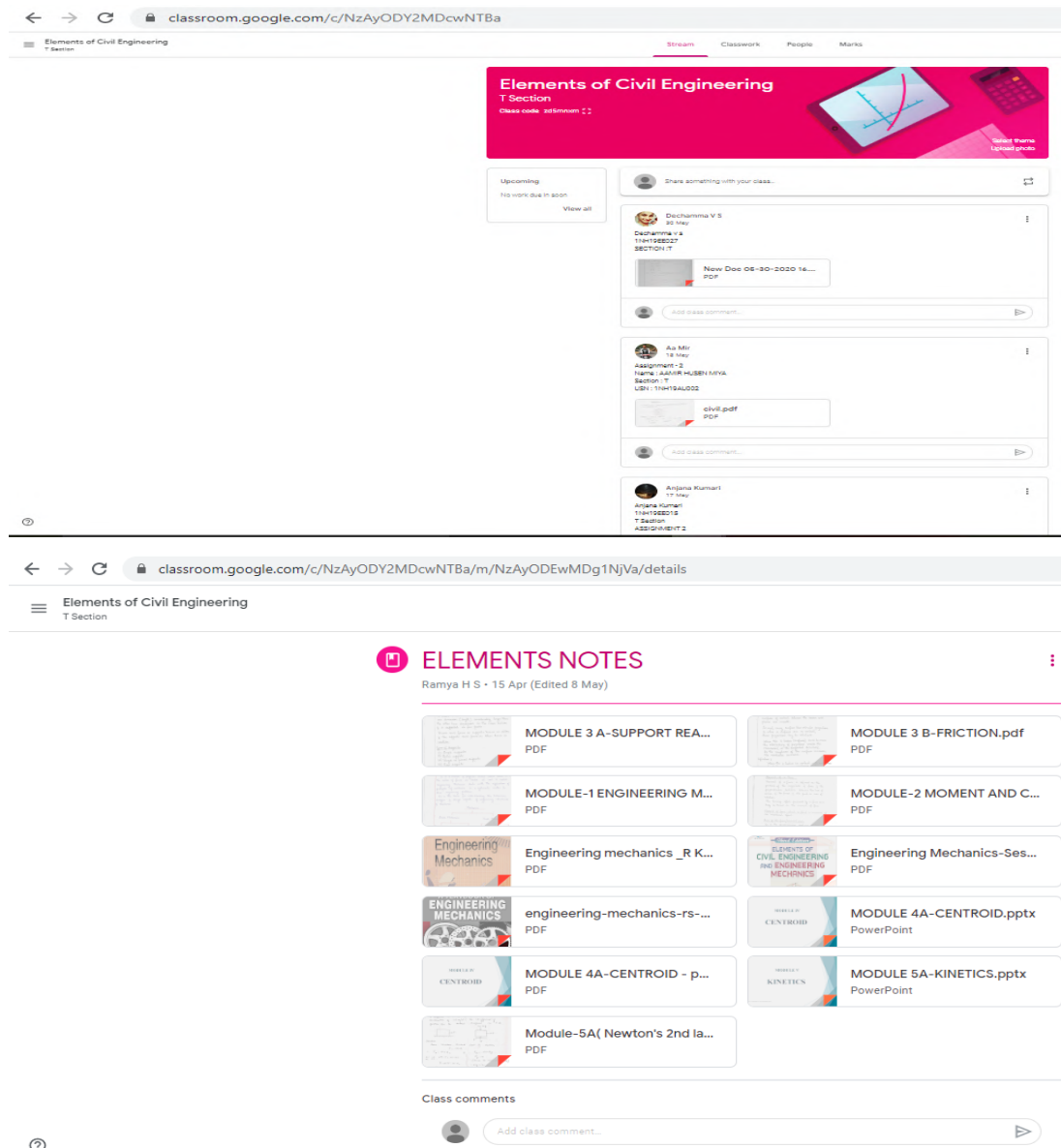


Figure 2.9. Sample of Google classroom

VIII. Study abroad Program:

NHCE has actively partnered with the Ministry of National Education, France in various educational activities and collaborations. On 12/03/2018, an agreement was signed between NHCE and the Ministry of National Education, France to facilitate student-exchange programs between NHCE and various universities in France.

As a result of this agreement and a number of visits to France by the NHCE delegation, 10 seventh semester students from Civil Engineering Department successfully completed a 12-week student exchange program in reputed universities in France. The Universities in France have provided this rare opportunity to our students to experience their educational system, technology and culture.

The following are the details of the student who opted for study abroad programme in Universities in France.

Table 2.12. Details of students who visited France through study abroad programme in the Academic Year 2019-2020

Sl. No	USN	Student Name	University	Start Date	End Date
1.	1NH16CV018	Asiwa Kath	University of Le Havre	12/09/2019	02/12/2019
2.	1NH16CV023	Sumanth C	University of Le Havre	12/09/2019	02/12/2019
3.	1NH16CV031	Darshan S M	University of Le Havre	12/09/2019	02/12/2019
4.	1NH16CV042	Jai Ganesh Reddy	University of Le Havre	12/09/2019	02/12/2019
5.	1NH16CV008	Aishwarya Manoj	University of Le Havre	12/09/2019	02/12/2019
6.	1NH16CV066	Marcia Khing	University of Le Havre	12/09/2019	02/12/2019

Table 2.13. Details of students who visited France through study abroad programme in the Academic Year 2018-2019.

Sl. No	USN	Student Name	University	Start date	End Date
1.	1NH15CV038	H C Nithin	Le Havre Normandie University	13/09/2018	10/12/2018
2.	1NH15CV045	Jeevan S D	Le Havre Normandie University	13/09/2018	10/12/2018
3.	1NH15CV145	Vivek Sharma	Le Havre Normandie University	13/09/2018	10/12/2018
4.	1NH15CV108	Sachin Patil	Le Havre Normandie University	13/09/2018	10/12/2018

IX. NPTEL and SWAYAM (Self- learning Courses) : The faculty members as well as students are using E-sources such as NPTEL and SWAYAM courses for effective teaching and learning respectively and for honing up self-learning and life-long learning. The registration and participation of students in MOOC Courses like NPTEL are evidences of their self-learning capabilities. These courses enable them to enrich their subject knowledge, exposing them to recent technological advancements and also serve them as a platform to strengthen their interdisciplinary skills. They inculcate in them an affinity towards lifelong learning process. The following tables show the NPTEL courses registered by our student's/faculty members.

Table 2.14. Details of NPTEL Online Courses registered by students for the Academic Year 2019-2020.

Sl. No.	Year/ Sem	NPTEL Course Name	Course Duration	Total No. of students Registered
1	3 rd /VI	Advanced topics in science and technology of Concrete	12 weeks	36
2	3 rd /VI	Water Supply Engineering	12 weeks	33
3	3 rd /VI	Landscape Architecture and Site Planning - Basic Fundamentals	8 Weeks	1
4	3 rd /VI	Design of Masonry structures	12 weeks	14
5	3 rd /VI	Waste water treatment and recycling	12 weeks	70
6	3 rd /VI	Scheduling techniques in projects	4 weeks	41

Table 2.15. Details of NPTEL Online Courses registered by students for the Academic Year 2018-2019

Sl. No.	Year/ Sem	NPTEL Course Name	Course Duration	Total no. of students Registered
1	3 rd / VI	Earth Sciences for Civil Engineering Part-I and II	8 Weeks	11
2	3 rd / VI	Hydration, porosity and strength of cementitious materials	8 Weeks	01
3	3 rd / VI	Electronic waste management – Issues and challenges	8 Weeks	02
4	3 rd / VI	Introduction to Remote sensing	4 Weeks	72
5	3 rd / VI	Natural Hazards – Part 1	4 Weeks	01
6	3 rd / VI	Advanced topics in the science and technology of concrete	4 Weeks	43

Table 2.16. Details of NPTEL Online Courses registered by faculty members for the Academic Year 2019-2020

Sl. No.	Faculty Name	NPTEL Course Completed (Current Semester)
1	Dr. Niranjana P S	Nil
2	Dr. Jagadeesh C B	Geotechnical Engineering Laboratory
3	Mr. Surendra B V	Design of Reinforced Concrete Structures
4	Dr. Geetha Varma	Sustainable materials and Green Building
5	Dr. Vinay Kumar B M	Nil
6	Dr. Natchimuthu Subramani	Nil
7	Dr. N Mahesha	Wastewater Treatment and Recycling
8	Mr. Satish D	Geotechnical Engineering Laboratory
9	Ms. Swetti Jha	Wastewater Treatment and Recycling
10	Mr. Rajendra T N	Geotechnical Engineering Laboratory
11	Mr. Harish G R	Nil
12	Ms. Suma Parlada	Sustainable Materials and Green Building
13	Ms. Snehal R	Nil
14	Mr. Sandeep T D	Nil
15	Ms. Serin Issac	Foundation Engineering
16	Mr. Sudhakar G N	Geotechnical Engineering Laboratory
17	Mr. Nitish Kumar K	Nil
18	Mr. Prakash A N	Nil
19	Ms. Meghana A Patankar	Nil
20	Ms. Ramya H S	Geotechnical Engineering Laboratory
21	Mr. Channabasava	Nil
22	Mr. Yogesh K S	Nil
23	Mr. Rahul N K	Reinforced Concrete Road Bridges
24	Ms. Geethu V	Sustainable Materials and Green building

Additional resources for online learning both for faculty and students:

Exposure was given for additional learning resources both for faculty and students. Some of the resources are listed below:

- NHCE digital library resources on the Internet (earlier it was on Intranet) – text books / Question papers / Lesson modules / Student project reports / other references / e-books are available online
- 3062 users from New Horizon College of Engineering registered on the portal vtuconsortium.org, qualifying as the highest number among all the colleges as per the communication received from Prof. Dr. Konnur, Advisor-VTU Consortium, VTU, Belagavi
- Virtual labs
- e-Content URL's
- Open access resources
- 408 e-books
- Online certification courses
- Websites for academic enrichment
- Webinars

Webinars organized by New Horizon College of Engineering during Covid 19 (to name a few)
Coping with studies during dark clouds of Covid 19 by Collegedunia
How to sharpen the skills?
Math works
MATLAB
Intellectual property rights
Competency mapping and career direction
Career opportunities post Covid 19
Latest trends in Machine Language
Embracing the new normal
Future of HR
Cracking the code of career development
Data driven decision making using AI
Emerging trends in business and finance
Power train and electromagnetic transients
Reshaping of HR practices and business excellence
AI applications in industries
Analytics: The Fulcrum of future
How to make a career out of passion

X. Project Based Learning (PBL)

Project Based Learning (PBL) is significantly more effective than traditional instruction to train competent and skilled practitioners and it promotes long-term retention of knowledge and skills. It is an innovative practice that is used to implement Outcome Based Education

Students are compulsorily to take project work in 7th and 8th semesters. 2-4 students in a group are allowed to identify the project area / title, obtain the consent of faculty/industry professionals to guide them.

At the end of the each semester, projects are evaluated by the external faculty members.





Figure 2.10. Project based learning.

Table. 2.10. Samples of Project based learning topics and details.

Sl. No.	USN	Name	Group No.	Sem/ Year/ Batch	Project Title
1	1NH16CV030	D S Asmita	35	VIII/4 th / 2016-20	Morphometric analysis of Upper Shimsha-1 watershed, Tumkur district, Karnataka using GIS and Remote Sensing Techniques.
2	1NH16CV037	Divya S Kambali			
3	1NH16CV045	Jennifer Rose Biju			
4	1NH16CV062	Manikya H M			
5	1NH15CV077	Naveen S R	1	VIII/4 th / 2015-19	Performance evaluation & upgradation techniques of waste water treatment plant
6	1NH15CV079	Nidhi D			
7	1NH15CV092	Rachitha Prakash			
8	1NH15CV112	Samanjasa K			
9	1NH14CV097	S. Keerthi Kumar	1	VIII/4 th / 2014-18	Flash Flood Estimation, Management and Assessment of Upper Ponnaiyar Watershed, Bengaluru Urban Area Using GIS and Remote Sensing.
10	1NH14CV105	Shabeer Ali			
11	1NH14CV106	Sharavana M			
12	1NH14CV068	Monish Raj			

XI. Industrial Visits

Industrial visits are arranged to get the student's acquainted with industrial environment and work ethics (Table 2.37)

XII. Internship

At the end of every semester or in vacation time students is allowed to carry out internship in reputed industries/companies to get practical exposure from industries (Table 2.39). It helps the students to bridge the gap between the subject's studies and industrial need.

XIII. Conference/Workshop/Seminars/Expert Lecture

The Department organizes conferences/workshops/seminars/expert lecture every year to enrich the knowledge of students (Table 2.18a, b, and c). This provides a platform

for both the faculty and students to share their knowledge and to hold discussion with eminent people from both academia and industry and also with their peers. These events help the students to acquire different soft skills.

International Conference on Innovative Research in Engineering, Management and Sciences ICIREMS – 2019 was conducted during December 19-21, 2019 by New Horizon College of Engineering. The Convener for this conference was HOD-Civil Engineering. The conference provided a cross-disciplinary venue for researchers, academia and industry practitioners to present their state-of-art research work on a wide spectrum of domains like Machine Intelligence, Modern Technologies & Automation, Green technologies, Emerging Technologies for smarter and Intelligent World, Biosciences, Innovations in Business Management, Contemporary Innovations in Libraries, Sciences and Humanities, to exchange ideas and explore new avenues of collaborations.

The Department of Civil Engineering received a fair number of research articles. The research scholars were presented their work on 2 days over 6 sessions which were chaired by Dr. Prasanna Kumar P (HOD-Civil, BMSCE, Bengaluru) and Dr. Ravi Shankar B.V. (Principal, BMSCE, Bengaluru) as externals and Dr. Niranjana P. S, Dr. Jagadeesh C B and Prof. Surendra B V as internals. The best research articles were published in Scopus indexed journal and the remaining research articles were published in International Journal of Scientific Research in Computer Science, Engineering and Information Technology.



Figure 2.11. International Conference on Innovative Research in Engineering, Management and Sciences (ICIREMS – 2019) was conducted during December 19-21, 2019.

Table 2.18a. List of Guest/Expert lecture, Seminars, Workshops conducted in AY 2019-20

Sl. No	Event Type	Event Name/ Title	Conducted by/ Resource Person	Company Name & Address	No. of Participants	Duration	Date
Guest Lecture and Expert lecture							
1	Expert Lecture	Technical perspective of vastu in civil engineering	Mr. Hemanth Kumar V, Chief Executive Officer	Intellectual Paradise Services, Bengaluru	150	2 Hr	02.03.20
2	Guest Lecture	New Age Materials	Mr. Pawan Kumar K R, Manager	RER Builders PVT. Ltd, Bengaluru	162	2 Hr	25.10.19
Motivational Talk							
3	Motivational Talk	Application of building planning software in civil engineering	Mr. Anand T, Chief Executive Officer	Swifterz creative services	65	1 Hr	28.02.20
4	Motivational Talk	Application of building planning software in Civil Engineering	Mr. Anand T, Chief Executive Officer	Swifterz creative services	100	1 Hr	20.02.20
Seminar							
5	Seminar	Comprehensive Solutions to Higher Education	Mr. Mantoo Kumar, Chief Executive Officer	Manya-The Princeton Review, Bengaluru.	150	2 Hr	22.01.20
6	Seminar	ISCOT'- application of BIM- Latest trends in Civil Engineering	Mr. Anil Ghaste, Technical Director	Inamati Building, U. B Hill, Dharwad- 580007, Karnataka	140	2 Hr	25.09.19

7	Seminar	ISCOT'- application of BIM- Latest trends in Civil Engineering	Mr. Anil Ghaste, Technical Director	Inamati Building, U. B Hill, Dharwad-580007 Karnataka	138	2 Hr	25.09.19
8	Seminar	'Manya'Global Education Awareness Program	Mr. Arshad Ahmed, Asst. General Manager-Business Development,	Manya Education Pvt. Ltd. Indiranagar, Bengaluru-560038	71	2 Hr	27.09.19
9	Seminar	'Manya'Global Education Awareness Program	Mr. Arshad Ahmed, Asst. General Manager-Business Development,	Manya Education Pvt. Ltd. Indiranagar, Bengaluru-560038	69	2 Hr	03.10.19
10	Seminar	Proficiency of Civil Engineers in Construction Industry	Mr. Vinod Singh Sisodia, Project Assistant (PGCM)	Construction industry development council 801, 8th floor, Hemkunt Chambers 89, Nehru Place, New Delhi-110019	138	1 Day	30.10.19
Workshop							
11	Workshop	Surveying and Mapping and Geospatial Industry	Mr. Cariappa M D, Specialist-Survey & Field Data Collection	Former Senior Manager-SECON Private Limited Bengaluru	95	1 Day	25.01.20
12	Workshop	Finite Element Analysis of Structures Using Midas Gen and Midas	Mr. Swapnil Agarwal & Mr Nikhil Batlanki,	MIDAS #2943/E, Opp Maruti Mandir, Service Road,	140	1 Day	14.09.19

		FEA	CAE Consultant Engineer & Technical Support Engineer	Maruti Complex Vijayanagar. Bengaluru 560040			
13	Workshop	'RICS'- Effective use of BIM in Construction Management	Mr. Kaushik Bhattacharjee, RICS School of Built Environment,303, 3rd floor, Amity University, Mumbai-Pune Expressway, Panvel-410206	RICS School of Built Environment,303, 3rd floor, Amity University, Mumbai-Pune Expressway, Panvel- 410206	138	1 Day	27.09.19
14	Workshop	'EduCAAD'- Application of Rivet-BIM in Civil Engineering	Ms. Jhansi R K, Sr. CAD Engineer,	EduCAAD technical group Marathahalli, Bengaluru	138	1 Day	27.09.19
Technical Symposium							
15	National level Symposium	RACE-19'- NATIONAL LEVEL TECHNICAL SYMPOSIUM in Association with ICI	Mr. H R Girish, Hon. Vice Chairman 'INSTRUCT'	INSTRUCT, 1st floor, UVCE Students of Civil Dept, Alumni Association Building, K.R. Circle, Bengaluru560001	Students of Civil Dept.		22.10.19

Table 2.18b. List of Guest/Expert lecture, Seminars, Workshops conducted in AY 2018-19

Sl. No.	Event Type	Event Name/ Title	Conducted by/ Resource Person	Company Name & Address	No. of Participants	Duration	Date
Guest Lecture							
1	Guest Lecture	Building Services	Mr. Santhosh S Patil, Founder & CEO	Infinity Group, Bengaluru	120	2 hrs	23.03.19
2	Guest Lecture	Construction Methodology for Earthquake resisting structures	Mr. S. Karthik, Head Architectural Design & Execution Team	CNS groups of company & VF in BSMIT, Bengaluru	100	2 hrs	15.03.19
3	Guest Lecture	Basics of Geotechnical Engineering (CIV55) "Shear Strength of Soil"	Mr. Chikkanna.T, Deputy Technical Manager (NABL),	Sarathy geotech& Engineering Services Pvt. Ltd, Bengaluru	140	2 hrs	17.11.18
4	Guest Lecture	Mechanics of fluids Module 5	Mr. Rajinikanth B Prabhu, Construction Engineer	STUP Consultancy, Bengaluru	145	2 hrs	15.11.18
5	Guest Lecture	Software application on project management	Mr. Deepak Kumar, Director	CAAD Centre, Bengaluru	135	2 hrs	31.10.18
6	Guest Lecture	Design of RC structural elements and Stairs (CIV52)	Dr. R Ravindra, Professor, Department of Civil Engineering	RVCE, Bengaluru	112	2 hrs	31.10.18

7	Guest Lecture	Environmental Engineering II (CIV71)	Dr. Mahesh T, Director	Pollution Control Board, Bengaluru	120	2 hrs	30.10.18
8	Guest Lecture	Design of masonry structures (CIV742)	Dr. K. S. Jagadish, Former Professor of Civil Engineering and former Emeritus Scientist	IISc, Bengaluru	103	2 hrs	23.10.18
9	Guest Lecture	Smart Dynamic Concrete, CIV51	Mrs. Shwetha D, Design Manager in Purvankara	Purvankara, Bengaluru	112	2 hrs	22.09.18
Motivational Talk							
10	Motivational Talk	Career and Opportunity in construction management	Mr. Sachin Amaranath Director	Motion Institute of Management Studies Bengaluru	154	1 hrs	23.03.19
11	Motivational Talk	Opportunities for Higher Studies in Abroad	Mr. Sharon Basu Manager, Operations & Academics	Motion Institute of Management Studies Bengaluru	154	1 hrs	23.02.19
12	Motivational Talk	Higher studies in Foreign Countries	Ms. Usha Mahadevappa Manager,	Business Development, International Education Specialist (IDP)	145	1 hrs	20.02.19

Seminar							
13	Seminar	Better Aggregates for Concrete & Alternatives to River Sand	ICI Bengaluru chapter	Department of Civil Engineering and ICI Bengaluru Chapter	115	1 day	04.10.18
14	Seminar	High Strength Concrete	ICI Bengaluru chapter	Department of Civil Engineering and ICI Bengaluru Chapter	97	1 day	25.04.19
Workshop							
15	Workshop	Stakeholder Management	Mr. Gautam Pant	Associate Professor	80	1 day	12.09.18
16	Workshop	Overseas Education for M. S	Mr. Devanand M	Market Development Executive	95	1 day	26.09.18
17	Workshop	Green Technology – its significance and relevance	Mr. K.P. Pradeep Raja	Research Scholar / Associate Professor	132	1 day	05.10.18
18	Workshop	Scope and Opportunities in Civil Engineering - Advanced Surveying Technologies - Application of ETABs and STAAD IN Civil Engineering	Mr. S. Hemanth Reddy Mr. Kiran Kumar K. L.	Chief Executive Sr. Design Engineer	112	1 day	09.10.18

19	Workshop	Brainstorm of Good Practice in Geotechnical Engineering	Dr. G L Sivakumar Babu	Professor, Department of Civil Engineering	136	1 day	27.10.18
20	Workshop	Brainstorm of Good Practice in Geotechnical Engineering	Dr. C R Parthasarathy	Group Chairman and managing director	136	1 day	27.10.18
21	Workshop	Brainstorm of Good Practice in Geotechnical Engineering	Dr. L. Govindaraju	Associate Professor, Department of Civil Engineering	136	1 day	27.10.18
22	Workshop	Brainstorm of Good Practice in Geotechnical Engineering	Dr. P V Sivapullaiah	Pro – Vice Chancellor, GITAM University, Bengaluru and Former Professor, Department of Civil Engineering	136	1 day	27.10.18
23	Workshop	Value Engineering	Ms. Anita Lukose	Certified Value Specialist, anita systems, Bengaluru	120	1 day	05.04.19
24	Workshop	Tall Building Designing	Prof. Surendra B.V, Dr. Vinay Kumar B M and Prof. Yogesh K S	Professors, Department of Civil Engineering, NHCE	52	2 days	12.04.19 and 13.04.19

Table 2.18c. List of Guest/Expert lecture, Seminars, Workshops conducted in AY 2017-18

Sl. No	Event Type	Event Name/ Title	Conducted by / Resource Person	Company Name & Address	No. of Participants	Duration	Date
Guest Lecture and Expert lecture							
1	Guest Lecture	An -Avenue for higher education for civil engineering in India & Abroad	Ms. G. Navatha, Sr. faculty	Vani Institutions	51	2 hrs	02.04.18
2	Expert Lecture	Module-5-Hydraulics	Mr. B.N. Nagesh	KUWS & DB, Bengaluru	135	2 hrs	10.04.18
3	Expert Lecture	Module-5 -CIV44	Mr. B.N. Nagesh	KUWS & DB, Bengaluru	135	2 hrs	10.04.18
4	Expert Lecture	Module-5-CIV61	Dr. Mahesha.T	KSPCB, Bengaluru	50	2 hrs	15.03.18
5	Expert Lecture	Module-5-CIV61	Dr. Mahesha.T	KSPCB, Bengaluru	54	2 hrs	15.03.18
6	Expert Lecture	Module-5-CIV61	Dr. Mahesha.T	KSPCB, Bengaluru	52	2 hrs	15.03.18
7	Expert Lecture	Module-5 -CIV62	Dr. Ravindra	RVCE-Bengaluru	101	2 hrs	16.04.18
Seminar							
8	Seminar	BIM	Sr. faculty	Educadd	140	1 day	03.03.18

9	Seminar	Archibus software	Head-South Asia	ICTSDS, Government of Karnataka	210	1 day	05.02.18
10	Seminar	Social Values & Social Responsibilities	Sava wing Representative	Sri Sathya Sai Hospital Seva wing	70	1 day	07.02.18
11	Seminar	Financial Literacy program for SC/ST Students	Dr. Sheelan Mishra, HOD MBA	MBA, NHCE	22	1 day	21.02.18
Workshop							
12	Workshop	Cype software	Amarnatha. S. N, FB Designer	Cype, Avda, Eusebio Sempere, Alicante-Spain	48	1 day	20.02.18
13	Workshop	Cype software	Amarnatha. S. N, FB Designer	Cype, Avda, Eusebio Sempere, Alicante-Spain	51	1 day	23.02.18
14	Workshop	Cype software	Amarnatha. S. N, FB Designer	Cype, Avda, Eusebio Sempere, Alicante-Spain	48	1 day	24.02.18
15	Workshop	TEKLA software	V.P.Naik, MD & CEO	G2G Engineering Services Pvt Ltd	140	1 day	15.03.18
16	Workshop	Archi-Bus	State Government	State Government	40	3 days	22.03.18 to 24.03.18

17	Workshop	Students exchange programme to France	Dean-Academics	NHCE	150	1 day	06.04.18
18	Workshop	Archi-Bus	State Government	State Government	140	2 days	06.04.18 to 07.04.18
19	Workshop	Application of Geology in the field of Civil Engineering	Dr. Rajendra, Dr. Fareeddudin	Geological Survey of Karnataka	145	1 day	16.04.18

- XIV.** Citing real world examples for application based courses.
- XV.** Power Point Presentation PPTs
- XVI.** Animated videos
- XVII.** Taking online classes through different apps like Zoom meeting, Google class room, CISCO WebEx Google meet etc.
- XVIII.** Hands on training on different civil Engineering related software's like STADPRO, AUTOCAD, BIM, ETABS, PRIMAVERA etc
- XIX.** Explanation with models and instruments
- XX.** Access to study material in ERP
- XXI.** Explanation with charts and maps
- XXII.** Digital library enables real time learning, monitoring, comprehension and online assessment
- XXIII.** Case studies

C. Methodologies to support slow learners and encourage Fast learners

(i) *Identification of Slow learners and Fast learners*

Faculty members identify the slow learners and Fast learners of their respective courses based on student's assessment through lectures and lab classes, assignments, CIE-I, CIE-II CIE-III and SEE results.

Table 2.19. Identification of Slow learners and Fast learners

Category of learners	Process of identification
Slow learners	Current CGPA <6 and Failures in Semester End Examinations
Fast learners	Current CGPA >8 and Rank Holders, Semester Toppers & Course Toppers

(ii) *Methodology to support Slow learners*

Table 2.20. Process of supporting Slow learners

Category of learners	Process adopted to support	Impact Analysis
Slow learners	<ul style="list-style-type: none"> ➤ Peer teaching by Fast learners ➤ Counseling by concerned Faculty member, class teacher, HOD and Counselors. ➤ Informing parents about performance regularly. ➤ Conducting coaching classes, providing them question banks, extra assignments etc. 	<ul style="list-style-type: none"> ➤ Improvement in Semester end examinations. ➤ Improvement in positive attitude among students. ➤ Improvement in analytical and communication skills.

(iii) *Methodology to support Fast learners*

Table 2.21. Action taken in assisting Fast learners.

Category of learners	Process adopted to support	Impact Analysis
Fast learners	<ul style="list-style-type: none"> ➤ Motivating them to get Gold medals, Mementos and cash prizes given on Graduation Day and Department Functions. ➤ Encouraging them to take part in Research Activities, National level Project competitions, conferences, workshop, co-curricular activities, club activities and to appear for competitive exams like GATE, GRE, TOEFL, IELTS, CAT, PGCET etc. ➤ Inspiring them to become members of professional bodies like ASCE/ ISTE / ICI /IGS and organize technical events 	<ul style="list-style-type: none"> ➤ Improvement in CGPA. ➤ Improvement in communication skills and interpersonal skills. ➤ Improvement in inter-institute event participation. ➤ Improvement in placement. ➤ Enrolment in professional bodies and competitive examinations.

D. Quality of Class Room Teaching

One of the challenges in moving forward is the training of engineering students. As has been widely recognized, the training of civil engineering students goes beyond the confines of the classroom, and project-oriented activities have been incorporated into engineering education to provide much-needed real-life experiences. One of several ways this has been achieved is through service learning and basic research activities. The following techniques are being adopted.

- Classroom ambience is made interactive.
- Smart boards are fitted in classrooms for effective delivery which allow integration of various technologies and interaction in order to improve the learning experience
- Smart board helps Faculty members to bring lessons to life with rich, powerful activities that grabs students' attention, blending real time assessment and real world experience into the learning process.
- Prototype instruments and models are taken by the faculty to the class room to demonstrate the concepts in a clear way to the students.

E. Conduct of Experiments:

- At the beginning of semester, the faculty members share with the students the course contents, Course objectives, Course outcomes and evaluation methods.
- For each laboratory course, 10-12 experiments are to be conducted.
- Student strength in each batch for laboratory class is 20.
- Laboratory manual prepared by the concerned Faculty members are provided to students at the commencement of the semester.
- Viva voce is conducted for the students in order to test their knowledge after the conduction of each experiment.
- The Laboratory assessment is performed on the basis of rubrics such as, write up, conduction of experiments, results & record writing.

F. Continuous Assessment in the laboratory:

- The students record the output in their observation after conducting the relevant experiment referring Laboratory Manual.
- The Course Instructor evaluates the students by Observation and Viva –Voce Examination for each experiment.
- Based on that practical outcome, the slow learners are identified and individual attention is provided.

Laboratory Internal Test: One test of 3 hours' duration is conducted by asking them to perform the practical's in the similar pattern as that of SEE after completion of all the practical's to assess the ability of student performance.

Semester End Examination: The Semester End Laboratory/Practical Examination is conducted for 3hour duration by both Internal and External Examiners.

The distribution of marks and rubrics used for continuous evaluation in labs is shown in Table 2.22a and 2.22b.

Table 2.22a. Distribution of marks and rubrics used for Continuous Evaluation in Labs

Examination	Sl. No	Assessment	Marks	Parameters	Allocated marks	Low	Medium	High
CIE	1	Regular Performance in lab sessions and record	15	Conduction of experiment	5	No write up (0-1 mark)	Partial write up (2-3 marks)	Satisfactory write up (4-5 marks)
				Specimen Calculation	5	Non conduction of experiment (0-1 mark)	Partial completion of experiment (2-3 marks)	Satisfactory completion of experiment (4-5 marks)
				Result & Record writing	5	Non submission of record (0-1 mark)	Incomplete record submission (2-3 marks)	Complete record submission (4-5 marks)
	2	Internal Test	10	Procedure and Write up	3	No write up (0 mark)	Partial write up (1-2 marks)	Satisfactory write up (3 marks)
				Conduction and Result	5	Non conduction of experiment (0-1 mark)	Partial completion of experiment (2-3 marks)	Satisfactory completion of experiment (4-5 marks)
				Viva Voice	2	No response (0 mark)	A few responses (1 mark)	Satisfactory responses (2 marks)
Total	25							
SEE			25	Procedure & Write up	5	No write up (0-1 mark)	Partial write up (2-3 marks)	Satisfactory write up (4-5marks)
				Conducting the practical's, Calculation, Graphs, Results Etc.	15	Student has failed to perform the experiment. (0-5 mark)	Student has partially performed the experiment. (6-10 marks)	Student has performed the experiment satisfactorily (11-15 marks)
				Viva Voice	5	No response (0 mark)	A few responses (2-3 mark)	Satisfactory responses (4-5 mark)
Total	25							

Table 2.22b. Marks distribution for Laboratory courses

Sl. No	Assessment	Marks
1	CIE	25
2	SEE	25
Total		50

Mini Project

- Students are given Mini project in various application areas of their interest to help them to acquire the necessary confidence to carry out main project in the final year.
- In this project, each group consisting of three/four members is expected to design and develop practical solutions to construction industry simulated problems and research areas.
- The students will select the topics in consultation with the Faculty members for the mini project and a review will be conducted by the Department for the topic acceptance.
- The review panel consists two to three faculty members from different areas of specialisation. After the acceptance of the topic, each group will be assigned a Guide based on their area of interest.

Process for assessing the quality of Mini Projects

- The Mini project evaluation committee will analyse the societal relevance of the project and make sure that the work is environment friendly, ensures safety, follows ethics and is cost effective.
- A students' ability to comprehend, write effective reports and design documentation is assessed by evaluating the report.
- The rubrics adopted for assessing the mini project is as below

Table 2.23. Evaluation rubrics for Mini projects I, II, III (19CIVL49, 20CIV59, 20CIV67)

Examination	Review Stage	Work to be completed	Evaluation Marks (%)	Marks allocated	Low	Medium	High	Evaluated by
CIE	1	Identification of project topic, relevance and concepts	05 (20%)	25	Poorly defined (0-1 marks)	Moderately defined (2-4 marks)	Well defined (5 marks)	Internal Review Committee
	2	Methodology for the analytical/ experimental study. -5	15 (60%)		Poorly defined (0-5 marks)	Moderately defined (6-10 marks)	Well defined (11-15 marks)	
		Evaluation of results and discussions. -5			Poor interpretation (0-1 mark)	Moderate interpretation (2-4marks)	Satisfactory interpretation (5marks)	
		Viva voce -5			No response (0 marks)	A few Responses (2-3 marks)	Satisfactory responses (4-5 marks)	
	3	Evaluation of reports.	5 (20%)		Non-compliance of report (0-1 marks)	Partial compliance of report (2-4 marks)	Satisfactory compliance of report (5 marks)	
SEE	Presentation of the work		10(40%)	25	Poor presentation (0-3 marks)	Moderate presentation (4-7 marks)	Satisfactory presentation (8-10 marks)	Internal and external examiners
	Evaluation of Report		10 (40%)		Poor quality (0-3 marks)	Moderate quality (4-7marks)	Satisfactory quality (8-10 marks)	
	Viva voce		05 (20%)		No response (0 marks)	A few Responses (2-3 marks)	Satisfactory responses (4-5 marks)	
Total				50				

Table 2.24. Evaluation rubrics for Mini Project (Extensive Survey project, 20CIV68)

Examination	Review Stage	Work to be completed	Evaluation Marks (%)	Marks allotted	Low	Medium	High	Evaluated by
CIE	1	Evaluation of Field Work & Manual Drawings	10 (40%)	25	Unsatisfactory involvement in field work and preparation of manual drawing (0-3 mark)	Partial involvement in field work and preparation of manual drawing (4-7 marks)	Total involvement in field work and preparation of manual drawing (8-10 marks)	Internal Review Committee
	2	Evaluation of AutoCAD Drawings	05 (20%)		Non submission (0 mark)	Incomplete submission (1-4 marks)	Complete submission (5 marks)	
	3	Evaluation of Report	05 (20%)		Non-compliance of report (0-1 mark)	Partial compliance of report (2-4 marks)	Satisfactory compliance of report (5 marks)	
	4	Viva/Voce	05 (20%)		No response (0 mark)	A few Responses (2-3 mark)	Satisfactory responses (4-5 mark)	
SEE	Evaluation of Design of Projects		10 (40%)	25	Poor (0-3 marks)	Moderate (4-7 marks)	Good (8-10 marks)	Internal and external examiners
	Evaluation of Manual & AutoCAD Drawings		10 (40%)		Non submission (0 mark)	Incomplete submission (1-7 marks)	Complete submission (8-10 marks)	
	Viva/Voce		05 (20%)		No response (0 mark)	A few Responses (2-3 mark)	Satisfactory responses (4-5 mark)	
Total				50				

G. Student Feedback and action taken

- A team of senior faculty members and class teacher conduct the class committee meeting after a month of commencement of every semester, minimum of two class committee meetings are conducted in every semester.
- In the class committee meeting, the student's representatives freely express the opinion about the course and course handling faculty members will not be in the committee. If the students feel any inconvenience of the subjects and the faculty members, the Head of the Department will take the necessary corrective measures.
- The feedback forms will be filled by the students for each course collected thorough online at the end of semester.
- The faculties who earned excellent feedback are appreciated and the faculty, who hadn't performed well, are given opportunities to improve themselves. Table 2.25 indicates different performance parameters.

Table 2.25. Student feedback format

New Horizon College of Engineering
Student Feedback Report
Department of Civil Engineering
Faculty Name

SR. No.	Name of the faculty	CLASS	No of Students	Subjects	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10	Q 11	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18	Avg
Overall avg																							

Q 1	Clarity in explaining the subject
Q 2	Subject explained was easy to understand.
Q 3	Content quality is relevant and useful.
Q 4	Faculty answers to your queries/questions.
Q 5	Coverage of topic/subject is on time.
Q 6	The concepts were explained with examples.
Q 7	Faculty preparation for the class.
Q 8	Faculty guidance for preparation of seminar, conference and exam.
Q 9	Punctuality of the faculty for the class.
Q 10	Communicates distinctly and effectively.
Q 11	Treats students with respect and courtesy.
Q 12	Control of the classroom by faculty.
Q 13	Relevance of assignments to the subject.
Q 14	Overall satisfaction.
Q 15	Discussion of any interesting topic beyond the syllabus but relevant to the field.
Q 16	Usefulness of the question papers of internal tests in your preparation for the examination.
Q 17	Helpfulness of the online course material (question bank, etc.) and assignments for you to understand and prepare and for tests and examination.
Q 18	Accessibility availability after the class hours in the college.

Scale Used

Not Applicable	0
Poor	1
Fair	2
Good	3
Very Good	4
Excellent	5

2.2.2 Quality of semester end examination, internal semester question papers, assignments and evaluation (15)**A. Process for internal semester question paper setting and evaluation and effective process implementation (3)****1. Quality of internal question papers**

Internal Tests: Internal tests serve to encourage students to keep up with course content covered in class. The questions in internal tests are framed in such a way that they satisfy Revised Bloom's Taxonomy Level, wherein each question is mapped to the appropriate course outcome of the respective course, which is evaluated based on the set attainment levels by the department. To ensure the quality of internal tests, the question paper is verified by the CIE committee chaired by the Head of the Department/ Senior faculty members.

- Three continuous internal tests are conducted by Department as per the schedule prescribed in the academic calendar in every semester Faculty member are instructed to use blooms taxonomy to prepare the question papers in such a way to cover the prescribed syllabus and ensure the relevant course outcomes.
- The quality of the question paper submitted by the faculty members is ensured by the CIE committee chaired by the Head of the Department/ Senior faculty members and in case any question paper needs up gradation is returned to the concerned Faculty member to revise the question paper. The Faculty members prepare and submit the scheme of evaluation to the committee before the commencement of tests.

2. Quality of Semester End question papers**Semester End Evaluation (SEE)**

- Question papers for End-semester exams are based on various learning levels as per Revised Bloom's taxonomy mapping with Course Outcomes.
- Faculty engaged in teaching with minimum five years of experience in relevant courses in any University, Research Institute or College affiliated to Universities shall be appointed to set question papers.

- For each course five question paper will be set, three question papers will be set by internal Faculty members and two from external Faculty members.
- Copy of the guidelines for question paper setter's Syllabus of the concerned course /courses Bloom's Taxonomy Question Paper Format are sent to external Faculty members.
- The question papers will be scrutinized by internal and external subject experts along with Board of Examination members and BOE chairman. Figure 2.12 shows the process.

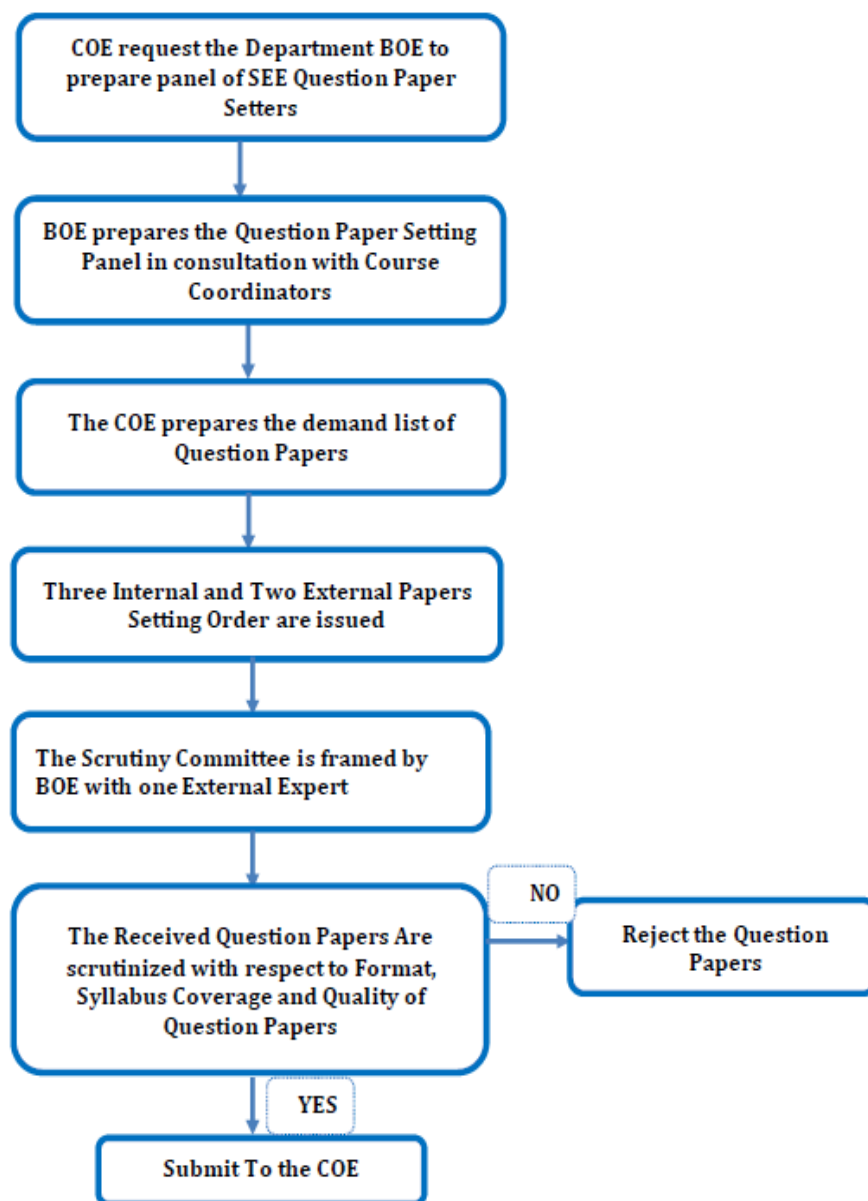


Figure 2.12. Process involved in preparation of SEE question paper

3. Evaluation Process – Tests and Semester End Examinations

For each theory course, the assessment pattern for CIE and SEE is done as shown in the following Table 2.26a and 2.26b.

Table 2.26a. Theory Course CIE Assessment pattern

Sl. No	Assessment	Marks	Weightage	Remarks
1	CIE Test 1	25	25	(Average of 3 tests)
2	CIE Test 2	25		
3	CIE Test 3	25		
4	Assignment 1	7.5	15	(Sum of 2 Assignments)
5	Assignment 2	7.5		
6	Quiz1	5	10	(Sum of 2 Quizzes)
7	Quiz 2	5		
Total			50	

Table 2.26b. Theory Course Total Assessment Pattern

Sl. No	Assessment	Marks
1	CIE	50
2	SEE	50
Total		100

The Semester End Examination for all the courses is conducted for 100 marks and is scaled to 50 for awarding the final grade.

B. Process to ensure questions from outcomes/ learning levels perspective (2)

- The CIE Committee will assess the quality and relevance of the question papers set by the Course Coordinators based on its syllabus coverage in compliance with the Revised Blooms Taxonomy Levels and corresponding Course Outcomes.
- The distribution of mark allocation for the prescribed syllabus and the course outcomes of the Continuous Assessment Test are evaluated by the respective course coordinator.

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

The questions in the question paper are mapped with the course outcomes and it will be evaluated by the Scrutiny Committee, Sample Table is given below,

Academic year	2018-19	Semester	V	
Course Code	CIV574	Course Name	Hydrology and Irrigation Engineering	
Mapping of questions with CO's				
Tests	CO1	CO2	CO3	CO4
Test-1	√	√		
Test-2		√	√	
Test-3			√	√

D. Quality of Assignment and its relevance to CO's (5)

Assignments: Assignments are qualitative performance assessment tools designed to assess students' knowledge of engineering practices, framework and problem solving. Students are assigned course-related work to be completed outside of contact hours, and their submissions are graded on the basis of work quality and originality. A minimum of 2 assignments are given per course and each assignment is evaluated for 7.5 marks. Assignments and Quizzes are an integral part of the continuous assessment process. The whole classroom is divided into 3 groups and each group will be given a separate set of assignments. The Quiz will be conducted without prior notice to students to check their regularity in studies and also their conceptual understanding. The schedule of submission dates of Assignments and Quizzes are notified in the Academic Calendar of the Department. The Assignments and Quizzes are framed and mapped with COs and Revised Bloom's Taxonomy Levels and reviewed by CIE committee.

(i) Quality of Assignment

- Assignments are given to the students to achieve the outcomes of the courses to promote the self-learning.
- The assignments are used to assess the application-oriented knowledge gained by the students in the relevant course.
- The evaluations of the assignments are based on the basic concepts, coverage of the courses and the way the student present it.

(ii) Relevance of Assignments to Cos

Assignments and Quizzes are prepared in three sets by assigning Course Outcomes mapping with the Revised Blooms Taxonomy Levels. A sample of Assignment and quiz paper is shown below.

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DEPARTMENT OF CIVIL ENGINEERING

ASSIGNMENT 1
(GROUP 1-USN LAST DIGIT 0, 3, 5, 7)

Course Name: Environmental Engineering-I Course Code: CIV61
Semester: VI Submission date: 25/02/2020

Answer all the questions		CO's	RBTL
1.	List the acceptable and maximum permissible limit according to drinking water standards IS 10500, 2012 for the following water quality parameters a. pH b. Total dissolved solids c. Nitrate d. Chloride	CO1	L1
2.	Explain water borne diseases in detail.	CO1	L2
3.	Discuss the main objectives of water quality management.	CO1	L2
4.	Illustrate the factors governing the design periods.	CO1	L3
5.	The populations for 5 decades from 1930 to 1970 are given below. Find out the population after one, two and three decades beyond the last known decade, by using arithmetic increase, geometric increase and incremental increase methods	CO1	L4

Year	1930	1940	1950	1960	1970
Population	25000	28000	34000	42000	47000

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DEPARTMENT OF CIVIL ENGINEERING

ASSIGNMENT 1
(GROUP 2-USN LAST DIGIT 1, 6, 8)

Course Name: Environmental Engineering-I Course Code: CIV61
Semester: VI Submission date: 25/02/2020

Answer all the questions		CO's	RBTL
1.	List the acceptable and maximum permissible limit according to drinking water standards IS 10500, 2012 for the following water quality parameters a. Iron b. Total alkalinity c. Mercury d. Total hardness	CO1	L1
2.	Discuss on human activities and environment pollution.	CO1	L2
3.	Explain different types of water demand in detail	CO1	L2
4.	Illustrate variations in demand of water in detail.	CO1	L3
5.	Investigate the population for the year 2031 and 2041 from the following population data by using arithmetic increase method, geometric increase and incremental increase method.	CO1	L4

Year	1961	1971	1981	1991	2001	2011
Population	858545	1015672	1201553	1691538	2077820	2585862

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New Horizon College of Engineering, Bangalore
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DEPARTMENT OF CIVIL ENGINEERING

ASSIGNMENT 1
(GROUP 3-USN LAST DIGIT 2, 4, 9)

Course Name: Environmental Engineering-I Course Code: CIV61
Semester: VI Submission date: 25/02/2020

Answer all the questions		CO's	RBTL
1.	List the acceptable and maximum permissible limit according to drinking water standards IS 10500, 2012 for the following water quality parameters a. Colour b. Turbidity c. Fluoride d. Lead	CO1	L1
2.	Discuss on need for protected water supply.	CO1	L2
3.	Explain the health significance of fluoride, nitrates and mercury in detail	CO1	L2
4.	Illustrate the factors affecting per capita demand.	CO1	L3
5.	Investigate the population for the year 2021 and 2031 from the following population data by using arithmetic increase method, geometric increase and incremental increase method.	CO1	L4

Year	1931	1941	1951	1961	1971	1981	1991
Population	12000	16500	26800	41500	57500	68000	74100

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Figure 2.13. Sample of Assignment

New Horizon College of Engineering, Bangalore
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DEPARTMENT OF CIVIL ENGINEERING

QUIZ- I

Course Name: Environmental Engineering I Course Code: CIV61
Date: 17.02.2020 Semester: VI
Duration: 10 min Max. Marks: 2.5

Answer all the questions		CO's	RBTL
1.	The polluted water is one which a) Contains pathogenic bacteria b) Consists of undesirable substances rendering it unfit for drinking & domestic use c) Is safe and suitable for drinking & domestic use d) Is contaminated	CO-1	L-1
2.	Which of the following causes a decrease in per capita consumption? a) Use of metering system b) Good quality of water c) Better standard of living of the people d) Hotter climate	CO-1	L-2
3.	Standard EDTA solution is used to determine the a) Hardness in water b) Turbidity in water c) Dissolved oxygen in water d) Residual chlorine water	CO-1	L-1
4.	The minimum dissolved oxygen which should always be present in water in order to save the aquatic life is a) 1 ppm b) 4 ppm c) 10 ppm d) 40 ppm	CO-1	L-2
5.	If the total hardness of water is greater than its total alkalinity, the carbonate hardness will be equal to a) Total alkalinity b) Total hardness c) Non carbonate hardness d) None of the above	CO-1	L-1

Name of the Student: _____ USN: _____ Sec: _____

Total Marks Awarded: _____

N. Mahesh
FACULTY SIGNATURE

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DEPARTMENT OF CIVIL ENGINEERING

Quiz I

Course Name: Environmental Engineering I Course Code: CIV61
Date: 17.02.2020 Semester: VI
Duration: 10 min Max. Marks: 2.5

Answer all the questions		CO's	RBTL
1.	Fire demand of a city may be worked out by a) Kuichling's formula b) Freeman formula c) Under Writer's formula d) All of the above	CO-1	L-1
2.	Which of the following is not a water borne disease? a) Dysentery b) Cholera c) Typhoid d) Malaria	CO-1	L-2
3.	Acidity in water is caused due to a) Mineral acids b) Free CO ₂ c) Iron Sulphate d) All of the above	CO-1	L-1
4.	By boiling water hardness can be removed if it is due to a) Calcium sulphate b) Calcium nitrate c) Calcium bicarbonate d) Magnesium sulphate	CO-1	L-1
5.	On standard silica scale, the turbidity in drinking water should be limited to a) 10 ppm b) 20 ppm c) 30 ppm d) 50 ppm	CO-1	L-2

Name of the Student: _____ USN: _____ Sec: _____

Total Marks Awarded: _____

N. Mahesh
FACULTY SIGNATURE

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New Horizon College of Engineering, Bangalore
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DEPARTMENT OF CIVIL ENGINEERING

QUIZ- I

Course Name: Environmental Engineering I Course Code: CIV61
Date: 17.02.2020 Semester: VI
Duration: 10 min Max. Marks: 2.5

Answer all the questions		CO's	RBTL
1.	The suitable method of forecasting population for a young and rapidly increasing city is a) Arithmetical increase method b) Geometrical increase method c) Incremental increase method d) Graphical method	CO-1	L-2
2.	Sewage treatment units are normally designed for a) 5-10 years b) 15-20 years c) 30-40 years d) 40-50 years	CO-1	L-1
3.	The per capital consumption of a locality is affected by (i) Climatic conditions (ii) Quality of water (iii) Distribution pressure The correct answer is a) Only (i) b) Both (i) and (ii) c) Both (i) and (iii) d) All of the above	CO-1	L-1
4.	The maximum permissible limit for fluoride in drinking water is a) 0.1 mg/l b) 1.5 mg/l c) 5 mg/l d) 10 mg/l	CO-1	L-2
5.	Turbidity is measured on a) Standard silica scale b) Standard cobalt scale c) Standard platinum scale d) Platinum cobalt scale	CO-1	L-1

Name of the Student: _____ USN: _____ Sec: _____

Total Marks Awarded: _____

N. Mahesh
FACULTY SIGNATURE

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Figure 2.14. Sample of Quiz paper

2.2.3 Quality of student projects (20)

A. Identification of Projects and allocation methodology to faculty members (2)

- The students are asked to work in groups with not more than 4 students in each group.
- The project work has two phases spreading over final two semesters (7th and 8th semesters).
- Both in 1st phase and 2nd phase work is reviewed and evaluated in 3 stages.
- The students are encouraged to identify the project based on their interest. The students also encouraged to choose relevant societal problems based on the previous internships.
- The guides are allocated based on their specialization or interest by the project Coordinator and Head of the Department.

**Table 2.27. Allocation Methodology of Projects to Faculty members
(2019-2020)**

S. No.	Name	Area of Specialization
1	Dr. Niranjana P S	Construction Technology
2	Dr. Muralikrishna	Transportation Engineering and Management
3	Dr. Jagadeesh C B	Geotechnical Engineering
4	Dr. Balamurugan	Structural Engineering
5	Dr. Natchimuthu Subramani	Structural Engineering
6	Dr. Geetha Varma V	Environmental Engineering
7	Dr. Vinay Kumar B M	Engineering Management
8	Dr. Ranganathan	Structural Engineering
9	Dr. Harish Velagiri	Geotechnical Engineering
10	Dr. Giri Prasad	Geotechnical Engineering
11	Mr. Surendra B V	Structural Engineering

12	Mr. Satish Deosugur	Highway Technology
13	Mr. Sunil M Horaginamani	Structural Engineering
14	Mr. Rajendra T N	Computer aided Design Structures
15	Mr. Harish G R	Transportation Engineering and Management
16	Mr. Sudhakar G N	Construction Technology
17	Ms. Ramya H S	Computer aided Design Structures
18	Ms. Suma Parlada	Construction Technology
19	Ms. Swetti Jha	Environmental Engineering
20	Ms. Snehal Rajendra Lahande	Structural Engineering
21	Mr. Pawan Kumar K R	Infrastructure Construction Management
22	Mr. Nitish Kumar K	Transportation Engineering and Management
23	Mr. Channabasava	Pre-stressed Concrete
24	Mr. Yogesh K S	Structural Engineering
25	Ms. Serin Issac	Geotechnical Engineering
26	Mr. Vijay N C	Infrastructure Construction Management
27	Mr. Sandeep. T. D	Earthquake Engineering
28	Mr. Prakash Appasaheb Nayakar	Structural Engineering
29	Ms. Geethu V	Environmental Engineering
30	Mr. Rahul N K	Structural Engineering
31	Ms. Meghana A Patankar	Structural Engineering
32	Ms. S Satya Priya	Water Resources Engineering
33	Dr. Mahesha Nanjegowda	Geology
34	Ms. Vandhana Patyal	Energy and Environment

35	Ms. Athulya Suganthan	Structural Engineering
36	Ms. Kommajosyula Sharmila	Soil Mechanics and Foundation Engineering
37	Ms. Neethu Elizabeth John	Structural Engineering

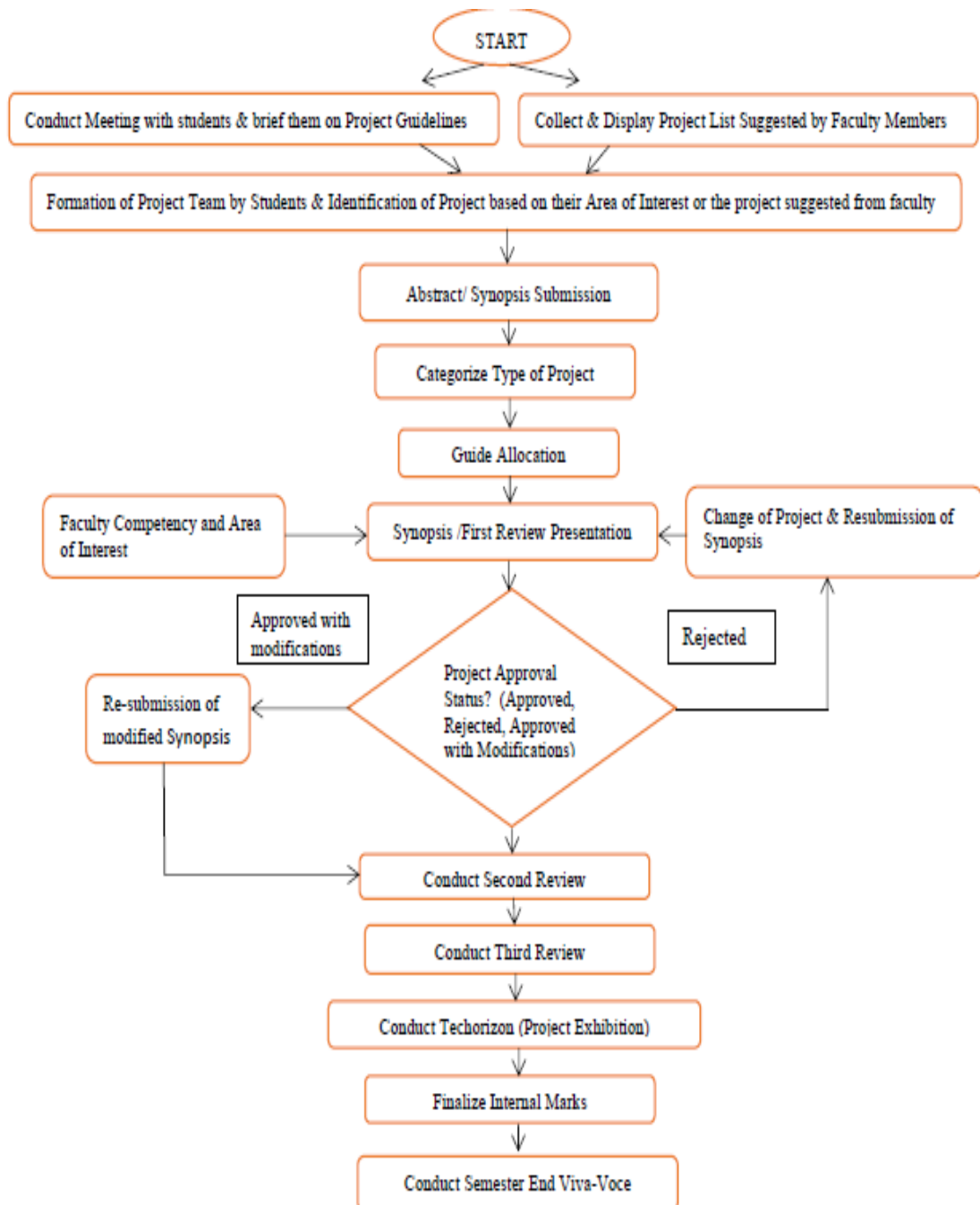


Figure 2.15. Processes of project identification, allocation, monitoring and evaluation.

B. Types and relevance of the projects and their contribution towards attainment of PO's (2)

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

- Application oriented
- Product and process development
- Solution to the industrial specific problems
- Verification and validation of software

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

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

Table 2.28: List of few samples of student projects

Sl. No.	USN	Students Name	Project Title	Supported POs	Supported PSOs
2019-20					
1	1NH16CV080 1NH16CV083 1NH16CV122 1NH17CV417	Pramod Sencha N Pratham Chandrakant Naik Yeshwanth.k Sathisha Kumar	Mega-floating structure: Concept, Analysis, Design Criteria	PO1-PO12	PSO1, PSO2
2	1NH16CV131 1NH16CV136 1NH16CV137 1NH17CV414	Rajesh Kumar Shah Younesh Mahaseth Bishal Kumar Gupta Ravi Kumar Patel	Performance & Cost Evaluation of Mono Column G+4 Commercial Building for RCC and Composite Materials	PO1-PO12	PSO1, PSO2
3	1NH16CV034 1NH16CV003 1NH16CV140 1NH15CV104	Deeraj T Abhishek Deekshith V S Shiva Prasad	Experimental study on strength development in geopolymer concrete using rice husk ash by varying alkali ratio	PO1-PO12	PSO1, PSO2
4	1NH16CV050 1NH16CV052 1NH16CV061 1NH16CV040	Kishore Hosamane Kummari Viswateja Mallikarjun Gowtham C N	Effect of bracings on torsional response of steel structure	PO1-PO12	PSO1, PSO2
5	1NH16CV119 1NH17CV401 1NH17CV408 1NH17CV410	Varun Patil Borse Harshal Bharat Nanda Kishore R Nithin M	To study the flexural and shear behaviour of externally bonded GFRP concrete beams	PO1-PO12	PSO1, PSO2
2018-19					
6	1NH15CV077 1NH15CV079 1NH15CV092 1NH15CV112	Naveen S R Nidhi D Rachitha Prakash Samanjasa K	Performance evaluation & upgradation techniques of a waste water treatment plant	PO1-PO12	PSO1, PSO2
7	1NH14CV007 1NH14CV065 1NH14CV076 1NH15CV116	Akash S Methesh M Reddy Nishanth N V Shaleek Ahmed	Dynamic Analysis of Irregular Structure Using ETABS	PO1-PO12	PSO1, PSO2

8	1NH15CV008 1NH15CV063 1NH15CV127 1NH15CV133	Abhishek N S Md Naqueeb Alam S Pawan Kalyan Reddy Uday Kumar K K	Experimental study on partial replacement of steel slag as fine aggregate in slag cement concrete mix	PO1-PO12	PSO1, PSO2
9	1NH15CV014 1NH15CV018 1NH15CV039 1NH15CV070	Aman Kumar Anisha Harshini P Md Ghouse	Experimental study on FaL-G blocks	PO1-PO12	PSO1, PSO2
10	1NH15CV118 1NH15CV128 1NH15CV129 1NH15CV141	Shamir Sirajuddin Tarun Kumar Tarun Kumar Reddy V Vipin Sharma	Study on GFRG panels as a composite material for construction	PO1-PO12	PSO1, PSO2
2017-18					
11	1NH14CV077 1NH14CV058 1NH14CV062 1NH14CV067	Parri Jashwanth Tej Madhu M Maruthi Reddy Mohan M Diggi	Study on performance of steel slag aggregates as a fine aggregate in concrete mix	PO1-PO12	PSO1, PSO2
12	1NH14CV018 1NH14CV024 1NH14CV087 1NH14CV047	Bhavana N Chaitra S J Punith R Karthik	Steel fiber reinforced self-compacting concrete with silica fume	PO1-PO12	PSO1, PSO2
13	1NH14CV135 1NH14CV133 1NH14CV141 1NH14CV144	Mukesh Kumar Krishna Kumar Vivek Shah Bimal Shah	Soil stabilization using industrial waste and lime	PO1-PO12	PSO1, PSO2
14	1NH14CV015 1NH14CV055 1NH14CV040 1NH14CV022	Basavaraj S Bachihal Lakshman K Hemanth D R C.M. Lakshmi Narayana Kanth	Comparative study on structural parameters of RCC and composite structures	PO1-PO12	PSO1, PSO2
15	1NH12CV065 1NH13CV034 1NH14CV069 1NH14CV010	Varun C Gajendra.R Ravi Kumar Anush B S	High breed fibre reinforce concrete with the addition of Styrene Butadiene Rubber polymer – An experimental study	PO1-PO12	PSO1, PSO2

C. Projects Related to Industry (3)

Table 2.29. List of few samples of student projects related to Industry Batch 2016-20

Sl. No.	USN	Students Name	Project Title	Supported POs	Supported PSOs
2019-20					
1	1NH16CV094 1NH16CV120 1NH17CV418 1NH17CV419	Sandeep Veeresh R B Shashi Kumar Siddalinga Reddy	Design and drawing of proposed highway alignment of SH-201	PO1-PO12	PSO1, PSO2
2	1NH16CV085 1NH16CV125 1NH17CV411 1NH16CV126	Priya Ranjan Aman Gautam Owais Nazir Ansony Kumar Yadav	Improvement of soil stability using shredded rubber tyres	PO1-PO12	PSO1, PSO2
3	1NH16CV084 1NH16CV112 1NH16CV115 1NH16CV121	Prathik Poojari Thanseeh Ayoob P K Vachanraj R Yadul N	Assessment of Solid Waste Management of Mahadevapura zone in Bangalore city & Improvement techniques for Waste disposal	PO1-PO12	PSO1, PSO2
4	1NH16CV073 1NH16CV067 1NH16CV024	O K Chand Mohammed K P Prasanna Kumar	Water quality analysis at Varthur lake Bangalore	PO1-PO12	PSO1, PSO2
5	1NH16CV030 1NH16CV037 1NH16CV045 1NH16CV062	D S Asmita Divya S Kambali Jennifer Rose Biju Manikya H M	Morphometric analysis of upper Shimsha -1 watershed, Tumkur District, Karnataka using GIS and Remote Sensing techniques	PO1-PO12	PSO1, PSO2
2018-19					
6	1NH15CV071 1NH15CV075 1NH15CV081 1NH15CV085	Md. Thouseef K Nandan A Y Nithish R Prashanth C Gowda	Analysis and design of multi-storey structure using STAADPRO	PO1-PO12	PSO1, PSO2
7	1NH14CV048 1NH15CV027 1NH15CV032 1NH15CV040	Kavya Shree M Ashwini J Chaithra K Hemalatha R	Analysis and design of 40MLD sewage Treatment plant based on sequencing reactor process technology	PO1-PO12	PSO1, PSO2
8	1NH15CV019 1NH15CV043 1NH15CV052 1NH15CV053	Ankit Kumar Singh Jagath Mohan Karan Patil	Integrated watershed management using GIS and remote sensing – A case	PO1-PO12	PSO1, PSO2

		Keerthi T V	study from Mankanakuppe miniwatershed of Kumadvathi watershed		
9	1NH15CV125 1NH16CV406 1NH16CV409 1NH16CV415	Sonia Elizabeth Nandini A S Rashmika N Sharanayya Swamy	Designing of sewage treatment units for a residential building	PO1-PO12	PSO1, PSO2
10	1NH14CV156 1NH15CV106 1NH14CV155 1NH14CV152	Malyadri Gangadhar Manoj Chaitanya	Assessment of surface and subsurface water quality in Bellandur village	PO1-PO12	PSO1, PSO2
2017-18					
11	1NH14CV097 1NH14CV105 1NH14CV106 1NH14CV068	S. Keerthi Kumar, Shabeer Ali, Sharavana M, Monish Raj	Assessment and management of flash flood in Upper Ponnaiyar watershed, Bengaluru urban area using GIS and remote sensing techniques.	PO1-PO12	PSO1, PSO2
12	1NH14CV050 1NH14CV053 1NH14CV003 1NH14CV088	Khalid Ajaz Kumar Shivankar Adil Mohd Jeelani Basha R K Pintu	Biogas generation from anaerobic digestion using sewage sludge	PO1-PO12	PSO1, PSO2
13	1NH14CV111 1NH14CV095 1NH14CV063 1NH14CV145	Sumit TanwarM Rishab Sharma Md. Azad Nawaz Shariff	Bio gas generation by anaerobic digestion	PO1-PO12	PSO1, PSO2
14	1NH12CV008 1NH13CV141 1NH14CV416 1NH13CV060	Arindam Das Darshan V Pavan Venkatesh Naveen H	Highway construction using plastic waste	PO1-PO12	PSO1, PSO2
15	1NH14CV016 1NH14CV013 1NH14CV021 1NH14CV134	Benjamin L B. Lalthumana C. Lalremsima Manoj Rawol	E-waste management in Electronic City	PO1-PO12	PSO1, PSO2

D. Process for monitoring and evaluation of project (2)

- The progress of a project is monitored by the guide regularly.
- The continuous progress is assessed through periodic review by panel (three reviews per semester) based on Rubrics, given below

Internal assessment mark of the project/mini projects/internship is awarded based on the evaluated scores obtained from reviews. End semester Examination mark is based on the evaluation in the final review (Viva-voce) by internal and external examiners

Projects will be evaluated on the basis of

- Working principle, implementation methodology, design process of components, performance of the system, application of projects and future scopes
- Demonstration of the project work
- Viva-Voce by panel of Experts

Table 2.30. Evaluation rubrics for Project Phase I (21CIV77) & Project Phase II (21CIV84)

Sem	Project Phase	Examination	Review Stage	Work to be completed	Evaluation Marks	Marks allotted	<40%	40-70%	>70%	Evaluated by
VII	I	CIE	1a	Concept of project, Collection of necessary data, Sources of Data	10 (20%)	50	Poor	Moderate	Good	Internal Review Committee
			1b	Literature Review Aim, Objective and Scope of Project	15 (30%)		Poorly defined aim, objective and scope of project. No references included.	Moderately defined aim, objective and scope of project. Referred to more than three articles; appropriately summarized; NO recent references.	Well defined aim, objective and scope of project. Referred to more than Five articles; appropriately summarized; includes recent references.	
			1c	Methodology of the project work Organisation of the project work Seminar based on project Phase 1	25 (50%)		Poorly defined	Moderately defined	Well defined	
		SEE	Presentation of the work		20 (40%)	50	Poor presentation	Moderate presentation	Good presentation	Internal and external examiners
			Evaluation of Report		20 (40%)		Non-compliance of report	Partial compliance of report	Satisfactory compliance of report	
			Viva voce		10 (20%)		No response	A few Response	Satisfactory responses	
		Total						100		

VIII	II		2a	Experimental/ Analytical Studies	15 (30%)	50	Poor experimental and analytical studies	Moderate experimental and analytical studies	Excellent experimental and analytical studies	Internal Review Committee
			2b	Data Analysis and Interpretation	15 (30%)		Poor data analysis and interpretation	Moderate data analysis and interpretation	Excellent data analysis and interpretation	
			2c	Results(Numerical/Experi mental) Discussion and Conclusion.	20 (40%)		Poor interpretation of result	Moderate interpretation of result	Good interpretation of result	
		SEE	Presentation of the work		20 (40%)	50	Poor	Moderate	Good	Internal and external examiners
	Evaluation of Report		20 (40%)	Non- compliance of report	Partial compliance of report		Satisfactory compliance of report			
	Viva voce		10 (20%)	No response	A few Responses		Satisfactory responses			
Total						100				

IMPACT ANALYSIS

- Project Coordinator and the Project Guide will examine the quality of the project work and ensure that the project is Societal Applications, Safety, Cost Effective and Environmental Issues
- Every year the college conducts a National Level Project Exhibition and Conference called “Techorizon” which recognizes and encourages students in developing innovative projects. The projects are evaluated by experts from industry and various educational institutions. From each discipline three best projects are selected and prizes are awarded based on the quality of the projects.
- The students are encouraged to participate in project exhibitions conducted by different colleges/institutes.
- The Department will encourage the best projects to file patent.
- The project guide will help the students to publish their work in national/international conference and journal.
- Student publications from projects
- Placements offered to students based on performance during internship projects
- Equip students to address real life problems and research issues
- Solutions to challenging problems in the form of prototypes
- New innovations and creative ideas
- The faculty encourages and guides the students to carry out in-house projects and support will be provided with all necessary laboratory requirements.
- The faculties encourage students to avail the external funding schemes for their project work.

E. Process to assess individual and team performance (3)

The performance of the individual team member of the project is assessed at the time of presentation in reviews by considering the following criteria:

- Communication
- Confidence in the project work
- Attainment of individual scope of work
- Overall contribution for the project accomplishment

The performance of the project team is assessed by considering the following criteria:

- Knowledge of the other member contribution towards the project
- Coordination in consolidating work
- Time management

F. Quality of completed projects/working prototypes (5)

- The quality of the project evaluated based on the conversion possibility of the ideas synthesized in the course of project based on the real outcome.
- The good quality projects works are encouraged to present in the conferences and to publish in peer reviewed journals
- The quality of the completed projects is assessed based on the domain in which the work is carried out. Accordingly, they have been graded by the internal review committee of the Department.

Table 2.31. Domain Analysis of Projects

Sl. No	Project Domains	No. of Projects			Mapping with POs/PSOs
		2017-18	2018-19	2019-20	
1	Structural Engineering Stream	10	17	12	PO1-PO12, PSO1, PSO2
2	Highway Engineering stream	3	2	02	PO1-PO12, PSO1, PSO2
3	Material Science & Construction Management	14	12	12	PO1-PO12, PSO1, PSO2
4	Geotechnical Engineering	2	2	05	PO1-PO12, PSO1, PSO2
5	Environmental & Irrigation Engineering	5	7	05	PO1-PO12, PSO1, PSO2

G. Evidences of papers published/ awards received by projects

The students are encouraged to publish their innovative works in the national and international conferences, Journals etc.

Table 2.32a. Prize won by students in Techorizon'2020

Sl. No	Student Name	Project Title	Prize Won
1	D S Asmita, Divya S Kambali Jennifer Rose Biju Manikya H M	Morphometric analysis of Upper Shimsha-1 watershed, Tumkur district, Karnataka using GIS and Remote Sensing Techniques.	1 st

Table 2.32b. Prize won by students in Techorizon'2019

Sl. No	Student Name	Project Title	Prize Won
1	Deekshitha C Divya M Praveen Kumar S Vishal Prasad M	Case study on planning, architectural modelling & structural Analysis in Building Information Modelling (BIM) work flow	1 st
2	Manjula G Priya R Rachana N T Sunil Kumar	Comparative study on GFRG panel building with conventional building	2 nd

Table 2.32c. Prize won by students in Techorizon'2018

Sl. No	Student Name	Project Title	Prize Won
1	Khalid Ajaz Kumar Shivankar Adil Mohd. Jeelani Basha R K Pintu	Biogas Generation with Food Waste by Anaerobic Digestion Using Sludge Slurry as A Medium	1 st
2	Bhavana N Chaitra S J Punith R Karthik	Steel Fiber Reinforced Self Compacting Concrete with Silica Fume	2 nd

2.2.4 Initiatives related to industry interaction (10)


The Department of Civil Engineering has taken various initiatives to strengthen the Industry – Institute Interaction. This enhances the students’ exposure to recent trends in their profession through curriculum as well as visits/internships. Some of the measures adopted to enhance the industry interaction are



- Industry Supported Laboratories.
- Industry Involvement in the Program Design and Curriculum Development.
- Workshop for Students by Industrial Experts
- Guest Lecture and Seminars by Industrial Experts
- Hands on Training in latest Technology
- Value Added Courses
- Internship in Construction Industry.


A. Industry supported laboratories (2)

The industry supported laboratories develops best learning process using a comprehensive understanding of industry’s best practices for both students and faculties. This initiative imbibes professionalism, behaviour aspects and awareness about industry expectations and also aligns aspirations of the students with the needs of the industries and promotes career counselling by organizing guidance lectures by senior corporate personnel. The details are as shown in below Table 2.33.

Table 2.33. Industry supported Laboratories.

Sl. No.	Name of the Company	Objectives	Outcomes
1	 CoE - Schneider Electric India Private Limited and French Ministry of National Education	<ul style="list-style-type: none"> ➤ To carry out vocational training Programmes in initial and continuing education in the fields of electricity, automation and energy management. ➤ To develop, within an international framework of “academic-industry” links, training 	POs: PO1, PO2, PO3, PO4, PO5, PO6, PO12 PSOs: 1,2

		Programmes in continuing education for technical teachers, training of young engineers and technicians and to prepare them for the job market in the field of electricity, automation and energy management.	The MOU has resulted in setting up of laboratory in industrial automation. For academic year 2017-18 a course is offered on Industrial Automation as an industrial open elective in various departments and is a core subject for students of Electrical and Electronics Engineering.
2	 VMware IT Academy	Faculty enablement or empowerment access to all VMware tools Curriculums on Virtualization, Devops, MDM and other technological advancements VMware academic	POs: PO1, PO4, PO5, PO9, PO10, PO12 VMware IT Academy Program (vITA) is designed to introduce students to VMware technologies and equip them with technical skills needed for the modern IT
3	 SAP Next Generation Lab	<ul style="list-style-type: none"> ➤ Hackathons where a corporate using / working on SAP technologies can provide problem statements for NHCE students to work out using SAP products. ➤ Students can work on projects/ problem statements shared by corporate for a longer duration if such problem statements are arrived at. ➤ SAP will expose students to the topics via the lectures such as on SAP HANA Cloud Platform, SAP S/4HANA – ERP, Analytics, Design Thinking. 	POs: PO1, PO5, PO9, PO10, PO12 SAP modules are integrated as electives in NHCE courses. NHCE to be given special privilege for Industry Visit to SAP LABS.

4	 HP Vertica CoE	<ul style="list-style-type: none"> ➤ The whole objective is to make fresh engineers and business management graduates more capable, creative & have innovative approach in thinking. ➤ To develop resources those can be absorbed from College & ready to perform in various sectors like Banking, Telecom, Manufacturing, E-commerce, Retail etc. ➤ HP E will be engaged in overall development of students will invite Industry professional to enhance Big Data Analytics skills through hands on sessions, guest lecturers etc., 	POs: PO1, PO2, PO3, PO4, PO5, PO6, PO11, PO12
			Big data and data analytics is emerging area where skilled professionals are required. Courses are offered as an elective for the students of the Department to hone their skills in Big Data so that they are industry ready professionals.

B. Industry involvement in the program design and curriculum (3)

The following table 2.34, shows the industry involvement in the program design and curriculum.

Table 2.34. Details of industry expert's involvement in the program design and curriculum

Sl. No.	Name of the expert	Designation	Company	Contribution	Period
1	Mr. Mahesh T	Environmental Officer & Technical Advisor	KSPCB, Govt of Karnataka	BOS member	2019-2020
2	Mr. N. Vijaya Bhaskar	Project manager	DSR Waterscape, Bengaluru	BOS member	2019-2020
3	Mr. Shantayya	QAQC	Secon Limited	BOS member	2019-2020
4	Mr. Mahesh T	Environmental Officer &	KSPCB, Govt of Karnataka	BOS member	2018-2019

		Technical Advisor			
5	Mr. N. Vijaya Bhaskar	Project manager	DSR Waterscape, Bengaluru	BOS member	2018-2019
6	Mr. Shantayya	QAQC	Secon Limited	BOS member	2018-2019
7	Mr. Raj Pillai	Consultant	Shobha Developers, Bengaluru	BOS member	2017-2018
8	Rtn. Ranganath Kuntumalla	CMD	Raaga Group	BOS member	2017-2018
9	Mr. Yashwanth T	Site Engineer	Annapurna Constructions	BOS member	2017-2018

C. Industry involvement in partial delivery of any regular courses for students (3)

The following is the list of expert lectures conducted by industry experts.

Table 2.35: List of expert lectures conducted by industry experts

Sl. No.	Event Type	Event Name/ Title	Conducted by/ Resource Person	Company Name & Address	No. of Participants	Duration	Date
2019-2020							
1	Expert Lecture	Technical perspective of vastu in Civil Engineering	Mr. Hemanth Kumar V, Chief Executive Officer	Intellectual paradise services Bangalore	150	2 hrs	02.03.20
2	Guest Lecture	New age materials	Mr. Pawan Kumar K R, Manager	RER Builders PVT. Ltd	162	2 hrs	25.10.19
2018-2019							
1	Guest Lecture	Building Services	Mr. Santhosh S Patil, Founder & CEO, Infinity Group	Infinity Group	120	2 hrs	23.03.19
2	Guest Lecture	Construction Methodology for	Mr. S. Karthik, Head	CNS groups of company	100	2 hrs	15.03.19

		Earthquake resisting structures	Architectural Design & Execution Team	& VF in BSMIT			
3	Guest Lecture	Basics of Geotechnical Engineering (CIV55) "Shear Strength of Soil"	Mr. Chikkanna.T, Deputy Technical Manager (NABL),	Sarathy Geotech & Engineering Services Pvt.Ltd, Bangalore	140	2 hrs	17.11.18
4	Guest Lecture	Mechanics of Fluids Module 5	Mr. Rajinikanth B Prabhu, Construction Engineer	STUP Consultancy	145	2 hrs	15.11.18
5	Guest Lecture	Software application on project management	Mr. Deepak Kumar, Director	CAAD Centre	135	2 hrs	31.10.18
6	Guest Lecture	Environmental Engineering II (CIV71)	Mr. Mahesh T, Director	Pollution Control Board, Bangalore	120	2 hrs	30.10.18
7	Guest Lecture	Smart Dynamic Concrete, CIV51	Mrs. Shwetha D, Design Manager in Purvankara	Purvankara	112	2 hrs	22.09.18
2017-2018							
1	Expert lecture	Module-5-Hydraulics	Mr. B. N. Nagesh	KUWS & DB, Bengaluru	135	2 hrs	10.04.18
2	Expert lecture	Module-5 - CIV44	Mr. B. N. Nagesh	KUWS & DB, Bengaluru	135	2 hrs	10.04.18
3	Expert Lecture	Module-5-CIV61	Dr. Mahesha T	KSPCB, Bengaluru	50	2 hrs	15.03.18
4	Expert Lecture	Module-5-CIV61	Dr. Mahesha T	KSPCB, Bengaluru	54	2 hrs	15.03.18
5	Expert Lecture	Module-5-CIV61	Dr. Mahesha T	KSPCB, Bengaluru	52	2 hrs	15.03.18

D. Impact analysis of industry institute interaction and actions taken thereof (2)

- Industrial visits organized for the students of 2nd and 3rd year regularly in each semester.
- Industry supported Laboratory and activities are well established.
- Industry professionals are regularly invited for delivering topics in the classes for courses.
- Department organizes various training programs related to current industry trends and demands, and the trainers are outsourced from industry. The alumni coordinator constantly interacts with alumni and requests them to provide necessary guidelines and supports for the industrial visit/internship.
- Department of Civil Engineering is actively interacting with industries through MoUs, which mainly emphasizes on Internship, Project Workshop for Students, Industrial Visits and Faculty Development Program

Table 2.36. Details of MOUs signed with industries

S.No	Name of the Company	MoU date and Period	Role
1	Medini #2943/E, Opp. Maruthi Mandir, Vijayanagar, Bengaluru - 560040	17-07-2019 to 16-07-2021	Business, Manufacturing, Skill development, Education and R & D in the fields of design technology and services to engineering construction, architecture professional and related field.
2	Shathayu Constructions and Consultants No 4746, Vijayanagar 4 th stage, Mysuru - 570017	01-04-2019 to 01-04-2021	Research and construction Project, Faculty and student internship, joint conference, workshop and seminars.
3	Akurath Constructions Vijayanagar, Bengaluru – 560040	01-04-2019 to 01-04-2021	Research and construction Project, Faculty and student internship, joint conference, workshop and seminars.
4	Edu CADD Bengaluru	01-08-2016 to 01-08-2019	Skill development and value added consultation and mentoring.
5	E Construct Design and Build Pvt Ltd No 42/A, BDA Complex, HSR Layout, Sector 6, Bengaluru 560102	14-9-2015 to 14-9-2018	Skill development and value added consultation and mentoring.

2.2.5. Initiatives related to industry internship/summer training (10)

Initiatives

- Students visit construction sites on regular basis to get themselves acquainted with the various activities as a part of their curriculum.
- Students are encouraged to take internship so as to update their knowledge.
- Students who go for such internships exhibit enhanced skills, to carry out related project and invariably find employment in similar industries.

The in-plant training or internship enables the students

- To gain hands-on experience in implementing whatever they have learnt in their curriculum.
- To train themselves on the state of the art equipment's and standards used by the construction industries.
- To present themselves as complete professionals, when they go for recruitment.

A. Industrial training/tours for students (2)

Students visit construction sites on regular basis to get themselves acquainted with the various activities as a part of their curriculum. The details of Industrial training/tours are as below table 2.37.

Table 2.37. Details of industrial visit conducted in the academic years 2017-18, 2018-19 and 2019-20.

Sl. No	Program	Organization	Date of Visit	Semester	No. of Students
2017-2018					
1	Site visit	Geological Department BU	10.02.2018	IV	117
2	Industrial Visit	42 Queen Square	24.03.2018	VI-A, B, C	170
3	Industrial Visit (Placement)	Salapuria Sattva divinity, Ganapati Nagar, Mysore road	29.06.2018	VII (Preplacement)	41

2018-2019					
4	Site visit	Extension of S.V Patel Block, NHCE	19.03.2019	VI	130
5	Site visit	Extension of S.V Patel Block, NHCE	19.03.2019	IV	130
6	Industrial visit	Meteorological Centre, Palace Road, Bengaluru	3.09.2018	V A	82
7	Industrial visit	Meteorological Centre, Palace Road, Bengaluru	4.09.2018	V B	82
8	Industrial visit	Water treatment plant, Thoraikadanahalli, Bengaluru	03.11.2018	VII	48
9	Industrial visit	Water treatment plant, Thoraikadanahalli, Bengaluru	06-03-19 and 13-03-19	VI	140
2019-2020					
10	Industrial Visit	Meteorological Centre, Palace Road, Bengaluru	18.09.2019	V A	62
11	Industrial Visit	Meteorological Centre, Palace Road, Bengaluru	19.09.2020	V B	62
12	Industrial Visit	Star Worth Infrastructure and Construction Ltd., Head Office - Bengaluru, No.39, Ulsoor road, Bengaluru - 560 042.	07.02.20 & 08.02.20	VI (A & B)	113



Figure 2.16. Industrial visit to Water treatment plant at Thoraikadanahalli, Bengaluru



Figure 2.17. Industrial visit to Indian Meteorological Department (IMD), Bengaluru.

B. Industrial/internship/summer training of more than two weeks and post training assessment (3)

Students had undergone **industry internship/summer** training of their areas of interest / specialization at the end semester for duration of 4 to 6 weeks. In addition to this, the department organizes training programs related to emerging industry trends. External trainers from reputed industrial organizations bring the latest technological evolutions to the students.

Initiatives / Implementation and Impact Analysis of industry Internship/ Summer Training are as under

- The internships are arranged collaboratively by the industrial internship coordinator of the department with the industry associates and student volunteers.
- A copy of the confirmation letter for training is submitted with the industrial internship coordinator / HoD/ Dean.
- The Joining Report, providing the following information sent to the industrial internship coordinator / HoD / Dean by the student immediately after joining the organization.
- The faculty mentor visits / remains in touch with the industry supervisor to monitor the progress of the intern.
- On completion of training a project report / completion certificate and student feedback are submitted to the industrial internship coordinator /HoD/ Dean.
- A Presentation is made by every student on his/her internship report before a panel constituted by the Dean / HoD.
- This is followed by a viva to gauge the course outcome / program outcome achieved.
- The rubrics adopted for the assessment is as below

Table 2.38. Evaluation rubrics for Internship (21CIV83)

Examination	Review Stage	Work to be completed	Evaluation Marks (%)	Marks allotted	<40%	40-70%	>70%	Evaluated by
CIE	1	Identification of Problem	5 (10%)	50	Poor	Moderate	Good	Internal Review Committee
	2	Collection of Data with supporting Methodology	15 (30%)		Poor	Moderate	Good	
	3	Analysis of Data and generation of Results	15 (30%)		Poor	Moderate	Good	
	4	Presentation of Conclusions and Application of Findings	15 (30%)		Poor	Moderate	Good	
SEE	Presentation of the work		20 (40%)	50	Poor	Moderate	Good	Internal and External Examiners
	Evaluation of Report		20 (40%)		Quality of report is poor in all aspects	Quality of report is moderately good in all aspects	Quality of report is good in all aspects	
	Viva voce		10 (20%)		No response	A few responses	Satisfactory responses	
Total				100				

Table 2.39. Few samples of Internship carryout by students

Sl. No	USN	Students Name	Company Name	Date from	Date to	Title
2019-20						
1	1NH16CV015	Aniket Gupta	Kapahi Constructions Co.	10/1/2020	20/2/2020	Construction of multi storey parking
2	1NH16CV020	Basavaraj D Biradar	Salapuria Sattava	20/1/2020	5/3/2020	Site execution-residential building Salapuria Sattva-Signet
3	1NH16CV028	Christo Geo Jose	Ecoparadigm	13/1/2020	13/3/2020	A study on the effective use of renewable energy to set

						up an efficient vertical green house
4	1NH16CV081	Pramod S	Eco Life Developers	1/2/2020	12/3/2020	Eon Akash Phase -2
5	1NH16CV089	Rakshith Udayakumar Jain	Salapurja Sattva,	20/1/2020	5/3/2020	Sattva Bothra project
6	1NH16CV106	Suhail A	Prestige	12/2/2020	11/3/2020	Prestige park square
7	1NH16CV122	Yeshwanth. K	Myhna Properties Private Ltd.	22/1/2020	24/3/2020	Tower pending work, club house reinforcement, podium slab concreting (Mynha Maple)
8	1NH17CV421	Syed Jeelani	Prestige Group	12/2/2020	11/3/2020	Site execution residential tower Prestige park square
9	1NH17CV414	Ravikumar Patel	Salarpurja Sattva	20/1/2020	5/3/2020	Site execution - Commercial Building Sattva knowledge point
10	1NH17CV411	Owais Nazir	Nail and Hammer Infra	4/1/2020	17/2/2020	Construction of office for Comtech info Pvt. Ltd.
2018-19						
1	1NH14CV007	Akash S	Kolte Patil Developers Ltd., Bengaluru	28.02.2019	15.04.2019	Kolte Patil I-Towers Exente
2	1NH14CV079	Pawan Kumar	Reddy Associates, Bengaluru	02.02.2019	23.03.2019	Site execution - Commercial and

						Residential building
3	1NH14CV118	Vikas G D	SEG Automotive Pvt Ltd	01.02.2019	15.03.2019	Construction of steel hangar
4	1NH14CV149	Rakesh Chaudary	Manasa Construction, Pvt Ltd, Nepal	10.01.2019	25.02.2019	Construction of national highway
5	1NH15CV006	Abhishek I Kappattanavar	Amrutha Constructions Pvt Ltd, Bengaluru	04.02.2019	21.03.2019	Utility development & management for Nadaprabhu Kempegowda layout on design, built & operate
6	1NH15CV029	Bhargav M	HAL - Bengaluru	11.03.2019	10.04.2019	Infrastructure for production augmentation facilities at LCA – Tejas.
7	1NH15CV038	H C Nithin	HAL - Bengaluru	15.03.2019	30.04.2019	LCA and LCH Hangar projects by Hindustan Aeronautic Limited
8	1NH15CV052	Karan Dattatray Patil	SMC Infrastructure Pvt Ltd, Bengaluru	14.02.2019	05.04.2019	100 MLD Sewage Treatment Plant, Hebbal, Bengaluru
9	1NH15CV059	Lokesh Kumar	Umang Infrastructure, Bihar	10.01.2019	25.02.2019	Water supply and construction of overhead water tank
10	1NH15CV061	Manjula G	Nishicon Infrastructure, Bengaluru	16.01.2019	14.03.2019	Non-destructive testing in Nishicon Infrastructures

C. Impact analysis of industrial training (3)

Industrial training in the construction industries endows the students with the following benefits.

- There was an increase in the knowledge, skills and attitudes aspect of the students themselves.
- They were able to use their learned knowledge in the actual work situation.
- Some weaknesses, particularly in terms of communication skills have been improved for which students will be more confident to communicate and thus adapt to their working environment.
- Hands on experience provides better understanding of the basic concepts
- Students learn the industrial standards, current trends and practices
- Real environmental exposure enhances student's learning
- Training and/or testing becomes easier
- Helps in building inter personal skills and team work
- Successful application of academia in industrial environment.

In conclusion, industrial training provides various benefits for students, especially in terms of knowledge, skills and attitudes. In addition, they were also confident about the Industrial Training benefits to themselves.

D. Student feedback on initiative (3)

The students have strongly appreciated the Department for the inclusion of practical training/ internship programs in the curriculum, taking into consideration the expectations of a wide range of key stakeholders such as employers, managers, professional engineers and students themselves as these programs enable them to become good problem solvers throughout their professional life. These programs allow them to face professional life in the early stages as they get an opportunity to work professional Engineers during practical training/ internship programs.

Essentially civil engineering is known as a practical profession where theoretical knowledge has to be always consolidated by practical applications. Of course, civil engineering courses include the fundamental engineering design variables. These fundamental variables should be fully understood by the students. On the other hand, it is important for the students to know how these variables are considered or used in

practise. Thus, practical experience in civil engineering is an important component of civil engineering education.

Table. 2.40. Industry internship/summer training feedback form.

INDUSTRY INTERNSHIP/SUMMER TRAINING FEEDBACK FORM

Name of the student:

Semester:

Name of the Industry:

Period:

Type of Interaction:

Whether report has been submitted:

Questions	Response of Students			
Relevance of the industrial training/ visits (or input received) w.r.t your curriculum	Excellent Fair Poor	Good	Fair	Poor
Whether any specific official was assigned for you during the training (or visits)	Yes		No	
Willingness to share information & details by the officials of the organization	Excellent Fair Poor	Good	Fair	Poor
Access to different facilities of interest to you - for observation, gather data and get your clarifications cleared	Excellent Fair Poor	Good	Fair	Poor
Whether any relevant technical literature is obtained from the Industry	Yes		No	
Was the whole training based on a well-defined schedule and adherence to the schedule?	Yes		No	
Was the opportunity given for you to work on real time problem or practical problem or on the day to day activities of the organization?	Yes		No	
Do the people in the organization encourage interaction with them or extended support in clarifying your doubts or providing information you have sought for?	Yes	Sometimes		No

Was there any formal class room training organized as part of the training where in the functioning of the organization, technical basics of their operation etc. were arranged?	Yes		No	
Hospitality of the industry (Providing food / refreshments & accommodation / willingness to help you for any problems faced during the period where it is agreed upon etc.)	Excellent Fair Poor	Good	Fair	Poor
Overall usefulness of the interaction with the industry	Excellent Fair Poor	Good	Fair	Poor
Your recommendation for considering this organization for training (or industry institute interaction) in future	Strong	Can be considered		Not considered

Signature



DEPARTMENT OF CIVIL ENGINEERING

CRITERION 3

COURSE OUTCOMES AND PROGRAM OUTCOMES

CRITERION 3	COURSE OUTCOMES AND PROGRAM OUTCOMES	175
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3.1. Establish the correlation between the courses and the Program Outcomes (POs) & Program Specific Outcomes (25)

Civil engineering programme is a professional engineering discipline that deals with the design, construction, and maintenance of the physical and naturally built environment, including public works such as roads, bridges, canals, dams, airports, sewerage systems, pipelines, structural components of buildings, and railways.

S.No	Program Outcome (PO)
PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

The Program Specific Outcomes (PSOs) of BE Civil Engineering is as follows:

PSO	Program Specific Outcome
PSO1	Enhancing the employability skills by making the students find innovative solutions for challenges and problems in various domains of civil engineering.
PSO2	Inculcating in student's tech suaveness to deal with practical aspects of civil engineering

3.1.1. Course Outcomes (COs)

Course Outcomes are the statements that declare what students should be able to do at the end of a course. The course outcomes are defined by the course coordinator along with course instructors for all the courses. For each courses, course outcomes may vary from 4 to 6 nos. These course outcomes are then mapped with the POs.

Course outcomes of sample subjects (one course per semester) are given in the Table 3.1.1.a1 to Table 3.1.1.a7 for Batch 2015-2019.

Batch 2015-19 (LYG)

**Table 3.1.1.a1 Course Outcomes of Elements of Civil Engineering- 15CIV14/24
(First year)**

15CIV14/24.1	Apply the knowledge of science and engineering fundamentals to the solution of civil engineering problems and to comprehend with structures, materials and its components.
15CIV14/24.2	Analyze and compute the reactive forces and its effects using principles of mathematics and engineering sciences.
15CIV14/24.3	Formulate and apply the conditions of static equilibrium to solve the problems of civil engineering.
15CIV14/24.4	Apply the knowledge of science and engineering fundamentals of sliding (Dry) friction to the problems involving incipient equilibrium of a variety of connected bodies.
15CIV14/24.5	Apply the appropriate techniques and tools to locate the centroid and compute the second moment of area.
15CIV14/24.6	Analyze the motion of particles and apply D'Alembert's principle to solve the problems of kinetics and kinematics.

**Table 3.1.1.a2 Course Outcomes of Mechanics of Fluids- 16CIV36
(Third Semester)**

16CIV36.1	Apply the knowledge of the properties of fluids and fluid statics for solution of complex engineering problems
16CIV36.2	Analyze kinematic problems of fluid flow such as finding particle paths and stream lines and distinguish velocity potential function and stream function.
16CIV36.3	Apply important concepts of continuity equation, Bernoulli's equation for fluid flow related problems and fluid pressure measurements.
16CIV36.4	Analyze laminar and turbulent fluid flows.
16CIV36.5	Develop solutions for fluid measurement and apply the concepts of dimensional analysis to develop mathematical modeling.
16CIV36.6	Examine energy losses in pipe line for the design of proper pipe networks.

**Table 3.1.1.a3 Course Outcomes of Analysis of Determinate Structures-
16CIV44 (Fourth-Semester)**

16CIV44.1	Understand the concept of stable and unstable and statically determinate and indeterminate structures
16CIV44.2	Apply principles of statics to determinate reactions and internal forces in statically determinate structures
16CIV44.3	Calculate deflection of determinate beams, frames and trusses using energy concepts
16CIV44.4	Calculate deflection of determinate beams, frames under different loading conditions by moment area and conjugate beam method and Macaulay's method

16CIV44.5	Calculate the internal forces and resultant stresses in cable and arch type structures.
16CIV44.6	Understand and apply the concept of influence lines and construct influence line diagram for determinate beams.

Table 3.1.1.a4 Course Outcomes of Concrete Technology- CIV51 (Third year)

CIV51.1	Understand the basic properties of various ingredients of concrete.
CIV51.2	Apply the fundamental principles and procedures in making fresh concrete.
CIV51.3	Assess the deterioration of concrete & examine the test methods.
CIV51.4	Apply the basic requirements of IS design specifications for designing the concrete mixes.

Table 3.1.1.a5 Course Outcomes of Designs and detailing of RC structural elements- CIV62

CIV62.1	Apply IS provisions in structural detailing to simplify the complexity of reinforcement arrangements.
CIV62.2	Create detailing drawings of various RCC Structural Elements using drawing tools like AutoCAD.
CIV62.3	Design and Develop detailing drawing of combined footing and water tanks by following IS standard codal provisions.
CIV62.4	Design and Develop detailing drawing of Retaining wall and portal frames by following IS standard codal provisions.

Table 3.1.1.a6 Course Outcomes of Design and drawing of steel structural elements- CIV72 (Fourth year)

CIV72.1	Understand design philosophy and apply the IS code of practice for the design of various structural elements.
CIV72.3	Apply the concepts and Analyse, design the bolted and welded connections
CIV72.3	Interpret the data and analysing the behaviour of steel structural elements under tension, compression, bending and designing them.
CIV72.4	Analyse, examine and design various types of Column Bases.
CIV72.5	Evaluate the concepts of plastic analysis and apply them to design steel beams

Table 3.1.1.a7 Course Outcomes of Pavement Design- CIV81

CIV81.1	Understand the design factors of the pavement.
CIV81.2	Analyse the stress and strain component in pavement layers with different axle load condition.
CIV81.3	Analyse and design the flexible pavement as per relevant standards codes
CIV81.4	Evaluate the stresses in rigid pavement. Analyse and design of Rigid pavement as per relevant standards codes
CIV81.5	Evaluate the structural and functional condition of pavements

3.1.2 Core courses to demonstrate the mapping/correlation with all POs and PSOs

For all the courses mentioned in the programme, the Course outcomes are mapped by the course coordinator and course instructors with the defined twelve POs and two PSOs. The mapping has been done based on the correlation levels defined by Board of Accreditation. The various correlation levels are

“3” – substantial (High) Correlation

“2”- moderate (Medium) Correlation

“1”- Slight (Low) Correlation.

“dash” – No Correlation

Mapping of COs with POs and PSOs of sample subjects (one course per semester) are given in Table 3.1.2.a1 to Table 3.1.2.a7.

BATCH 2015-19 (LYG)

Table 3.1.2.a1 CO PO Mapping of Elements of Civil Engineering- 15CIV14/24 (First year)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	-	-	-	-	-	-	-	-	-	-	3	-
CO2	3	3	3	-	-	-	-	-	-	-	-	-	3	-
CO3	3	3	3	-	-	-	-	-	-	-	-	-	3	-
CO4	3	3	3	-	-	-	-	-	-	-	-	-	3	-
CO5	3	-	3	-	-	-	-	-	-	-	-	-	3	-
CO6	3	3	3	-	-	-	-	-	-	-	-	-	3	-

Table 3.1.2.a2 CO PO Mapping of Mechanics of Fluids- 16CIV36 (Second year)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	3	-	-	-	-	-	-	-	-	3	3
CO2	3	3	3	3	-	-	-	-	-	-	-	-	3	3
CO3	3	3	3	3	-	-	-	-	-	-	-	-	3	3
CO4	3	3	3	3	-	-	-	-	-	-	-	-	3	3
CO5	3	3	3	3	-	-	-	-	-	-	-	-	3	3
CO6	3	3	3	3	-	-	-	-	-	-	-	-	3	3

Table 3.1.2.a3 CO PO Mapping of Analysis of Determinate Structures- 16CIV44

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	3	-		-	-	-	-	-	3	3	3
CO2	3	3	3	3	-	3	-	-	-	-	-	3	3	3
CO3	3	3	3	3	-	3	-	-	-	-	-	3	3	3
CO4	3	3	3	3	-	3	-	-	-	-	-	3	3	3
CO5	3	3	3	3	-	3	-	-	-	-	-	3	3	3
CO6	3	3	3	3	-	3	-	-	-	-	-	3	3	3

Table 3.1.2.a4 CO PO Mapping of Concrete Technology- CIV51

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	-	-	-	3	3	-	-	-	-	-	3	3
CO2	3	2	-	-	-	3	3	-	-	-	-	-	3	3
CO3	3	-	-	2	2	3	3	-	-	-	-	-	3	3
CO4	3	2	1	-	-	3	3	-	-	-	-	-	3	-

Table 3.1.2.a5 CO PO Mapping of Designs and detailing of RC structural elements- CIV62

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	POS1	PSO2
CO1	3	3	3	3	-	-	-	3	-	-	-	-	3	3
CO2	3	3	3	3	3	-	-	-	3	-	-	-	3	3
CO3	3	3	3	3	3	3	-	3	3	-	-	-	3	3
CO4	3	3	3	3	3	3	-	3	3	-	-	-	3	3

Table 3.1.2.a6 CO PO Mapping of Design and drawing of steel structural elements- CIV72

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	3	-	-	-	3	-	-	-	-	3	3
CO2	3	3	3	3	3	3	-	3	-	-	-	-	3	3
CO3	3	3	3	3	3	3	-	3	-	-	-	-	3	3
CO4	3	3	3	3	3	-	-	3	-	-	-	-	3	3
CO5	3	3	3	3	-	3	-	3	-	-	-	-	3	3

Table 3.1.2.a7 CO PO Mapping of Pavement Design- CIV81

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	-	-	-	-	-	-	-	-	-	-	-
CO2	3	3	3	3		-	-	-	-	-	-	-	-	-
CO3	3	3	3	3	3	-	-	-	-	-	-	-	3	-
CO4	3	3	3	3	3	-	-	-	-	-	-	-	3	-
CO5	3	3	3	-	-	-	-	-	-	-	-	-	3	-

Course articulation matrix of the sample subjects (one course per semester) is given in Table 3.1.2.b1 to Table 3.1.2.b7.

Table 3.1.2.b1 Course Articulation Matrix of Elements of Civil Engineering- 15CIV14/24

Course Code: 15CIV14/24															
Course Name: Elements of Civil Engineering															
CO	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
15CIV14/24.1	Apply the knowledge of science and engineering fundamentals to the solution of civil engineering problems and to comprehend with structures, materials and its components.	3	3	-	-	-	-	-	-	-	-	-	-	3	-

Criterion-3 Self-Assessment Report (SAR)

15CIV14/24.2	Analyze and compute the reactive forces and its effects using principles of mathematics and engineering sciences.	3	3	3	-	-	-	-	-	-	-	-	-	3	-
15CIV14/24.3	Formulate and apply the conditions of static equilibrium to solve the problems of civil engineering.	3	3	3	-	-	-	-	-	-	-	-	-	3	-
15CIV14/24.4	Apply the knowledge of science and engineering fundamentals of sliding (Dry) friction to the problems involving incipient equilibrium of a variety of connected bodies.	3	3	3	-	-	-	-	-	-	-	-	-	3	-
15CIV14/24.5	Apply the appropriate techniques and tools to locate the centroid and compute the second moment of area.	3	-	3	-	-	-	-	-	-	-	-	-	3	-
15CIV14/24.6	Analyze the motion of particles and apply D'Alembert's principle to solve the problems of kinetics and kinematics.	3	3	3	-	-	-	-	-	-	-	-	-	3	-
AVERAGE		3	3	3										3	

Table 3.1.2.b2 Course Articulation Matrix of Mechanics of fluids- 16CIV36

<p>Course Code: 16CIV36</p> <p>Course Name: Mechanics of fluids</p>															
CO	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
16CIV36.1	Apply the knowledge of the properties of fluids and fluid statics for solution of complex engineering problems	3	3	3	3	-	-	-	-	-	-	-	-	3	3
16CIV36.2	Analyze kinematic problems of fluid flow such as finding particle paths and stream lines and distinguish velocity potential function and stream function.	3	3	3	3	-	-	-	-	-	-	-	-	3	3
16CIV36.3	Apply important concepts of continuity equation, Bernoulli's equation for fluid flow related problems and fluid pressure measurements.	3	3	3	3	-	-	-	-	-	-	-	-	3	3
16CIV36.4	Analyse laminar and turbulent fluid flows.	3	3	3	3	-	-	-	-	-	-	-	-	3	3
16CIV36.5	Develop solutions for fluid measurement and apply the concepts of dimensional	3	3	3	3	-	-	-	-	-	-	-	-	3	3

	analysis to develop mathematical modelling.														
16CIV36.6	Examine energy losses in pipe line for the design of proper pipe networks.	3	3	3	3	-	-	-	-	-	-	-	-	3	3
AVERAGE		3	3	3	3	-	-	-	-	-	-	-	-	3	3

Table 3.1.2.b3 Course Articulation Matrix of Analysis of Determinate Structures- 16CIV44

Course Code: 16CIV44															
Course Name: Analysis of Determinate Structures															
CO	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
16CIV44.1	Understand the concept of stable and unstable and statically determinate and indeterminate structures	3	3	3	3	-		-	-	-	-	-	3	3	3
16CIV44.2	Apply principles of statics to determinate reactions and internal forces in statically determinate structures	3	3	3	3	-	3	-	-	-	-	-	3	3	3

Criterion-3 Self-Assessment Report (SAR)

16CIV44.3	Calculate deflection of determinate beams, frames and trusses using energy concepts	3	3	3	3	-	3	-	-	-	-	-	3	3	3
16CIV44.4	Calculate deflection of determinate beams, frames under different loading conditions by moment area and conjugate beam method and Macaulay's method	3	3	3	3	-	3	-	-	-	-	-	3	3	3
16CIV44.5	Calculate the internal forces and resultant stresses in cable and arch type structures.	3	3	3	3	-	3	-	-	-	-	-	3	3	3
16CIV44.6	Understand and apply the concept of influence lines and construct influence line diagram for determinate beams.	3	3	3	3	-	3	-	-	-	-	-	3	3	3
AVERAGE		3	3	3	3	-	3	-	-	-	-	-	3	3	3

Table 3.1.2.b4 Course Articulation Matrix of Concrete Technology- CIV51

Course Code: CIV51															
Course Name: Concrete Technology															
CO	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CIV51.1	Understand the basic properties of various ingredients of concrete.	3	-	-	-	-	3	3	-	-	-	-	-	3	3
CIV51.2	Apply the fundamental principles and procedures in making fresh concrete	3	2	-	-	-	3	3	-	-	-	-	-	3	3
CIV51.3	Assess the deterioration of concrete & examine the test methods	3	-	-	2	2	3	3	-	-	-	-	-	3	3
CIV51.4	Apply the basic requirements of IS design specifications for designing the concrete mixes	3	2	1	-	-	3	3	-	-	-	-	-	3	-
AVERAGE		3	2	1	2	2	3	3	-	-	-	-		3	3

Table 3.1.2.b5 Course Articulation Matrix of Designs and Detailing of RC structural elements- CIV62

Course Code: CIV62 Course Name: Designs and Detailing of RC structural elements															
CO	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CIV62.1	Apply IS provisions in structural detailing to simply the complexity of reinforcement arrangements.	3	3	3	3	-	-	-	3	-	-	-	-	3	3
CIV62.2	Create detailing drawings of various RCC Structural Elements using drawing tools like AutoCAD drawing tool.	3	3	3	3	3	-	-	-	3	-	-	-	3	3
CIV62.3	Design and Develop detailing drawing of combined footing and water tanks by following IS standard codal provisions.	3	3	3	3	3	3	-	3	3	-	-	-	3	3
CIV62.4	Design and Develop detailing drawing of Retaining wall and portal frames by following IS standard codal provisions.	3	3	3	3	3	3	-	3	3	-	-	-	3	3
AVERAGE		3	3	3	3	3	3	-	3	3	-	-	-	3	3

Table 3.1.2.b6 Course Articulation Matrix of Design and Drawing of steel structural elements- CIV72

Course Code: CIV72															
Course Name: Design and Drawing of steel structural elements															
CO	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CIV72.1	Understand design philosophy and apply the IS code of practice for the design of various structural elements.	3	3	3	3	-	-	-	3	-	-	-	-	3	3
CIV72.3	Apply the concepts and Analyze, design the bolted and welded connections	3	3	3	3	3	3	-	3	-	-	-	-	3	3
CIV72.3	Interpret the data and analyzing the behavior of steel structural elements under tension, compression, bending and designing them.	3	3	3	3	3	3	-	3	-	-	-	-	3	3
CIV72.4	Analyze, examine and design various types of Column Bases.	3	3	3	3	3	-	-	3	-	-	-	-	3	3
CIV72.5	Evaluate the concepts of plastic analysis and apply them to design steel beams	3	3	3	3	-	3	-	3	-	-	-	-	3	3
AVERAGE		3	3	3	3	3	3	-	3	-	-	-	-	3	3

Table 3.1.2.b7 Course Articulation Matrix of Pavement design- CIV81

Course Code: CIV81															
Course Name: Pavement Design															
CO	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CIV81.1	Understand the design factors of the pavement.	3	3	3	-	-	-	-	-	-	-	-	-	-	-
CIV81.2	Analyse the stress and strain component in pavement layers with different axle load condition.	3	3	3	3	-	-	-	-	-	-	-	-	-	-
CIV81.3	Analyse and design the flexible pavement as per relevant standards codes	3	3	3	3	3	-	-	-	-	-	-	-	3	-
CIV81.4	Evaluate the stresses in rigid pavement. Analyse and design of Rigid pavement as per relevant standards codes	3	3	3	3	3	-	-	-	-	-	-	-	3	-
CIV81.5	Evaluate the structural and functional condition of pavements	3	3	3	-	-	-	-	-	-	-	-	-	3	-
AVERAGE		3	3	3	3	3	-	-	-	-	-	-	-	3	-

3.1.3 Program Articulation Matrix

Course	Course Codes	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C101	15MAT11	Engineering Mathematics	3	3	3	2	2	-	-	-	-	1	-	3	-	-
C102	15CH12	Engineering Chemistry	3	3	-	-	-	-	3	-	-	-	-	3	-	-
C103	15CS13	Introduction to programming with C	3	3	3	1	3	-	-	-	3	1	-	1	-	-
C104	15ME14	Computer aided engineering drawing	2	-	2	2	1	-	-	-	-	2	-	2	-	-
C105	15EC15	Basic Electronics	3	2	2	-	-	-	-	-	-	-	-	-	-	-
C106	15HP16	Personality development & Soft skills	-	-	-	-	-	2	-	3	2	3	-	3	-	-
C107	15MAT21	Engineering Mathematics - II	3	3	3	3	3	-	-	-	1	3	-	3	-	-

C108	15PH22	Engineering Physics	3	2	2	-	-	-	-	-	3	-	-	1	-	-
C109	15ME23	Elements of Mechanical Engineering	3	1	3	-	3	2	1	-	-	3	-	1	-	-
C110	15CV24	Elements of Civil Engineering	3	3	3	-	-	-	-	-	-	-	-	-	3	3
C111	15EE25	Elements of Electrical Engineering	3	3	2	1	-	-	-	-	-	2	2	-	-	-
C112	15HB26	Bussiness Communication	-	-	-	-	-	-	-	3	2	3	-	3	-	-
C201	16MAT31	Engineering Mathematics - III	3	3	3	3	3	1	3	-	-	1	3	3	-	-
C202	16HSS321	Introduction to Economics	1	2	3	3	1	3	2	2	1	1	3	2	1	1
C203	16CIV33	Building Materials & Construction	3	3	3	3	-	-	-	-	-	-	-	-	3	3
C204	16CIV34	Strength of Materials	3	3	3	3	-	3	-	-	-	-	-	-	3	-

C205	16CIV35	Plane Surveying	3	3	3	2	-	-	-	-	-	-	-	-	3	3
C206	16CIV36	Mechanics of Fluids	3	3	3	3	-	-	-	-	-	-	-	-	3	3
C207	16MAT41	Engineering Mathematics - IV	3	3	3	3	3	3	2	-	2	1	3	3	-	-
C208	16HSS422	Life Skills for Engineers	1	1	1	1	2	3	3	3	3	3	1	3	-	-
C209	16CIV43	Earth Science Engineering	3	3	2	1	1	3	3	-	-	-	-	-	3	3
C210	16CIV44	Analysis of Determinate Structures	3	3	3	3	-	3	-	-	-	-	-	3	3	3
C211	16CIV45	Higher Surveying	3	3	3	3	1	1	-	-	1	-	-	-	3	3
C212	16CIV46	Applied Hydraulics and Machinery	3	3	3	3	-	-	-	-	-	-	-	-	3	3
C213	16CIV47	Building Planning & Drawing	3	3	3	3	3	3	-	-	1	1	-	-	3	3
C301	CIV51	Concrete Technology	3	2	1	2	2	3	3	-	-	-	-	-	3	3

C302	CIV52	Design of RCC Structural Elements	3	3	3	3	3	3	3	-	-	3	-	3	3	3
C303	CIV53	Highway Engineering	3	3	3	3	1	-	-	-	-	-	-	--	3	-
C304	CIV54	Analysis of Indeterminate Structures	3	3	3	3	3	-	-	-	-	2	-	-	3	3
C305	CIV55	Basics of Geotechnical Engineering	3	3	3	3	-	-	-	-	-	--	-	-	3	3
C306	CIV563	Construction Management & Engineering Economics	3	3	3	3	2	2	-	-	-	-	3	-	3	3
C307	CIV574	Hydrology & Irrigation Engineering	3	3	3	3	-	3	2	-	-	-	-	-	3	3
C308	CIV61	Environmental Engineering-I	3	3	2	2	-	3	3	-	2	-	-	-	3	3
C309	CIV62	Design and Detailing of RC Structural Elements	3	3	3	3	3	3	-	3	3	-	-	3	3	3

C310	CIV63	Design of Pre Stressed Concrete Structure	3	3	3	3	-	2	-	-	-	-	-	-	-	3	3
C311	CIV64	Applied Geotechnical Engineering	3	3	3	3	-	2	2	-	-	-	-	-	-	3	-
C312	CIV653	Advanced Concrete Technology	3	3	3	3	-	3	3	-	-	-	-	-	-	3	3
C313	CIV67	Mini project (Extensive survey)	3	3	3	3	-	-	-	-	3	3	3	3	3	3	3
C401	CIV71	Environmental Engineering-II	3	3	3	3	-	3	3	-	-	-	-	-	-	3	3
C402	CIV72	Design and Drawing of Steel Structural Elements	3	3	3	3	3	3	-	3	-	-	-	-	-	3	3
C403	CIV73	Estimation & Valuation	3	2	3	3	-	3	-	2	-	-	-	-	-	3	3
C404	CIV742	Design of Masonry Structures	3	3	3	3	3	3	-	3	-	-	-	-	-	3	3

Criterion-3 Self-Assessment Report (SAR)

C405	CIV754	Transportation Systems	3	3	3	3	-	-	-	-	-	-	-	-	3	-
C406	CIV76	Highway Materials Lab	3	1	1	1	3	-	-	3	-	-	-	-	-	3
C407	CIV77	Project Phase-I	3	3	3	3	-	-	-	-	3	3	3	3	3	3
C408	CIV81	Pavement design	3	3	3	3	3	-	-	-	-	-	-	-	3	-
C409	CIV822	Advanced RC structures	3	3	2	-	-	1	-	-	-	2	-	2	-	3
C410	CIV824	Air Pollution	3	3	3	3	1	3	3	2	-	-	-	-	3	3
C411	CIV83	Project Work phase-II	3	3	3	3	-	-	-	-	3	3	3	3	3	3
C412	CIV84	Internship	-	3	-	-	3	-	-	-	3	3	3	3	3	3

3.2. Attainment of Course Outcomes (75)

3.2.1. Description of the assessment tools and process used to gather the data upon which the evaluation of Course Outcome is based (10)

Batch 2015 – 2019 (LYG- Autonomous)

Process of Course result data collection & assessment-

The process of result data collection of all the Courses is as follows.

- ✓ At the beginning of the semester, courses are assigned to faculties with respect to their competencies.
- ✓ The curriculum data of the entire semester would be uploaded in the Contineo software.
- ✓ All the data of attendance and CIE (as per conduction date) is uploaded in contineo on daily basis.
- ✓ Students and parents can view their performance of attendance and CIE in their contineo login.
- ✓ The detailed result analysis data can be obtained from contineo.

Figure 3.2.1.a shows the Flow chart for assessment of course outcomes and Table 3.2.1.a. gives the Description of assessment tools for course outcomes.

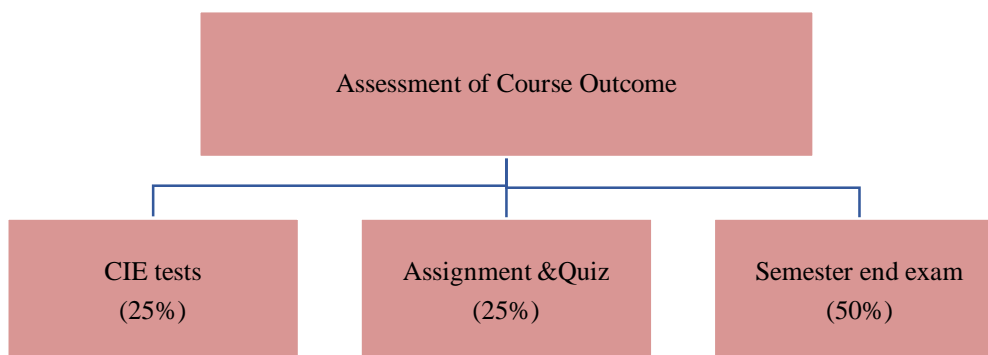


Figure 3.2.1.a - Flow chart for assessment of course outcomes

Table 3.2.1.a. – Description of assessment tools for course outcomes

Assessment Tool Type	Assessment Tool Title	Tool Description
Direct Attainment Tools	CIE test	<ul style="list-style-type: none"> ✓ Three CIE tests are conducted every semester which cover the entire syllabus of the course. ✓ The questions are framed according to blooms taxonomy and mapped with the COs of the course.
	Assignments & Quizzes	<ul style="list-style-type: none"> ✓ Assignments and quizzes are conducted for continuous evaluation throughout the semester. ✓ The assignments would provide a platform to students for self learning. ✓ Quizzes will be a random check on the student's knowledge acquired in day to day classes.
	Laboratory Test	<ul style="list-style-type: none"> ✓ Continuous internal evaluation for practicals is carried out throughout the semester following an evaluation for every lab duration including student's attendance as per the rubrics. ✓ During the semester, one laboratory test is conducted and evaluation is done. This test will enhance the confidence of students to face SEE practical examination.
	Self study	<ul style="list-style-type: none"> ✓ This tools helps to test students analyzing level rather than understanding level. ✓ Few topics from the syllabus are given to set of students for self-study.

		<ul style="list-style-type: none"> ✓ Students will present the assigned topics to the faculty in-charge. Marks are assessed towards the attainment of COs.
	Mini Project, Industry Internship, Project	<ul style="list-style-type: none"> ✓ Mini project is assessed continuously based on the practical knowledge acquired by the student which is represented by manual/software drawings and calculations. ✓ Industry internship is evaluated based on the rubrics which includes technicality involved in the work, duration and presentation skills of the student. ✓ Final year project has been divided into 2 phases. Phase 1 is carried out in 7th semester and phase 2 in 8th semester. Both the phases are evaluated continuously to monitor the progress of the students. ✓ Evaluation is carried out by a committee (HOD, two senior faculties inclusive of the project guide).
	Semester End Examination	<ul style="list-style-type: none"> ✓ Both theory and practical/project examination is conducted as per the calendar of events announced at the beginning of the semester. ✓ Evaluation and declaration of results is done with a scope to apply for revaluation.

Theory courses:

Continuous internal evaluation (CIE): CIE is done through tests, assignments, quiz, presentations etc.

CIE tests:

- ✓ Three CIE tests serves as an important tool to encourage students to keep up with course content covered in class.
- ✓ The CIE test is conducted for 1-hour duration and is evaluated for 25 marks.
- ✓ The questions are framed as per the lesson plan and satisfying blooms taxonomy, wherein each question is mapped to the appropriate course outcome of the respective course.
- ✓ The scheme of evaluation is prepared and the answer scripts are evaluated based on the same.

Assignments/quizzes/presentations:

- ✓ Continuous evaluation is done based on assignments, quizzes, and/or presentations.
- ✓ The questions of the assignments and quizzes are framed as per the lesson plan, satisfying blooms taxonomy, wherein each question is mapped to the appropriate course outcome of the respective course.
- ✓ These are the qualitative performance assessment tools designed to assess acquired knowledge of students in engineering practices and problem solving skills.
- ✓ The scheme of evaluation is prepared and the assignments/quizzes are evaluated based on the same.
- ✓ Presentations are evaluated based on the quality of work and presentation skills. It is evaluated for 25 marks as per the rubrics.

Semester End Exam:

- ✓ SEE is conducted at the end of every semester to assess the acquired knowledge of students during the corresponding semester.
- ✓ The examination is conducted for 3 hours and is evaluated for 100 marks and is scaled down to 50 marks.
- ✓ The questions are framed as per the syllabus satisfying blooms taxonomy, wherein each question is mapped to the appropriate course outcome of the respective course.

- ✓ The scheme of evaluation is prepared and answer scripts are evaluated based on the scheme.
- ✓ The Continuous Internal Evaluation assessment results of each student are uploaded in Contineo and the same can be used for the result analysis.
- ✓ The result analysis so obtained is used to evaluate the attainment levels of course outcomes and program outcomes.

Laboratory:

- ✓ Laboratory courses provide a platform for students with hands-on experience of the course concepts and the opportunity to explore experimental methods.

Continuous Internal Evaluation:

Continuous internal evaluation for laboratory is carried out throughout the semester, following an evaluation of record of practical work performed in each lab session as per the rubrics.

- ✓ The attendance of each individual student is recorded.
- ✓ All the students are expected to acquire the practical knowledge of the course and develop the necessary professional skills.
- ✓ In order to facilitate interaction among the students and to develop team spirit, the students are expected to carry out experiments in groups.
- ✓ Performance assessment is based on the ability of the student to actively participate in the successful conduction of prescribed practical work and draw appropriate conclusions.
- ✓ At the end of the semester, one laboratory test is conducted and evaluation is done. Continuous internal evaluation constitutes 50% of the total marks of a lab course.

Semester End Laboratory Exam:

- ✓ SEE lab exam of 3 hours' duration is conducted to assess the ability of a student to perform a given experiment by integrating the knowledge gained from corresponding theory course and regular lab sessions.
- ✓ The SEE lab exam includes viva voce and practical experiment.
- ✓ SEE lab exam constitutes 50% of the total marks of the lab course.

Table 3.2.1.b shows the Rubrics for CO assessment for laboratory courses.

Table 3.2.1.b Rubrics for CO- assessment tool - Laboratory courses

EXAMINATION	Marks	
CIE	25	50
SEE	25	
CIE		
PART A (RECORD & PERFORMANCE)	Marks	
1. Conduction of Experiment	5	15
2. Calculation & Record Writing	5	
3. Result	5	
PART B (LAB TEST)	Marks	
1. Procedure and Write Up	4	10
2. Conduction	4	
3. Viva voce	2	
TOTAL CIE MARKS (PART A +PART B)	25	
SEE		
1. Procedure & Write up	20% of Maximum Marks	
2. Conducting the practical, Calculation, Graphs, Results etc.	60% of Maximum Marks	
3. Viva Voce	20% of Maximum Marks	

Mini Project (Extensive Survey)

- ✓ The Mini Project is intended to challenge the intellectual and innovative abilities, which provides the students an opportunity to apply the knowledge and analytical skills acquired from various courses.

- ✓ The Extensive survey camp is conducted during 5th semester break. It is carried out in batches and each batch has to complete four major projects which encompass the skills of survey in difficult terrains.
- ✓ Manual drawings are checked on a daily basis and at the end of the semester an Auto-cad drawing along with a consolidated report is submitted.

Table 3.2.1.c shows the Rubrics for CO assessment for Mini Project (Extensive Survey).

Table 3.2.1.c. Rubrics for assessment tools - Mini Project

Examination	Review Stage	Work to be completed	Evaluation Marks (%)	Marks allotted	Evaluated by
CIE	1	Evaluation of Field Work & Manual Drawings	20 (40%)	50	Internal Review Committee
	2	Evaluation of AutoCAD Drawings	10 (20%)		
	3	Evaluation of Report	10 (20%)		
	4	Viva/Voce	10 (20%)		
SEE	Evaluation of Design of Projects		20 (40%)	50	Internal and External Examiners
	Evaluation of Manual & AutoCAD Drawings		20 (40%)		
	Viva/Voce		10 (20%)		
Total				100	

Project – 7th Semester:

Students are expected to finalize the area of interest and project title with the assistance of an identified faculty member as project guide during first half of the seventh semester.

- ✓ During this the students are required to submit a project plan, relevance of the project proposed, literature survey, objectives, statement of how the objectives are to be tackled, time schedule and cost estimate.

Assessment tools used to evaluate project work are as follows:

Continuous Internal Evaluation:

- ✓ Three Continuous Internal Evaluation are conducted for project phase 1 every semester and a project panel comprising of guide, Head of the department and project coordinator evaluates the work based on various parameters as specified in rubrics.
- ✓ The significance of the project work in societal and environmental context is assessed.
- ✓ The students are evaluated for their practical knowledge and presentation skills by the panel.

Semester End Exam:

- ✓ The evaluation is conducted at the end of the semester in the form of the presentation & viva-voce.
- ✓ The evaluation panel constitutes of an internal and external examiner.
- ✓ The panel tests the practical applicability of the project work and seeks clarifications on related specific issues. The effectiveness of the individual student response to these queries is assessed.

Project –8th Semester:

Continuous Internal Evaluation:

- ✓ The design component of the proposed work is evaluated.
- ✓ The practical knowledge and technical skills of the individual student is assessed based on presentation and response to queries asked by the panel.
- ✓ The percentage of work completed, technical problems faced and problem solving skills are analysed to evaluate the progress of the project.

Semester End Exam:

- ✓ At the end of the semester end exam (presentation) is conducted to assess the quality of project work completed.
- ✓ The Semester End Examination panel includes an internal and external examiner.
- ✓ The panel asks questions and seeks clarifications on specific issues related to various stages of the project.
- ✓ Responses from each student to these queries are assessed.

Evaluation by the panel:

- ✓ The performance of individual student is evaluated by the panel of examiners.
- ✓ The project report submitted by a project group is evaluated by the panel.
- ✓ The panel of examiners analyses the quality of the project and apart from the technical merit of the work; checks cost effectiveness, safety and adherence to best ethical practices.
- ✓ The projects are grouped into different areas of specialisation and their relevance to PO's and PSO's are identified to ensure its quality.
- ✓ Viva Voce is a part of assessment of students' knowledge in engineering courses.

Table 3.2.1.d shows the Rubrics for CO assessment for Project.

Table 3.2.1.d. Rubrics for assessment tools -Project

Sem	Project Phase	Examination	Review Stage	Work to be completed	Evaluation Marks	Marks allotted	Evaluated by
VII	I	CIE	1a	Concept of project, Collection of necessary data, Sources of Data	10 (20%)	50	Internal Review Committee
			1b	Literature Review, Aim. Objective and Scope of the Project	15 (30%)		
			1c	Methodology of the project work Organisation of the project work Seminar based on project Phase 1	25 (50%)		
		SEE	Presentation of the work		20 (40%)	50	Internal and External Examiners
			Evaluation of Report		20 (40%)		
			Viva voce		10 (20%)		
Total						100	
VIII	II		2a	Experimental/Analytical Studies	15 (30%)	50	Internal Review Committee
			2b	Data Analysis and Interpretation	15 (30%)		
			2c	Results(Numerical/Experimental) Discussion and Conclusion.	20 (40%)		

		SEE	Presentation of the work	20 (40%)	50	Internal and external examiners
			Evaluation of Report	20 (40%)		
			Viva voce	10 (20%)		
Total						100

Internship evaluation

- ✓ The students have to undergo an internship after the completion of 7th semester.
- ✓ The students have to identify an industry and are expected to gain professional skills.
- ✓ After successful completion of internship, a report has to be submitted to the department and evaluation is done as per the rubrics.

Table 3.2.1.e shows the Rubrics for CO assessment for internship.

Table 3.2.1.e. Rubrics for assessment tools –Internship

Examination	Review Stage	Work to be completed	Evaluation Marks (%)	Marks allotted	Evaluated by
CIE	1	Identification of Problem	5 (10%)	50	Internal Review Committee
	2	Collection of Data with supporting Methodology	15 (30%)		
	3	Analysis of Data and generation of Results	15 (30%)		

	4	Presentation of Conclusions and Application of Findings	15 (30%)		
SEE	Presentation of the work		20 (40%)	50	Internal and External Examiners
	Evaluation of Report		20 (40%)		
	Viva voce		10 (20%)		
Total				100	

Attainment of course outcomes

The attainment of course outcome is depicted in Table 3.2.1.f.

Table 3.2.1.f. Description of assessment tool for course outcomes

CO Attainment	Weightage	Assessment Tools
CIE	50%	CIE tests, Assignments, Quiz, Presentations
		Mini Projects –CIE Reviews Projects- CIE Reviews
		Lab internal, Records, Performance in each lab session
SEE	50%	SEE theory & Lab exams, SEE Project/Mini Project presentation SEE Internship presentation
Overall CO Attainment	[Internal attainment * 0.5 + External Attainment * 0.5]	

The individual COs of each courses are evaluated.

- ✓ The attainment of individual CO is calculated by considering the Continuous Internal Evaluation and Semester End Examination.
- ✓ The attainment of COs is compared with the target level. The CO is attained if its attainment value is greater than or equal to target attainment level.

Evaluation of Theory Courses

Continuous Internal Evaluation comprising of tests, assignments, quizzes and Semester End Examination are conducted and evaluated. The distribution of marks for theory courses is as shown below in Table 3.2.1.g.

Table 3.2.1.g. Rubrics for assessment - Theory courses

Assessment Tool	Component	Maximum Marks	Marks Scaled to	Weightage	Overall weightage
CIE tests	CIE	75	25	25	50%
Assignments		15/10	15/10	15/10	
Quiz		10/5	10/5	10	
Self-study (Optional)		0/10	0/10	0/10	
SEE	SEE	100	100	50	50%

- ✓ The results of evaluation through Continuous Internal Evaluation tests, assignments, quizzes, Semester end Examination etc. are used for CO attainment.
- ✓ The marks scored by each student for all CIE and SEE components can be accessed from Contineo software.
- ✓ The attainment level for each CO is calculated separately for CIE and SEE.
- ✓ The average CO attainment is calculated giving equal weightage for CIE and SEE.
- ✓ The Process for Assessment and Attainment of COs is described in the flowchart Fig.3.2.1.b

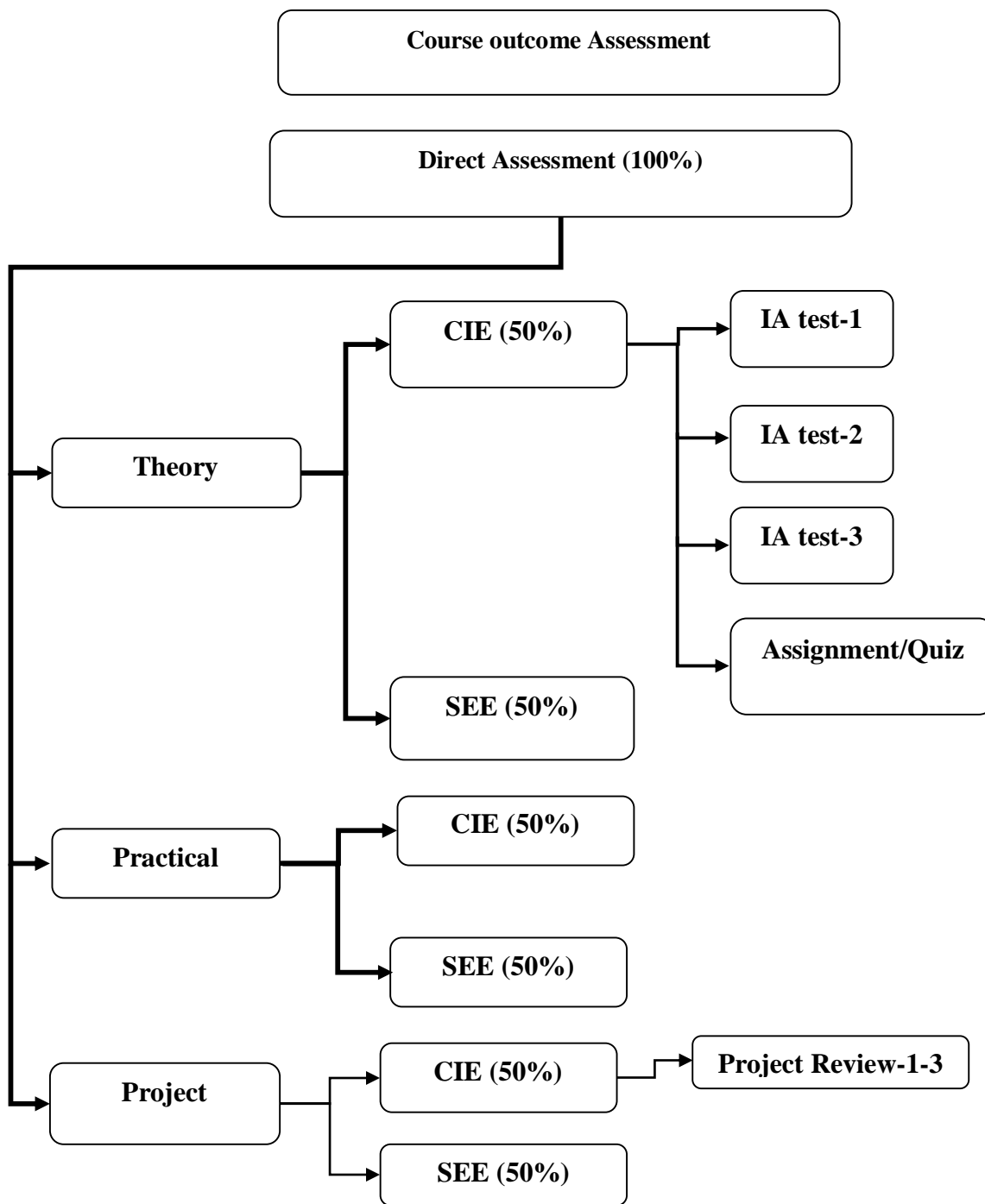


Figure 3.2.1.b. Flowchart for Assessment and Attainment of Course Outcome

3.2.2. Record the attainment of Course Outcomes of all courses with respect to set attainment levels (65)

- ✓ Course Outcome attainment levels for all courses have been set by the department.
- ✓ Evaluation of CO attainment through (CIE): Target is set in terms of percentage of students achieving more marks than the predefined attainment levels set for the program in each of the associated COs in the assessment tools (CIE tests, assignments, quiz, Project/ mini projects, presentations etc. as mapped with the COs)
- ✓ Evaluation of Course Outcomes attained through Semester End Examinations (SEE)
- ✓ Target is set in terms of percentage of students getting equal or more than the target level set by the Program in SEE for each CO.
- ✓ The attainment levels for CIE and SEE is described in Table 3.2.2.a.
- ✓ The threshold value is taken as 60 % for all civil Engineering subjects.

Table 3.2.2.a. Attainment levels of subjects

Attainment Level	CIE	SEE
3	65% of students scoring greater than or equal to the set threshold value	65% of students scoring greater than or equal to the set threshold value
2	55% of students scoring greater than or equal to the set threshold value	55% of students scoring greater than or equal to the set threshold value
1	45% of students scoring greater than or equal to the set threshold value	45% of students scoring greater than or equal to the set threshold value

Calculations

Weightage given to Continuous Internal Evaluation (CIE) = 50 %

Weightage given to Semester End Examination (SEE) = 50 %

Total Attainment = Semester End Examination * 0.5 + Cumulative internal evaluation* 0.5

The process for calculating CO attainment through Continuous Internal Evaluation and Semester End Examination are described as below.

Step 1: CO distributions in assessment tools are identified. Table 3.2.2.b shows the CO distribution of a course: Concrete Technology (Course Code: CIV 51).

Table 3.2.2.b CO Distributions in Assessment Tools

Course Outcomes	Assessment Tools
CO1	Internal Test 1, Internal test 3, Assignment 1, Quiz 1, Internal lab test, SEE
CO2	Internal Test 1, Internal test 2, Assignment 1, Quiz1, SEE
CO3	Internal test 2, Internal test 3, Assignment 2, Quiz 2, Internal lab test, SEE
CO4	Internal test 2, Assignment 2, Quiz 2, SEE

Step 2: Measurement of course outcomes is decided from the assessment tools. From the Table 3.2.2.b, CO1 to be assessed in Internal Test 1 &3, CO2 from Internal test 1&3, CO3 from Internal test 2 & 3 and CO4 from Internal test 2. The entire COs is uniformly distributed and assessed among SEE, Assignments and Quiz and also in Lab tests.

Step 3: CO target is defined based on the overall performance of that course in the previous years.

Step 4: Set the threshold for the course. Threshold is the minimum percentage of marks that needs to be obtained by the students. This threshold is considered as benchmark for calculating the attainment levels.

Step 5: After setting the benchmarks, percentage attainment is calculated by counting the number of students scoring above the benchmark divided by total number of students attempted for the COs.

Attainment percentage is the ratio of the Number of students scoring above the threshold value to the Total Number of students appearing for that particular CO.

Step 6: The percentage of students in the class who scored more than threshold percentage of marks in the respective CO is the attainment. Based on the attainment percentage obtained, the attainment level for each of the CO is identified.

Step 7: Final CO attainment is calculated as

$$\text{CO Attainment} = \text{CIE} * 0.5 + \text{SEE} * 0.5$$

Sample calculation for CO attainment for a subject is given in Table 3.2.2.c & d

Table 3.2.2.c. Sample calculation for CIV51 (Concrete Technology)

ATTAINMENT RESULTS FOR EACH CO						
COURSE: CONCRETE TECHNOLOGY (CIV51)						
Direct Assessment=50% of CIE+50% of SEE						
Continuous Internal Evaluation						
Course Outcomes	Threshold	Target levels	Number of Students Scored Above Threshold %	Total Students Attempted	Attainment Percentage	Attainment
CO1	60%	65%	151	168	89.88	3
CO2		65%	150	168	89.29	3
CO3		65%	147	168	87.5	3
CO4		65%	146	168	86.9	3
Semester End Examination						
CO1	60%	65%	130	162	80.25	3
CO2		65%	139	162	85.8	3
CO3		65%	101	163	61.96	2
CO4		65%	131	160	81.88	3

Table 3.2.2.d. CO Attainment calculation for CIV 51(Concrete Technology)

COs	CIE	SEE	CO ATTAINMENT (0.5 x CIE + 0.5 x SEE)
CO1	3	3	$3 \times 0.5 + 3 \times 0.5 = 3$
CO2	3	3	$3 \times 0.5 + 3 \times 0.5 = 3$

CO3	3	2	$3 \times 0.5 + 2 \times 0.5 = 2.5$
CO4	3	3	$3 \times 0.5 + 3 \times 0.5 = 3$

The target and attainment percentages for CIE and SEE of all the courses are given in Tables 3.2.2.e to Table 3.2.2.f.

Table 3.2.2.e. Target and attainment percentage for CIE

Course	Continuous Internal Evaluation (CIE)											
	Targeted Percentage of COs						Attainment Percentage of COs					
	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
I SEMESTER												
15MA11	55	55	55	55	55	55	93.16	93.16	93.16	92.9	92.9	92.9
15CH12	60	60	60	60	60	60	99.6	99.6	99.6	99.6	99.6	99.7
15CS13	60	60	60	60	60	60	91.1	91.2	92.8	92.7	93.2	89.7
15ME14	60	60	60	60	60	60	92.0	92.0	92.0	91.5	91.5	91.5
15EC15	60	60	60	60	60	60	70.1	70.8	73.6	71.0	70.8	78.3
15HP16	65	65	65	65	-	-	81.1	81.1	80.6	81.1	-	-
II SEMESTER												
15MAT21	55	55	55	55	55	55	87.33	87.33	87.33	86.85	86.85	86.85
15PH22	60	60	60	60	60	60	99.7	99.7	99.7	99.7	99.7	99.9
15ME23	60	60	60	60	60	60	96.3	96.6	99.7	99.5	99.5	99.5
15CV24	60	60	60	60	60	60	99.9	99.9	99.9	99.4	99.4	99.4
15EE25	50	50	50	50	-	-	95.6	95.6	95.6	97.1	-	-
15HB26	50	50	50	50	-	-	92.8	92.8	92.8	92.8	-	-
III SEMESTER												
16MAT31	60	60	60	60	60	60	91.15	86.98	95.85	91.71	89.58	93.75
16HSS321	60	60	60	60	60	60	34.54	42.78	50	49.48	53.93	43.3
16CIV33	60	60	60	60	60	60	81.05	93.72	75.92	66.49	81.25	84.83

16CIV34	60	60	60	60	60	60	87.5	96.37	76.56	97.42	96.88	100
16CIV35	60	60	60	60	60	60	99.48	99.48	99.48	94.27	85.42	72.4
16CIV36	60	60	60	60	60	60	81.87	90.67	80.31	91.19	83.94	68.39
IV SEMESTER												
16MAT41	60	60	60	60	60	60	76.06	76.27	84.18	85.31	88.24	88.24
16HSS422	60	60	60	60	60	60	72.14	70.73	96.91	91.75	89.69	0
16CIV43	60	60	60	60	60	60	55.5	49.47	84.13	82.11	70.17	82.89
16CIV44	60	60	60	60	60	60	58.51	60.85	73.4	38.62	58.2	100
16CIV45	60	60	60	60	60	60	77.49	76.96	79.06	71.73	74.87	71.43
16CIV46	60	60	60	60	60	60	96.32	85.34	76.32	89.47	91.05	85.71
16CIV47	60	60	60	60	60	60	90.96	90.96	90.96	90.96	90.96	90.96
V SEMESTER												
CIV51	60	60	60	60	-	-	89.88	89.29	87.5	86.9	-	-
CIV52	60	60	60	60	-	-	64.29	76.33	88.17	70.41	-	-
CIV53	60	60	60	60	-	-	92.86	80.36	81.55	66.07	-	-
CIV54	60	60	60	60	-	-	50	60.71	79.76	97.02	-	-
CIV55	60	60	60	60	-	-	83.43	77.51	85.21	85.8	-	-
CIV563	60	60	60	60	-	-	86.31	60.71	77.38	69.64	-	-
CIV574	60	60	60	60	-	-	67.86	70.83	72.62	83.93	-	-
VI SEMESTER												
CIV61	60	60	60	60	-	-	91.02	92.22	98.2	86.67	-	-
CIV62	60	60	60	60	-	-	69.46	76.05	56.29	83.23	-	-
CIV63	60	60	60	60	-	-	50.9	81.44	92.22	100	-	-
CIV64	60	60	60	60	-	-	75.76	80.84	81.44	85.03	-	-
CIV653	60	60	60	60	-	-	71.43	82.14	82.74	79.17	-	-
CIV67	60	60	60	60	-	-	99.4	96.39	86.75	79.52	-	-
VII SEMESTER												
CIV71	60	60	60	60	60	-	92.9	78.06	100	98.01	50	-
CIV72	60	60	60	60	60	-	94.23	92.95	100	95.48	79.17	-

CIV73	60	60	60	60	60	-	69.28	70.2	41.96	72.37	52.63	-
CIV742	60	60	60	60	60	-	88.31	82.76	67.53	95.86	96.55	-
CIV754	60	60	60	60	60	-	91.61	78	93.15	93.46	91.43	-
CIV76	60	60	60	60	60	-	88.46	88.46	88.46	88.46	88.46	-
CIV77	60	60	60	60	60	-	83.33	78.21	78.21	76.28	74.36	-
VIII SEMESTER												
CIV81	60	60	60	60	60	-	77.12	82.67	96.79	89.1	97.96	-
CIV822	60	60	60	60	60	-	100	97.44	100	79.49	100	-
CIV824	60	60	60	60	60	-	81.74	86.73	80.18	75	75.65	-
CIV83	60	60	60	60	60	-	80.13	58.97	53.21	39.1	30.72	-
CIV84	60	60	60	60	60	-	89.1	89.1	89.1	89.1	89.1	-

Table 3.2.2.f. Target and attainment percentage for SEE

Course	Semester End Evaluation (SEE)											
	Targeted Percentage of COs						Attainment Percentage of COs					
	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
I SEMESTER												
15MA11	55	55	55	55	55	55	90.07	90.07	90.07	90.07	90.07	90.07
15CH12	60	60	60	60	60	60	94.7	94.7	94.7	94.7	94.7	94.7
15CS13	60	60	60	60	60	60	94.8	94.8	94.8	94.8	94.8	94.8
15ME14	60	60	60	60	60	60	95.0	95.0	95.0	95.0	95.0	95.0
15EC15	60	60	60	60	60	60	62.1	62.1	62.1	62.1	62.1	62.1
15HP16	65	65	65	65	-	-	99.4	99.4	99.4	99.4	-	-
II SEMESTER												
15MAT21	55	55	55	55	55	55	90.11	90.11	90.11	90.11	90.11	90.11
15PH22	60	60	60	60	60	60	98.3	98.3	98.3	98.3	98.3	98.3
15ME23	60	60	60	60	60	60	97.9	97.9	97.9	97.9	97.9	97.9

15CV24	60	60	60	60	60	60	94.5	94.5	94.5	94.5	94.5	94.5
15EE25	50	50	50	50	-	-	95.2	95.2	95.2	95.2	-	-
15HB26	50	50	50	50	-	-	98.3	98.3	98.3	98.3	-	-
III SEMESTER												
16MAT31	60	60	60	60	60	60	55.74	71.67	87.97	90.23	88.64	60.77
16HSS321	60	60	60	60	60	60	50	27.27	25	82.78	63.24	31.54
16CIV33	60	60	60	60	60	60	61.38	54.23	54.23	48.28	37.24	38.81
16CIV34	60	60	60	60	60	60	51.39	50.38	53.74	56.12	43.54	41.89
16CIV35	60	60	60	60	60	60	71.24	78.27	65.54	59.18	88.74	60.33
16CIV36	60	60	60	60	60	60	62.04	33.33	90.07	68.7	78.62	62.24
IV SEMESTER												
16MAT41	60	60	60	60	60	60	86.5	67.1	63.01	83.23	79.87	79.87
16HSS422	60	60	60	60	60	60	68.31	80	60.87	53.48	68.51	61.08
16CIV43	60	60	60	60	60	60	92.78	39.86	93.13	68.57	40.51	80.59
16CIV44	60	60	60	60	60	60	55.41	53.38	63.64	54.17	65.31	27.78
16CIV45	60	60	60	60	60	60	79.87	76.51	73.03	76.51	75.32	68.97
16CIV46	60	60	60	60	60	60	78.7	69.84	84.51	71.33	71.43	57.14
16CIV47	60	60	60	60	60	60	87.36	87.36	85.71	81.87	92.31	70.88
V SEMESTER												
CIV51	60	60	60	60	-	-	80.25	85.8	61.96	81.88	-	-
CIV52	60	60	60	60	-	-	73.33	45.45	75.51	72.03	-	-
CIV53	60	60	60	60	-	-	87.97	32.41	69.43	31.85	-	-

CIV54	60	60	60	60	-	-	74.32	26.21	25.52	46.27	-	-
CIV55	60	60	60	60	-	-	58.9	81.76	90.07	65.31	-	-
CIV563	60	60	60	60	-	-	63.76	69.57	76.62	58.28	-	-
CIV574	60	60	60	60	-	-	81.48	77.64	84.57	44.44	-	-
VI SEMESTER												
CIV61	60	60	60	60	-	-	82.72	78.4	85.09	51.85	-	-
CIV62	60	60	60	60	-	-	35.29	90.41	62.96	92.86	-	-
CIV63	60	60	60	60	-	-	52.78	36.5	54.29	37.8	-	-
CIV64	60	60	60	60	-	-	43.45	42.86	73.03	80.26	-	-
CIV653	60	60	60	60	-	-	62.03	38.78	77.85	52.03	-	-
CIV67	60	60	60	60	-	-	94.87	84.72	88.39	97.5	-	-
VII SEMESTER												
CIV71	60	60	60	60	60	-	63.4	63.57	94.04	58.04	42.48	-
CIV72	60	60	60	60	60	-	86.39	62.33	31.29	77.7	0	-
CIV73	60	60	60	60	60	-	44.9	58.7	68.84	72.48	100	-
CIV742	60	60	60	60	60	-	52.03	70.67	72.85	60.28	83.89	-
CIV754	60	60	60	60	60	-	72.73	76.62	51.39	50.68	51.68	-
CIV76	60	60	60	60	60	-	87.79	97.95	95.27	83.11	55	-
CIV77	60	60	60	60	60	-	99.35	100	99.35	84.52	48.68	-
VIII SEMESTER												
CIV81	60	60	60	60	60	-	83.97	28.24	70.97	61.65	36	-
CIV822	60	60	60	60	60	-	92.11	100	68.42	77.14	64	-

CIV824	60	60	60	60	60	-	87.93	87.18	85.34	74.78	74.78	-
CIV83	60	60	60	60	60	-	100	98.71	94.84	81.94	85.16	-
CIV84	60	60	60	60	60	-	95.48	94.84	94.19	89.68	87.74	-

The target and attainment levels for CIE and SEE of all the courses are given in Tables 3.2.2.g to Table 3.2.2.h.

Table 3.2.2.g. Target and attainment levels for CIE

Course	Continuous Internal Evaluation (CIE)											
	Targeted Attainment of COs						Actual Attainment of COs					
	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
I SEMESTER												
15MA11	3	3	3	3	3	3	3	3	3	3	3	3
15CH12	3	3	3	3	3	3	3	3	3	3	3	3
15CS13	3	3	3	3	3	3	3	3	3	3	3	3
15ME14	3	3	3	3	3	3	3	3	3	3	3	3
15EC15	3	3	3	3	3	3	2.5	2.5	2.5	2.5	2.5	2.5
15HP16	3	3	3	3	-	-	3	3	3	3	-	-
II SEMESTER												
15MAT21	3	3	3	3	3	3	3	3	3	3	3	3
15PH22	3	3	3	3	3	3	3	3	3	3	3	3
15ME23	3	3	3	3	3	3	3	3	3	3	3	3
15CV24	3	3	3	3	3	3	3	3	3	3	3	3
15EE25	3	3	3	3	-	-	3	3	3	3	-	-
15HB26	3	3	3	3	-	-	3	3	3	3	-	-
III SEMESTER												

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16MAT31	3	3	3	3	3	3	3	3	3	3	3	3
16HSS321	3	3	3	3	3	3	0	0	1	1	1	0
16CIV33	3	3	3	3	3	3	3	3	3	3	3	3
16CIV34	3	3	3	3	3	3	3	3	3	3	3	3
16CIV35	3	3	3	3	3	3	3	3	3	3	3	3
16CIV36	3	3	3	3	3	3	3	3	3	3	3	3
IV SEMESTER												
16MAT41	3	3	3	3	3	3	3	3	3	3	3	3
16HSS422	3	3	3	3	3	3	3	3	3	3	3	0
16CIV43	3	3	3	3	3	3	2	1	3	3	3	3
16CIV44	3	3	3	3	3	3	2	2	3	0	2	3
16CIV45	3	3	3	3	3	3	3	3	3	3	3	3
16CIV46	3	3	3	3	3	3	3	3	3	3	3	3
16CIV47	3	3	3	3	3	3	3	3	3	3	3	3
V SEMESTER												
CIV51	3	3	3	3	-	-	3	3	3	3	-	-
CIV52	3	3	3	3	-	-	2	3	3	3	-	-
CIV53	3	3	3	3	-	-	3	3	3	3	-	-
CIV54	3	3	3	3	-	-	1	2	3	3	-	-
CIV55	3	3	3	3	-	-	3	3	3	3	-	-
CIV563	3	3	3	3	-	-	3	2	3	3	-	-
CIV574	3	3	3	3	-	-	3	3	3	3	-	-
VI SEMESTER												
CIV61	3	3	3	3	-	-	3	3	3	3	-	-
CIV62	3	3	3	3	-	-	3	3	2	3	-	-
CIV63	3	3	3	3	-	-	1	3	3	3	-	-
CIV64	3	3	3	3	-	-	3	3	3	3	-	-

CIV653	3	3	3	3	-	-	3	3	3	3	-	-
CIV67	3	3	3	3	-	-	3	3	3	3	-	-
VII SEMESTER												
CIV71	3	3	3	3	3	-	3	3	3	3	1	-
CIV72	3	3	3	3	3	-	3	3	3	3	3	-
CIV73	3	3	3	3	3	-	3	3	0	3	1	-
CIV742	3	3	3	3	3	-	3	3	3	3	3	-
CIV754	3	3	3	3	3	-	3	3	3	3	3	-
CIV76	3	3	3	3	3	-	3	3	3	3	3	-
CIV77	3	3	3	3	3	-	3	3	3	3	3	-
VIII SEMESTER												
CIV81	3	3	3	3	3	-	3	3	3	3	3	-
CIV822	3	3	3	3	3	-	3	3	3	3	3	-
CIV824	3	3	3	3	3	-	3	3	3	3	3	-
CIV83	3	3	3	3	3	-	3	2	1	0	0	-
CIV84	3	3	3	3	3	-	3	3	3	3	3	-

Table 3.2.2.h. Target and attainment levels for SEE

Course	Semester End Evaluation (SEE)												Overall attainment
	Targeted Attainment of COs						Actual Attainment of COs						
	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6	
I SEMESTER													
15MA11	3	3	3	3	3	3	3	3	3	3	3	3	3
15CH12	3	3	3	3	3	3	3	3	3	3	3	3	3
15CS13	3	3	3	3	3	3	3	3	3	3	3	3	3
15ME14	3	3	3	3	3	3	3	3	3	3	3	3	3
15EC15	3	3	3	3	3	3	2.5	2.5	2.5	2.5	2.5	2.5	2.5

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15HP16	3	3	3	3	-	-	3	3	3	3	-	-	3
II SEMESTER													
15MAT21	3	3	3	3	3	3	3	3	3	3	3	3	3
15PH22	3	3	3	3	3	3	3	3	3	3	3	3	3
15ME23	3	3	3	3	3	3	3	3	3	3	3	3	3
15CV24	3	3	3	3	3	3	3	3	3	3	3	3	3
15EE25	3	3	3	3	-	-	3	3	3	3	-	-	3
15HB26	3	3	3	3	-	-	3	3	3	3	-	-	3
III SEMESTER													
16MAT31	3	3	3	3	3	3	1	3	3	3	3	1	2.73
16HSS321	3	3	3	3	3	3	1	0	0	3	2	0	0.84
16CIV33	3	3	3	3	3	3	2	1	1	1	0	0	2.11
16CIV34	3	3	3	3	3	3	1	1	1	2	0	0	1.9
16CIV35	3	3	3	3	3	3	3	3	3	2	3	2	2.93
16CIV36	3	3	3	3	3	3	2	0	3	3	3	2	2.73
IV SEMESTER													
16MAT41	3	3	3	3	3	3	3	2	2	3	2	3	2.77
16HSS422	3	3	3	3	3	3	3	3	2	1	3	2	2.55
16CIV43	3	3	3	3	3	3	3	0	3	3	0	3	2.23
16CIV44	3	3	3	3	3	3	2	1	2	1	3	0	1.66
16CIV45	3	3	3	3	3	3	3	3	3	3	3	3	3
16CIV46	3	3	3	3	3	3	3	3	3	3	3	2	3
16CIV47	3	3	3	3	3	3	3	3	3	3	3	3	3
V SEMESTER													
CIV51	3	3	3	3	-	-	3	3	2	3	-	-	2.81
CIV52	3	3	3	3	-	-	3	1	3	3	-	-	2.67
CIV53	3	3	3	3	-	-	3	0	3	0	-	-	2.46

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CIV54	3	3	3	3	-	-	3	0	0	1	-	-	1.75
CIV55	3	3	3	3	-	-	2	3	3	3	-	-	2.82
CIV563	3	3	3	3	-	-	2	3	3	2	-	-	2.64
CIV574							3	3	3	0	-	-	2.99
VI SEMESTER													
CIV61	3	3	3	3	-	-	3	3	3	1	-	-	2.73
CIV62	3	3	3	3	-	-	0	3	2	3	-	-	2.57
CIV63	3	3	3	3	-	-	1	0	1	0	-	-	1.21
CIV64	3	3	3	3	-	-	0	0	3	3	-	-	2.43
CIV653	3	3	3	3	-	-	2	0	3	1	-	-	2.57
CIV67	3	3	3	3	-	-	3	3	3	3	-	-	3
VII SEMESTER													
CIV71	3	3	3	3	3	-	2	2	3	2	0	-	2.01
CIV72	3	3	3	3	3	-	3	2	0	3	0	-	2.26
CIV73	3	3	3	3	3	-	0	2	3	3	3	-	1.91
CIV742	3	3	3	3	3	-	1	3	3	2	3	-	2.71
CIV754	3	3	3	3	3	-	3	3	1	1	1	-	2.62
CIV76	3	3	3	3	3	-	3	3	3	3	2	-	2.92
CIV77	3	3	3	3	3	-	3	3	3	3	1	-	2.81
VIII SEMESTER													
CIV81	3	3	3	3	3	-	3	0	3	2	0	-	2.51
CIV822	3	3	3	3	3	-	3	3	3	3	2	-	2.93
CIV824	3	3	3	3	3	-	3	3	3	3	3	-	3
CIV83	3	3	3	3	3	-	3	3	3	3	3	-	2.1
CIV84	3	3	3	3	3	-	3	3	3	3	3	-	3

3.3. Attainment of Program Outcomes and Program Specific Outcomes (75)

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

- ✓ Program outcome is based on direct assessment and indirect assessment.
- ✓ Direct assessment is based on CIE and SEE marks.
- ✓ All the question papers of CIE and SEE are mapped with the COs and COs are already mapped with POs.
- ✓ The direct PO attainment is obtained from Contineo.

Indirect assessment is based on feedback Forms-Graduate survey, Alumni survey and Employer Survey forms.

3.3.1.1 PO and PSO Assessment Tools

At the end of programme, the PO and PSO assessment is done from the CO attainment of all curriculum components. The various direct and indirect assessment tools used to evaluate POs & PSOs and frequency with which the assessment processes are carried out are listed in Table 3.3.1.a.

Table 3.3.1.a Details about Direct Assessment Tools

Direct Assessment Tools	Description	Evaluation of COs	Related POs/PSOs
Internal Assessment (IA) Test	Three internal assessment tests are conducted for all the courses and their averages are considered.	The questions in the test are mapped against COs of respective courses. All three IA test questions are framed in such a way to cover all CO's.	PO1 to PO12 PSO1, PSO2

		Entered marks are taken for measuring the CO Attainment.	
Assignment	Two assignments per semester are given by Faculty in charge.	Assignment questions are mapped against COs and marks are taken for measuring the CO attainment.	
Quiz	Two Quizzes per semester are given by faculty in charge.	The questions are prepared for each of the courses and marks are considering for calculating CO attainment.	
Internal Lab Examination	Laboratory test conduction and evaluation is done during each semester.	In every lab, record, observation and viva are assessed by the faculty in charge through continuous internal Assessment. Experiment wise CO is evaluated and attainment is measured	
SEE	Conduction of both theory and practical/project examination as per the calendar of events announced.	Final marks are taken for assessing the CO attainment.	

Project	Project evaluation is done during 7 th and 8th semester to test the student's independent analysis and design skills. Three project reviews are conducted.	The project guide and project coordinator follows the rubrics which is set by the department for evaluation and then submit to the Head of the Department.	
Internship	Internship evaluation is done during 8th semester. To get the practical exposure from industries, students are encouraged to carry out Internship in reputed industries/public sectors.	The evaluation of the marks based on Presentation and Report of the Internship and the score for every student is calculated.	

The process for POs/PSOs attainment is described in the flowchart shown in Figure 3.3.1.a.

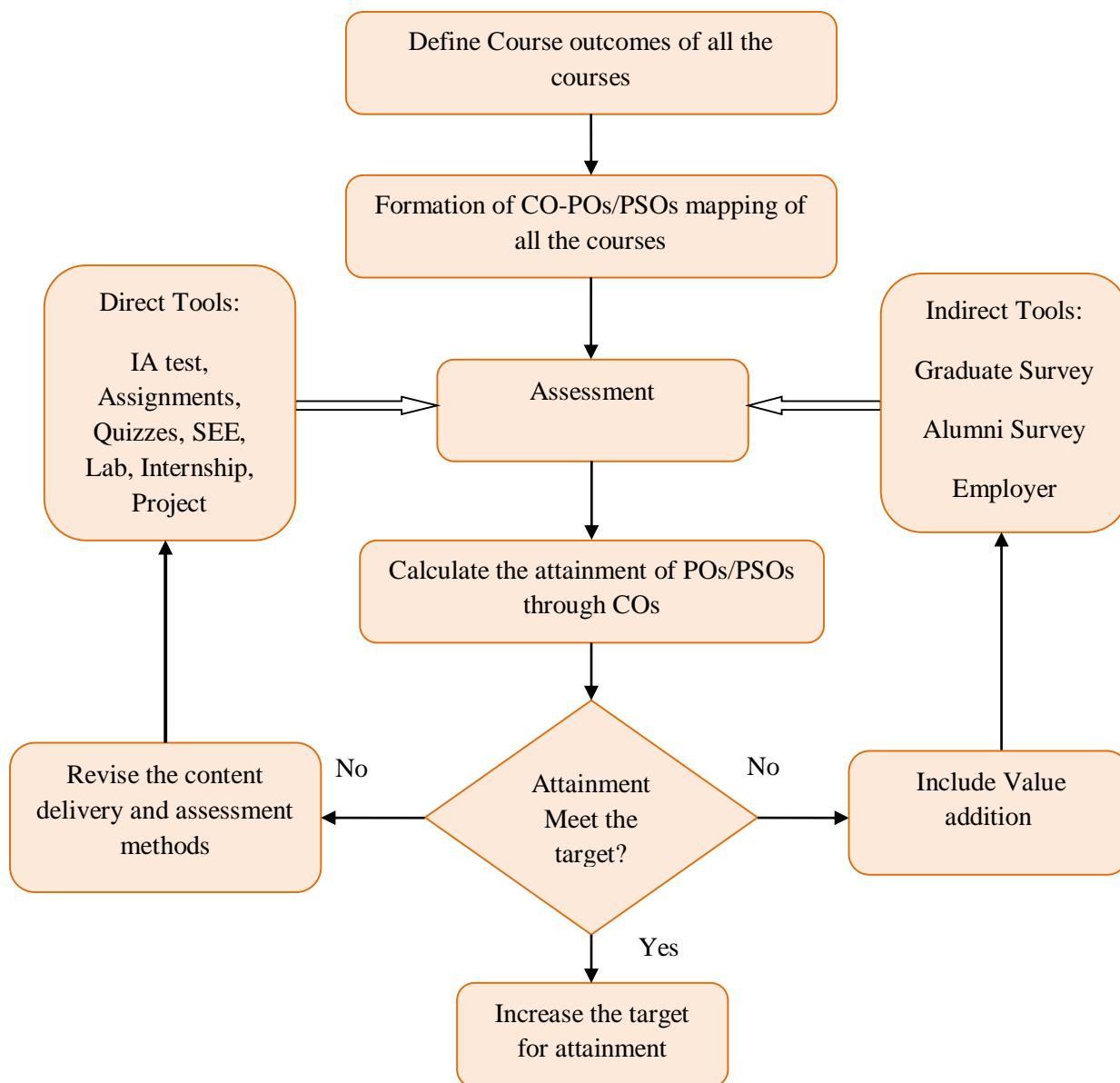


Figure 3.3.1.a PO/PSO Assessment and Attainment Process

Indirect Attainment

The following feedback forms are collected from stakeholders to evaluate the indirect attainment

- a) Graduate Survey Form
- b) Employer feedback forms
- c) Alumni survey forms

The final attainment is calculated considering both direct and indirect attainment as per the formula given below as given in Table 3.3.1.b.

$$\text{Total PO Attainment} = \text{Direct Attainment} * 0.8 + \text{Indirect Attainment} * 0.2$$

Table 3.3.1.b. Assessment tools used for calculation of PO attainment

PO Attainment	Direct Assessment	CIE tests, Assignment, Quiz, Lab CIE tests, Self-study, Co-curricular activities, SEE for theory lab, projects, internships	80%
	Indirect Assessment	Graduate Survey form	20%
		Employer survey form	
		Alumni feedback form	

The steps involved in PO Assessment process are as follows:

- a. Course outcomes are assessed through Continuous Internal Evaluation and Semester End Examination. The analysis is done to find the level of attainments of COs.
- b. The attainment of POs is being calculated based on the COs attainment.

Attainment of POs/PSOs through a course is calculated as Sum of product of CO attainment and CO PO mapping by sum of weight contributed in CO PO mapping.

Attainment of POs through all the courses is calculated by taking the Average across all Courses Addressing those POs/PSOs.

c. The PSOs attainment is calculated by the process similar to that used for POs attainment.

d. For indirect assessments, survey questionnaire is circulated to students, alumni and employer. The surveys are assessed and evaluated to determine the strength of attainment level of POs.

Attainment of POs based on survey= $[(3 \times \text{number of students gave option 3}) + (2 \times \text{number of students gave option 2}) + (1 \times \text{number of students gave option 1})] / \text{Total number of responses}$

e. Overall attainments of POs are calculated by taking 80% of direct attainment and 20% of indirect attainment.

PO attainment= Direct Attainment *0.8+ Indirect Attainment *0.2

f. If the POs and PSOs attainment value is below the target, an essential remedial action has been taken.

Illustration:

A course is taken as an example for the calculation of POs and PSOs attainment. And it is explained in Table 3.3.1.c with CO attainment and mapping.

Sample calculation for PO attainment

COURSE: CONCRETE TECHNOLOGY (CIV51)

CO PO MAPPING OF CIV 51(as given in Table 3.1.2. a4)

CO ATTAINMENT OF CIV 51(as given in Table 3.2.2.d)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	-	-	-	3	3	-	-	-	-	-	3	3
CO2	3	2	-	-	-	3	3	-	-	-	-	-	3	3
CO3	3	-	-	2	2	3	3	-	-	-	-	-	3	3
CO4	3	2	1	-	-	3	3	-	-	-	-	-	3	-

COs	CIE	SEE	CO ATTAINMENT (0.5 x CIE + 0.5 x SEE)
CO1	3	3	$3 \times 0.5 + 3 \times 0.5 = 3$
CO2	3	3	$3 \times 0.5 + 3 \times 0.5 = 3$
CO3	3	2	$3 \times 0.5 + 2 \times 0.5 = 2.5$
CO4	3	3	$3 \times 0.5 + 3 \times 0.5 = 3$

Table 3.3.1.c. CO attainment and mapping for subject Concrete Technology (CIV51)

	CO attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	-	-	-	-	3	3	-	-	-	-	-	3	3
CO2	3	3	2	-	-	-	3	3	-	-	-	-	-	3	3
CO3	2.5	3	-	-	2	2	3	3	-	-	-	-	-	3	3
CO4	3	3	2	1	-	-	3	3	-	-	-	-	-	3	-

Attainment of POs/PSOs through a course is calculated as a sum of product of CO attainment and CO PO mapping by the sum of weight contributed in CO PO mapping as given in Table 3.3.1.d. below.

Calculation:

$$PO1 = \frac{(3 \times 3) + (3 \times 3) + (2.5 \times 3) + (3 \times 3)}{(3 + 3 + 3 + 3)} = 2.8$$

$$PO2 = \frac{(3 \times 2) + (3 \times 2)}{(2 + 2)} = 3$$

Similar way, the rest of the POs from PO3 to PO12 is calculated and shown in the Table 3.3.1.d.

Table 3.3.1.d. PO attainment for the subject CIV 51 (Concrete Technology)

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CIV51	2.81	3	3	2.5	2.5	2.81	2.81	-	-	-	-	-	2.81	2.76

The sample of these survey forms Graduate survey, Employer and Alumni Survey are given in Table 3.3.1.e to Table 3.3.1.g.

Table 3.3.1.e. Graduate Survey form
GRADUATE SURVEY FORM

Name : _____ USN: _____

Sl. No	Program Outcomes(POs)	Good	Satisfactory	Poor
		(3)	(2)	(1)
1	Engineering Knowledge Were you able to apply the knowledge of Mathematics, Science, engineering fundamentals, and engineering specialization to the solution of complex engineering problems.			
2	Problem analysis Were you comfortable in identifying, formulating reviewing, and research literature and analysing complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
3	Design / Development of Solutions: Were you able to 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,			
4	Conduct investigations of complex problems Was it easy to 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 Were you able to create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.			
6	The engineer and society Did you 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 Did you 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 Were you able to apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice?			
9	Individual and team work Did you function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings			

10	Communication Did you 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 Did you 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 multi-disciplinary environments.			
12	Life - long learning How far you 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			
13	How for the programme was enhancing the employability skills in various domains of Civil Engineering.			
14	How for you are Inculcated to deal with practical aspects of Civil Engineering.			

Table 3.3.1.f. Survey questionnaire to employer form

SURVEY QUESTIONNAIRE TO EMPLOYER

Sir,

Our Institute is falling in line with outcome based education in continuity with the international practices (as per Washington Accord). The assessment of the outcome has to be through a survey.

The following questions need your valued consideration. Please find some time and send in your answers to the following questions. This report will be kept confidential.

Yours Truly,

PRINCIPAL

Company Name:					
Mailing Address:					
City		State		Pin Code	
Employment Details		Year		Email	
Sl. #	Questions	PO	Good (3)	Satisfactory (2)	Poor (1)
1	Your views on Engineering knowledge of our graduates?	PO1			
2	How did you find our student in applying the knowledge of maths, science in the solution of complying engineering problems?	PO2			
3	How you found our student with respect to design and development of new products or methods?	PO3			

4	Your view on our students on investigating new problems in the industry.	PO4			
5	How fit is our graduates in applying modern tools for solving problems.	PO5			
6	How responsible is our graduates in contextual knowledge to assess societal, health, safety, legal and cultural issues.	PO6			
7	How responsible is our student in understanding the impact of the civil engineering solutions in societal and environmental context	PO7			
8	How can you rate our student with respect to their ethical and moral values?	PO8			
9	How can you rate our students with respect to work and team work?	PO9			
10	How can you rate our student with respect to being open to communicate effectively on complex civil engineering activates.	PO10			
11	How do you find our graduates performance in understanding project management and financial principals of the company?	PO11			
12	How you rate our student with respect to willingness for lifelong learning	PO12			

13	Were you happy with the support you received from the college during placement drive?	-			
14	Are our graduates able to find innovative solutions for challenges and problems in various domains of Civil Engineering?	PSO1			
15	How do you rate our student's ability to deal with practical aspects of Civil Engineering.	PSO2			

Your detailed comments on our graduate employee

Table 3.3.1.g. Alumni Feedback form

DEPARTMENT OF CIVIL ENGINEERING

ALUMNI FEEDBACK FORM

We shall be thankful to and appreciate you, if you can spare some of your valuable time to fill up this feedback form and give us your valuable suggestion for further improvement of the Institution programme. Your valuable input will be of great use to improve the quality of our academic program and enhance the credibility of the Institute.

Yours Truly,

PRINCIPAL

Name of the Alumni				
Degree	BE	M.Tech	MBA	MCA
Programme	AUTO / BT/ CIVIL / CSE / EC / EEE/ IS / ME			

Year of Graduation	
Name of the organization where you are working	
Designation	

Please give your assessment of the Institute academics.

Sl. #	Questions	PO	Good	Satisfactory	Poor
			(3)	(2)	(1)
1	Rate the engineering knowledge obtained during course period.	PO1			
2	How do you find the program related to problem analysis?	PO2			
3	How do you rate this program for developing solutions for the problems in the field of civil engineering?	PO3			
4	How you can rate the program helped for investigating the problems in the field of civil engineering.	PO4			
5	How fit is this program assisted in applying modern tool usage for your problems.	PO5			
6	How do you rate this program helped me in assessing society, health and safety issues.	PO6			
7	How can you rate this program helped you in getting knowledge related to environment and sustainability.	PO7			
8	How can you rate your professional ethics related to the program.	PO8			
9	What value you can express for individual working and team work	P09			

10	How can you rate your communication skills related to the program?	P10			
11	Were you able to manage project and finance aspects effectively?	P11			
12	How far this program helped for lifelong learning.	P12			
13	Was the program developed the employability skills in various domains of Civil Engineering.	PSO1			
14	Were you able to deal with practical aspects of Civil Engineering	PSO2			

Indirect attainment:

The different components used for indirect attainment are given below:

a) Graduate survey

A graduate survey is conducted for the students who have passed out of the department for that year. The questionnaire consists of questions which is relevant for assessing all POs and PSOs. Each question is having 3 options, namely, extremely satisfied, satisfied and somewhat satisfied, which is given marks 3, 2 and 1 respectively. The survey results are tabulated and the average values corresponding to POs and PSOs are calculated as shown in Table 3.3.1.h.

Table 3.3.1.h. Graduate Survey form feedback

Form	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Graduate Survey	2.72	2.68	2.68	2.66	2.70	2.66	2.70	2.72	2.64	2.70	2.78	2.76	2.68	2.70

b) Employer survey form

An employer feedback system had been floated to take the feedback from the employers who had given jobs to our graduates. The questionnaire consists of questions which is relevant for assessing all POs and PSOs. Each question is having 3 options, namely, extremely satisfied, satisfied and somewhat satisfied, which is given marks 3, 2 and 1 respectively. The survey results are tabulated and the average values corresponding to POs and PSOs are calculated as shown in Table 3.3.1.i.

Table 3.3.1.i. Employer survey feedback

Form	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Employer survey	2.70	2.74	2.68	2.74	2.60	2.74	2.64	2.80	2.68	2.76	2.70	2.60	2.72	2.74

C) Alumni survey

Feedback is taken from alumni who have passed out in 2017 and 2018 the questionnaire consists of questions which is relevant for assessing all POs and PSOs. Each question is having 3 options, namely, extremely satisfied, satisfied and somewhat satisfied, which is given marks 3, 2 and 1 respectively. The survey results are tabulated and the average values corresponding to POs and PSOs are calculated as shown in Table 3.3.1.j.

Table 3.3.1.j. Alumni Survey feedback

Form	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Alumni Survey	2.66	2.62	2.70	2.72	2.66	2.68	2.66	2.74	2.62	2.72	2.66	2.68	2.72	2.76

Sample calculation of PO3

The PO assessment for PO3 is given as a sample calculation.

Direct Assessment of PO-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.

Direct PO attainment is calculated from CO attainment of the courses addressing PO-3. Average CO attainment level of all courses addressing this PO is calculated which is mentioned in following Table 3.3.1.k.

Table 3.3.1.k. Direct Assessment of PO3

Semester	SAR Code	Relevant Courses	PO3 Attainment Course wise
I SEM	C101	Engineering Mathematics I	3
	C103	Introduction to Programming with C	3
	C104	Computer Aided Engineering Drawing	3
	C105	Basic Electronics	2.75
II SEM	C107	Engineering Mathematics II	3
	C108	Engineering Physics	3
	C109	Elements of Mechanical Engineering	3
	C110	Elements of Civil Engineering	3
	C111	Basic Electrical Engineering	3
III SEM	C201	Engineering Mathematics-III	2.66
	C202	Introduction to Economics	1.03
	C203	Building Materials & Construction	2.1
	C204	Strength of Materials	2.27

	C205	Plane Surveying	3
	C206	Mechanics of Fluids	2.88
IV SEM	C207	Engineering Mathematics-IV	2.78
	C208	Life Skills for Engineers	2.75
	C209	Earth Science Engineering	2.61
	C210	Analysis of Determinate Structures	1.66
	C211	Higher Surveying	3
	C212	Applied Hydraulics and Machinery	3
	C213	Building Planning & Drawing	3
V SEM	C301	Concrete Technology	3
	C302	Design of RCC Structural Elements	2.67
	C303	Highway Engineering	2.33
	C304	Analysis of Indeterminate Structures	2.37
	C305	Basics of Geotechnical Engineering	3
	C306	Construction Management & Engineering Economics	2.5
	C307	Hydrology & Irrigation Engineering	2.97
VI SEM	C308	Environmental Engineering-I	2.45
	C309	Design and Detailing of RC Structural Elements	2.57
	C310	Design of Pre Stressed Concrete Structure	1.66
	C311	Applied Geotechnical Engineering	2.43
	C312	Advanced Concrete Technology	2.57

	C313	Mini project (Extensive survey)	3
VII SEM	C401	Environmental Engineering-II	1.55
	C402	Design and Drawing of Steel Structural Elements	2.26
	C403	Estimation & Valuation	2.64
	C404	Design of Masonry Structures	2.52
	C405	Transportation Systems	2.85
	C406	Highway Materials Lab	3
	C407	Project Phase-I	2.72
VIII SEM	C408	Pavement design	2.51
	C409	Advanced RC structures	2.91
	C410	Air Pollution	3
	C411	Project Work phase-II	2.13
Total Average Direct Assessment PO3			2.63

Indirect Assessment of PO3:

Indirect PO assessment is done using assessment tools like graduate survey, alumni survey, and employer survey as described in following table 3.3.1.1.

Table 3.3.1.1. Indirect Assessment of PO3

Survey	Attainment level
Graduate Survey	2.68
Alumni Survey	2.68
Employer Survey	2.70
Average	2.69

Average Attainment of PO3

Finally, the average of direct and indirect assessment is calculated which is the attainment level for that PO. Table 3.3.1.m. shows overall Attainment calculation for PO3.

Table 3.3.1.m. Final Attainment of PO3

Average Attainment				
PO	Assessment Tool	Attainment Level		Overall Attainment
PO3	Direct Assessment Tool	2.63	80% of 2.63=2.10	2.64
PO3	Indirect Assessment Tool	2.69	20% of 2.69=0.54	

3.3.2. Provide results of evaluation of each PO & PSO (65)

The PO and PSO direct attainment for all the subjects are given in Table 3.3.2.a and shown in Figure 3.3.2.a.

Table 3.3.2.a. PO PSO attainment for 2015-19 batch

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1 st Semester														
15MA11	3	3	3	3	3	-	-	-	-	3	-	3	-	-
15CH12	3	3	-	-	-	-	3	-	-	-	-	3	-	-
15CS13	3	3	3	3	3	-	-	-	3	3	-	3	-	-
15ME14	3	-	3	3	3	-	-	-	-	3	-	3	-	-
15EC15	2.75	2.75	2.75	-	-	-	-	-	-	-	-	-	-	-
15HP16	-	-	-	-	-	3	-	3	3	3	-	3	-	-
2 nd Semester														

15MA21	3	3	3	3	3	-	-	-	3	3	-	3	-	-
15PH22	3	3	3	-	-	-	-	-	3	-	-	3	-	-
15ME23	3	3	3	-	3	3	3	-	-	3	-	3	-	-
15CV24	3	3	3	-	-	-	-	-	-	-	-	-	-	-
15EE25	3	3	3	3	-	-	-	-	-	3	3	-	-	-
15HB26	-	-	-	-	-	-	-	3	3	3	-	3	-	-
3rd Semester														
16MAT31	3	3	3	3	3	3	3	-	-	3	3	3	-	-
16HSS322	0.78	0.78	1.03	1.3	1.03	0.78	0.78	0.78	1.03	0.78	0.75	1.03	0.78	0.78
16CIV33	2.1	2.1	2.1	2.1	-	-	-	-	-	-	-	-	2.1	2.1
16CIV34	1.95	1.95	1.95	1.95	-	1.94	-	-	-	-	-	-	1.95	-
16CIV35	2.93	3	3	3	-	2.5	3	-	-	-	-	-	2.93	2.93
16CIV36	2.73	2.73	2.73	2.73	-	-	-	-	-	-	-	-	2.73	2.73
4th Semester														
16MAT41	3	3	3	3	3	3	3	-	3	3	3	3	-	-
16HSS422	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	-	-
16CIV43	2.23	1.86	2.61	2.5	3	2.78	2.78	-	-	-	-	-	2.23	1.86
16CIV44	1.66	1.66	1.66	1.66	-	1.57	-	-	-	-	-	1.66	1.66	1.66
16CIV45	3	3	3	3	3	3	-	-	3	-	-	-	3	3
16CIV46	3	3	3	3	-	-	-	-	-	-	-	-	3	3
16CIV47	3	3	3	3	3	3	-	-	3	3	-	-	3	3
5th Semester														
CIV51	2.81	3	3	2.5	2.5	2.81	2.81	-	-	-	-	-	2.81	2.76
CIV52	2.67	2.67	2.67	2.68	2.67	2.68	2.68	-	-	2.67	-	2.67	2.67	2.68
CIV53	2.46	2.46	2.33	2.23	3	-	-	-	-	-	-	-	2.46	-

CIV54	1.75	1.75	2.37	1.75	1.75	-	-	-	-	2	-	-	1.75	1.75
CIV55	2.91	2.91	3	3	-	-	-	-	-	-	-	-	2.91	2.91
CIV563	2.64	2.64	2.5	2.64	3	2.5	-	-	-	-	2.74	-	2.64	2.64
CIV574	2.99	2.99	2.97	2.99	-	2.99	3	-	-	-	-	-	2.99	3
6th Semester														
CIV61	2.73	2.69	2.45	2.45	-	2.73	2.73	-	3	-	-	-	2.73	2.73
CIV62	2.57	2.57	2.57	2.57	2.58	2.24	-	2.26	2.58	-	-	-	2.57	2.57
CIV63	1.21	1.21	1.66	1.21	-	3	-	-	-	-	-	-	1.21	3
CIV64	2.43	2.43	2.43	2.43	-	3	3	-	-	-	-	-	2.43	-
CIV653	2.57	2.57	2.57	2.57	-	2.57	2.57	2.71	-	-	-	-	2.57	2.57
CIV67	3	3	3	3	-	-	-	-	3	3	3	3	3	3
7th Semester														
CIV71	2.01	1.55	1.55	1.55	-	2.5	1.77	-	-	-	-	-	1.76	2.01
CIV72	2.26	2.26	2.26	2.26	2.07	1.8	-	2.26	-	-	-	-	2.26	2.26
CIV73	1.91	2.53	2.64	1.91	-	2.43	-	2	-	-	-	-	1.91	1.91
CIV742	2.71	2.71	2.52	2.64	2.88	2.88	-	2.26	-	-	-	-	2.71	2.71
CIV754	2.52	2.71	2.85	2.79	-	-	-	-	-	-	-	-	2.71	-
CIV76	2.92	2.5	3	3	2.89	-	-	2.92	3	-	-	-	-	2.92
CIV77	2.72	2.67	2.72	2.72	2.72	-	-	-	2.81	2.72	2.81	2.81	2.81	2.81
8th Semester														
CIV81	2.51	2.51	2.51	2.67	2.82	-	-	-	-	-	-	-	2.42	-
CIV822	2.93	2.93	2.91	-	-	2.93	-	-	-	2.93	-	2.93	-	-
CIV824	3	3	3	3	3	3	3	3	-	-	-	-	3	3
CIV83	2.13	2.01	2.13	2.13	2.13	-	-	-	2.1	1.67	2.1	2.1	2.1	2.1
CIV84	-	3	-	-	3	-	-	-	3	3	3	3	3	3

TOTAL	122.2	121.76	121.1	104.59	70.1	70.92	42.34	26.94	47.04	54.52	25.59	54.39	81.32	73.59
Mapped subjects	47	47	46	41	26	27	16	11	17	20	10	20	33	29
Weighted average	2.60	2.59	2.63	2.55	2.72	2.61	2.68	2.45	2.78	2.73	2.62	2.75	2.45	2.53

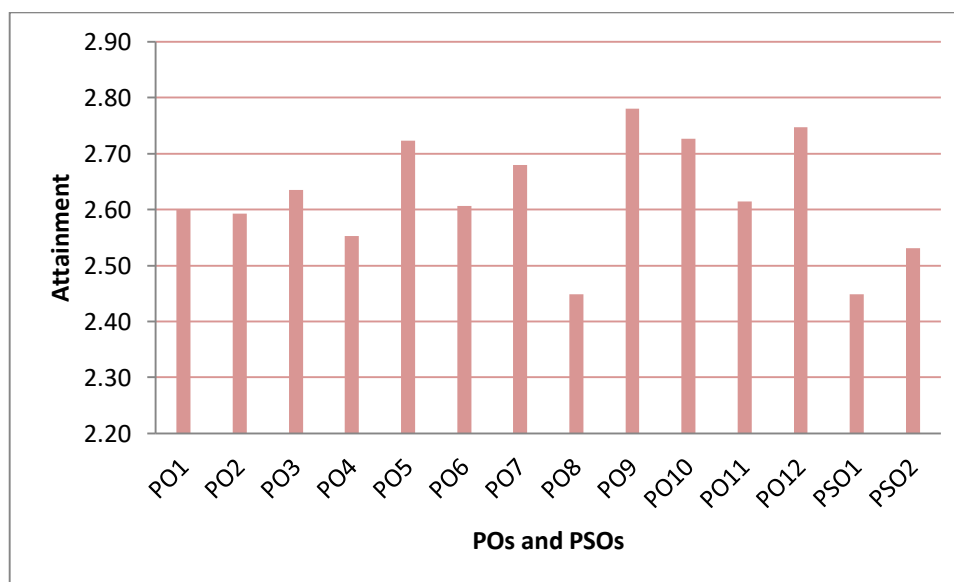


Figure 3.3.2.a POs & PSOs Vs Direct Attainment Level

The indirect attainment for POs and PSO s are given in Table 3.3.2.b and shown in Figure 3.3.2.b.

Table 3.3.2.b. Indirect POs/PSOs attainment for 2015-19

Survey	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Graduate Survey	2.72	2.68	2.68	2.66	2.70	2.66	2.70	2.72	2.64	2.70	2.78	2.76	2.68	2.70
Employer survey	2.70	2.74	2.68	2.74	2.60	2.74	2.64	2.80	2.68	2.76	2.70	2.60	2.72	2.74
Alumni Survey	2.66	2.62	2.70	2.72	2.66	2.68	2.66	2.74	2.62	2.72	2.66	2.68	2.72	2.76

Average	2.69	2.68	2.69	2.71	2.65	2.69	2.67	2.75	2.65	2.73	2.71	2.68	2.71	2.73
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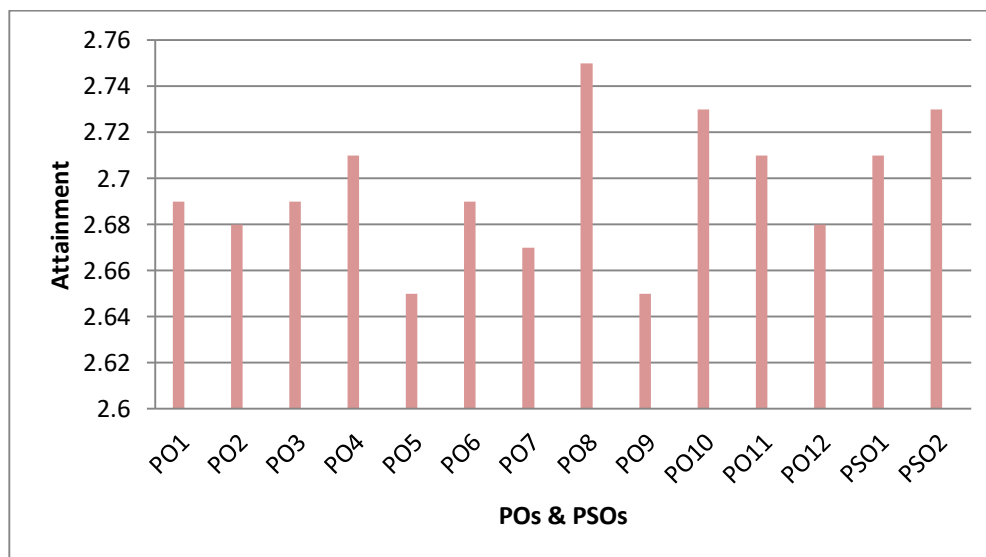


Figure 3.3.2.b POs & PSOs Vs Indirect Attainment Level

From the direct assessment and the indirect assessment values, the overall attainment values are calculated by giving 80% weightage to direct assessment and 20% weightage to indirect assessment and are shown below in Table 3.3.2.

Table 3.3.2.c. Final POs/PSOs attainment for 2015-19

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Average Direct Attainment	2.60	2.59	2.63	2.55	2.72	2.61	2.68	2.45	2.78	2.73	2.62	2.75	2.45	2.53
Indirect Attainment	2.69	2.68	2.69	2.71	2.65	2.69	2.67	2.75	2.65	2.73	2.71	2.68	2.71	2.73
Final Attainment (x)	2.62	2.61	2.65	2.58	2.71	2.62	2.68	2.51	2.75	2.73	2.63	2.73	2.50	2.57
Maximum attainable PO (y)	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Normalized PO (x/y)	0.87	0.87	0.88	0.86	0.90	0.88	0.88	0.84	0.91	0.91	0.86	0.90	0.84	0.86
------------------------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Conclusion: Comparing achieved values of POs/PSOs attainment with Target Values

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Target	1.80	1.70	1.67	1.60	1.51	1.43	1.36	1.39	1.39	1.41	1.64	1.34	1.73	1.78
Final Attainment	2.62	2.61	2.65	2.58	2.71	2.62	2.68	2.51	2.75	2.73	2.63	2.73	2.50	2.57



DEPARTMENT OF CIVIL ENGINEERING

CRITERION 4

STUDENTS' PERFORMANCE

CRITERION 4	STUDENTS' PERFORMANCE	100
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Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY (2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
Sanctioned intake of the program (N)	180	180	120
Total number of students admitted in first year <i>minus</i> number of students migrated to other programs/institutions, plus no. of students migrated to this program (N1)	144 (140-0+4)	203 (202-0+01)	136 (132-0+04)
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	14	15	24
Separate division students, if applicable (N3)	00	00	00
Total number of students admitted in the Program (N1 + N2 + N3)	158	218	160

CAY – Current Academic Year

CAYm1- Current Academic Year minus1= Current Assessment Year

CAYm2 - Current Academic Year minus2=Current Assessment Year

LYG – Last Year Graduate

LYGm1 – Last Year Graduate minus 1

LYGm2 – Last Year Graduate minus 2

Table 4.2

Year of entry	N1 + N2 + N3 (As defined above)	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
CAY (2019-20)	144+0+0=144				
CAYm1 (2018-19)	203+15+0=218	133			
CAYm2 (2017-18)	136+24+0=160	69	70		
CAYm3 (2016-17)	143+25+0=168	70	85	81	
CAYm4 (LYG) (2015-19)	150+24+0=174	99	107	102	94
CAYm5 (LYGm1) (2014-18)	147+22+0=169	54	55	47	39
CAYm6 (LYGm2) (2013-17)	140+24+0=164	70	39	32	30

Table 4.3

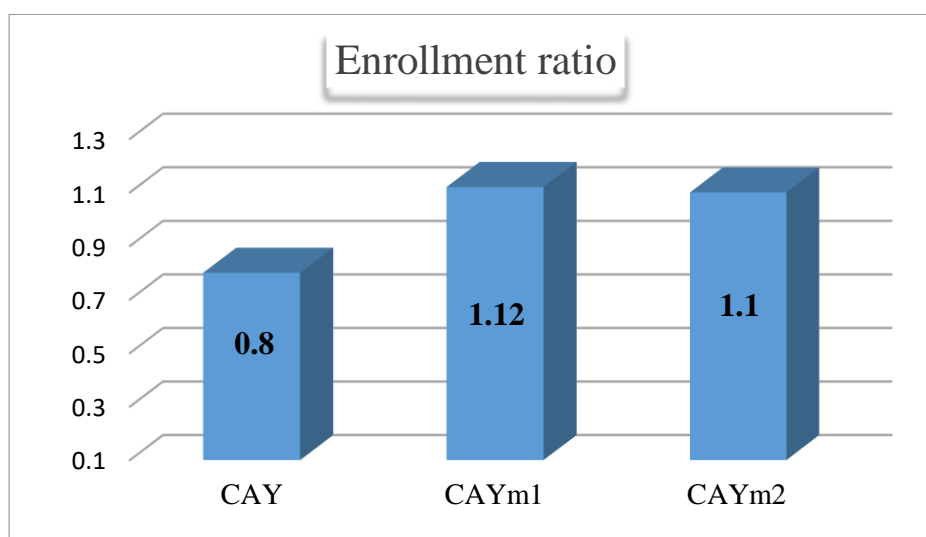
Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated (Students with backlog in stipulated period of study) (with +without backlog)			
		I Year	II Year	III Year	IV Year
CAY (2019-20)	144+0+0=144				
CAYm1 (2018-19)	203+15+0=218	145			
CAYm2 (2017-18)	136+24+0=160	121	132		
CAYm3 (2016-17)	143+25+0=168	122	137	128	
CAYm4 (LYG) (2015-19)	150+24+0=174	130	148	141	141
CAYm5 (LYGm1) (2014-18)	147+22+0=169	99	116	113	113
CAYm6 (LYGm2) (2013-17)	140+24+0=164	115	126	118	118

4.1 Enrolment Ratio (20)

Enrolment Ratio= $N1/N=100\%$

Table 4.4

CAY (2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
N=180	N=180	N=120
N1=144	N1=203	N1=136
$N1/N=0.8$	$N1/N=1.12$	$N1/N=1.13$
Average: $N1/N=1$ Ratio=1X 101.3 = 101.3		



Graph 4.1

Item (Students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year)	Marks
$\geq 90\%$ students enrolled	20
$\geq 80\%$ students enrolled	18
$\geq 70\%$ students enrolled	16
$\geq 60\%$ students enrolled	14
Otherwise	0

4.2 Success Rate in the stipulated period of the program (20)

4.2.1. Success rate without backlogs in any semester/year of study (15)

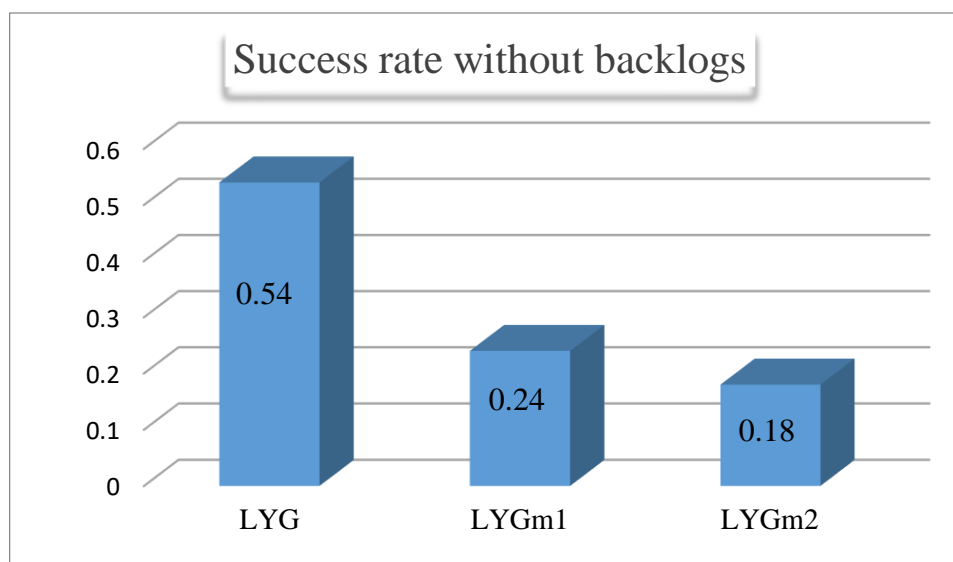
SI= (Number of students who have graduated from the program without backlog)/
(Number of students admitted in the first year of that batch and actually admitted in
2nd year via lateral entry and Separate division, if applicable).

Average SI = Mean of Success Index (SI) for past three batches

Success rate without backlogs in any semester/year of study = $15 \times \text{Average SI}$
 $= 15 \times 0.33 = 4.95$

Table 4.5

Item	Last Year of Graduate, LYG (2015-19)	Last Year of Graduate minus 1, LYGm1 (2014-18)	Last Year of Graduate minus 2, LYGm2 (2013-17)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and Separate division, if applicable	174	169	164
Number of students who have graduated without backlogs in the stipulated period	94	40	30
Success Index (SI)	0.54	0.24	0.18
Average Success Index	0.32		



Graph 4.2

4.2.2 Success rate with backlog in stipulated period of study (5)

SI= (Number of students who graduated from the program in the stipulated period of course duration)/ (Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and Separate division, if applicable)

Average SI = mean of Success Index (SI) for past three batches

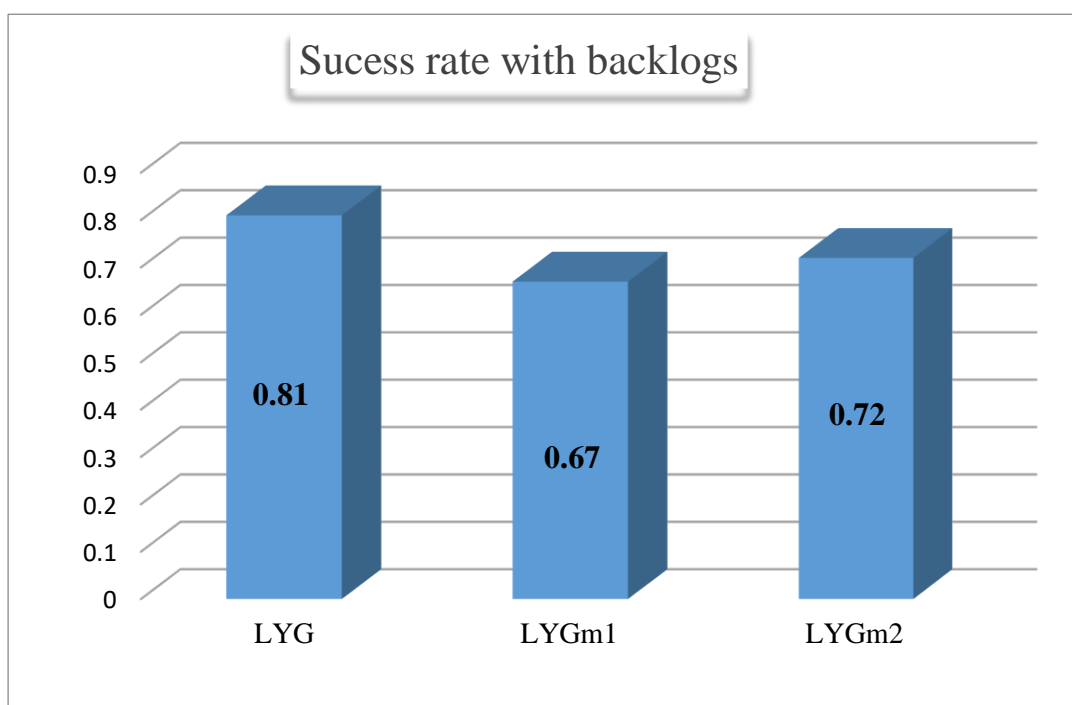
Success rate = $5 \times \text{Average SI} = 5 \times 0.73 = 3.65$

Table 4.6

Item	Last Year of Graduate, LYG (2015-19)	Last Year of Graduate, LYGm1 (2014-18)	Last Year of Graduate, LYGm2 (2013-17)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and Separate division, if applicable	174	169	164
Number of students who have graduated with backlogs in the stipulated period	141	113	118

Success Index (SI)	0.81	0.67	0.72
Average Success Index	0.73		

Note: If 100% students clear without any backlog then also total Marks scored will be 20 as both 4.2.1 & 4.2.2 will be applicable simultaneously



Graph 4.3

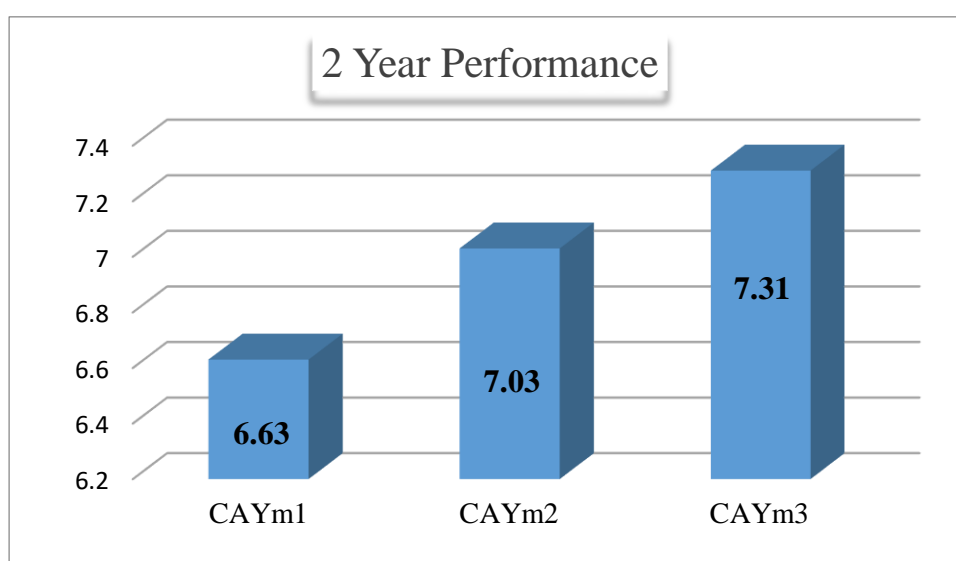
4.3 Academic Performance in Second Year (10)

Academic Performance = Average API (Academic Performance Index), where

API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10-point scale) or (Mean of the percentage of Marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination) Successful students are those who are permitted to proceed to the Third year

Table 4.7

Academic Performance	CAYm1 (2017-18)	CAYm2 (2016-17)	CAYm3 (2015-16)
Mean of CGPA or Mean Percentage of all successful students (X)	7.28	7.54	7.61
Total no. of successful students (Y)	132	137	148
Total no. of students appeared in the examination (Z)	145	147	154
API = X* (Y/Z)	6.63	7.03	7.31
Average API = (AP1 + AP2 + AP3)/3	6.99		



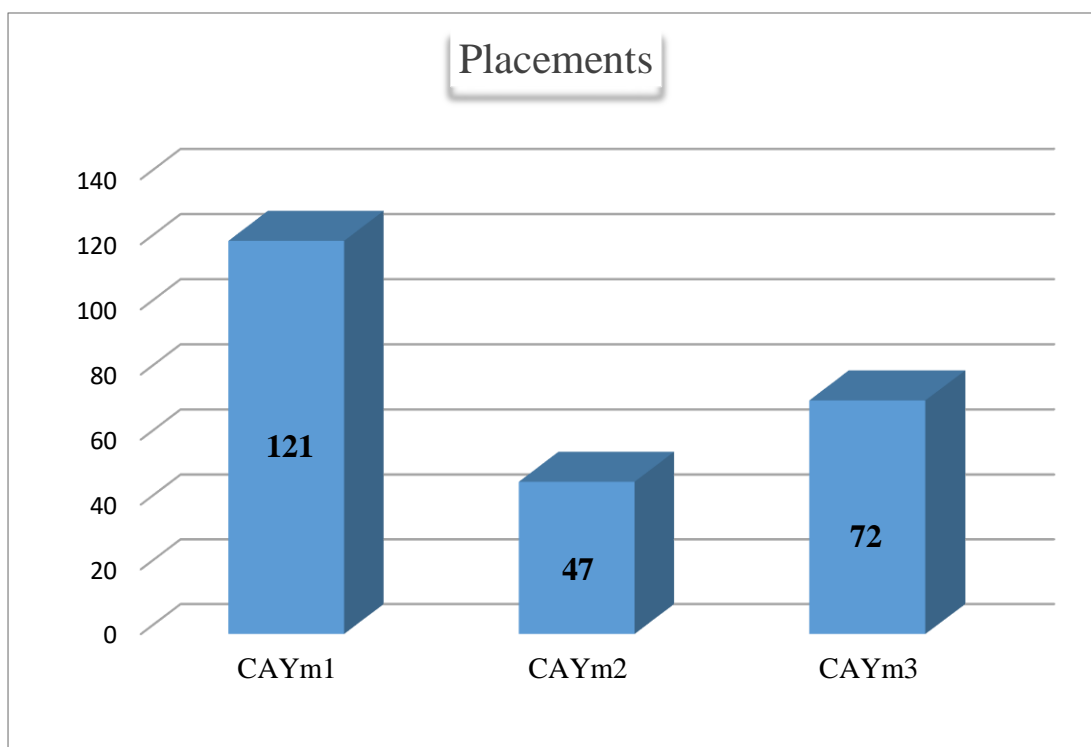
Graph 4.4

4.4 Placement, Higher Studies and Entrepreneurship (30)

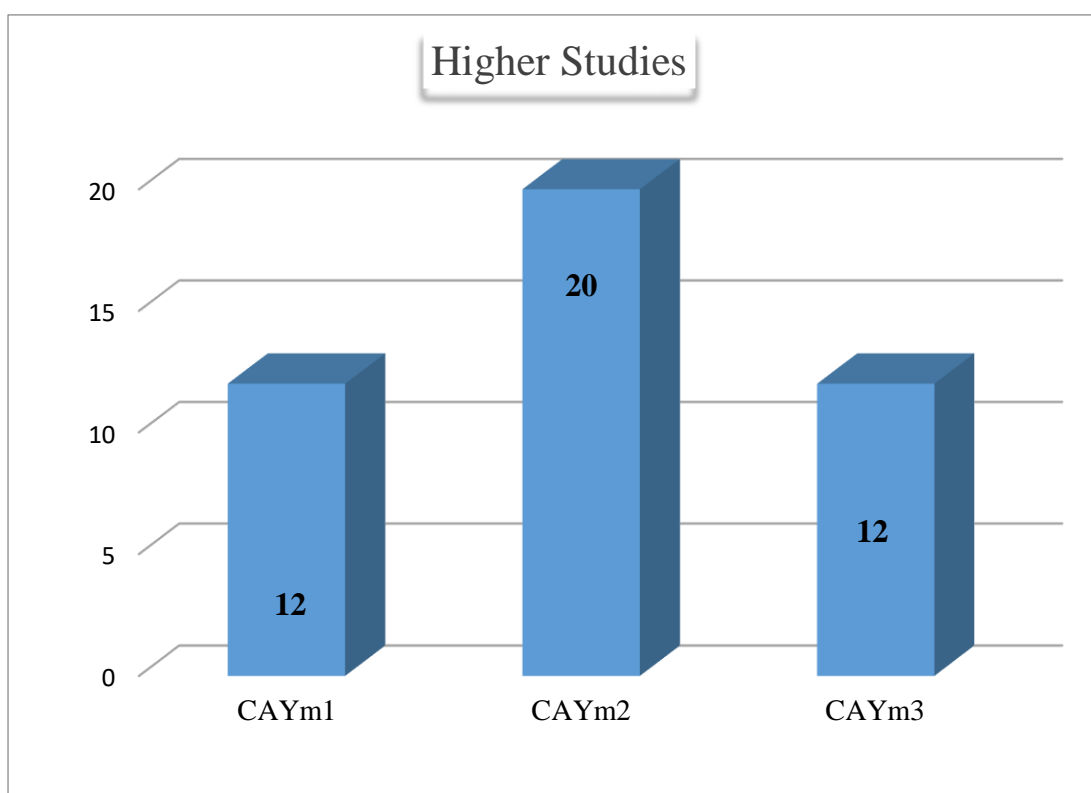
Assessment Points = $30 \times$ average placement

Table 4.8

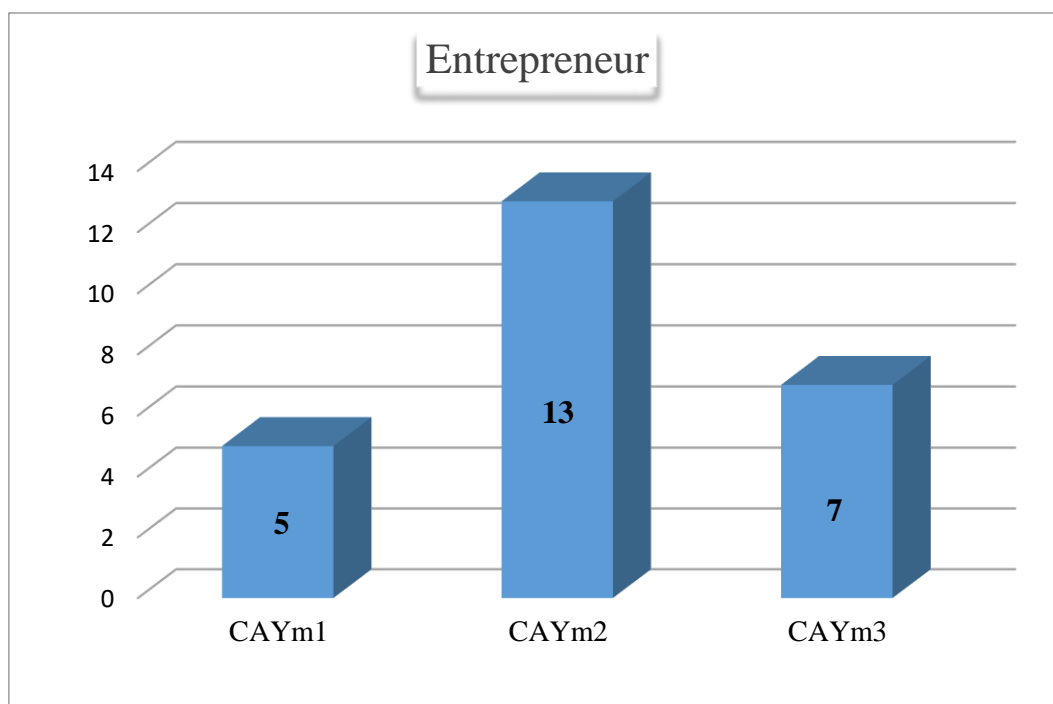
Item	CAYm1 (2018-19)	CAYm2 (2017-18)	CAYm3 (2016-17)
Total No. of Final Year Students (N)	141	113	118
No. of students placed in companies or Government Sector (x)	121	47	72
No. of students admitted to higher studies with valid qualifying scores. (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	12	20	12
No. of students turned entrepreneur in engineering/technology (z)	5	13	7
$x + y + z =$	138	80	91
Placement Index: $(x + y + z)/N$	0.98	0.71	0.77
Average placement = $(P1 + P2 + P3)/3$	0.82		
Assessment Points = $30 \times$ average placement	24.60		



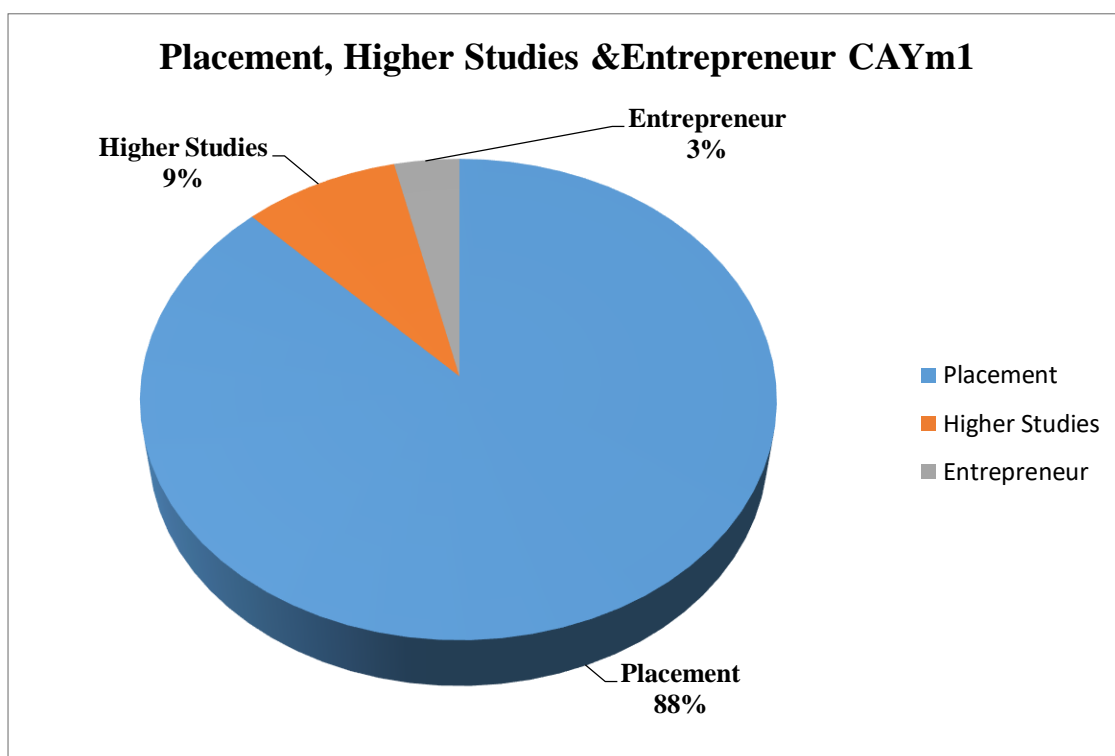
Graph 4.5 (Placements)



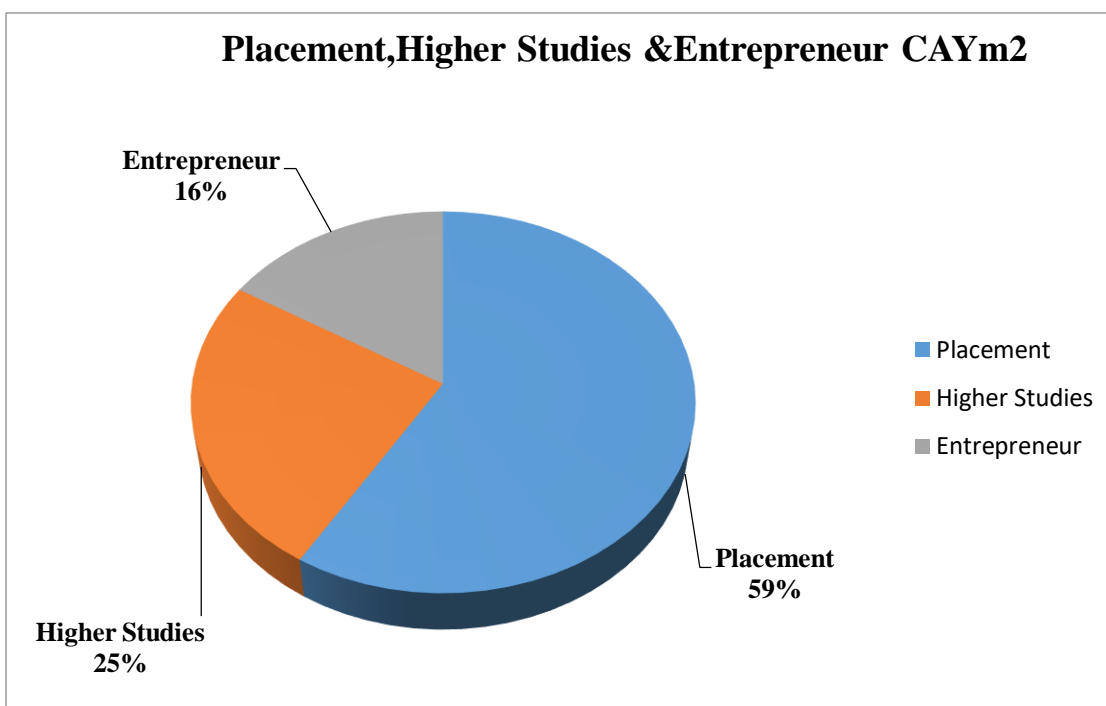
Graph 4.6 (Higher studies)



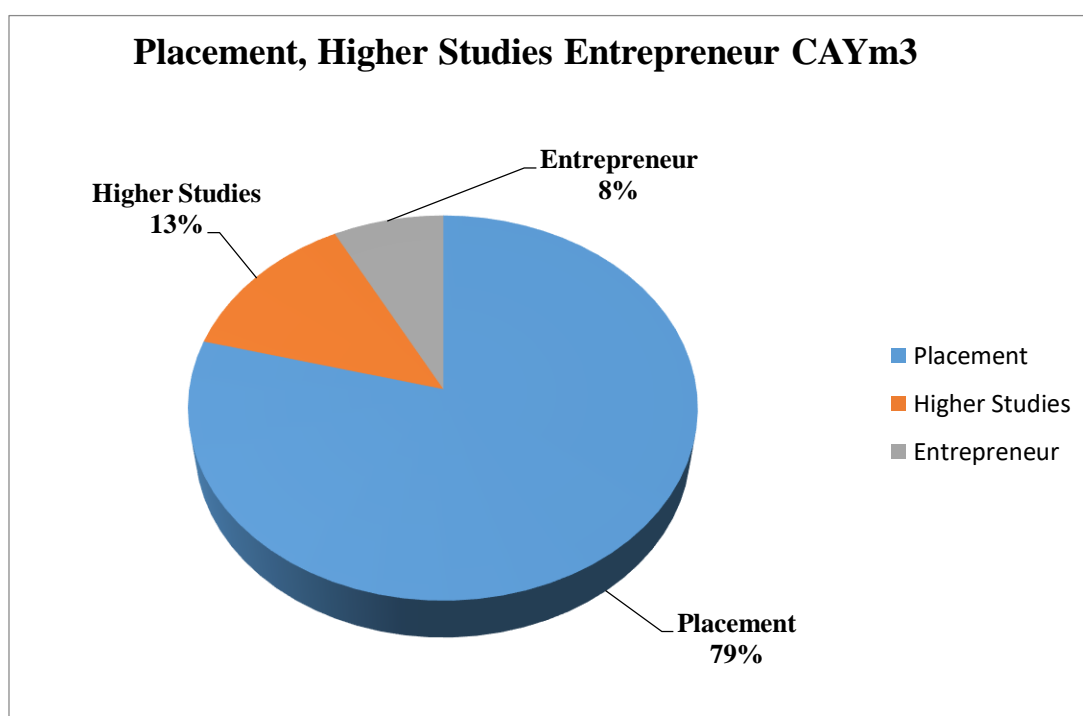
Graph 4.7 (Entrepreneur)



Graph 4.8 (CAYm1)



Graph 4.9 (CAYm2)



Graph 4.10 (CAYm3)

The Placement/Higher studies/Entrepreneurship data are shown in the below mentioned format with the name of the program and the assessment year:

Table 4.9 (Placement data)

Programs Name: B.E Civil Engineering				Assessment Year: 2018-19
S. No.	Enrollment no.	Name of the student placed	Name of the Employer/ University	ID/Reference Number
1	1NH16CV417	Sunil Kumar H	Aparna Constructions and Estates Pvt Ltd	NH-CV-19-AC-001
2	1NH15CV012	Akhilesh Shetkar	Aparna Constructions and Estates Pvt Ltd	NH-CV-19-AC-002
3	1NH15CV024	Arjun Mahato	Aparna Constructions and Estates Pvt Ltd	NH-CV-19-AC-003
4	1NH15CV054	Khetsun Sangpo	Aparna Constructions and Estates Pvt Ltd	NH-CV-19-AC-004
5	1NH15CV071	Mohammed Thouseef K	Aparna Constructions and Estates Pvt Ltd	NH-CV-19-AC-005
6	1NH15CV126	Sourav Das	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-001
7	1NH15CV036	George Joseph	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-002
8	1NH15CV037	Gururaj C M	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-003
9	1NH15CV039	Harshini P	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-004
10	1NH15CV062	Maqsood Hassan Sohail	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-005
11	1NH15CV063	Md Naqueeb Alam	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-006

12	1NH15CV076	Naresh Kumar Yadav	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-007
13	1NH15CV078	Neha Jacob	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-008
14	1NH15CV088	Priya R	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-009
15	1NH15CV092	Rachitha Prakash	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-010
16	1NH15CV114	Sanjit Kumar Pandit	BSR Developers Pvt Ltd.	NH-CV-19-BSRDPL-011
17	1NH15CV001	Abdul Rehman Khan	CBRE South Asia Pvt Ltd	NH-CV-19-CBRESAPL-001
18	1NH15CV019	Ankit Kumar Singh	CBRE South Asia Pvt Ltd	NH-CV-19-CBRESAPL-002
19	1NH15CV040	Hemalatha R	CBRE South Asia Pvt Ltd	NH-CV-19-CBRESAPL-003
20	1NH15CV067	Melvin Ronald D Souza	CBRE South Asia Pvt Ltd	NH-CV-19-CBRESAPL-004
21	1NH15CV134	Udit Kumar. G. D	CBRE South Asia Pvt Ltd	NH-CV-19-CBRESAPL-005
22	1NH15CV099	Rivesh Sah	Cyient Ltd	NH-CV-19-CL-001
23	1NH15CV093	Rahul Singh	Extra Marks	NH-CV-19-EM-001
24	1NH15CV006	Abhishek I Kappattanavar	H M Constructions	NH-CV-19-HMC-001
25	1NH15CV044	Javed Ali	H M Constructions	NH-CV-19-HMC-002
26	1NH15CV130	Tejas K Suresh	H M Constructions	NH-CV-19-HMC-003
27	1NH15CV131	Tejas S	H M Constructions	NH-CV-19-HMC-004
28	1NH15CV133	Uday Kumar K K	H M Constructions	NH-CV-19-HMC-005
29	1NH15CV135	Uzair Ahmed Baig	H M Constructions	NH-CV-19-HMC-006
30	1NH15CV005	Abhishek Hire Desai	H M Constructions	NH-CV-19-HMC-007

31	1NH15CV008	Abhishek N S	H M Constructions	NH-CV-19-HMC-008
32	1NH15CV009	Ajay Kumar Das	H M Constructions	NH-CV-19-HMC-009
33	1NH15CV016	Amit Yadav	H M Constructions	NH-CV-19-HMC-010
34	1NH15CV018	Anisha K U	H M Constructions	NH-CV-19-HMC-011
35	1NH15CV047	Junaid Ahamed I	H M Constructions	NH-CV-19-HMC-012
36	1NH15CV048	Junaid Fayaz Bhat	H M Constructions	NH-CV-19-HMC-013
37	1NH15CV065	Md Kamrul Hassan	H M Constructions	NH-CV-19-HMC-014
38	1NH15CV066	Md Samad	H M Constructions	NH-CV-19-HMC-015
39	1NH15CV084	Prajwal B	H M Constructions	NH-CV-19-HMC-016
40	1NH15CV112	Samanjasa K	H M Constructions	NH-CV-19-HMC-017
41	1NH15CV106	S V Gangadhar	H M Constructions	NH-CV-19-HMC-018
42	1NH15CV109	Sagar M Reddy	H M Constructions	NH-CV-19-HMC-019
43	1NH15CV128	Tarun Kumar	IBM	NH-CV-19-IBMIPL-004
44	1NH15CV055	Kiran Kumar V	Ideas91 India Pvt Ltd	NH-CV-19-Ideas91FZCO-004
45	1NH15CV052	Karan Dattatray Patil	NCCCL India	NH-CV-19-NCCCLI-001
46	1NH15CV056	Kiran Rathod	NCCCL India	NH-CV-19-NCCCLI-002
47	1NH15CV002	Abhijeet Jadhav	NCCCL India	NH-CV-19-NCCCLI-003
48	1NH15CV010	Ajin George Mathew	NCCCL India	NH-CV-19-NCCCLI-004
49	1NH15CV011	Akash Mehta	NCCCL India	NH-CV-19-NCCCLI-005
50	1NH15CV043	Jagath Mohan	NCCCL India	NH-CV-19-NCCCLI-006
51	1NH15CV053	Keerthi T V	NCCCL India	NH-CV-19-NCCCLI-007
52	1NH15CV058	Komal Bagga	NCCCL India	NH-CV-19-NCCCLI-008
53	1NH15CV075	Nandan A Y	NCCCL India	NH-CV-19-NCCCLI-009

54	1NH15CV107	S V Jathin Reddy	NCCCL India	NH-CV-19-NCCCLI-010
55	1NH15CV081	Nithish.R	NHEI	NH-CV-19-NHEI-001
56	1NH15CV125	Sonia Elizabeth Thomas	NHEI	NH-CV-19-NHEI-002
57	1NH16CV410	Ravi Kumar Sunil Vishwanathmath	NHEI	NH-CV-19-NHEI-003
58	1NH16CV420	Vinayak M. Jadhav	NHEI	NH-CV-19-NHEI-004
59	1NH15CV033	Deekshitha. C	Regalia Civils	NH-CV-19-RC-001
60	1NH15CV142	Vishal Prasad. M	Regalia Civils	NH-CV-19-RC-002
61	1NH15CV023	Arjun K M	Regalia Civils	NH-CV-19-RC-003
62	1NH15CV025	Arun Yadav	Regalia Civils	NH-CV-19-RC-004
63	1NH15CV064	Md Sabir Hussain	Regalia Civils	NH-CV-19-RC-005
64	1NH15CV070	Mohammed Ghouse	Regalia Civils	NH-CV-19-RC-006
65	1NH15CV086	Praveen Kumar S	Regalia Civils	NH-CV-19-RC-007
66	1NH15CV094	Raj Rameshbhai Domadiya	Regalia Civils	NH-CV-19-RC-008
67	1NH15CV115	Shaik Mohammed Ul Haq	Regalia Civils	NH-CV-19-RC-009
68	1NH15CV116	Shaleek Ahmed	Regalia Civils	NH-CV-19-RC-010
69	1NH15CV129	Tarun Kumar Reddy Vanukuri	Regalia Civils	NH-CV-19-RC-011
70	1NH15CV138	Venkata Raju D	Regalia Civils	NH-CV-19-RC-012
71	1NH15CV144	Vishwanath J	Regalia Civils	NH-CV-19-RC-013
72	1NH15CV146	Harini V Chatrapathi	Regalia Civils	NH-CV-19-RC-014
73	1NH16CV400	Akhil Raj L	Regalia Civils	NH-CV-19-RC-015
74	1NH15CV032	Chaitra.K	Salarpuria Sattva	NH-CV-19-00-001

75	1NH15CV035	Divya. M	Salarpuria Sattva	NH-CV-19-00-002
76	1NH15CV061	Manjula. G	Salarpuria Sattva	NH-CV-19-00-003
77	1NH15CV085	Prashanth. C. Gowda	Salarpuria Sattva	NH-CV-19-00-004
78	1NH15CV100	Rohan Bopanna. N.M	Salarpuria Sattva	NH-CV-19-00-005
79	1NH16CV401	Akshay R Torgalmath	Salarpuria Sattva	NH-CV-19-00-006
80	1NH16CV413	Seema B C	Salarpuria Sattva	NH-CV-19-00-007
81	1NH15CV014	Aman Kumar Sinha	Shobha Developers	NH-CV-19-SD-001
82	1NH15CV027	Ashwini J	Shobha Developers	NH-CV-19-SD-002
83	1NH15CV021	Aravind Javali	Shri Aruna Constructions	NH-CV-19-SACPL-001
84	1NH15CV059	Lokesh Kumar	Shri Aruna Constructions	NH-CV-19-SACPL-002
85	1NH15CV072	Mohan Naik B	Shri Aruna Constructions	NH-CV-19-SACPL-003
86	1NH15CV079	Nidhi D	Shri Aruna Constructions	NH-CV-19-SACPL-004
87	1NH15CV113	Sanjay Kumar Chaudhary	Shri Aruna Constructions	NH-CV-19-SACPL-005
88	1NH15CV120	Shivaraja C	Shri Aruna Constructions	NH-CV-19-SACPL-006
89	1NH16CV404	Mahantesh Dollin	Shri Aruna Constructions	NH-CV-19-SACPL-007
90	1NH16CV406	Nandini A S	Shri Aruna Constructions	NH-CV-19-SACPL-008
91	1NH16CV408	Rachana N Tigadi	Shri Aruna Constructions	NH-CV-19-SACPL-009
92	1NH16CV411	Ravi. L. Kallakutugar	Shri Aruna Constructions	NH-CV-19-SACPL-010

93	1NH16CV414	Shaikh Saifali Darzi	Shri Aruna Constructions	NH-CV-19-SACPL-011
94	1NH16CV418	Varun Kumar.V	Shri Aruna Constructions	NH-CV-19-SACPL-012
95	1NH15CV108	Sachin Patil	Shriram Properties	NH-CV-19-SP-001
96	1NH15CV145	Vivek Sharma	Shriram Properties	NH-CV-19-SP-002
97	1NH15CV150	Tejwanth S	Shriram Properties	NH-CV-19-SP-003
98	1NH15CV038	H C Nithin	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-001
99	1NH15CV045	Jeevan. S. D	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-002
100	1NH15CV124	Somanna. N B	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-003
101	1NH15CV143	Vishnu K Pradeep	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-004
102	1NH15CV148	Praveen Kumar. B	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-005
103	1NH16CV403	Kishor Kumar Nayak	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-006

104	1NH16CV407	Prashanth. A	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-007
105	1NH16CV412	Ravishankara. N	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-008
106	1NH16CV421	Vivekanand R V	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-009
107	1NH16CV423	Madhu B N	Sowparnika Projects & Infrastructure Pvt Ltd	NH-CV-19-SPIPL-010
108	1NH15CV080	Nikhil D. S	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-001
109	1NH15CV096	Rakesh.M	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-002
110	1NH15CV127	Sriki Reddy Pawan Kalyan Reddy	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-003
111	1NH15CV074	Monesh B	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-004
112	1NH15CV095	Rakesh	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-005
113	1NH15CV098	Ritesh Adhikari	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-006
114	1NH15CV117	Shamanth K	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-007
115	1NH16CV402	Indumathi N	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-008

116	1NH16CV405	Mohith G N	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-009
117	1NH16CV409	Rashmika N	Stup Consultants Pvt Ltd	NH-CV-19-STUPC-010
118	1NH15CV122	Siddarth Hegde	Target Corporation	NH-CV-19-TC-001
119	1NH15CV087	Praveen.R	Udaan Constructions Pvt Ltd	NH-CV-19-AJPL-012
120	1NH15CV110	Sai Prasad M Gondkar	Udaan Constructions Pvt Ltd	NH-CV-19-AJPL-013
121	1NH15CV118	Shamir Sirajuddin	Udaan Constructions Pvt Ltd	NH-CV-19-AJPL-014

Table 4.10 (Higher Studies data)

Programs Name: B.E Civil Engineering			Assessment Year: 2018-19	
SL.No	Enrollment no.	Name of the student placed	Name of the Employer/University	ID/Reference no
1.	1NH15CV045	Jeevan.S.D	The University of Auckland, New Zealand	785332022
2.	1NH15CV127	Sriki Reddy Pawan Kalyan Reddy	The University of Auckland, New Zealand	653229525
3.	1NH15CV080	Nikhil D. S	The University of Auckland, New Zealand	739548279
4.	1NH15CV021	Aravind Javali	M. Tech at NIT Surat	CE20S81249021
5.	1NH15CV022	Arjun A	M. Tech at Malnad College of	KPCET1AJ521324523

			Engineering	
6.	1NH15CV029	Bhargav M	M. Tech at RVCE	KPCET1AJ521112123
7.	1NH15CV034	Dhiraj.T	ME at Bangalore University	KPCET1AJ521212323
8.	1NH15CV057	Kishore M	M. Tech at BMSCE	KPCET1AJ521224526
9.	1NH15CV073	Mohith C	M. Tech at Bangalore Institute of Technology	KPCET1AJ522202521
10.	1NH15CV082	Pavan N	ME at Bangalore University	KPCET1AJ521112523
11.	1NH15CV083	Pawan Kumar Yadav	M. Tech at K L E Technological University, Hubli	KPCET1AJ525119824
12.	1NH15CV137	Varun G	M. Tech at SJCE Mysore	KPCET1AJ521001427

Table 4.11(Entrepreneurship data)

Programs Name: B.E Civil Engineering. Assessment Year: 2018-19					
Sl. No	USN	Name	Organisation Name	Type of Business	GST No.
1	1NH15CV097	Ranjith.K. B	SSV Constructions	Construction	29AATFA 8724E1Z2
2	1NH15CV012	Akhilesh Shetkar	SSV Constructions	Construction	29AATFA 8724E1Z2
3	1NH15CV140	Vinith V	Sree Chamundeshwari Constructions	Construction	29ADAFS 9483N1Z4

4	1NH15CV120	Shivaraja C	S R Constructions	Construction	29ADHFS 1247D1Z4
5	1NH15CV021	Aravind Javali	S R Constructions	Construction	29ADHFS 1247D1Z4

Table 4.12 (Placement data)

Programs Name: B.E Civil Engineering				Assessment Year: 2017-18
SL No	Enrollment no.	Name of the student placed	Name of the Employer	Appointment letter reference no. with date
1	1NH14CV097	S. Keerthi Kumar	Stup Consultants Pvt Ltd	NH-CV-18-STUPC-001
2	1NH14CV107	Shivshenkar	Stup Consultants Pvt Ltd	NH-CV-18-STUPC-002
3	1NH14CV119	Virupaksha Dyamanna Ghati	Stup Consultants Pvt Ltd	NH-CV-18-STUPC-003
4	1NH14CV121	Yadav. C.R	Stup Consultants Pvt Ltd	NH-CV-18-STUPC-004
5	1NH14CV124	Aditya Ghimire	Stup Consultants Pvt Ltd	NH-CV-18-STUPC-005
6	1NH14CV126	Ayush Neupane	Stup Consultants Pvt Ltd	NH-CV-18-STUPC-006
7	1NH14CV127	Bharat Thapa	Stup Consultants Pvt Ltd	NH-CV-18-STUPC-007
8	1NH14CV050	Khalid Ajaz	Chowgule and Company Pvt Ltd	NH-CV-18-CCCPL-001
9	1NH14CV111	Sumit Tanwar	Chowgule and Company Pvt Ltd	NH-CV-18-CCCPL-002
10	1NH14CV145	Nawaz Shariff	Chowgule and Company Pvt Ltd	NH-CV-18-CCCPL-003
11	1NH14CV128	Chandrakant Satara	Tata Consultancy	NH-CV-18-TCS-

			Services Limited	005
12	1NH14CV130	Diwash Koirala	Tata Consultancy Services Limited	NH-CV-18-TCS-006
13	1NH14CV131	Ganesh Raj Regmi	Tata Consultancy Services Limited	NH-CV-18-TCS-007
14	1NH14CV133	Krishna Kumar Sah	Tata Consultancy Services Limited	NH-CV-18-TCS-008
15	1NH14CV135	Mukesh Kumar	Tata Consultancy Services Limited	NH-CV-18-TCS-009
16	1NH14CV136	Pranab Khatiwada	Tata Consultancy Services Limited	NH-CV-18-TCS-010
17	1NH14CV137	Prashant Thapa	Tata Consultancy Services Limited	NH-CV-18-TCS-011
18	1NH14CV139	Samyak Paudel	Tata Consultancy Services Limited	NH-CV-18-TCS-012
19	1NH14CV143	Prajwal Karki	Tata Consultancy Services Limited	NH-CV-18-TCS-013
20	1NH14CV005	Ajay Kumar Baidhya	IBM	NH-CV-18-IBMIPL-006
21	1NH14CV026	Chaganty Avinash	IBM	NH-CV-18-IBMIPL-007
22	1NH14CV047	Karthik K	IBM	NH-CV-18-IBMIPL-008
23	1NH14CV063	Md. Azad	IBM	NH-CV-18-IBMIPL-009
24	1NH14CV066	Midhun Chakravarty	IBM	NH-CV-18-IBMIPL-010
25	1NH14CV069	Muthyala Ravi Kumar Reddy	IBM	NH-CV-18-IBMIPL-011
26	1NH14CV087	Punith R	IBM	NH-CV-18-IBMIPL-012
27	1NH14CV134	Manoj Rawol	IBM	NH-CV-18-

				IBMIPL-013
28	1NH14CV011	Apoorva M Reddy	Raaga Constructions	NH-CV-18-RAC-001
29	1NH14CV034	DilipKumar.G	Raaga Constructions	NH-CV-18-RAC-002
30	1NH14CV037	Gouramma Basavaraj Mallannavar	Raaga Constructions	NH-CV-18-RAC-003
31	1NH14CV040	Hemanth. D. R	Raaga Constructions	NH-CV-18-RAC-004
32	1NH14CV046	Kalyani.S	Raaga Constructions	NH-CV-18-RAC-005
33	1NH14CV053	Kumar Shivankar	Raaga Constructions	NH-CV-18-RAC-006
34	1NH14CV009	Amrutha Lakshmi B M	Salarpuria Sattva Group	NH-CV-18-SSG-001
35	1NH14CV022	C.M. Lakshmi Narayana Kanth	Salarpuria Sattva Group	NH-CV-18-SSG-002
36	1NH14CV024	Chaitra S J	Salarpuria Sattva Group	NH-CV-18-SSG-003
37	1NH14CV029	Darshan A M	Salarpuria Sattva Group	NH-CV-18-SSG-004
38	1NH14CV067	Mohan M Diggi	Salarpuria Sattva Group	NH-CV-18-SSG-005
39	1NH14CV077	Parri Jashwanth Teja	Salarpuria Sattva Group	NH-CV-18-SSG-006
40	1NH14CV080	Pavan V	Salarpuria Sattva Group	NH-CV-18-SSG-007
41	1NH15CV404	Deepika B G	Salarpuria Sattva Group	NH-CV-18-SSG-008
42	1NH14CV092	Rajuangadi	Salarpuria Sattva Group	NH-CV-18-SSG-009
43	1NH14CV094	Ramesh.D.N.P	Salarpuria Sattva	NH-CV-18-SSG-

			Group	010
44	1NH14CV095	Rishab Sharma	Salarpuria Sattva Group	NH-CV-18-SSG-011
45	1NH14CV109	Srinivas.N	Salarpuria Sattva Group	NH-CV-18-SSG-012
46	1NH14CV116	Goutham V	Salarpuria Sattva Group	NH-CV-18-SSG-013
47	1NH14CV117	Vanlalhruii Chhachhuak	Salarpuria Sattva Group	NH-CV-18-SSG-014

Table 4.13 (Higher Studies data)

Programs Name: B.E Civil Engineering. Assessment Year: 2017-18				
S. No.	Enrollment no.	Name of the student placed	Name of the Institution	Appointment Letter reference no. with date- GATE or equivalent State or National Level Tests, GRE, GMAT etc.
1.	1NH14CV002	Addanki Aditya	M.Tech at MVJ College of Engineering.	KPCET1AJ421010142
2.	1NH14CV012	Archana Gopinath	M.E at Bangalore University	KPCET1AJ421422415
3.	1NH14CV014	B R Bheema Reddy	M.Tech at Jain College of Engineering	KPCET1AJ421421551
4.	1NH14CV015	Basavaraj S Bachihal	M.Tech at K. L. E. Dr. M S Sheshgiri College of Engineering and Technology	KPCET1AJ421442510
5.	1NH14CV018	Bhavana N	MBA at Presidency College	KPCET1AJ421423321
6.	1NH14CV019	Bhavyashri. R	M.Tech at Nagarjuna College of Engineering	KPCET1AJ421452554

			and Technology	
7.	1NH14CV108	Ashoka Skanda Venkatesh	MSc CPM at Heriot Watt University, UK	H00312724
8.	1NH14CV028	Charan U T	M.Tech at RV College of Engineering.	KPCET1AJ421104524
9.	1NH14CV090	Radhika S	The University of Auckland, New Zealand	966727891
10.	1NH14CV122	Yogesh B	MSc CPM at Heriot Watt University, UK	H00334023
11.	1NH14CV046	Kalyani S	MBA at Christ Academy Institute for Advanced Studies	KPCET1AJ421555120
12.	1NH14CV072	Prathik S Reddy	Coventry University	9094475
13.	1NH14CV059	Mahanth Gowda	M.Tech at MVJ College of Engineering.	KPCET1AJ481614252
14.	1NH14CV068	Monish Raj	The University of Adelaide	1791560
15.	1NH14CV090	Radhika S	M.Tech at MSRIT Bangalore	KPCET1AJ421459210
16.	1NH14CV093	Rakesh S	M.Tech at JSS Science and Technology University	KPCET1AJ521212523
17.	1NH14CV103	Santhosh. N. E	M.Tech at University Visvesvaraya College of Engineering	KPCET1AJ421421524
18.	1NH15CV415	Savitha R	M.E at Bangalore University	KPCET1AJ421410221
19.	1NH15CV421	Swati M Patil	M.Tech at The National Institute of Engineering	KPCET1AJ421521431

20.	1NH15CV422	Vanitha B	ME at Bangalore University	KPCET1AJ421124152
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Table 4.14 (Entrepreneurship data)

Programs Name: B.E Civil Engineering. Assessment Year: 2017-18					
Sl. No.	USN	Name	Organisation Name	Type of Business	GST No.
1	1NH15CV412	Prashanth Kumar K	Imperial Constructions	Construction	29AABFI5167R1ZM
2	1NH15CV420	Suresh	Imperial Constructions	Construction	29AABFI5167R1ZM
3	1NH15CV409	Manoj R	Imperial Constructions	Construction	29AABFI5167R1ZM
4	1NH15CV416	Sharu Ahamed H A	Nava Karnataka Bricks Industries	Construction Materials	29AREPA0603N1Z0
5	1NH14CV072	Nawazullah N	Nava Karnataka Bricks Industries	Construction Materials	29AREPA0603N1Z0
6	1NH15CV406	Madhu Patel N V	Prime Builders	Builders	29AAQFP8692M1ZY
7	1NH15CV400	Adarsh Lokesh Reddy Dunnu	Prime Builders	Builders	29AAQFP8692M1ZY
8	1NH14CV062	Maruthi Reddy	Prime Builders	Builders	29AAQFP8692M1ZY
9	1NH14CV070	Narla Hari	Sri Vinayaka	Construction	29ADSFS

		Prasad Reddy	Pavours & Hollow Bricks Industry	Material	3071J1ZE
10	1NH14CV098	Sai Somesh.V	Sri Vinayaka Pavours & Hollow Bricks Industry	Construction Material	29ADSFS 3071J1ZE
11	1NH14CV055	Lakshman K	Phoenixrmc products	Construction Material	29AAVFP 3402E1Z4
12	1NH14CV083	Prajwal P	Phoenixrmc products	Construction Material	29AAVFP 3402E1Z5
13	1NH14CV106	Sharavana M	Velu Ceramics Traders	Construction Material	29CUPPS 5542E1Z2

Table 4.15 (Placement data)

Program Name: B.E Civil Engineering. Assessment Year: 2016-17				
SL. No.	Enrollment no.	Name of the student placed	Name of the Employer	Appointment letter reference no. with date
1	1NH13CV002	Abhiram.H.C	DSR Infrastructure	NH-CV-17-DSRI-001
2	1NH13CV021	Budda Yashaswini	DSR Infrastructure	NH-CV-17-DSRI-002
3	1NH13CV110	Sanath Joshi	DSR Infrastructure	NH-CV-17-DSRI-003
4	1NH14CV410	Md. Tariq Muneer	DSR Infrastructure	NH-CV-17-DSRI-004
5	1NH14CV413	Naveen S N	DSR	NH-CV-17-DSRI-005

			Infrastructure	
6	1NH13CV094	Reema Saji	H M Group	NH-CV-17-HMC-001
7	1NH13CV134	Venkata Reddy.P	H M Group	NH-CV-17-HMC-002
8	1NH14CV409	Mazhar Ul Haq Hadagali	H M Group	NH-CV-17-HMC-003
9	1NH14CV415	Nishitha K	H M Group	NH-CV-17-HMC-004
10	1NH13CV011	Ashish Kanwal	Incadea	NH-CV-17-IIPL-009
11	1NH13CV012	Ashish Kumar Das	Incadea	NH-CV-17-IIPL-010
12	1NH13CV013	Ashok Kumar Bhakta	Incadea	NH-CV-17-IIPL-011
13	1NH13CV014	Ashvin S V	Incadea	NH-CV-17-IIPL-012
14	1NH13CV015	Avinash. H. K	Incadea	NH-CV-17-IIPL-013
15	1NH13CV016	Balaji S P	Incadea	NH-CV-17-IIPL-014
16	1NH13CV019	Bidyashwor Thokchom	Incadea	NH-CV-17-IIPL-015
17	1NH13CV020	Birendra Bist	Incadea	NH-CV-17-IIPL-016
18	1NH14CV400	Chethan B N	Incadea	NH-CV-17-IIPL-017
19	1NH13CV023	Chiranth. P. L	Incadea	NH-CV-17-IIPL-018
20	1NH13CV053	Md. Arshad Ahmed	ITC Infotech	NH-CV-17-ITCIIIL-005
21	1NH13CV055	Mohammed Ejaz Akhter	ITC Infotech	NH-CV-17-ITCIIIL-006
22	1NH14CV411	Mohammed Zikriya K K	ITC Infotech	NH-CV-17-ITCIIIL-007
23	1NH13CV056	Mohan. V. G	ITC Infotech	NH-CV-17-ITCIIIL-008
24	1NH13CV058	Muhammed Muizur Rahman	ITC Infotech	NH-CV-17-ITCIIIL-009

25	1NH13CV102	Sachin Maliare Babu	Pin Click	NH-CV-17-PC-002
26	1NH13CV061	Naveen. K. A	Profinch	NH-CV-17-PSPL-010
27	1NH13CV062	Nikhil Sreenath	Profinch	NH-CV-17-PSPL-011
28	1NH13CV063	Nikhil Surpur	Profinch	NH-CV-17-PSPL-012
29	1NH13CV067	Om Prakash Yadav	Profinch	NH-CV-17-PSPL-013
30	1NH13CV068	P Avinash	Profinch	NH-CV-17-PSPL-014
31	1NH13CV069	P Rama Krishna Prasad	Profinch	NH-CV-17-PSPL-015
32	1NH13CV070	P Sravan Kumar	Profinch	NH-CV-17-PSPL-016
33	1NH13CV005	AkshayaKumar.P	Raaga Constructions	NH-CV-17-RAC-001
34	1NH13CV010	Aparna S	Raaga Constructions	NH-CV-17-RAC-002
35	1NH13CV025	Deepak.B	Raaga Constructions	NH-CV-17-RAC-003
36	1NH13CV040	Harshitha Behura	Raaga Constructions	NH-CV-17-RAC-004
37	1NH13CV093	Ramya	Raaga Constructions	NH-CV-17-RAC-005
38	1NH14CV421	Vikram A	Raaga Constructions	NH-CV-17-RAC-006
39	1NH13CV078	Pratheek.N	Sattva Group	NH-CV-17-SSG-001
40	1NH14CV403	Harish Kumar M B	Sattva Group	NH-CV-17-SSG-002
41	1NH14CV404	Harish M	Sattva Group	NH-CV-17-SSG-003
42	1NH13CV098	Rohith Kumar Singh	Secon	NH-CV-17-SPL-001
43	1NH13CV054	Megha Majumdar	Sobha	NH-CV-17-SD-001

			Developers	
44	1NH13CV064	Nikki Palmu Bhutia	Sobha Developers	NH-CV-17-SD-002
45	1NH13CV077	Pranish Chetti	Sobha Developers	NH-CV-17-SD-003
46	1NH14CV408	Manoj Y	Speridian	NH-CV-17-ST-004
47	1NH14CV407	Manju Kumara Basavaraj Patila	Sunquest	NH-CV-17-SISPL-001
48	1NH13CV052	Manjula Bai. K	Sunquest	NH-CV-17-SISPL-002
49	1NH13CV024	Dabbara Ajay Chowdary	Volvo IT	NH-CV-17-VIT-001
50	1NH13CV028	Dibyanshu Shah	Volvo IT	NH-CV-17-VIT-002
51	1NH13CV030	Drakshayini.N	Volvo IT	NH-CV-17-VIT-003
52	1NH14CV405	Kavitha K	Volvo IT	NH-CV-17-VIT-004
53	1NH13CV050	Manikanta.R	Volvo IT	NH-CV-17-VIT-005
54	1NH13CV122	Sunil C Betageri	Volvo IT	NH-CV-17-VIT-006
55	1NH13CV123	Sunil Kumar Chaudhary	Volvo IT	NH-CV-17-VIT-007
56	1NH13CV136	Vikash	Volvo IT	NH-CV-17-VIT-008
57	1NH13CV071	Pavan Kumar	Wipro	NH-CV-17-WL-003
58	1NH13CV072	Phalguna Sai P	Wipro	NH-CV-17-WL-004
59	1NH13CV076	Prakash	Wipro	NH-CV-17-WL-005
60	1NH13CV079	Pratibha Mishra	Wipro	NH-CV-17-WL-006
61	1NH13CV080	Praval Seth	Wipro	NH-CV-17-WL-007
62	1NH13CV081	Puvith V	Wipro	NH-CV-17-WL-008

63	1NH13CV082	Rabina Tamang	Wipro	NH-CV-17-WL-009
64	1NH13CV083	Rabindra Prasad Yadav	Wipro	NH-CV-17-WL-010
65	1NH13CV085	Rajesh Chand	Wipro	NH-CV-17-WL-011
66	1NH13CV091	Rakibul Hassan	Wipro	NH-CV-17-WL-012
67	1NH13CV092	Rakshith E	Wipro	NH-CV-17-WL-013
68	1NH13CV095	Rigam Riba	Wipro	NH-CV-17-WL-014
69	1NH13CV097	Rohit S	Wipro	NH-CV-17-WL-015
70	1NH13CV101	Sachin Gowda G	Wipro	NH-CV-17-WL-016
71	1NH13CV103	Sagar P L	Wipro	NH-CV-17-WL-017
72	1NH13CV114	Shanil Parambath	Wipro	NH-CV-17-WL-018

Table 4.16 (Higher Studies data)

Programs Name: B.E Civil Engineering. Assessment Year: 2016-17				
S. No.	Enrollment no.	Name of the student placed	Name of the Institution	Appointment Letter reference no. with date- GATE or equivalent State or National Level Tests, GRE, GMAT etc.)
1.	1NH13CV004	Akshay G	M. Tech at MSRIT Bangalore	KPCET1AJ321408116
2.	1NH13CV033	G Rakesh Kumar	M. Tech at NIE Mysore	KPCET1AJ321452511
3.	1NH13CV037	H. Karthik	ME at Banglore University	KPCET1AJ321401101
4.	1NH13CV039	Haritha M	M. Tech at Dayananda Sagar	KPCET1AJ321447893

			College of Engineering	
5.	1NH13CV047	Lokesh.K	MBA at Christ Academy Institute for Advanced Studies	KPCET1AJ32152145
6.	1NH13CV066	Nithesh M D	M.Tech at Nagarjuna College of Engineering and Technology	KPCET1AJ421408511
7.	1NH13CV087	Rajesh H N	M. Tech at K. L. E. Dr. M S Sheshgiri College of Engineering and Technology	KPCET1AJ321422124
8.	1NH13CV120	Sumanth Sharma R	M.Tech at RV College of Engineering.	KPCET1AJ321441055
9.	1NH13CV124	Suprith B R	MBA at Christ Academy Institute for Advanced Studies	KPCET1AJ421421452
10.	1NH13CV146	Niveditha	M. Tech at SIT Tumkur	KPCET1AJ421403145
11.	1NH14CV401	Girish D	M. Tech at MCE Hassan	KPCET1AJ321431125
12.	1NH14CV419	Rakesh S	M. Tech at SIT Tumkur	KPCET1AJ321408116

Table 4.17 (Entrepreneurship data)

Programs Name: B.E Civil Engineering			Assessment Year: 2016-17		
Sl. No.	USN	Name	Organisation Name	Type of Business	GST No.
1	1NH13CV145	Praveen Vasudevan	Balaji Bricks Industry	Construction material	29AAQFB4 134J1Z5
2	1NH13CV127	Suresh Patil	SRV Builders	Builders	29ABSFS5 074P1ZZ
3	1NH14CV420	Shivaram Brahmand	SRV Builders	Builders	29ABSFS5 074P1ZZ
4	1NH14CV422	Vinaya Kumar K. R	VV Builders and Contractors	Contractor	29ABSFV5 471P1ZC
5	1NH14CV423	Vishwas G. R	VV Builders and Contractors	Contractor	29ABSFV5 471P1ZC
6	1NH13CV105	Sajeed Ali	Shanavaz Building Material and Shattering	Construction material	29BTPPS0 066K1Z7
7	1NH13CV089	Raju Nellur	Aakriti Real Estate and Developers	Real Estate	29AHQPT4 304D1Z5

4.5 Professional Activities (20)

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

Sl. No	Professional Societies/chapters
1	Indian Concrete Institute Student Chapter (ICI)
2	Indian Geotechnical Society Student Chapter (IGS)
3	Institute of Civil Engineering (ICE)
4	Association of Consulting Civil Engineer, Bengaluru (ACCE)

New Horizon College of Engineering has ISTE and IEI student chapters which conduct various events. Various student clubs are formed under these chapters and have the following broad objectives:

- Planning & organizing technical programmes and activities, such as special lectures, workshops, seminars, symposia, national and international conferences and exhibitions etc. on regular basis for the benefit of students.
- Providing a platform to students to exchange ideas and information on the topics of their interest like curriculum, job Market, higher studies, emerging technologies, issues related to Civil and Engineering
- Encouraging team work and self-reliance among students
- Augmenting various aspects relating to professional development of students.

Events organized during the last 3 years are presented below:

S. No	Event Type	Event Name/ Title	Organized by	Name of Co-Coordinator's/ Organizers	No. of Student Participants	Resource person	Duration / Date	Student Achievements
Academic Year 2019-20								
1	Workshop	“Finite Element Analysis of Structures Using Midas Gen and Midas FEA”	Department of Civil Engineering & ICI, Bengaluru	Mr. Channabasava, Assistant Professor, CED.	87	Mr. Swapnil Agarwal & Mr Nikhil Batlanki	14.09.19	MidasNFX is an integrated finite element analysis program for structural, CFD simulation and optimization design. It provides efficient and accurate analysis together with an integrated pre-post processor, developed by senior mechanical engineers with over 20 years of CAE software development expertise.
2	Expert Lecture	“ISCOT”- application of BIMLatest trends in Civil Engineering”	Department of Civil Engineering & ICI,	Mr. Surendra B V, Associate Professor, CED	123	Mr. Anil Ghaste Technical Director,	25.09.19	Mr. Anil Ghaste, the Resource person, deliberated the whole session with case studies and brain storming sessions involving active participation of

			Bengaluru					the students in many related hands on activities.
3	Workshop	‘RICS’- Effective use of BIM in Construction Management	Department of Civil Engineering & ACCE, Bengaluru	Dr. Vinay Kumar B M, Associate Professor, CED.	142	Mr. Kaushik Bhattacharjee	27-09-19	Mr. Kaushik Bhattacharjee, the Resource person, deliberated the whole session with case studies. Building information modeling (BIM) is one of the most promising recent developments in the architecture, engineering, and construction (AEC) industry.
4	Workshop	‘EduCAAD’- Application of RivetBIM in Civil Engineering”	Department of Civil Engineering & ACCE, Bengaluru	Mr. Yogesh K S, Assistant Professor, CED.	146	Mr. Kaushik Bhattacharjee	28-09-19	Mr. Kaushik Bhattacharjee, the Resource person, deliberated the whole session with case studies and brain storming sessions involving active participation of the students in many related hands on activities.

5	Motivational Talk	Scope and Opportunities for Higher Education- Global Context	Department of Civil Engineering & ICE, Bengaluru	Mr. Nitish Kumar, Assistant Professor,	126	Mr. Arshad Ahmed Asst. General Manager- Business Development Manya Education Pvt. Ltd. Bangalore	3.10.19	When it comes to studying abroad, one nagging question that bothers students are how to choose the right study abroad course or college? Motivational talk was given by the expert.
6	Expert Lecture	on “New Age Materials”	Dept. Of Civil Engineering & ICE, Bengaluru	Mr. Sudhakar G N, Senior Assistant Professor, CED	113	Mr. Pawan Kumar K R, Manager RER Builders Private Limited	25.10.19	Mr. Pawan Kumar K R the Resource person, deliberated the whole session with case studies and brain storming sessions involving the active participation of the students in many related hands on activities.
7	Avishkar Club	CENEx	Dept. of Civil Engineering	Ms. Suma Parlada, Assistant	112	Dr. P S Nirnjan, Prof. & HOD, NHCE	25.10.19	Under the banner of Avishkar Club various activities such as Earthquake Pro, CAD Beta, and Distance Hunter were organized.

				professor, CED				By this event the young talents were recognized and appreciated.
8	International Conference	International Conference on Innovative Research in Engineering, Management And Sciences (ICIREMS)	The department of Civil Engineering & ICI, Bengaluru	Dr. Niranjan P.S HOD- CED, Dr. Jagadeesh C B and Dr. Nachimuthu S	24	Dr. B. V. Ravishankar- Professor and Principal- BMS College of Engineering Dr. P Prasanna Kumar -Professor and HOD Civil Engineering- BMS College of Engineering	19-12-19 to 21-12-19	A paper presentation session under Green Housing track was conducted. Dr. P Prasanna Kumar - Professor and HOD Civil Engineering-BMS College of Engineering Bangalore was external session chairs.
9	Seminar	“Comprehensive Solutions to Higher Education”	Department of Civil Engineering & ICI,	Dr. Jagadeesh C B, Professor and Head Professor, CED	122	Mr. Mantoo Kumar, Manya- The Princeton Review	22.01.20	The organization focuses on foreign university admissions and guides students through the entire journey starting from

			Bengaluru					short-listing of schools, test preparation, developing a competitive application strategy, interview prep and visa services. We believe in helping students realize their dreams.
10	Workshop	“Surveying and Mapping and Geospatial Industry”	Dept. Of Civil Engineering & IGS Bengaluru	Dr. Natchimuthu Subramani, Associate Professor, CED	62	Mr. Cariappa M D, Former Senior Manager-SECON Private Limited, Bangalore.	25.01.20	In two sessions, resource person started explaining the importance of the surveying and mapping in the present day context. He also covered the theoretical portion of total station to by explaining each component with their function.
11	Motivational Talk	Application of Building Planning Software in Civil Engineering	Dept. Of Civil Engineering & ACCE, Bengaluru	Dr. Vinay Kumar B M, Associate Professor, CED	143	Mr. Anand T Chief Executive officer Swifterz Creative Services	20.02.20	Resource person, deliberated the whole session with case studies and brain storming sessions involving the active participation of the students in many related hands on activities.

12	Motivational Talk	on Application of Building Planning Software in Civil Engineering	Department of Civil & Engineering & ACCE Bengaluru	Dr. Natchimuthu S, Associate Professor, CED	133	by Mr. Anand T Chief Executive officer Swifterz Creative Service	28.02.20	Resource person, deliberated the whole session with case studies and brain storming sessions involving the active participation of the students in many related hands on activities.
13	Expert Lecture	“Technical Perspective of Vastu in Civil Engineering”	Department of Civil Engineering & ACCE, Bengaluru	Dr. Giri Prasad C, Senior Assistant Professor, CED	136	Mr. Hemanth Kum Chief Executive Officer Intellectual Paradise Services Bangalore	02.03.20	Vastu the Indian ancient science which is used for civil engineer in many types of constructions like, residential houses, corporate buildings, Temples etc., Vastu is the science which helps the civil engineer to find exactly where and which room should be and it is truly in coordination with the nurture.

Table 4.18

Academic Year 2018-19								
1	Alumni Interaction	Career Development	Dept. Of Civil Engineering	Mr. Satish D, Senior Assistant Professor, CED	71	QA&QC Engineer, Sobha Developers	30.08.18	New Career Development Messages for Youth Since change is happening so rapidly, the job they are preparing for today may not exist when the training is complete. Since the occupational destination is uncertain, the journey is all that can be counted on.
2	Industrial visit	Related to Meteorology	Dept. of Civil Engineering	Dr. N. Mahesha & Mr. Pawan Kumar, Civil Department	82	Director, Meteorological Centre, Palace Road, Bangalore	3.09.18	In this visit students got a chance to visit Meteorological survey of India. They learnt about rain gauge station and their usages etc. Students are allowed inside the station to know about how the weather is forecasting.

3	Workshop	Stakeholder Management	Dept. of Civil Engineering & ACCE, Bengaluru	Mr. Sandeep T D, Assistant Prof., CED	80	Mr. Gautam Pant, Associate Professor, Amity University	12.09.18	The topic like Stakeholder Management gave away brain storming session for the students.
4	Guest Lecture	Smart Dynamic Concrete	Dept. of Civil Engineering & ICI Bengaluru	Ms. Suma P, Assistant Prof., CED	112	Mrs. Shwetha D, Design Manager in Purvankara	22.09.18	Students from V th semester attended the session and get benefited regarding Smartt dynamic concrete.
5	Quiz	International Design Competition	Dept. of Civil Engineering & IGS Bengaluru	Ms. Swetti Jha Assistant Prof., CED	212	Ms. Shruthi J Relation Manager, CADD Centre-Marathahalli	25.09.18	This competition makes the student to accept the challenge so that students can feel the exhilaration of victory!!!
6	Seminar	Better Aggregates for Concrete & Alternatives to River Sand	Department of Civil Engineering and ICI Bangalore	Mr. Rajendra T N, Assistant Prof., CED	115	-	04.10.18	The intent of this session was to lay importance of Better Aggregates for Concrete & Alternatives to River Sand. The non-availability or shortage of

			Chapter					river sand will affect the construction industry, hence there is a need to find the new alternative material to replace the river sand.
7	Workshop	Green Technology – its significance and relevance	Dept. of Civil Engineering & ICI, Bengaluru	Mrs. Meghana A Patankar, Assistant prof., CED	132	Mr. K.P. Pradeep Raja, Associate Professor, PES university	05.10.18	The speaker provided insights about Green technology, an environmentally friendly technology is developed and used in a way that protects the environment and conserves natural resources.
8	Workshop	Scope and Opportunities in Civil Engineering - Advanced Surveying	Dept. of Civil Engineering & ICE, Bengaluru	Mr. Yogesh K S, Assistant Prof., CED	112	Mr. S. Hemanth Reddy Mr. Kiran Kumar K. L. Chief Executive Sr. Design	09.10.18	The intent of this session was to lay importance Advanced Surveying Technologies - Application of ETABs and STAAD IN Civil Engineering and Data Analytics and make the

		Technologies - Application of ETABs and STAAD IN Civil Engineering				Engineer		students understand.
9	Guest Lecture	Design of masonry structures	Dept. of Civil Engineering & ICI, Bengaluru	Dr. Jagadeesh C B, Professor, CED	103	Dr. K. S. Jagadish, Former Professor, IISC, B'lore.	23.10.18	The speaker on highlighted the different types of masonry structures with examples and also gave an insight on basics of design of masonry structures.
10	Workshop	Brainstorm of Good Practice in Geotechnical Engineering	Dept. of Civil Engineering & IGS, Bengaluru	Dr. Jagadeesh C B, Professor, CED	136	Dr. G L SivaKumar Babu, Dr. P V Sivapullaiah Dr. C R Parthasarathy	27.10.18	The speakers addressed the students on the Best practices in Geotechnical engineering and its Importance of society. Following points are highlighted. How to improve current state of practice How to identify knowledge and practice gaps and how to fill

								them etc.
11	Guest Lecture	Environmental Engineering	Dept. of Civil Engineering & ICE, Bengaluru	Dr. Geetha Varma, Associate Professor, CED	120	Mr. Mahesh T, Director, Pollution Control Board, Bangalore	30.10.18	The speaker emphasized on the required skill set that society is free from pollution and solid waste material
12	Prakruthi Club	International day for Natural Disaster reduction through Scavenger hunt	Dept. of Civil Engineering	Mrs. Suma P, Assistant Professor, CED	142	-	30.10.18	The purpose of the event was to give a demo experience to students, how to survive or help people during a natural disaster. This helps the students by educating them to find the resources such as food, water, shelter, medicine etc.
13	Guest Lecture	Software application on project management	Dept. of Civil Engineering & ACCE, Bengaluru	Mr. Pawan Kumar, Assistant Professor, CED	135	Mr. Deepak Kumar, Director, CAAD Centre	31.10.18	The speaker highlighted the different tools available for Software application on project management.

								He also spoke about various technologies
14	Guest Lecture	Design of RC structural elements and Stairs	Dept. of Civil Engineering & ICI, Bengaluru	Mr. Yogesh K S, Assistant Professor, CED	112	Dr. R Ravindra, Professor, Department of Civil Engineering	31.10.18	The speaker highlighted the different Software application for Design of RC structural elements and Stairs.
15	Industrial visit	Water treatment plant	Dept. of Civil Engineering	Dr. Jagadeesh C B & Dr. Geetha Varma Civil Department	48	Director, Water treatment plant, Thoraikadanahalli, Bangalore	03.11.18	In this visit students got a chance to visit various treatment units where they learnt about treatment materials used and design components.
16	Guest Lecture	Mechanics of fluids	Dept. of Civil Engineering & ICE, Bengaluru	Dr. Geetha Varma, Associate Prof., Civil Department	145	Mr. Rajinikanth B Prabhu, Construction Engineer, STUP Consultancy	15.11.18	Students from III semester attended the session and get benefited regarding their career

17	Guest Lecture	Basics of Geotechnical Engineering "Shear Strength of Soil"	Dept. of Civil Engineering & IGS, Bengaluru	Mrs. Serin Issac, Assistant Prof., CED.	140	Mr. Chikkanna.T Deputy Technical Manager (NABL),	17.11.18	The speaker highlighted the different tools available to extract undisturbed soil sample to prepare specimen for triaxial shear test. He also spoke about various methods for finding shear parameters for the field and lab test.
18	Entrepreneurs hip Summit	Entrepreneursh ip development	Dept. of Civil Engineering & ACCE, Bengaluru	Mr. Sudhakar G N, Assistant Prof., CED	11	MBA department	02.02.19	The speaker highlighted the process of improving the skill set as well as the knowledge of the entrepreneurs. He also spoke about entrepreneur development process helps new firms or ventures get better in achieving their goals, improve business and the nation's economy.

19	Avishkar Club	Lab War, Brain Storming, Distance Hunter	Dept. of Civil Engineering	Dr. N. Mahesha, Senior Assistant Prof., CED	145	-	27.03.19	Under the banner Avishkar Club of Civil Engineering Department Organized an Event Namely: Lab War, Brain Storming, Distance Hunter to identify talented students.
20	Alumini Interaction	Career Development	Dept. of Civil Engineering	Mr. Surendra B V, Associate prof., CED	71	Site Engineer/ QA&QC Engineer/Design Engineer.	02.04.19	Distinguish Alumni Talk on Career Development Engineering ” arranged for the Final Year Civil Engineering students.
21	Project Exhibition	Generation of Civil Engineering Models	Dept. of Civil Engineering & ACCE, Bengaluru	Mrs. Sharmila K, Assistant prof, CED	13	-	02.04.19	Projects were judged on the basis of the understanding of the concepts, innovation and authenticity of the project and student’s presentation skills.

22	Industrial visit	BWSSB Water Purification Plant	Dept. of Civil Engineering	Dr. Geetha Varma, Mr. Yogesh K S. and Ms. Swetti Jha, CED	140	Director, Water treatment plant, Thoraikadanahalli, Bangalore	06-03-19 and 13-03-19	In this visit students got a chance to visit various treatment units where they learnt about treatment materials used and design components.
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Academic Year 2017-18

1	Avishkar club event	“Operation CIA	Dept. of Civil Engineering	Ms. Meghana A P, Assistant Prof., CED	114	-	10.03.2017	This event consisted of treasure hunt to find ‘Pentagon Building’ based on clues given to individual team. Finally, three teams got prize on the basis of performance.
2	Workshop	Reliability Concepts in Civil Engineering	Department of Civil Engineering and	Mr. Nitish Kumar K, Assistant prof., CED		Dr. Devraj, Professor, Prof. Raghunandan Kumar UVCE	30.01.2018	Some highlights of Dr. Devraj’s presentation were: <ul style="list-style-type: none"> • Structure has three

			UVCE, Bengaluru & ICI, Bengaluru					filters- Stiffness (K), Mass (M) of the material and the damping coefficient of the material (C). • Structural flaws and defects can be eliminated by quality control and inspection. • Adverse effect on structure is time, over- loading, human errors and low quality of materials.
3	Seminar	Archibus software	Department of Civil Engineering & ICE, Bengaluru	Mrs. Neethu Elizabeth, Assistant prof., CED	210	Mr. Shreedhar Saraswathi, Business Head, Southern Asia, ARCHIBUS	05.02.2018	Students from VI and VIII semester attended the session and get benefited.

4	Prakruthi club Event Workshop	“Role of Geology in Civil Engineering Projects”	Prakruthi club of Dept. of Civil Engineering	Prof. Ranganathan B.A, DCE,	74	Mr. Rajendran, Director (Retd), Geological Survey of India	16-04-2018	The prime objective of this workshop was to enlighten civil engineering students about the role of Geology in safe, stable and cost effective Civil Engineering projects
5	Seminar	Social Values & Social Responsibilities	Department of Civil Engineering, & ACCE, Bengaluru	Mrs. Serin Issac, Assistant prof., CED	70	Sri Sathya Sai Hospital Seva wing	07.02.2018	This seminar tells about social responsibility. It is a duty of every individual has to perform so as to maintain a balance between economy and ecosystem.

6	Site Visit	Related to Geology	Department of Civil Engineering	Dr. Mahesha N, Senior Assistant prof., CED	117	-	10.02.2018	In this visit students got a chance to know the formation of rock material, it's classification and types of rock available in the field. Students also got exposure to working environment of real-world industry and their basic values of quality and safety.
7	Workshop	Cype software	Department of Civil Engineering & ICE, Bengaluru	Mr. Ranganathan. B.A, Associate Prof., CED	48	Amarnatha. S. N, FE Designer	20.02.2018	The three days' workshop started with Mr. Amaranth S N from FE design and his team (4 members)

8	Workshop	Cype software	Department of Civil Engineering & ICE Bengaluru	Mr. Surendra B V Associate Professor, CED	51	Amarnatha. S. N, FE Designer	23.02.2018	who gave demonstration about the CYPECAD software & explained the analysis design, estimation, drafting of RC rebar in a typical four floor residential complex unit. He also explained about the advanced user capabilities of CYPECAD over other commercial software available in the Market. Software will be useful for final year CED students.
9	Workshop	Cype software	Department of Civil Engineering & ICE Bengaluru	Mrs. Satyapriya P, Assistant Prof, CED	45	Amarnatha. S.N, FE Designer	24.02.2018	

10	Seminar	Financial Literacy program for SC/ST Students	Department of Civil Engineering	Mr. Sandeep P, Assistant Prof., CED	22	Dr. Sheelan Misra, HOD MBA	21.02.2018	The speaker in her talk an attempt has been made to understand the meaning of financial literacy and identify the need for it taking into consideration the previous research and literature as back ground.
11	Seminar	BIM	Department of Civil Engineering & ACCE, Bengaluru	Mr. Yogesh, CED	140	Sr. faculty from EduCadd	03.03.2018	The seminar started with Sr. faculty from EduCadd who gave demonstration on Building Information Modeling (BIM). He also explained BIM applications will be essential to successful

								Integrated Building Design (IBD) and Integrated Project Delivery (IPD).
12	Workshop	TEKLA software	Department of Civil Engineering & ACCE, Bengaluru	Mr. Rajendra, Assistant Professor, CED	140	V.P. Naik, MD&CEO G2G Engineering Services Pvt Ltd	15.03.2018	A one-day workshop on “Tekla Structures”, was organized for 4th year Civil Engineering students. Speaker explained in his presentation, the wide application of Tekla software. Encouraging students to learn the software, he told that the software helps to model high rise office or residential buildings,

								incorporating different kinds of building materials including steel, concrete, timber and glass.
13	Workshop	Archi-Bus	Department of Civil Engineering & ICE, Bengaluru	Mr. Nitesh. Assistant Professor, CED	40	State Government	22.03.2018 to 24.03.2018	The frame work of this program enables all the stakeholders to contribute their content based on their local current requirements
14	Industrial Visit	Industrial Visit to 42 Queen Square	Department of Civil Engineering		170	-	24.03.2018	The take away from this industrial visit was immense and this has truly been a wonderful day spent at an amazing company that nurtures

								young and talented minds.
15	Guest Lecture	An -Avenue for higher education for civil engineering in India & Abroad	Department of Civil Engineering & ICE, Bengaluru	Mr. Sudhakar, senior Assistant prof., CED	51	Ms. G. Navatha Sr. faculty Vani Institutions	02.04.2018	The speaker highlighted an - Avenue for higher education for civil engineering in India & Abroad for cracking GRE and TOFEL exams.
16	Club Event	Archi-Bus	Department of Civil Engineering and State Government	Ms. Suma, senior Assistant prof., CED	110	Mr. Shreedhar Saraswathi, Business Head, Southern Asia, ARCHIBUS	06.04.2018 to 07.04.2018	The frame work of this program enables all the stakeholders to contribute their content based on their local current requirements.

17	Workshop	Students exchange program to France	Department of Civil Engineering	Mr. Pawan Kumar, senior Assistant prof., CED	150	Dean-Academics, NHCE	06.04.2018	Dept of CED organized a session on overseas education to all interested students in pursuing higher studies. The session focused on wide variety of options which students can choose.
18	Expert lecture	Hydraulic pump – Types and applications	Department of Civil Engineering & ICE, Bengaluru	Mrs. Meghana P, Assistant prof., CED	135	Mr. B.N. Nagesh, Dy. Chief Engineer, KUWS&DB, Bangalore	10.04.2018	Students from III semester attended the session and get benefited from the expert.
19	Prakruthi club Event Workshop	“Role of Geology in Civil Engineering Projects”	Prakruthi club of Dept. of Civil Engineering	Prof. Ranganathan B.A, DCE,	74	Mr. Rajendran, Director (Retd), Geological Survey of India	16-04-2018	The prime objective of this workshop was to enlighten civil engineering students about the role of

								Geology in safe, stable and cost effective Civil Engineering projects
20	Workshop	GIS – Rock Mechanics	Department of Civil Engineering & ICE, Bengaluru	Dr. Mahesha N, Senior assistant prof, CED	145	Geologist, Geological Survey of Karnataka	16.04.2018	Students from III semester attended the session and get benefited from the expert.
21	Industrial Visit	Industrial Visit	Department of Civil Engineering	Ms. Suma P (Placement Coordinator)	41	Salarpuria Sattva	29.06.2018	The take away from this industrial visit was immense and this has truly been a wonderful day spent at an amazing company that nurtures young and talented minds.

2017 – 2018



Fig4.1: “Construction Management & Project Management” by Dr. Yamini Varma Nanagiri –CPM Program director, RICS SBE, Amity University, Mumbai on 10th Oct 2017.



Fig 4.2: “Archibus Simple TM Training” by Mr. Sreedhar Saraswathi – Business Head – Southern Asia, ARCHIBUS, on 05th February 2018.

2018- 2019



Fig 4.3: “Green Technology – its significance and relevance” by Mr. K.P. Pradeep Raja, Research Scholar / Associate Professor PES University, Bangalore on 5th Oct 2018



Fig 4.4: “Brainstorm of Good Practice in Geotechnical Engineering” on 27th Oct 2



Fig 4.5: “Key aspects and basic requirements in the building services” by Mr. Santhosh S Patil, Founder & CEO, Infinity Group on 23th Mar 2019 at the Department

2019 – 2020

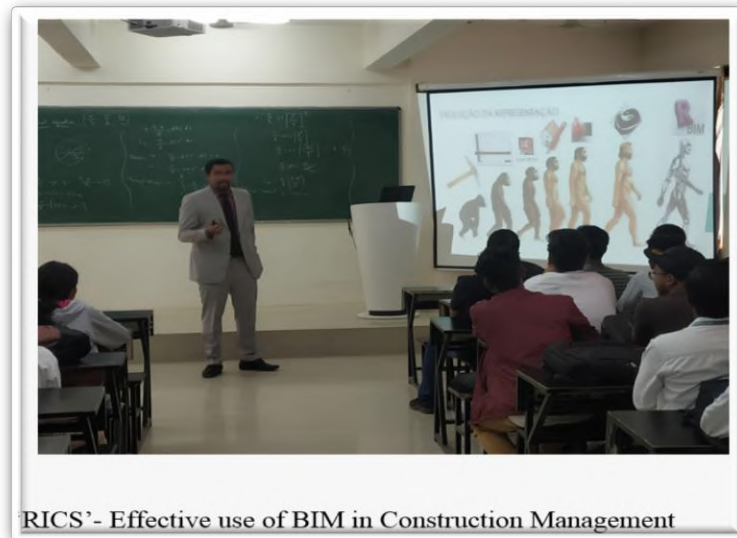


Fig 4.6: RICS' - Effective use of BIM in Construction Management by Mr. Kaushik Bhattacharjee, RICS School of Built Environment, 303, 3rd floor, Amity University, Mumbai- Pune Expressway, Panvel on 27th Sept 2019 at the department.



Fig 4.7: “Technical Perspective of Vastu in Civil Engineering” by Mr. Hemanth Kumar V Chief Executive Officer INTELLECTUAL PARADISE SERVICES BANGALORE on 2nd Mar 2020 at the Department.

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

Faculty encourages the students to actively participate in writing articles for University's technical magazines and newsletters. Summary of student participation in contributing articles for in-house magazines/ newsletters during last 3 academic years is presented below:

Table 4.19

Sl. No.	Name of the Magazine/ News Letter	Month/ Volume No.	Name of the Chief editor	Name of the Associate editor (Faculty)	Student editors
Academic Year 2019-20					
1.	Inspire- Newsletter July 2020	January-June 2020 Volume 10 Issue 2	Dr. Niranjan P S, Professor & HOD	Prof. Surendra B V Prof. Sudhakar G N Prof. Yogeesh	1.Abhishek L 1NH16CV003 8 th Semester 2.Abhishek M R 1NH16CV004 8 th Semester
2.	Inspire- Newsletter January 2020	July-December 2019 Volume 9 Issue 1	Dr. Niranjan P S, Professor & HOD	Prof. Surendra B V Prof. Sudhakar G N Prof. Yogeesh	1.Abhishek L 7 th Semester 2.Abhishek M R 7 th Semester
Academic Year 2018-19					
3.	Inspire- Newsletter July 2019	January-June 2019 Volume 8 Issue 2	Dr. Niranjan P S, Professor & HOD	Prof. Surendra B V Associate Professor Prof. Sudhakar G N Prof. Yogesh	1.Ajay Kumar Das 1NH15CV009 8 th Semester 2.Akash Mehta

					1NH15CV011 8 th Semester
4.	Inspire- Newsletter January 2019	July-December 2018 Volume 8 Issue 1	Dr. Niranjan P S, Professor & HOD	Prof. Surendra B V Prof. Sudhakar G N Prof. Sathish D	1.Ajay Kumar Das 1NH15CV009 7 th Semester 2.Akash Mehta 1NH15CV011 7 th Semester
Academic Year 2017-18					
5.	Inspire- Newsletter July 2018	January-June 2018 Volume 7 Issue 2	Dr. Niranjan P S, Professor & HOD	Prof. Surendra B V Prof. Sudhakar G N Prof. Sathish D	1.Apoorva M Reddy 1NH14CV011 8 th semester 2.Charan U T 1NH14CV028 8 th Semester
6.	Inspire- Newsletter January 2018	July-December 2017 Volume 7 Issue 1	Dr. Niranjan P S, Professor & HOD	Prof. Surendra B V Prof. Sudhakar G N Prof. Sathish D	1.Apoorva M Reddy 1NH14CV011 7 th semester 2.Charan U T 1NH14CV028 7 th Semester

7.	Inspire- Newsletter July 2017	January-June 2017 Volume 6 Issue 2	Dr. Niranjan P S, Professor & HOD	Prof. Surendra B V Prof. Sudhakar G N Prof. Sathish D	1.Apoorva M Reddy 1NH14CV011 6 th semester 2.Charan U T 1NH14CV028 6 th Semester
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4.5.3 Participation in inter-institute events by students of the program of study (10)

Participation of students in events/ conferences organized by other institutes during last 3 academic years and their achievements in the same is presented below:

4.5.3a Outside the State

Table 4.20

Date / Session	Event	Organized by	Team/ Participants	Remarks
Academic Year 2019-20				
30-08-2019	A national level tech fest “COSTRUZI ONE 2K19”	Sri Sairam Engineering College, Civil Engineering Symposium, Chennai, Tamil Nadu,	i. Darshan S M 1NH16CV031 ii. Jennifer Rose Biju 1NH16CV045	The Department of Civil Engineering of Sri Sairam Engineering College organized a national level tech fest “COSTRUZIONE`19. Awarded II Prize in Fast-track survey

06-03-2020	“KSHETRA 2020” A National Level Technical Symposium	K.S.R. College of Engineering, Thiruchengode, Namakkal.	i.Abhijeet Jadhav 1NH15CV002 ii.Kiran Kumar V 1NH15CV055	KSHETRA 2020 is A National Level Technical Symposium held at K.S.R. College of Engineering and was conducted by the Department of Civil Engineering on 6th March 2020. Awarded I Prize in 3D Modeling
Date / Session	Event	Organized by	Team/ Participants	Remarks
Academic Year 2018-19				
25-02-2019	A national level tech symposium “TRENGET 19”	Department of Civil Engineering Sri Ramkrishna Engineering College, Coimbatore, Tamil Nadu	i.C Krishna Kumar 1NH14CV020 ii.Manhanth Gowda S 1NH14CV059 iii.R Prajwal 1NH14CV089	The Department of Civil Engineering of Sri Ramkrishna Engineering College was organized A national level tech symposium “TRENGET 19” Awarded II Prize in Card Structures
Date / Session	Event	Organized by	Team/ Participants	Remarks
Academic Year 2017-18				
14-09-2017	A national level Technical	VRS College of Engineering and Technology,	i. Harshitha Behura 1NH13CV040	The Association of Civil Engineers of Department of Civil Engineering and

	Symposium “SMEATON 17”	Civil Engineering Symposium, Viluppuram	ii. Pranish Chetti 1NH13CV077	Indian Society for Technical Education jointly organized a National Level Technical Symposium. Awarded I Prize in Technical Quiz
24 &25-02- 2018	A two-day National Level Technical Symposium “Soudha 2k18”	Department of Civil Engineering, JNTUK, Kakinada	i. Shanil Parambath 1NH13CV114 ii. Naveen. K.A 1NH13CV061	A two-day National Level Technical Symposium “Soudha 2k18” was conducted by the Department of Civil Engineering, JNTUK, Kakinada. Awarded II Prize in Technical Quiz

4.5.3b Within the State

Table 4.21

Date / Session	Event	Organized by	Team/ Participants	Remarks
Academic Year 2019-20				
18-02- 2020	One-day Seminar on “Geopolymer Concrete Applications: Challenges and Opportunities ”	Dayananda Sagar College of Engineering, Bangalore in association with Indian Concrete Institute, Bangalore Chapter	i. Adarsh H R 1NH16CV064 ii. Pramod Kumar 1NH16CV079 iii. Sailesh Pandeya 1NH16CV134	In line with the continuing endeavor, ICI-BENC had organized a 1-Day seminar based on ‘Get to Know’ from the experts and hands-on professionals who spoke on vital aspects of. “Geopolymer Concrete Applications: Challenges and Opportunities” on 18th February 2020, at Premachandra Sagar Auditorium, Dayananda Sagar College of Engineering, Bangalore.
15 & 16- 10- 2019.	Concrete Fair 2019, a National Level Technical Symposium	ICI and ASCE Student Chapters of institute, at RV College of Engineering, Bangalore.	i. Manjunatha B G 1NH16CV063 ii. Chethan V 1NH16CV025	The event was organized to promote industry academia interaction and to facilitate hands-on experience and experiential learning aided by the eminent personalities from the industry. The fair had a highly competed technical quiz, and students got to know the history, current trends and futuristic ideas in the engineering

				domain. Other events focused on research presentations, design, planning and other aspects of Civil Engineering aiming to bridge the gap between industry and academia. Awarded II Prize in Technical Quiz
Date / Session	Event	Organized by	Team/ Participants	Remarks
Academic Year 2018-19				
13-02-2019	One-day Seminar titled “High Strength Concrete”	Indian Concrete Institute, Bengaluru Centre	i. Keerthi.T.V 1NH15CV053 ii. Mohan Naik.B 1NH15CV072 iii. Naveen.S.R 1NH15CV077	In line with this continuing endeavor, ICI-BC held a 1-day Seminar titled “High Strength Concrete” on 13th February 2019, Wednesday, at The Capitol Hotel, Rajbhavan Road, Bengaluru. Experts and hands-on Professionals spoke on vital aspects of High Strength Concrete.
26-04-2019	One-day Workshop on “Principles of Concrete mix design on High strength	Sapthagiri College of Engineering, Bengaluru	i. Ashwini.J 1NH15CV027 ii. Chaitra.K 1NH15CV032 iii. Deekshitha.	A One Day Workshop was conducted jointly by Sapthagiri College of Engineering and ICI on 26th April 2019. The session included a discussion on introduction to ‘Principles of Concrete Mix Design on High

	concrete and self-compacting concrete, 2019,		C 1NH15CV033	Strength Concrete' delivered by Er. Nagesh Puttaswamy. The main topics of discussion were ingredients and properties of concrete and importance of these properties in high strength concrete. The principles of mix design were discussed in detail and mix design procedure explained as per IS: 10262-2019.
16-02-2019	One-day workshop Advanced Surveying Technologies Using Total Station	AMC Engineering College, Bangalore	i. S V Jathin Reddy 1NH15CV107 ii. Rivesh Sah 1NH15CV099 iii. Vishal Prasad. M 1NH15CV142	This workshop had provided the thorough knowledge in total station. Total station is one of the advanced techniques in surveying which is most commonly used to measure both length and the angles. This workshop gave hands on training in total station.

13-02- 2019	One-day Seminar titled “High Strength Concrete”	Indian Concrete Institute, Bengaluru Centre	<p>i. Keerthi.T.V 1NH15CV053</p> <p>ii. Mohan Naik.B 1NH15CV072</p> <p>iii. Naveen.S.R 1NH15CV077</p>	In line with this continuing endeavor, ICI-BC held a 1-day Seminar titled “High Strength Concrete” on 13th February 2019, Wednesday, at The Capitol Hotel, Rajbhavan Road, Bengaluru. Experts and hands-on Professionals spoke on vital aspects of High Strength Concrete.
31-08- to 01-09-2018	Intl. Symposium on ‘Traffic Engineering & Disaster Management’	Civil Engg. Dept. National Institute of Engineering (NIE), Mysore	<p>i. Anand B 1NH15CV017</p> <p>ii. Kishore M 1NH15CV057</p> <p>iii. Divya T V 1NH15CV037</p>	Biannual National-Level Technical Fest ‘AAKAR’ of NIE, Mysore has organized a two-day International Symposium on ‘Traffic Engineering and Management and Disaster Management’. The objective of the symposium is to provide an exposure to the current and future trends in traffic engineering and disaster management. It comprises lectures and interactive sessions by eminent speakers.

Date / Session	Event	Organized by	Team/ Participants	Remarks
Academic Year 2017-18				
27-03-2018	Seminar on “Application of EIA, RS and GIS in Environmental Engineering”	Sri Venkateshwara College of Engineering, Bengaluru	i. Anup Pudasaini 1NH14CV125 ii. Gigith Alex 1NH14CV036 iii. Rajesh Sah 1NH14CV138	The outcome of seminar helped to understand the concepts of EIA in different developmental projects and the impacts on various projects like water supply, highway, constructional projects etc. on environment. Many s mitigational measures were suggested.
24 & 25-02-2018	Two day’s National Level Techno-Cultural Fest” in association with industries Student Chapters of Indian Concrete Institute (ICI), Association of consulting Civil Engineers (ACCE (I)), Institute of Engineers (I).	Civil Engineering Dept., NMIT, Bangalore.	i. Bharath Thapa 1NH14CV127 ii. Swapnil Baral 1NH14CV140 iii. Harshavardhan R 1NH14CV038	The SarveKshan is a National Level Techno-Cultural Fest of Civil Engineering Dept., NMIT. For Civil Engineering students, it may be Surve Kshan. During the event - SurveKshan - 2017, various technical events were conducted.

	Alumni Meet			
31-10-2017	One-day workshop on “Integrated Solid Waste Management”	Dept. of Civil Engineering, Cambridge Institute of Technology, Bangalore.	i.C S Sheshan 1NH14CV023 ii.Hemanth D R 1NH14CV040 iii.Maruthi Reddy 1NH14CV062	Participants were taken through the technical concepts and technique involved in Environmental Engineering and in-depth knowledge of solid waste management. Views were exchanged about the best practices adopted for the management of the municipal solid waste.

Journal articles Published by students during the last 3 academic years and their achievements in the same is presented below:

Table 4.22

Academic Year 2019-20					
Sl. No	USN	Name of the Student	Title of the Paper	Journal	Date of Publication
1	1NH16CV080 1NH16CV083 1NH16CV122 1NH17CV417	Pramod Sencha N Pratham Chandrakant Naik Yeshwanth.K Sathisha Kumar	“Enhancement of Sub Grade Soil Strength using Lime”	International Research Journal of Engineering and Technology (IRJET)	Dec-19
2	1NH16CV075 1NH16CV076 1NH16CV082	Pooja C D Poorvika. S Praphulla.K.G	“Usage of Plastic in Manufacturing of Solid Bricks along with M-sand and	Impact Factor:	Dec-19

	1NH16CV100	Shruthi.N	Bitumen”	7.529	
3	1NH16CV048	Kashinath B.J	“An Experimental Study of Flexural Behavior of Bubble Deck Slab”		Dec-19
	1NH16CV113	Upendra M			
	1NH16CV026	Chethan M.K			
	1NH16CV123	Yogesh J			

Academic Year 2018-19						
Sl. No	USN	Name of the Student	Title of the Paper	Journal	Date of Publication	
1	1NH15CV107	S V Jathin Reddy	“Experimental studies on utilization of recycled coarse and fine aggregates in high performance concrete mixes”	International Journal of Innovative Research in Science, Engineering and Technology (An ISO	July-19	
	1NH15CV110	Sai Prasad M G				
	1NH15CV148	Praveen Kumar				
	1NH15CV096	B Rakesh M				
2	1NH15CV140	Vinith V	“Floating concrete for Large Work Boat”			July-19
	1NH15CV124	Somanna N B				
	1NH15CV150	Tejwanth S				
	1NH15CV100	Rohan Bopanna N M				
3	1NH15CV061	Manjula G	“Sugarcane Bagasse Ash and Human Hair Use in Concrete Block”		July-19	
	1NH15CV088	Priya R				
	1NH16CV408	Rachana N T				
	1NH16CV417	Sunil Kumar				

4	1NH14CV154	Anusha R	“A Parametric Study on Bridge due to Dynamic Loading”	3297: 2007 Certified Organization) Impact Factor : 7.512	July-19
	1NH15CV078	Neha Jacob			
	1NH15CV080	Nikhil D S			
	1NH15CV144	Vishwanath J			
5	1NH15CV020	Anoop Daniel	“Effects of Cinder in Slag Based Solid Concrete Blocks”		July-19
	1NH15CV056	Kiran Rathod			
	1NH15CV058	Komal Bagga			
6	1NH15CV019	Ankit Kumar	“Design of Flexible Pavements using Geogrid Reinforcement”	July-19	
	1NH15CV043	Singh			
	1NH15CV052	Jagath Mohan			
	1NH15CV053	Karan Patil			
	1NH15CV053	Keerthi T V			

Academic Year 2017-18					
Sl. No	USN	Name of the Student	Title of the Paper	Journal	Date of Publication
1	1NH14CV009	Amrutha	“Interface bond strength of ultra-thin white-topping (UTW) and hot mix asphalt (HMA) composites by direct shear”	International Research Journal of Engineering and Technology (IRJET)	May-18
	1NH14CV011	Lakshmi B M			
	1NH14CV027	Apoorva M Reddy			
	1NH14CV031	Charan R			
		Darshini P Naik			
2	1NH14CV050	Khalid Ajaz	“Hydrologic Analysis on Instantaneous Unit Hydrograph using Clark's Method”	Impact Factor: 7.529	May-18
	1NH14CV053	Kumar			
	1NH14CV003	Shivankar			
	1NH14CV088	Adil Mohd.			

		Jeelani Basha R K Pintu		
3	1NH15CV404 1NH15CV405 1NH15CV422 1NH14CV019	Deepika B G Gangamma K Vanitha B Bhavyashri. R	“Effect of chemical (sodium hydroxide, sodium silicate, borax) dosage on setting time and compressive strength of GGBS mortar”	May-18
4	1NH14CV143 1NH14CV130 1NH14CV131 1NH14CV126	Prajwal Karki Diwash Koirala Ganesh Raj Ayush Neupane	“Identification of Accident Spots and Their Control Measures”	May-18
5	1NH14CV116 1NH14CV028 1NH14CV014 1NH14CV029	Goutham V Charan U T B R Bheema Reddy Darshan A M	“A Comparative Study of the Effect of Infill Materials on Seismic Performance of Reinforced Concrete Buildings”	May-18

List of students participated in sports -2017-18

Sl. No	Name	USN	Sem	Event	Date	Tournament	No. of Days	Achievements
1	Amr Nazeer Ahmed	1NH17CV100	I	Wrestling & Judo	9 th & 12 th Oct 2017	PESCE(VTU)	04	BRONZE MEDAL
2	Newton Buragohain	1NH16CV077	IV	Basketball (M)	25 th to 28 th Jan 2018 4 th to 11 th Feb 2018 17 th & 18 th Feb 2018 19 th to 21 st Feb 2018 1 st to 3 rd Mar 2018 8 th to 10 th Mar 2018 14 th Mar to 4 th Apr 2018	VIE MALLESHWARA M RV MOMENTUM SPIEL DEV DAN CUP KREEDOSTAVA AZURA 2018	04 07 02 03 03 03 22	PARTICIPATION PARTICIPATION PARTICIPATION PARTICIPATION PARTICIPATION RUNNERS RUNNERS
3	Nawazullah N	1NH14CV072	VIII	Volleyball (M) Cricket	17 th to 19 th Feb 2018 28 th Feb to 1 st Mar-18 2 nd & 3 rd Mar 2018 4 th to 6 th Mar 2018 7 th & 8 th Mar 2018 2 nd to 4 th Apr 2018 17 th Apr 2018	RV MOMENTUM DEVADAN CUP VTU(BCZ) VTU(IZ) KREEDOSTAV AZURA 2018 SAI LIO AMC	03 02 02 03 02 03 01 01 05	PARTICIPATION WINNERS WINNERS RUNNERS WINNERS WINNERS WINNERS WINNERS PARTICIPATION

Criterion-4 Self-Assessment Report (SAR)

					18 th Apr 2018 11 th , 15 th , 20 th , 22 nd , 23 rd Feb 2018 26 th Feb to 1 st , 3 rd , 5 th , 6 th Mar 2018 21 st , 24 th , to 26 th Mar 2018	RV MOMENTUM VTU PESIT	05 04	PARTICIPATION PARTICIPATION
4	Rakesh Shetty	1NH14CV093	VIII	Volleyball (M)	17 th to 19 th Feb 2018 28 th Feb to 1 st Mar- 18 2 nd & 3 rd Mar 2018 4 th to 6 th Mar 2018 7 th & 8 th Mar 2018 2 nd to 4 th Apr 2018 17 th Apr 2018 18 th Apr 2018	RV MOMENTUM DEVADAN CUP VTU(BCZ) VTU(IZ) KREEDOSTAV AZURA 2018 SAI LIO AMC	03 02 02 03 02 03 01 01	PARTICIPATION WINNERS WINNERS RUNNERS WINNERS WINNERS WINNERS WINNERS
5	Rajesh Sah	1NH14CV138	VIII	Cricket	17 th to 20 th Mar 2018	SAMBHRAM	03	PARTICIPATION
6	Abdul Husain	1NH14CV146	VI	Cricket	17 th to 20 th Mar 2018	SAMBHRAM	03	PARTICIPATION
7	Prashant Thapa	1NH14CV137	VIII	Foot Ball	17 th to 19 th Feb 2018 20 th to 21 st Feb 2018	RVCE VTU DEVANDAN	03 02	PARTICIPATION PARTICIPATION

Criterion-4 Self-Assessment Report (SAR)

					1 st to 3 rd Mar 2018 2 nd to 4 th Apr 2018	CUP AZURA 2018	03 03	PARTICIPATION RUNNERS
8	Tejas	1NH15CV130	VI	Foot Ball	1 st to 3 rd Mar 2018 2 nd to 4 th Apr 2018	DEVANDAN CUP AZURA 2018	03 03	PARTICIPATION RUNNERS
9	B Lathlamuana	1NH14CV013	VIII	Foot Ball	2 nd to 4 th Apr 2018	AZURA 2018	03	RUNNERS
10	Lalremsiama	1NH14CV021	VIII	Foot Ball	2 nd to 4 th Apr 2018	AZURA 2018	03	RUNNERS
11	Benjamin	1NH14CV016	VIII	Foot Ball	2 nd to 4 th Apr 2018	AZURA 2018	03	PARTICIPATION
12	Anand S Kotnoor	1NH16CV013	IV	Table Tennis	8 th to 10 th Mar 2018	BMSCE	03	PARTICIPATION
13	Monish Raj	1NH14CV068	VIII	Badminton (M)	17 th to 19 th Feb 2018 2 nd to 4 th Apr 2018	RVCE AZURA 2018	03	PARTICIPATION RUNNERS
14	Amal Thomas	1NH16CV011	IV	Badminton (M)	2 nd to 4 th Apr 2018	AZURA 2018	03	RUNNERS
15	Kishore Kumar Nayak	1NH16CV403	VI	Kho Kho	17 th to 19 th Feb 2018 6 th & 7 th Apr 2018	RVCE CIT(VTU)	03 02	PARTICIPATION PARTICIPATION
16	Sanjay H R	1NH16CV096	IV	Handball	15 th & 16 th Feb 2018 1 st & 2 nd Mar 2108 6 th to 10th Mar 2018	STAR SHOOTERS DEV DAN CUP STAR SHOOTERS	02 02 05 02	PARTICIPATION PARTICIPATION PARTICIPATION WINNERS

Criterion-4 Self-Assessment Report (SAR)

					13 th to 14 th Mar 2018 16 th & 17 th Mar 2018 2 nd to 4 th Apr 2018	VTU(BCZ) VTU (IZ) AZURA 2018	02 03	PARTICIPATION PARTICIPATION
17	Sourav Das	1NH15CV126	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	PARTICIPATION
18	Rohan Bopanna N M	1NH15CV100	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	PARTICIPATION
19	Somanna N B	1NH15CV124	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	PARTICIPATION
20	Sachin Patil	1NH15CV108	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	PARTICIPATION
21	Udit Kumar	1NH15CV134	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	PARTICIPATION
22	Vineeth A	1NH15CV139	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	PARTICIPATION
23	Tejwanth S	1NH15CV150	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	PARTICIPATION
24	Prasann Arjun Bajantri	1NH14CV084	VI	Nhce	2 nd to 4 th Apr 2018	AZURA 2018	03	PARTICIPATION
25	Dharshan Raj	1NH14CV030	IV	Nhce	2 nd to 4 th Apr 2018	AZURA 2018	03	PARTICIPATION

List of Students participated in sports -2018-19

Sl. No	Name	USN	Sem	Event	Date	Tournament	No. of Days	Achievements
1	Sanjay H R	1NH16CV096	V	Handball (M) Athletic	29 th & 30 th Aug 2018 25 th to 29 th Oct 2018	CHRISPO VTU	02 05	PARTICIPATION PARTICIPATION
2	Suraj R	1NH17CV117	III	Handball (M)	29 th & 30 th Aug 2018	CHRISPO	02	PARTICIPATION
3	Anand S Kutnoor	1NH16CV013	V	Table Tennis	3 rd & 4 th Sep 2018 22 nd to 24 th Sep 2018 3 rd & 4 th Oct 2018	VTU KREEDOSTAVA SPARDHA 2018	02 03 02	PARTICIPATION PARTICIPATION PARTICIPATION
4	Amritansh	1NH17CV010	III	Table Tennis	3 rd & 4 th Sep 2018 22 nd to 24 th Sep 2018 3 rd & 4 th Oct 2018	VTU KREEDOSTAVA SPARDHA 2018	02 03 02	PARTICIPATION PARTICIPATION PARTICIPATION
5	Rohan Bopanna N M	1NH15CV100	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON
6	Somanna N B	1NH15CV124	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON
7	Sachin Patil	1NH15CV108	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON

Criterion-4 Self-Assessment Report (SAR)

8	Sourav Das	1NH15CV126	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON
9	Udit Kumar	1NH15CV134	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON
10	Tejwanth S	1NH15CV150	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON
11	Vineeth A	1NH15CV139	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON
12	Nikhil H A	1NH17CV072	III	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON
13	George Joseph	1NH15CV036	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON
14	Raj Domadiya	1NH15CV094	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	PARTICIPATON
15	Abdul Rehman Khan	1NH15CV001	VII	Power Lifting	27 th to 29 th Sep 2018	VTU	03	PARTICIPATION
16	Amal Thomas	1NH16CV011	III	Badminton	27 th & 28 th Aug 2018	VTU	02	PARTICIPATION
17	Poorvika S	1NH16CV076	V	Athletics	25 th to 29 th Oct 2018	VTU	05	PARTICIPATION
18	Tejas K Suresh	1NH15CV130	VII	Foot Ball	1 st to 5 th Sep 2018	CHRISPO	05	PARTICIPATION
19	Abdul Rehman Khan * (Played Vtu Nationals)	1NH15CV001	VII	Wrestl. & Judo Wrestling	15 th to 17 th Oct 2018 7 th to 20 th nov 2018	VTU VTU (NATIONALS)	03 14	GOLD MEDAL PARTICIPATION
20	Amr Nazeer Ahmed	1NH17CV009	III	Wrestl. & Judo	15 th to 17 th Oct 2018	VTU	03	PARTICIPATION

Criterion-4 Self-Assessment Report (SAR)

21	Sahas A S	1NH17CV099	III	Softball Cricket	4 th & 5 th Oct 2018 6 th to 13 th Oct 2018 29 th Oct to 9 th Nov 2018	VTU PES MSRIT	02 08 12	PARTICIPATION PARTICIPATION PARTICIPATION
22	Dhiraj T	1NH15CV034	VII	Cricket	6 th to 13 th Oct 2018 29 th Oct to 9 th Nov 2018	PES MSRIT	08 12	PARTICIPATION PARTICIPATION
23	Kon Jarbin	1NH15EC078	VII	Weight Lifting	29 th to 31 st Oct 2018	VTU	03	PARTICIPATION
24	Amr Nazeer Ahmed	1NH17CV036	III	Wrestl. & Judo	15 th to 17 th Oct 2018	VTU	03	PARTICIPATION
25	Sanjay H R	1NH16CV096	VI	Handball	15 th & 16 th Feb 2019 28 th Feb to 2 nd Mar 2019 2 nd to 3 rd Apr 2019 8 th & 9 th Apr 2019	STAR SHOOTERS CUFE VTU (BCZ) VTU (IZ)	2 3 2 2	PARTICIPATED PARTICIPATED WINNERS PARTICIPATED
26	Newton Buragohain	1NH16CV072	IV	Basketball(M)	26 th Jan to 3 rd Feb 2019 8 th to 10 th Feb 2019 11 th to 15 th Feb 2019 28 th Feb to 2 nd Mar 2019	MALLESHWA RAM RVCE SPIEL/JNC CUFE CMP NEW	9 3 5 3 1 9	PARTICIPATED PARTICIPATED PARTICIPATED PARTICIPATED PARTICIPATED RUNNERS

Criterion-4 Self-Assessment Report (SAR)

					25 th Mar 2019 28 th Mar to 5 th April 2019	HORIZON CUP		
27	Amal Thomas	1NH16CV011	IV	Badminton	8 th to 10 th Feb 2019	RVCE	3	PARTICIPATED
28	Manu K H	1NH18CV410	IV	Kho-Kho	1 st & 2 nd Mar 2019	VTU	2	PARTICIPATED
29	Kishore Kumar Nayak	1NH16CV403	VIII	Kho-Kho	1 st & 2 nd Mar 2019	VTU	2	PARTICIPATED
30	Dhiraj T	1NH15CV034	VIII	Cricket	16 th to 23 rd Feb 2019 7 th , 11 th , 13 th & 14 th Mar 2019	CUF&E & RVCE VTU	6 4	PARTICIPATED PARTICIPATED
31	Sahas A S	1NH17CV099	IV	Cricket	16 th to 23 rd Feb 2019 7 th , 11 th , 13 th & 14 th Mar 2019	CUF&E & RVCE VTU	6 4	PARTICIPATED PARTICIPATED
32	Rohan Bopanna N M	1NH15CV100	VIII	Hockey	15 th to 17 th Mar 2019 15 th & 16 th Apr 2019 22 nd & 23 rd Apr 2019	IISC VTU(BCZ) VTU (IZ)	3 2 2	PARTICIPATED RUNNERS PARTICIPATED
33	Somanna N B	1NH15CV124	VIII	Hockey	15 th to 17 th Mar 2019 15 th & 16 th Apr 2019 22 nd & 23 rd Apr 2019	IISC VTU(BCZ) VTU (IZ)	3 2 2	PARTICIPATED RUNNERS PARTICIPATED
34	Sourav Das	1NH15CV126	VIII	Hockey	15 th to 17 th Mar 2019 15 th & 16 th Apr 2019	I33ISC V3U(BCZ)	3 2	PARTICIPATED RUNNERS

Criterion-4 Self-Assessment Report (SAR)

					22 nd & 23 rd Apr 2019	VTU (IZ)	2	PARTICIPATED
35	Udit Kumar	1NH15CV130	VIII	Hockey	15 th to 17 th Mar 2019 15 th & 16 th Apr 2019 22 nd & 23 rd Apr 2019	IISC VTU(BCZ) VTU (IZ)	3 2 2	PARTICIPATED RUNNERS PARTICIPATED
36	Vineeth	1NH15CV139	VIII	Hockey	15 th to 17 th Mar 2019	IISC	3	PARTICIPATED
37	Sachin Patil	1NH15CV108	VIII	Hockey	15 th to 17 th Mar 2019	IISC	3	PARTICIPATED
38	Tejwanth S	1NH15CV150	VIII	Hockey	15 th to 17 th Mar 2019	IISC	3	PARTICIPATED
39	Nikhil H A	1NH17CV072	IV	Volunteer	1 st to 5 th Apr 2019	NEW HORIZON CUP	5	PARTICIPATED

National Service Scheme (NSS):

NSS is a voluntary association of young people in Colleges, Universities. The cardinal principal of the NSS program is that it is organized through participation in community service; gets a sense of involvement in the task of nation building.

List of NSS Events:
Table 4.23: Summary of NSS events conducted in the academic years of 2013-16

Sl. No.	Event Name	No. of students participated
1	Blood donation camp (Lions club)	210
2	Women Empowerment	70
3	Orphanage Visit	25
4	Tree Plantation	102
5	Blood donation camp (Nimhans & Kidwai)	143
6	Blood donation camp (Nimhans)	203
7	Blood donation camp (Grace Blood Bank)	127
8	Blood donation camp (Lions club)	91

National Cadet Corps (NCC):

The college has applied for NCC facility in the campus. Some of the students have participated in national level NCC activities.

Sl. No.	Event Name	No. of students participated
1	Blood donation camp (Lions club)	210
2	Women Empowerment	70
3	Orphanage Visit	25
4	Tree Plantation	102
5	Blood donation camp (Nimhans & Kidwai)	143

6	Blood donation camp (Nimhans)	203
7	Blood donation camp (Grace Blood	127
8	Blood donation camp (Lions club)	91



Fig 4.8: Blood donation camp



Fig 4.9: Orphanage Visit to “Love in action children home”



DEPARTMENT OF CIVIL ENGINEERING

CRITERION 5

FACULTY INFORMATION AND CONTRIBUTIONS

CRITERION 5	FACULTY INFORMATION AND CONTRIBUTIONS	200
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The details of faculty members of Civil Engineering Department are provided in the table 5.1.

Table 5a. Details of the faculty 2019-20

Sl. No	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is ("No")	Nature of Association (Regular/Contract)
		Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	Dr. Niranjan P S	Ph.D	VTU Belgaum	2014	Permanent	Prof & HOD	19.01.2015	19.01.2015	Civil	Construction Technology	2	6		Y	Regular
2	Dr. Murali Krishna	Ph.D	SV University	1998	Permanent	Professor	26.07.2017	26.07.2017	Civil	Transportation Engineering and Management	0			Y	Regular

Criterion-5 Self-Assessment Report (SAR)

3	Dr. Jagadeesh C B	Ph.D	VTU Belgaum	2017	Permanent	Professor	23.07.2018	23.07.2018	Civil	Geotechnical Engineering	1			Y	Regular
4	Dr. Balamurugan	Ph.D	Annamalai University	2012	Permanent	Professor	01.08.2019	26.07.2017	Civil	Structural Engineering	0			Y	Regular
5	Mr. Surendra B V	M E. (PhD)	Pune University VTU Belagavi	2005	Permanent	Associate Professor	01.08.2013	01.08.2013	Civil	Structural Engineering	2			Y	Regular
6	Dr. Natchimuthu Subramani	Ph.D	Satyabhama University	2017	Permanent	Associate Professor	26.07.2017	26.07.2017	Civil	Structural Engineering	2			Y	Regular
7	Dr. Geetha Varma	Ph.D	North cap University	2017	Permanent	Associate Professor	1.08.2017	25.07.2012	Civil	Environmental Engineering	2			Y	Regular
8	Dr. Vinay Kumar B M	Ph.D	VTU Belagavi	2018	Permanent	Associate Professor	16.05.2018	16-07-2018	Civil	Engineering Management				Y	Regular
9	Dr. Ranganathan	Ph.D	Anna University	2016	Permanent	Associate Professor	18.03.2019	18.03.2019	Civil	Structural Engineering				Y	Regular

Criterion-5 Self-Assessment Report (SAR)

10	Dr. Harish Velagiri	Ph.D	Annamalai University	2016	Permanent	Associate Professor	26.07.2017	26.07.2017	Civil	Geotechnical Engineering	0			Y	Regular
11	Dr. C Giri Prasad	Ph.D	Sri Satya Sai Technology and Medical Science	2019	Permanent	Associate Professor	17.07.2019	17.07.2019	Civil	Geotechnical Engineering	1			Y	Regular
12	Mr. Satish Deosugur	M.Tech (Ph.D)	VTU Belagavi JNTUA	2011 -	Permanent	Sr. Assistant Professor		24-07-2013	Civil	Highway Technology	1			Y	Regular
13	Mr. Sunil M Horaginamani	M.Tech	VTU Belagavi	2004	Permanent	Sr. Assistant Professor		23.01.2017	Civil	Structural Engineering	0			Y	Regular
14	Mr. Rajendra T N	M.Tech (Ph.D)	VTU Belagavi VTU Belagavi	2013	Permanent	Sr. Assistant Professor		21.07.2014	Civil	Computer aided Design of Structures	1			Y	Regular
15	Mr. Harish G R	M.Tech	VTU Belagavi	2013	Permanent	Sr. Assistant Professor		20.07.2015	Civil	Transportation Engineering and Management	1			Y	Regular
16	Mr. Sudhakar G N	M.Tech (Ph.D)	VTU Belagavi	2012	Permanent	Sr. Assistant Professor		23.01.2017	Civil	Construction Technology	1			Y	Regular

Criterion-5 Self-Assessment Report (SAR)

17	Ms. Ramya H S	Ph.D	VTU Belagavi	2012	Permanent	Sr. Assistant Professor		16.07.2018	Civil	Computer aided Design of Structures	2			Y	Regular
18	Ms. Suma Paralada	M.Tech	VTU Belagavi	2011	Permanent	Sr. Asst Professor		20.07.2015	Civil	Construction Technology	1			Y	Regular
19	Ms. Swetti Jha	M.Tech	NITK	2011	Permanent	Assistant Professor		25.07.2012	Civil	Environmental Engineering	1			Y	Regular
20	Ms. Snehal Rajendra Lahande	M.Tech	VTU Belagavi	2013	Permanent	Assistant Professor		20.07.2015	Civil	Structural Engineering	1			Y	Regular
21	Mr. Pawan Kumar K R	M.Tech	VTU Belagavi	2014	Permanent	Assistant Professor	30.11.2005	10.08.2015	Civil	Infrastructure Construction Management				Y	Regular
22	Mr. Nitish Kumar K	M.Tech	VTU Belagavi	2014	Permanent	Assistant Professor		23.01.2017	Civil	Transportation Engineering and Management				Y	Regular
23	Mr. Channabasava	M.E	BU	2015	Permanent	Assistant Professor		16.07.2018	Civil	Pre-stressed Concrete				Y	Regular

Criterion-5 Self-Assessment Report (SAR)

24	Mr. Yogesh K S	M.Tech	VTU	2012	Permanent	Assistant Professor		30.07.2018	Civil	Structural Engineering				Y	Regular
25	Ms. Serin Issac	M. Tech	Mahatma Gandhi University	2015	Permanent	Assistant Professor		25.07.2016	Civil	Geo-mechanics and structures				Y	Regular
26	Mr. Vijay N C	M. Tech	VTU	2015	Permanent	Assistant Professor		16.08.2016	Civil	Infrastructure Construction Management				N	Regular
27	Mr. Sandeep. T. D	M.E	Bangalore University	2015	Permanent	Assistant Professor		25.07.2016	Civil	Earthquake Engineering				N	Regular
28	Mr. Prakash Appasaheb Nayakar	M.Tech	MNIT Jaipur	2015	Permanent	Assistant Professor		13.02.2017	Civil	Structural Engineering				Y	Regular
29	Ms. Geethu V	M. Tech.	SRM University, Chennai	2016	Permanent	Assistant Professor		17.07.2019	Civil	Environmental Engineering				Y	Regular
30	Mr. Rahul N K	M.Tech	Manipal Academy of Higher Education, Manipal	2018	Permanent	Assistant Professor		16.07.2018	Civil	Structural Engineering				Y	Regular

Criterion-5 Self-Assessment Report (SAR)

31	Ms Meghana A Patankar	M.E	Bangalore University	2015	Permanent	Assistant Professor		26.07.2017	Civil	Structural Engineering				Y	Regular
32	Ms. S Satya Priya	M.E (Ph.D)	Anna University Bangalore University	2006	Permanent	Sr. Asst. Professor		24.07.2013	Civil	Water Resources Engineering				Y	Regular

Table 5b. Details of the faculty 2018-19

Sl.No	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is "No")	Nature of Association (Regular/Contract)
		Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	Dr. Niranjana P S	Ph.D	VTU Belgaum	2014	Permanent	Prof & HOD	19.01.2015	19.01.2015	Civil	Construction Technology	0			Y	Regular
2	Dr. Murali Krishna	Ph.D	SV University	1998	Permanent	Professor	26.07.2017	26.07.2017	Civil	Transportation Engineering and Management	0			Y	Regular
3	Dr. Jagadeesh C B	Ph.D	VTU Belgaum	2017	Permanent	Professor	23.07.2018	23.07.2018	Civil	Geotechnical Engineering	3			Y	Regular

Criterion-5 Self-Assessment Report (SAR)

4	Mr. Surendra B V	M E. (PhD)	Pune University VTU Belagavi	2005	Permanent	Associate Professor	01.08.2013	01.08.2013	Civil	Structural Engineering	3			Y	Regular
5	Dr. Balamurugan	Ph.D	Annamalai University	2012	Permanent	Associate Professor	26.07.2017	26.07.2017	Civil	Structural Engineering	0			Y	Regular
6	Dr. Geetha Varma	Ph.D	North cap University	2017	Permanent	Associate Professor	01.08.2017	25.07.2012	Civil	Environmental Engineering	2			Y	Regular
7	Dr. Natchimuthu Subramani	Ph.D	Satyabhama University	2017	Permanent	Associate Professor	26.07.2017	26.07.2017	Civil	Structural Engineering	1			Y	Regular
8	Dr. Vinay Kumar B M	Ph.D	VTU Belagavi	2018	Permanent	Associate Professor	16.07.2018	16.07.2018	Civil	Engineering Management	5			Y	Regular
9	Dr. Harish Velagiri	Ph.D	Annamalai University	2016	Permanent	Associate Professor	26.07.2017	26.07.2017	Civil	Geotechnical Engineering	0			Y	Regular
10	Mr. Satish Deosugur	M.Tech (Ph.D)	VTU Belagavi JNTUA	2011	Permanent	Sr. Assistant Professor		24.07.2013	Civil	Highway Technology	4			Y	Regular

Criterion-5 Self-Assessment Report (SAR)

11	Ms. S Satya Priya	M.E (Ph.D)	Anna University Bangalore University	2006	Permanent	Sr. Asst Professor		24.07.2013	Civil	Water Resources Engineering	0			Y	Regular
12	Mr. Sunil M Horaginamani	M.Tech	VTU Belagavi	2004	Permanent	Sr. Assistant Professor		23.01.2017	Civil	Structural Engineering	0			Y	Regular
13	Ms. Swetti Jha	M.Tech	NITK	2011	Permanent	Assistant Professor		25.07.2012	Civil	Environmental Engineering	2			Y	Regular
14	Mr. Rajendra T N	M.Tech (Ph.D)	VTU Belagavi VTU Belagavi	2013	Permanent	Sr. Assistant Professor		21.07.2014	Civil	Computer aided Design of Structures	4			Y	Regular
15	Mr. Harish G R	M.Tech	VTU Belagavi	2013	Permanent	Sr. Assistant Professor		20.07.2015	Civil	Transportation Engineering and Management	2			Y	Regular
16	Ms. Snehal Rajendra Lahande	M.Tech	VTU Belagavi	2013	Permanent	Assistant Professor		20.07.2015	Civil	Structural Engineering	2			Y	Regular
17	Ms. Suma Paralada	M.Tech	VTU Belagavi	2011	Permanent	Sr. Asst Professor		20.07.2015	Civil	Construction Technology	2			Y	Regular

Criterion-5 Self-Assessment Report (SAR)

18	Mr. Pawan Kumar K R	M.Tech	VTU Belagavi	2014	Permanent	Assistant Professor		10.08.2015	Civil	Infrastructure Construction Management	0			Y	Regular
19	Mr. Sudhakar G N	M.Tech (Ph.D)	VTU Belagavi VTU Belagavi	2012	Permanent	Sr. Assistant Professor		23.01.2017	Civil	Construction Technology	3			Y	Regular
20	Mr. Nitish Kumar K	M.Tech	VTU Belagavi	2014	Permanent	Assistant Professor		23.01.2017	Civil	Transportation Engineering and Management	2			Y	Regular
21	Ms. Ramya H S	M.Tech	VTU Belagavi	2012	Permanent	Sr. Assistant Professor		16.07.2018	Civil	Computer aided Design of Structures	3			Y	Regular
22	Mr. Channabasava	M.E	Bangalore University	2015	Permanent	Assistant Professor		16.07.2018	Civil	Pre-stressed Concrete	2			Y	Regular
23	Mr. Vijay N C	M. Tech.	VTU Belagavi	2015	Permanent	Assistant Professor		16.08.2016	Civil	Infrastructure Construction Management	0			N	Regular
24	Mr. Prakash Appasaheb Nayakar	M.Tech	MNIT Jaipur	2015	Permanent	Assistant Professor		13.02.2017	Civil	Structural Engineering	2			Y	Regular

Criterion-5 Self-Assessment Report (SAR)

25	Ms Meghana A Patankar	M.E	Bangalore University	2015		Assistant Professor		26.07.2017	Civil	Structural Engineering	2			Y	Regular
26	Mr. Yogesh K S	M.Tech	VTU Belagavi	2012	Permanent	Assistant Professor		30.07.2018	Civil	Structural Engineering	4			Y	Regular
27	Ms. Serin Issac	M.Tech	Mahatma Gandhi University	2015	Permanent	Assistant Professor		25.07.2016	Civil	Geo-mechanics and structures	0			Y	Regular
28	Mr. Sandeep. T. D	M.E	Bangalore University	2015	Permanent	Assistant Professor		25.07.2016	Civil	Earthquake Engineering	3			N	Regular
29	Mr. Rahul N K	M.Tech	Manipal Academy of Higher Education, Manipal	2018	Permanent	Assistant Professor		16-07-2018	Civil	Structural Engineering	0			Y	Regular

Table 5c. Details of the faculty 2017-18

Sl. No	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is "No")	Nature of Association (Regular/Contract)
		Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	Dr. Niranjan P S	Ph.D	VTU Belgaum	2014	Permanent	Prof & HOD	19.01.2015	19.01.2015	Civil	Construction Technology	2			Y	Regular
2	Dr. Murali Krishna	Ph.D	SV University	1998	Permanent	Professor	26.07.2017	26.07.2017	Civil	Transportation Engineering and Management	0			Y	Regular
3	Mr. Surendra B V	M E. (PhD)	Pune University VTU Belagavi	2005	Permanent	Associate Professor	01.08.2013	01.08.2013	Civil	Structural Engineering	4			Y	Regular

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4	Mr. Ranganathan Bangalore Alwar	M.E	Bangalore University	1989	Permanent	Associate Professor	16.01.2014	16.01.2014	Civil	Environmental Engineering	2			N	Regular
5	Dr. Balamurugan	Ph.D	Annamalai University	2012	Permanent	Associate Professor	26.07.2017	26.07.2017	Civil	Structural Engineering	0			Y	Regular
6	Dr. Geetha Varma	Ph.D	North cap University	2017	Permanent	Associate Professor	01.08.2017	25.07.2012	Civil	Environmental Engineering	3			Y	Regular
7	Dr. Natchimuthu Subramani	Ph.D	Satyabhama University	2017	Permanent	Associate Professor	26.07.2017	26.07.2017	Civil	Structural Engineering	1			Y	Regular
8	Dr. Harish Velagiri	Ph.D	Annamalai University	2016	Permanent	Associate Professor	26.07.2017	26.07.2017	Civil	Geotechnical Engineering	0			Y	Regular
9	Dr. Ranganathan	Ph.D	Anna University	2016	Permanent	Associate Professor	18.03.2019	18.03.2019	Civil	Structural Engineering				Y	Regular
10	Mr. Satish Deosugur	M.Tech (Ph.D)	VTU Belagavi JNTUA	2011 -	Permanent	Sr. Assistant Professor		24.07.2013	Civil	Highway Technology	3			Y	Regular

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11	Mr. Dayalan J	M.Tech	IITM	2003	Permanent	Sr Asst. Professor		20.07.2015		Structural Engineering	0			N	Regular
12	Ms. S Satya Priya	M.E (Ph.D)	Anna University Bangalore University	2006	Permanent	Sr. Asst. Professor		24.07.2013	Civil	Water Resources Engineering	2			Y	Regular
13	Mr. Sunil M Horaginamani	M.Tech	VTU Belagavi	2004	Permanent	Sr. Assistant Professor		23.01.2017	Civil	Structural Engineering	0			Y	Regular
14	Ms. Swetti Jha	M.Tech	NITK	2011	Permanent	Assistant Professor		25.07.2012	Civil	Environmental Engineering	0			Y	Regular
15	Mr. Rajendra T N	M.Tech (Ph.D)	VTU Belagavi VTU Belagavi	2013	Permanent	Sr. Assistant Professor		21.07.2014	Civil	Computer aided Design of Structures	4			Y	Regular
16	Mr. Harish G R	M.Tech	VTU Belagavi	2013	Permanent	Sr. Assistant Professor		20.07.2015	Civil	Transportation Engineering and Management	2			Y	Regular
17	Ms. Snehal Rajendra Lahande	M.Tech	VTU Belagavi	2013	Permanent	Assistant Professor		20.07.2015	Civil	Structural Engineering	0			Y	Regular

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18	Ms. Suma Paralada	M.Tech	VTU Belagavi	2011	Permanent	Sr. Asst Professor		20.07.2015	Civil	Construction Technology	2			Y	Regular
19	Mr. Pawan Kumar K R	M.Tech	VTU Belagavi	2014	Permanent	Assistant Professor		10.08.2015	Civil	Infrastructure Construction Management				Y	Regular
20	Mr. Sudhakar G N	M.Tech (Ph.D)	VTU Belagavi VTU Belagavi	2012	Permanent	Sr. Assistant Professor		23.01.2017	Civil	Construction Technology	2			Y	Regular
21	Mr. Nitish Kumar K	M.Tech	VTU Belagavi	2014	Permanent	Assistant Professor		23.01.2017	Civil	Transportation Engineering and Management	3			Y	Regular
22	Mr. Sandeep. T.D	M.E	Bangalore University	2015	Permanent	Assistant Professor		25.07.2017	Civil	Earthquake Engineering	2			N	Regular
23	Mr. Vijay N C	M.Tech.	VTU	2015	Permanent	Assistant Professor		16.08.2016	Civil	Infrastructure Construction Management	2			N	Regular
24	Ms. Serin Issac	M.Tech	Mahatma Gandhi University	2015	Permanent	Assistant Professor		25.07.2016		Geo-mechanics and structures				Y	Regular

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25	Mr. Prakash Appasaheb Nayakar	M.Tech	MNIT Jaipur	2015	Permanent	Assistant Professor		13..02.2017	Civil	Structural Engineering				Y	Regular
26	Ms Meghana A Patankar	M.E	Bangalore University	2015	Permanent	Assistant Professor		26.07.2017	Civil	Structural Engineering				Y	Regular
27	Ms. Shalini Rankavat	M.Tech	NITJ	2006	Permanent	Assistant Professor		28.01.2015		Transportation Engineering				N	Regular
28	Ms. Sujatha Kota	M.Tech	VTU Belagavi	2007	Permanent	Assistant Professor		26.07.2010		Structural Engineering				N	Regular
29	Mr. Raghavendra K	M.Tech	VTU Belagavi	2016	Permanent	Assistant Professor		18.07.2016		GIS				N	Regular

5.1 Student-Faculty Ratio (SFR) (20)

No. of UG Programs in the Department= 01.

No. of students in UG 2nd year= u1=195 (=180+15)

No. of students in UG 3rd year= u2=144 (=120+24)

No. of students in UG 4th year= u3=144 (=120+24)

No. of Students = Sanctioned Intake + Actual admitted lateral entry students

$S = \text{Number of Students in the Department} = u1 + u2 + u3 = 483$

$[=195 \text{ (2nd Year)} + 144 \text{ (3rd Year)} + 144 \text{ (4th year)} = 483]$

$F = \text{Total Number of Faculty Members in the Department (excluding first year faculty)} = 32$

Student Faculty Ratio (SFR) = $S / F = 15.09$

The SFR for the three academic years are shown in table 5.2.

Table 5.1.1 Student Faculty ratio from the academic year 2017-18 to 2019-20

Year	CAY (2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
u1-2 nd Year	195	144	144
u2-3 rd Year	144	144	144
u3-4 th year	144	144	144
Total No. of Students in the Department (S)	483	432	432
No. of Faculty in the Department (F)	32	29	29
Student Faculty Ration (SFR)	SFR1=15.09	SER2=14.90	SFR3=14.90
Average SFR	14.96		

The Marks distribution is given as below:

< = 15	-	20 Marks
< = 17	-	18 Marks
< = 19	-	16 Marks
< = 21	-	14 Marks
< = 23	-	12 Marks
< = 25	-	10 Marks
> 25.0	-	0 Marks

Marks obtained = 20

5.2 Faculty Cadre Proportion (20)

The reference Faculty cadre proportion is 1(F1):2(F2):6(F3)

F1: Number of Professors required = $1/9 \times$ Number of Faculty required to comply with 20:1 Student- Faculty ratio based on no. of students (N) as per 5.1.

F2: Number of Associate Professors required = $2/9 \times$ Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1.

F3: Number of Assistant Professors required = $6/9 \times$ Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

Table 5.2.1 Faculty Cadre Proportion

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY (2019-20)	2	4	5	6	16	22
CAYm1 (2018-19)	2	3	4	5	14	21
CAYm2 (2017-18)	2	2	4	5	14	22
Average Numbers	RF1=2	AF1=3	RF2=4.33	AF2=5.33	RF3=14.67	AF3=21.67

Cadre Ratio Marks = $[(AF1/ RF1) + (AF2/ RF2) \times 0.6 + (AF3/ RF3) \times 0.4] \times 10$

Cadre marks obtained= $[3/2 + \{(5.33/4.33) \times 0.6\} + \{(21.67/14.67) \times 0.4\}] \times 10 = 20$

5.3 Faculty Qualification (20)

$FQ = 2.0 \times [(10X + 4Y)/F]$ (refer table 5.5) where x is no. of regular faculty with Ph.D., Y is no. of regular faculty with M. Tech., F is no. of regular faculty required to comply 20 :1 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

Table 5.3.1 Faculty Qualification

Academic Year	X	Y	F	$FQ = 2.0 \times [(10X + 4Y)/F]$
CAY (2019-20)	10	22	24	15.67
CAYm1 (2018-19)	8	21	21	15.62
CAYm2 (2017-18)	7	22	21	15.05
Average Assessment				15.44

5.4. Faculty Retention (10)

No. of regular faculty members in the academic year 2017-18 =29 No. of regular faculty members in the academic year 2018-19 =29 No. of regular faculty members in the academic year 2019-20 =32

The faculty retention details are shown in table 5.6.

Item (% of faculty retained during the period of assessment keeping the academic year 2016-17 as base year)	Marks
>= 90% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	10
>=75% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	8
>= 60% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	6
>= 50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	4
< 50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	0

Table 5.4.1 Faculty Retention

Faculty Retention (FR)			
Description	CAY (2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
No. of regular faculty in the department	32	29	29
% of faculty retained keeping CAYm2 as base year	24		
Average % of faculty retained	82.75		

Marks obtained in faculty retention = 8

5.5 Faculty competencies in correlation to Program Specific Criteria (10)

The Department of Civil Engineering is a versatile department, with numerous specializations like Structural Engineering, Transportation Engineering, Environmental Engineering, Construction Technology, Geotechnical Engineering, Water Resources Engineering, Geology

Faculty members articulate their domain specific knowledge to groom the students to excel in academics and prepare them to participate in various events like Smart India Hackathons, Robot Fabrication contest, Paper presentation, Project Presentation, etc.

Faculty members show consistent progress in their domain by publishing their research works in renowned Journals and actively contributing their services to the Industries as consultancy works.

The program specific criteria are correlated with competencies of Faculty members through their specialization along with research publications, book publication, course developments, and refereed journal papers for peer reviewed journals in specific domains as specified under the tables shown below.

The details of faculty competencies have been shown in table 5.5.1 to 5.5.5

Table B.5.5.1 Faculty competencies in correlation to Specialization

Engineering (Specialization Area)	Relevant Courses in the Curriculum	Competent Faculty
Construction Technology and Engineering management	<ol style="list-style-type: none"> 1. Building Materials and Construction Technology, 2. Concrete Technology, 3. Building Planning and Drawing, 4. Construction Management and Engineering Economics, 5. Retrofitting and Rehabilitation, of Structures, 6. Mechanization in Construction, 7. Alternative Building Materials, 8. Construction Quality and Safety, 9. Estimation & valuation 	Dr. Niranjan P S Dr. Vinay Kumar B M Mr. Sudhakar G N Ms. Suma Parlada Mr. Pawan Kumar K R Mr. Vijay N C
Transportation Engineering and Management	<ol style="list-style-type: none"> 1. Highway Engineering, 2. Pavement Materials and Construction, 3. Traffic Engineering, 4. Urban Transport Planning, 5. Transportation Systems, 6. Pavement Design 	Dr. Muralikrishna Mr. Satish Deosugur Mr. Harish G R Mr. Nitish Kumar K Ms. Shalini Rankavat
Geotechnical Engineering	<ol style="list-style-type: none"> 1. Geotechnical Engineering, 2. Rock mechanics, 3. Ground Improvement Techniques, 4. Earth and Earth Retaining 	Dr. Jagadeesh C B Dr. Harish Velagiri Dr. Giri Prasad Ms. Serin Issac

	Structures	
Structural Engineering	<ol style="list-style-type: none"> 1. Elements of Civil Engineering, 2. Strength of Materials, 3. Analysis of Determinate Structures, 4. Analysis of Indeterminate Structures, 5. Design of R C Structural Elements, 6. Design Pre-Stressed Concrete, 7. Design and Drawing of Steel Structural Elements, 8. Pre-Fabricated Structures, 9. Theory of Elasticity, 10. Matrix Method of Structural Analysis, 11. Design of Masonry Structures, 12. Numerical Methods in Civil Engineering, 13. Structural Dynamics 	<p>Dr. Balamurugan Mr. Surendra B V Dr. Natchimuthu Subramani Dr. Ranganathan Mr. Sunil M Horaginamani Mr. Rajendra T N Ms. Ramya H S Ms. Snehal Lahande Mr. Channabasava Mr. Yogesh K S Mr. Prakash Appasaheb Nayakar Mr. Sandeep. T.D Mr. Rahul N K Ms. Meghana Patankar Ms. Sujatha Kota</p>
Environmental Engineering	<ol style="list-style-type: none"> 1. Environmental Engineering, 2. Solid waste Management, 3. Air Pollution 	<p>Mr. Ranganthan Bangalore Alwar Dr. Geetha Varma V Ms. Swetti Jha Ms. Geethu V</p>
Water Resources Engineering	<ol style="list-style-type: none"> 1. Mechanics of Fluid, 2. Hydraulic Machinery, 3. Open channel Hydraulics, 4. Hydrology and Irrigation Engineering, 5. Water Resources Engineering, 6. Design and drawing of Irrigation Structures, 7. Rural Water Supply and Sanitation, 8. Ground Water Hydrology, 	<p>Ms. S Satya Priya Mr. Raghavendra K</p>

Table B.5.5.2 Faculty competencies in correlation to research publication

Sl. No	Name of the Faculty	Competency	Research Publications with respect to specialization
1.	Dr. Niranjana P S	Construction Technology	1.Fly Ash – Lime and Gypsum Hollow Blocks
2.	Dr. Jagadeesh C B	Geotechnical Engineering	1. Effect of Land use/Land covers on Runoff in Vrishabhavathi Basin – a Case Study. 2. Development of Intensity Duration -Frequency Curves for Vrishabhavathi Sub Water Shed 3.Morphometric Analysis of a Vrishabhavathi Sub-Watershed Using Remote Sensing and Geographical Information System: A Case Study
3.	Mr. Surendra B V	Structural Engineering	Characteristics of Cement Stabilized Masonry Blocks Prepared from Brick Masonry and Concrete Waste - Experimental Study Experimental Studies on Utilization of Brick Waste as Coarse Aggregate in Concrete Mixes A Study on Affordable Roofing System Using Bricks as Infill The Perception of Stakeholders of Construction Industry towards Health and Safety of Construction Workers: Indian Context Approach to Improve Health and Safety of Indian Construction Workers A Study on Steel Fibre Reinforced Concrete Cost Analysis of Rubbercrete Blocks and Conventional Concrete Blocks Effect of chemical (sodium hydroxide, sodium silicate, borax) dosage on setting time and compressive strength of GGBS mortar A Study on Rubbercrete Blocks
4	Dr. Natchimuthu Subramani	Structural Engineering	An Investigation on Mechanical and Durability Properties of Slurry Infiltrated Fiber Concrete

			Performance Evaluation of Short Circular Concrete Filled Steel Tube Columns Under Axial Compression
5.	Dr. Geetha Varma V	Environmental Engineering	Heavy Metals in Vegetables and Fruits Grown in Bangalore and Different Arts of India
			Enhancement of Filtration Process for the Treatment of Wastewater using Geotextile Material
			Biogas Production by anaerobic digestion of Food waste
			Green Buildings for Environmental Protection
			Biogeocomposite material and its heavy metal adsorption potential from aqueous solutions
			Copper contaminated wastewater–An evaluation of Bio remedial options
			Nanotechnology for Water Treatment - A Review
6.	Dr. Vinay Kumar B M	Engineering Management	Characteristic of Cement Stabilized Masonry Blocks Prepared from Brick Masonry and Concrete Waste - Experimental Study
			Experimental Studies on Utilization of Brick Waste as Coarse Aggregate in Concrete Mixes
			Assessment of Potential of Brick Masonry Waste for the Production of Cement Stabilized Masonry Blocks - Experimental Study
			The Perception of Stakeholders of Construction Industry towards Health and Safety of Construction Workers: Indian Context
			Approach to Improve Health and Safety of Indian Construction Workers
			Strength and Water absorption characteristics of Cement Stabilized Masonry Blocks using Brick Masonry Waste
			Experimental studies on utilization of recycled coarse and fine aggregates in

			high performance concrete mixes
			Article on Soil Permeability Test and its Impact on Dam Construction
7.	Dr. Giri Prasad	Geotechnical Engineering	Geo technical modification and chemical analysis of expansive soils.
			Experimental Study on Lime Stone Powder as a Binding Material in Concrete Mix
8.	Mr. Satish Deosugur	Highway Technology	Effect of steel slag as a coarse aggregate on strength parameters of slag cement concrete mix
			Comparative analysis of porotherm blocks and solid concrete blocks in low cost housing
			Effects of Cinder in Slag Based Solid Concrete Blocks
			Compatibility and efficiency of super plasticizers for different brands of cement
			Interface bond strength of ultra-thin white-topping (UTW) and hot mix asphalt (HMA) composites by direct shear
			Study on Behaviour of Concrete by Replacing of Cement by Lime Stone Powder
			Experimental investigation on partial replacement of cement with marble dust in concrete mix
			Effect of Replacement of Cement by Fly Ash and Metakaolin on Strength Properties of Concrete
9.	Mr. Rajendra T N	Structural Engineering	Effect of steel slag as a coarse aggregate on strength parameters of slag cement concrete mix
			Comparative analysis of porotherm blocks and solid concrete blocks in low cost housing
			An Experimental Study on Strength Parameters of Concrete Mix Using Steel Slag as Coarse Aggregate

			Compatibility and Efficiency of new Generation Super plasticizers for Different Brands of Cement
			A Study on Steel Fibre Reinforced Concrete
			Cost Analysis of Rubbercrete Blocks and Conventional Concrete Blocks
			Effect of chemical (sodium hydroxide, sodium silicate, borax) dosage on setting time and compressive strength of GGBS mortar
			A Study on Rubbercrete Blocks.
			Enhancement of Sub Grade Soil Strength using Lime
10	Mr. Harish G R	Transportation Engineering and Management	Design of Flexible Pavements using Geogrid Reinforcement
			Use of Geosynthetics for Sustainable Pavements
			Experimental Investigation on Silty Sand Stabilized with Fly-ash
			Experimental Investigation of Fiber Reinforced Concrete using Different types of Steel Fibers
			Usage of Plastic in Manufacturing of Solid Bricks along with M-sand and Bitumen
11.	Mr. Sudhakar G N	Construction Technology	Effects of Cinder in Slag Based Solid Concrete Blocks
			Compatibility and efficiency of new generation super plasticizers for different brands of cement
			An Experimental Study on Strength Parameters of Concrete Mix Using Steel Slag as Coarse Aggregate
			A Study on Strength Properties of Concrete with Partial Replacement of Cement by Fly Ash and Silica Fume
			Study on Strength Development of Geo-Polymer Concrete
			Mechanical Properties of Concreting Optical and Glass Fibre

			Partially Replacement of Cement by Waste Glass Powder in Concrete
12	Ms. Ramya H S	Computer Aided Design of Structure	A Parametric Study on Bridge due to Dynamic Loading
			Sugarcane bagasse ash and human hair use in concrete block
			Floating Concrete for Large Work boat
			Use of Granite Waste as Powder in Self Compacting Concrete
13.	Ms. Suma Parlada	Construction Technology	Steel fibre reinforced self-compacting concrete
			Impact of Incorporating polypropylene fibres on characteristics of self-compacting concrete
			Pervious Concrete with Varying Percentage of Fine Aggregate
			An Experimental Investigation on Strength Characteristic of Rice Husk Ash Base Low Cost Sandcrete Blocks
			Bengaluru City Water Quality Testing
14.	Ms. SwettiJha	Environmental Engineering	Analytical Study on Retaining walls- Static and Dynamic
15.	Ms. Snehal Rajendra Lahande	Structural Engineering	Experimental study on behaviour of concrete by partial replacement of coarse aggregate by coconut shells
			Design of Culvert with Realignment of the Road
			Behavior of Geo-Polymer Concrete at Elevated Curing Temperature
16.	Mr. Nitish Kumar K	Transportation Engineering and Management	Experimental study on behavior of bacterial concrete
			Sugarcane bagasse ash and human hair use in concrete block
			Utilization of pre-stressed sleeper waste as road material
			Life cycle cost analysis of flexible and rigid pavement material
			An Experimental Study of Flexural Behavior of Bubble Deck Slab

17.	Mr. Channabasava	Pre-Stressed Concrete	Strength and Stability analysis of straight shafted pile foundation in cohesion less soil conditions using Finite Element Method
			An Experimental Analysis of Flexural Behavior of the bubble deck slab in comparison with conventional concrete slab
			Stability Analysis of Tied-Arch Bridges Under IRC Loading Condition Using Finite Element Method
18.	Mr. Yogesh K S	Structural Engineering	Nonlinear explicit analyses of RC columns under blast loading using Finite Element Method
			Experimental Investigation on Leachate-Contaminated Lateritic Soil
19.	Ms. Serin Issac	Geotechnical Engineering	Identification of Accident Spots and Their Control Measures
			Stabilization of Expansive Kuttanad clay using Lime Treated Rice Straw Fibres
			Bio-enzyme stabilized soil as Pavement Subgrade
			Equilibrium Equations for Thermal Buckling Analysis of Annular Plates
20.	Mr. Prakash Appasaheb Nayakar	Structural Engineering	Estimation of Crack width in reinforced concrete members
			Hybrid Fibre Reinforced Concrete with the Addition of Styrene Butadiene Rubber (SBR) Polymer
			A Comparative Study of the Effect of Infill Materials on Seismic Performance of Reinforced Concrete Buildings
			Analysis of a multi storied building with and without shear wall
			Reuse and Recycling of Construction and Demolition Waste
21.	Ms. Geethu V	Environmental Engineering	Effect of Building Height on Torsional Rotation of Base Isolated Structures
22.	Mr. Rahul N K	Structural Engineering	Pushover Analysis of Irregular Steel Structure with Varying Irregularity

			Ratios
			Geochronological studies of Archean metapelites from Eastern Dharwar Craton, Southern India.
23.	Dr. Mahesha Nanje Gowda	Geology	Petrography and Mineral chemistry of Archean Metapelites from Eastern Dharwar Craton, Southern India.
			Petrography and Mineral chemistry of Calc-silicate rocks from Bandihalli area, Tumkur District, Karnataka.
			Mineral Chemistry and Thermobarometry of Etapelites from Bandihalli area, Tumkur District, Karnataka
			Provenance signatures from whole rock geochemistry of archean metapelites from eastern dharwar craton, southern India
			Study of behavior of flat slab with base frame, shear wall, steel bracings. Infill wall under seismic loading by push over analysis
24.	Ms. Meghana A Patankar	Structural Engineering	Study of seismic behavior of Irregular building in comparison with Regular building using Etabs software
			Study on Strengthening by Rehabilitation of Cracked RC Slabs using Different FRP sheets under Impact Loading
			Comparative study on interlocking block masonry and conventional brick masonry using different experimental investigations
			Experimental Investigation on Effect of Alccofines and Microsilica and Durability Propertiers of High Performance Concrete – A Comparative Study.
			Experimental study on behaviour of bacterial concrete
25.	Mr. Sandeep T D	Earthquake Engineering	A Parametric Study on Bridge due to Dynamic Loading
			Partial replacement of demolished

			concrete waste as fine and coarse aggregate in concrete
			Experimental Study on Sustainability on Concrete by Retarding ASR by using Suitable Alkali & Glass Powder
			Optimization of Concrete Batch Mix plant using Inventory Management
			Experimental Investigation on Effect of Alccofines and Microsilica and Durability Properties of High Performance Concrete – A Comparative Study.
			Comparative study on interlocking block masonry and conventional brick masonry using different experimental investigations
			Efficiency of Cement on Stabilization of Gravel Soil as Road Construction Material
26.	Ms. Kommajosyula Sharmila	Geotechnical Engineering	A study on Utilization of Cement Sand Mixes on Red Soil as Sub Base and Base Course Materials

Table B.5.5.3 Faculty competencies in guidance of projects

S.No	Name of the Faculty	Competency	Project Guidance provided to students and made them to publish the works
1.	Dr. Niranjana P S	Construction Technology	Experimental Study of Ultra High Performance Concrete
			Experimental Study On Fal-G Blocks
2.	Dr. Jagadeesh C B	Geotechnical Engineering	Comparative Study of Stabilization of Lithomargic Soil Using Alkali Activated Fly Ash and Ggbs
3.	Dr. Geetha Varma	Environmental Engineering	Performance Evaluation & Upgradation Techniques of Waste Water Treatment Plant
			Studies On Filtration Using Fibers as Fixed Beds for Municipal Waste Water Treatment
4.	Mr. Surendra B V	Structural Engineering	A Study On Low Cost Housing Using Reinforced Thermocol Panels
			Study On Gfrg Panels as A Composite Material for Building Construction
5.	Dr. Vinay Kumar B N	Engineering Management	Experimental Studies On Utilization Fine Recycled Concrete Aggregate in Normal Grade Concrete Mixes
6.	Dr. Mahesha N	Geology	Watershed Management Using Gis and Remote Sensing
7.	Mr. Sudhakar G N	Construction Technology	Comparative Study On Gfrg Panel Building with Conventional Building
8.	Mr. Pawan Kumar	Construction Technology	Case Study On Planning, Architectural Modelling & Structural Analysis in Building Information Modelling (Bim) Work Flow
9.	Mr. Yogesh K S	Structural Engineering	Experimental Analysis On Spring Damper Integrated Hybrid Reinforced Concrete Beam
10.	Mr. Channabasava	Pre-Stress Concrete	An Analytical and Experimental Study of Flexural Behavior of Bubble Deck Slab
11.	Mr. Satish D	Highway Technology	Experimental Study On Slag Based Concrete

Table. 5.5.4 Faculty competencies in correlation to the courses

Sl. No	Name of the Faculty	Competency	E- Content Web Links
1.	Mr. Yogesh K S	To obtain the plan of given area by plane table surveying using method of Radiation	https://youtu.be/0Q3SuVZkWr0
2.	Mr. Yogesh K S	To obtain the plan of given area by plane table surveying using method of intersection	https://youtu.be/54xspUD5uYY
3.	Mr. Prakash A N	Set out a simple curve using chain and tape by perpendicular offsets from long chord	https://youtu.be/sEE8QTAdqSs
4.	Mr. Prakash A N	Set out a simple circular curve by offsets from chords produced (deflection distances).	https://youtu.be/Dc9YbDvUO0o
5.	Mr. Prakash A N	To set out a simple curve by Rankine's method of tangential (or deflection) angle.	https://youtu.be/7TgaRoQDPzw
6.	Mr. Prakash A N	To set out a compound curve by Rankine's deflection method.	
7.	Mr. Yogesh K S	Co-ordinates measurement by using GPS	https://youtu.be/DQO54_S81cU
8.	Mr. Prakash A N	To find the area of a closed traverse using Total Station.	https://youtu.be/q6HF-tV6Wpc
9.	Mr. Yogesh K S	To locate the column positions in the field.	https://youtu.be/WQgxJtvZ2kM
10.	Dr. Jagadeesh C B	TO STUDY HYDRAULIC JUMP	https://youtu.be/_2dVjY0r08U
11.	Dr. Jagadeesh C B	To find the coefficient of discharge of rectangular and trapezoidal notch	https://youtu.be/4pBzwnvaYFw
12.	Dr. Jagadeesh C B	To find the coefficients of mouthpiece	https://youtu.be/rRUmiSD47mI
13.	Dr. Jagadeesh C B	Calibration of pressure gauge (gravimetric method)	https://youtu.be/aIM4HXxZX0g
14.	Dr. Jagadeesh C B	Determination of vane coefficients for a flat vane	https://youtu.be/sY3nEU72EYs
15.	Dr. Geetha Varma	Determination of vane coefficients for an	https://youtu.be/KKJzwjEx3oA

		inclined and curved vane	
16.	Dr. Geetha Varma	To study the efficiency of pelton turbine	
17.	Dr. Geetha Varma	To study the efficiency of kaplan turbine	https://youtu.be/eZjvchsSfHs
18.	Dr. Geetha Varma	To study the efficiency of centrifugal pumps	https://youtu.be/TVqKGoriiYk
19.	Dr. Geetha Varma	To determine the minor losses in a pipe line	https://youtu.be/qGmc31TvuZU
20.	Dr. Natchimuthu Subramani	Basics of AUTO CAD: Drafting & Modify Tools	https://youtu.be/3JCBoUuuKp8
21.	Dr. Natchimuthu Subramani	Building Bye laws (ventilation & lightening, Room size & heights)	
22.	Dr. Natchimuthu Subramani	Drawing requirements of building planning	
23.	Ms. Ramya H S	Preparation of bubble & line diagram -Health care center.	https://youtu.be/THBGJEK010g
24.	Ms. Ramya H S	Preparation of bubble & line diagram -School building.	
25.	Ms. Ramya H S	Preparation of bubble & line diagram -Canteen building.	
26.	Ms. Ramya H S	Preparation of bubble & line diagram - office building	
27.	Ms. Ramya H S	Preparation of bubble & line diagram -Residential building	
28.	Mr. Rajendra T N	Develop a Plan, Elevation and section for a residential building	https://youtu.be/2IVslzfxl4
29.			https://youtu.be/4bU7bc1UuqI
30.	Mr. Rajendra T N	Develop a Plan, Elevation and section for an Office building	https://youtu.be/9WuSMvDM7nY
31.			https://youtu.be/jYTcAIm9JN0
32.	Mr. Rajendra T N	Develop a Plan, Elevation and section for a G+1 residential building	https://youtu.be/oGaSwRVVF5M
33.			https://youtu.be/67hmtDt46vg
34.	Mr. Rajendra T N	Preparation of Water supply and sanitation drawings	https://youtu.be/_ASg-T_Y6Aw
35.		Preparation of Electrical Drawing layout.	https://youtu.be/Fy_yUGitI00
36.	Dr. Geetha Varma	Determination of Alkalinity, Acidity and	https://youtu.be/_WEqIBGA6Zg

37.		pH	https://youtu.be/jih17GjWXk0
38.			https://youtu.be/xNErBd6JUoM
39.	Dr. Geetha Varma	Determination of Electrical Conductivity	https://youtu.be/nUQAFXxA3mk
40.	Dr. Geetha Varma	Determination of Chlorides	https://youtu.be/GKAIEU-ujOA
41.	Dr. Geetha Varma	Determination of Calcium, Magnesium and Total Hardness	https://youtu.be/pLFJXNXvGGs
42.	Dr. Geetha Varma	Determination of Dissolved Oxygen	https://youtu.be/6FIHRWT0PJE
43.	Dr. Geetha Varma	Determination of BOD	https://youtu.be/WKGNyHyzFn4
44.	Ms. Geethu V	Determination of sodium and potassium by flame photometer	https://youtu.be/8vmrDTGWES
45.	Ms. Geethu V	Jar Test for Optimum Dosage of Alum	https://youtu.be/vmpJqcVJWSO
46.	Ms. Geethu V	Determination of Residual Chlorine	https://youtu.be/ddsvDM977QO
47.	Ms. Geethu V	Determination of percentage of available chlorine in bleaching powder	https://youtu.be/HhTJnWZE7c4
48.	Ms. Geethu V	Determination of Solids in Sewage: Total Solids, Suspended Solids, Dissolved Solids, Volatile Solids, Fixed Solids, Settle able Solids	https://youtu.be/NlAqT7dWng4
49.	Dr. Natchimuthu Subramani	General layout- Plan, Column-Beam and Footing layout of Residential building	https://youtu.be/ZQjrm5F2cVQ
50.	Dr. Natchimuthu Subramani	Reinforcement detailing of Cantilever Beam	https://youtu.be/5WY-GHsL4Q8
51.	Dr. Natchimuthu Subramani	Reinforcement detailing of Simply supported Beam	https://youtu.be/afIv8jL26ds
52.	Dr. Natchimuthu Subramani	Reinforcement detailing of continuous beam	https://youtu.be/KoPKSejHiTk
53.	Dr. Natchimuthu Subramani	Reinforcement detailing of Slabs- One-way slab	https://youtu.be/rxaOc-ewKis
54.	Dr. Natchimuthu Subramani		https://youtu.be/xHv4ZEJT0_w

Table B. 5.5.5 Faculty competencies in correlation to Research Patents

Sl. No	Name of Authors	Patent details			
		Title of patent	Application No	Date of Publication	Publication Reference
1.	Mr. Satish D	Breaking head attachment for conducting bond strength test	201741018084	30-11-2018	E-2/1421/2017-CHE
2.	Mr. Pawan Kumar K R	Jacketed pervious bricks	201741018090	30-11-2018	E-2/1427/2017-CHE

5.6 Innovations by faculty in teaching and learning (10)

(Innovations by the Faculty in teaching and learning shall be summarized as per the following description. Contributions to teaching and learning are activities that contribute to the improvement of student learning. These activities may include innovations not limited to, use of ICT, instruction delivery, instructional methods, assessment, evaluation and inclusive class rooms that lead to effective, efficient and engaging instruction. Any contributions to teaching and learning should satisfy the following criteria:

- The work must be made available on Institute website
- The work must be available for peer review and critique
- The work must be reproducible and developed further by other scholars

The Department/Institution may set up appropriate processes for making the contributions available to the public, getting them reviewed and for rewarding. These may typically include statement of clear goals, adequate preparation, use of appropriate methods, significance of results and effective presentation and reflective critique.)

In the Department of Civil Engineering, much importance is given for incorporating innovative techniques in teaching. At college level, in the beginning of every semester Faculty Development Programs to create and promote the innovation techniques are conducted. Every class room in the Department is equipped with LCD Projectors, Black board and white board. Faculty members use the LCD Projectors, smart boards for their presentations. Faculty members use these aids to take the teaching learning process to the next level. Apart from this the faculty members encourage the students to participate in Group discussions, team-based activities, presentations, peer learning, etc.

Table 5.6.1 Summary of Innovative teaching techniques in TLP

S. No	Item	Description
1.	Usage of Smart Boards	Most of the class rooms are equipped with smart boards. Faculty members use them to take TLP to a higher Level.
2.	Usage of online platforms	Faculty members use WhatsApp, Google drive, Google classroom etc for discussions and sharing course materials.
3.	Usage of Modern Tools	SMART BOARD, LCD Projectors Document Camera, Wireless Keyboard and mouse, Power Point Laser Presenter, Wireless Presenter, USB wireless pen mouse, Slide Changer, Wi-Fi enabled laptops are usually employed in classrooms and other student learning environments.
4.	Academic reinforcement based on project-based model	Mini projects as part of their curriculum are included and these are evaluated by internal reviewers based on the rubrics. Site visits are arranged for every semester student for the enhancement of practical knowledge.
5.	Semester break Internship	In every semester break, students are advised to go for Internship activities.
6.	Reinforcement through student club activities	Learning/Reinforcement of concepts is encouraged through the activities of various student clubs monitored by faculty coordinators.
7.	Innovative practices during regular TLP process	During the lecture sessions, various innovative strategies like inquiry-based learning, team-based learning, activity-based learning, Role Play, Games, brain storming methods, flip classroom techniques are also used.
8.	Usage of animated videos, models, charts in TLP process	During the lecture sessions animated videos, models, charts in TLP process
9.	Availability of course materials in institution website.	The videos of the Courses and Labs are available in the college website.
10.	Usage of Video conference room in the Digital Library	Students and Faculty members avail the same for the discussion in addition to expert video lectures
11.	Usage of visual library, digital library and other Open Source platforms	Faculty members use visual library, digital library and other Open Source platforms to make the subject easy to understand. A copy of e – learning material is kept in individual department and in digital library.

12.	Train the trainer using short term courses, MOOC courses, staff development programs, Conferences and workshops	The faculty members are encouraged to register for webinars, short term courses, staff development programs, Conferences and workshops on advanced topics to keep pace with the advanced level of knowledge and skills.
13.	Availability of immense resources at institutional website	The students and faculty members are encouraged to make use of the various resources available in the website which enables research-based learning. Some of the resources which are available in Institution website are given below.

Resources available in the Institutional website to promote research-based learning

- Free Book Bank facility for SC/ST students and book bank facility for other category of students at the nominal price is also provided to fulfill their academic needs.
- Reprography and printing facility is available in the college premises.
- Books are arranged subject wise and department wise and personal attention is given for fulfilling their library related needs.
- Open access facility is available. Library Staff motivate the students for open access to create their awareness about the latest arrivals.
- Separate Reference, Periodical, Circulation, Digital Library section and Reading room facility is available in the Library.
- In addition to the central Library, each Department has its own Departmental Library to facilitate easy access to the faculty, students and research scholars.
- The Department Library has 145 Titles, Relevant Codes and Data Hand Books.

List of journals

Table 5.6.2 List of Journals

Sl. No.	Title	No. of Issues	Publishers
1.	New Building Materials and Construction World	12	NBMCW
2.	Civil Engineering Construction Review	12	TSEPL
3.	Indian Concrete Journal	12	TICJ
4.	JNL of Construction Management	4	NICMAR
5.	Structural Engineering	4	IUP
6.	Indian Highways	12	IRC

E-Journals

Table 5.6.3 List of E-Journals

Sl. No	Database Name	Website
1.	Science Direct	http://www.sciencedirect.com/
2.	Taylor & Francis (E-Journals)	http://www.tandfonline.com/
3.	Springer Nature	https://link.springer.com/
4.	Emerald	https://www.emerald.com/insight/
5.	Knimbus Digital Library	http://www.new.knimbus.com/
6.	Institution of Civil Engineers (ICE) (E-journals and conference proceedings)	http://www.ice.org.uk.com/

E-Books

Table 5.6.4 List of E-Books

Sl. No	Database Name	Website
1.	McGraw Hill Education	https://www.expresslibrary.mheducation.com/
2.	Taylor & Francis (E-Books)	https://www.taylorfrancis.com/
3.	New Age Publishers	https://digital.elib4u.com/
4.	Springer Nature	https://link.springer.com/
5.	Packt	https://www.packtpub.com/in/
6.	Elsevier	https://www.sciencedirect.com/

Resource Search Platforms

Table 5.6.5 List of Research Search Platforms

Sl. No	Database Name	Website
1	Turnitin (Similarity Check)	https://www.turnitin.com/
2	Knimbus Digital Library	http://www.new.knimbus.com/
3	Netanalytiks (Writing Tool)	https://sententia.online/

Open Access E-Journals

Table 5.6.6 List of Open Access Journals

Sl No	Database Name	Website
1	DOAJ (Directory of Open Access Journals)	https://doaj.org/
2	Indian Academy of Science	https://www.ias.ac.in/
3	Indian Journals	http://indianjournals.com/ijor.aspx
4	NISCAIR Research Journals	https://www.niscair.res.in/index.php?/sciencecommunication/researchjournals/rejour/rejour1.htm
5	Hindawi Publishing Corporation	https://www.hindawi.com/search.aspx
6	Bentham Science Publishers	https://benthamscience.com/
7	Indian Journal of Science & Technology	https://www.indjst.org/
8	Journal of Digital Information (JoDI)	https://journals.tdl.org/jodi/index.php/jodi
9	Advances in Theoretical and Mathematical Physics	https://www.intlpress.com/site/pub/pages/journals/items/atmp/_home/_main/
10	High Wire Press	https://www.highwirepress.com/

E-Database

IITS & IISc Library

Table 5.6.7 List of E-Database

Sl. No	Database Name	Website
1	IIT Bombay	https://www.library.iitb.ac.in/
2	IIT Delhi	http://library.iitd.ac.in/
3	IIT Varanasi	https://www.iitbhu.ac.in/library/
4	IIT Bhubaneswar	https://library.iitbbs.ac.in/
5	IIT Gandhinagar	http://www.iitgn.ac.in/research/library

6	IIT Guwahati	http://www.iitg.ac.in/lib/
7	IIT Hyderabad	http://library.iith.ac.in/
8	IIT Indore	http://library.iiti.ac.in/
9	IIT Kanpur	http://pkklib.iitk.ac.in/
10	IIT Mandi	http://library.iitmandi.ac.in/
11	IIT Madras	https://www.cenlib.iitm.ac.in/
12	IIT Patna	https://library.iitp.ac.in/
13	IIT Jodhpur	http://library.iitj.ac.in/
14	IIT Roorkee	http://mgcl.iitr.ac.in/
15	IIT Ropar	http://www.iitrpr.ac.in/library/
16	IISC Bangalore	https://www.library.iisc.ernet.in/

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

A Faculty scores maximum five points for participation

- Participation in 2 to 5 days Faculty/ Faculty development program: 3 Points
- Participation >5 days Faculty/ Faculty development program: 5 points

Table 5.7.1 Faculty participation in Faculty development/training activities/STTPs

S. No	Faculty Name	Year		
		CAY CAYm1	CAYm1 CAYm2	CAYm2 CAYm3
		2018-19	2017-18	2016-17
1	Dr. Niranjana P S	3	3	3
2	Dr. Muralikrishna	3	3	-
3	Dr. Jagadeesh C B	3	-	-
4	Mr. Surendra B V	5	5	5
5	Dr. Balamurugan	3	3	-
6	Dr. Geetha Varma V	3	3	3
7	Dr. Natchimuthu Subramani	3	5	-
8	Dr. Vinay Kumar B M	5	-	-
9	Dr. Harish Velagiri	5	3	-
10	Mr. Satish Deosugur	3	3	3
11	Ms. S. SathyaPriya	3	3	3
12	Mr. Sunil M H	3	3	3
13	Ms. SwettiJha	3	3	3
14	Mr. Rajendra T N	5	3	3
15	Mr. Harish G R	3	5	3
16	Ms. Snehal Rajendra Lahande	3	3	3
17	Ms. Suma Parlada	3	3	3
18	Mr. Pawan Kumar	3	3	5
19	Mr. Sudhakar G N	3	3	5
20	Mr. Nitish Kumar K	3	3	3
21	Ms. Ramya H S	3	-	-
22	Mr. Channabasava	3	-	-
23	Mr. Vijay N C	3	3	3

24	Mr. Prakash Appasaheb Nayakar	3	3	3
25	Ms. Meghana A Patankar	5	3	-
26	Mr. Yogesh K S	3	-	-
27	Ms. Serin Issac	3	3	3
28	Mr. Sandeep T D	3	3	3
29	Mr. Rahul N K	3	-	-
30	Dr. Ranganthan	-	-	-
31	Mr. Ranganthan B A	-	3	5
32	Mr. Dayalan	-	3	3
33	Ms. Shalini Rankavat	-	3	3
34	Ms. Sujatha Kota	-	3	3
35	Mr. Raghavendra K	-	3	-
SUM		97	90	74
RF= Number of Faculty required to comply with 20:1 Student-Faculty ratio as per 5.1		24.25	25.71	21.14
Assessment = $3 \times (\text{Sum}/0.5\text{RF})$ (Marks limited to 15)				
Average assessment over last three years (Marks limited to 15)		24.25		

List of short-term courses, workshop arranged and course-modules developed

Academic Year 2019-20

Table 5.7.2 short-term courses, workshop arranged and course-modules developed 2019-20

Sl. No.	Event Name	Date and Year	Event organized by	Faculty members who attended the event
1.	Finite Element Analysis of Structures Using Midas Gen and Midas FEA	14.09.2019	NHCE	Mr. Surendra B V
2.	ISCOT'- application of BIM- Latest trends in Civil Engineering	25.09.2019	NHCE	Mr. Prakash A N
3.	Proficiency of Civil Engineers in Construction Industry	30.10.2019	NHCE	Dr. Geetha Varma
4.	Innovative research in Engineering, Management and Sciences"	19 th to 21-12-2019	NHCE	Dr. Niranjan P S

Table 5.7.3 Summary 2019-20

Sl. No.	Event	Numbers
1	Conference Papers	23
2	Invited Talk	1
3	Workshop	25
4	Seminar	5
5	Course Work	33
6	Event	1
Total		88

**List of short-term courses, workshop arranged and course- modules developed
Academic Year 2018-2019**

**Table 5.7.4 short-term courses, workshop arranged and course-modules developed
2018-19**

Sl. No.	Event name	Date and Year	Event organized by	Faculty members who attended the event
1.	Brainstorm of Good Practice in Geotechnical Engineering.	27 October 2018	NHCE	Dr. Jagadeesh C B
2.	Application of STAAD PRO in Civil Engineering.	9 th -10 th July 2019	NHCE	Mr. Surendra B V Mr. Yogesh K S
3.	Application of ETABS in Civil Engineering.	11 th – 12 th July 2019	NHCE	
4.	Hands on Training on Advance Surveying Instruments.	16 th -17 th July 2019	NHCE	Mr. Satish Deosugur Mr. Sudhakar G N
5.	Better Aggregates for Concrete & Alternatives to River Sand	04 th October	NHCE	Dr. Vinay Kumar B M

Table 5.7.5 Summary 2018-19

Sl. No.	Event	Numbers
1	Conference Papers	03
2	Invited Talk	03
3	Workshop	40
4	Seminar	03
5	Course Work	38
6	Event	01
Total		88

List of short-term courses, workshop arranged and course-modules developed

Academic Year 2017-2018

**Table 5.7.6 short-term courses, workshop arranged and course-modules developed
2017-18**

Sl. No.	Event name	Date and Year	Event organized by	Faculty members who attended the event
1.	Hands on Workshop on CYPE	24-25 May 2018	NHCE	Mr. Surendra B V
2.	Hands on Workshop on BIM	05-06 June 2018	NHCE	Mr. Pawan Kumar
3.	Workshop on ARCHIBUS	5 th February 2018	NHCE	Mr. Pawan Kumar
4.	Workshop on Tekla	15 th March 2018	NHCE	Mr. Rajendra T N
5.	Hands on workshop on Civil 3D	22 nd June 2018	NHCE	Mr. Nithish Kumar K

Table 5.7.7 Summary 2017-18

Sl. No.	Event	Numbers
1	Conference Papers	01
2	Invited Talk	04
3	Workshop	36
4	Seminar	11
5	Course Work	26
6	Event	01
Total		79

List of short-term courses, workshop arranged and course-modules developed

Academic Year 2016-2017

**Table 5.7.8 short-term courses, workshop arranged and course-modules developed
2016-2017**

Sl. No.	Event name	Date and Year	Event organized by	Faculty members who attended the event
1.	Hands on Training on Modern Surveying Instruments” 2017, NHCE, Bengaluru, 19-21 June (3).	19-21 June 2017	NHCE	Mr. Satish Deosugur
2.	New trends in Transportation Engineering	30 th June 2017	NHCE	Mr. Harish G R
3.	Recent development in Geo Polymer Concrete	07 th July 2017	NHCE	Mr. Sudhakar G N

Table 5.7.9 Summary 2016-17

S.No	Event	Numbers
1	Conference Papers	03
2	Invited Talk	02
3	Workshop	26
4	Seminar	11
5	Course Work	00
6	Event	01
Total		43

List of short-term courses, workshop arranged and course-modules developed

Table 5.7.10 Summary CAY, CAYm1, CAYm2, CAYm3

Events	2019-20	2018-19	2017-18	2016-17	Total
Conference Papers	23	03	01	03	30
Invited Talk	01	03	04	02	10
Workshop	25	40	36	26	127
Seminar	05	03	11	11	30
Course Work	33	38	26	00	97
Event	01	01	01	01	4
Total	88	88	79	43	298

5.8 Research and Development:

5.8.1 Academic Research (20)

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (15) Ph.D. guided /Ph.D. awarded during the assessment period while working in the institute (5)

All relevant details shall be mentioned.

Consolidated list of Publications

Table 5.8.1.1 Consolidated List of Publications

Year	Journal / Conference	Total
2019-20	31	31
2018-19	51	51
2017-18	48	48

Paper Publication (journal – Consolidated List – Faculty wise)

Table 5.8.1.2 Paper Publication (journal – Consolidated List – Faculty wise)

Sl. No.	Name of the Faculty	2019-20	2018-19	2017-18	Total Number of Publications	Total No. of Citations
1	Dr. Niranjan P S	1	-	-	1	2
2	Dr. Jagadeesh C B	1	2	-	3	6
3	Mr. Surendra B V	2	3	4	9	3
4	Dr. Geetha Varma V	2	2	3	7	32
5	Dr. Natchimuthu Subramani	2	-	-	2	-
6	Dr. Vinay Kumar B M	2	5	-	7	57
7	Dr. C Giri prasad	2	-	-	2	-
8	Dr. N Mahesha	1	2	2	5	41
9	Mr. Satish Deosugur	1	4	3	8	1
10	Ms. S. SathyaPriya	-	-	2	2	-
11	Ms. SwettiJha	1	2	-	3	-
12	Mr. Rajendra T N	1	4	4	9	-
13	Mr. Harish G R	1	2	2	5	6
14	Ms. Snehal Rajendra Lahande	1	2	-	3	-
15	Ms. Suma Parlada	1	2	2	5	-
16	Mr. Pawan Kumar	-	-	2	2	-
17	Mr. Sudhakar G N	2	3	3	8	3
18	Mr. Nitish Kumar K	1	2	2	5	6
19	Ms. Ramya H S	1	3	-	4	-
20	Mr. Channabasava	1	2	-	3	-
21	Mr. Prakash Appasaheb Nayakar	1	2	2	5	-
22	Ms. Meghana A Patankar	-	2	3	5	-
23	Mr. Yogesh K S	2	4	-	6	-
24	Ms. Serin Issac	1	-	3	4	-
25	Mr. Sandeep T D	-	3	3	6	-
26	Mr. Rahul N K	2	-	-	2	-
27	Ms. Geethu	1	-	-	1	-
28	Ms. Neethu John	-	-	3	3	-
29	Mr. Ranganthan B A	-	-	2	2	-
30	Ms. Vandana Patyal	-	-	1	1	-
31	Ms. K. Sharmila	-	-	2	2	-

Academic Year: 2019-20

Total no. of Publication (2019-2020) = 31

Table 5.8.1.3 Paper Publication (journal – Faculty wise-19-20)

Sl. No.	Authors	Title	Conference/Journal	DOI	Citation Index
1.	Dr. Niranjana P S	Fly Ash – Lime and Gypsum Hollow Blocks	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN (online): 2348 – 7550	http://www.ijates.com/images/short_pdf/1427103388_P129-138.pdf	UGC
2.	Dr. Jagadeesh C B	Effect of Land use/Land covers on Runoff in Vrishabhavathi Basin – a Case Study	International Journal of Scientific Research in Computer Science, Engineering and Information Technology ISSN (online): 2348 – 7550 (IJSRCSEIT)	http://www.internationaljournalssrg.org/special_issues/specialissues_paperlist/14-Part1-22	Scopus
3.	Mr. Surendra B V	Characteristics of Cement Stabilized Masonry Blocks Prepared from Brick Masonry and Concrete Waste - Experimental Study	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) 9 ISSN : 2456-3307	10.32628/CSEIT194919	UGC
		Experimental Studies on Utilization of Brick Waste as Coarse Aggregate in Concrete Mixes	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949112	UGC
4.	Dr. Natchimuthu Subramani	An Investigation on Mechanical and Durability Properties of Slurry Infiltrated Fiber Concrete	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT)	http://www.internationaljournalssrg.org/special_issues/specialissues_paperlist/14-Part1-22	Scopus
		Performance Evaluation of Short Circular Concrete Filled Steel Tube Columns Under Axial Compression	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949161	UGC

5.	Dr. Geetha Varma V	Heavy Metals in Vegetables and Fruits Grown in Bangalore and Different Arts of India	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT)		UGC
		Enhancement of Filtration Process for the Treatment of Wastewater using Geotextile Material	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949146	UGC
6.	Dr. Vinay Kumar B M	Characteristic of Cement Stabilized Masonry Blocks Prepared from Brick Masonry and Concrete Waste - Experimental Study	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT)	http://www.internationaljournalssrg.org/special_issues/specialissues_paperlist/14-Part1-22	Scopus
		Experimental Studies on Utilization of Brick Waste as Coarse Aggregate in Concrete Mixes	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949112	UGC
7.	Dr. Giri Prasad	Article on Soil Permeability Test and its Impact on Dam Construction	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT)	http://www.internationaljournalssrg.org/special_issues/specialissues_paperlist/14-Part1-22	Scopus
		Geo technical modification and chemical analysis of expansive soils.	Gujarath Research society,ISSN:0374;8588	file:///C:/Users/Civil/Downloads/2786-Article%20Text-4836-1-10-20200217.pdf	UGC
8.	Mr. Satish Deosugur	Experimental Study on Lime Stone Powder as a Binding Material in Concrete Mix	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949111	UGC
9.	Mr. Rajendra T N	Effect of Replacement of Cement by Fly Ash and Metakaolin on Strength Properties of Concrete	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-	http://ijsrcseit.com/CSEIT1949117	UGC

			3307		
10.	Mr. Harish G R	Enhancement of Sub Grade Soil Strength using Lime	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949164	UGC
11.	Mr. Sudhakar G N	Usage of Plastic in Manufacturing of Solid Bricks along with M-sand and Bitumen	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949116	UGC
12.	Ms. Ramya H S	Partially Replacement of Cement by Waste Glass Powder in Concrete	International Journal of Scientific Research in Computer Science, Engineering and Information Technology. (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949119	UGC
13.	Ms. Suma Parlada	Use of Granite Waste as Powder In Self Compacting Concrete	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949160	UGC
14.	Ms. Swetti Jha	Bengaluru City Water Quality Testing	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949115	UGC
15.	Ms. Snehal Rajendra Lahande	Analytical Study on Retaining walls- Static and Dynamic	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949144	UGC
16.	Mr. Nitish Kumar K	Behavior of Geo-Polymer Concrete at Elevated Curing Temperature	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT19491126	UGC

17.	Mr. Channabasava	An Experimental Study of Flexural Behavior of Bubble Deck Slab	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949118	UGC
18.	Mr. Yogesh K S	Stability Analysis of Tied-Arch Bridges Under IRC Loading Condition Using Finite Element Method	Springer (Emerging Trends in civil Engineering)- 978-981-15-1404-3	https://doi.org/10.1007/978-981-15-1404-3_11	Scopus
		Nonlinear explicit analyses of RC columns under blast loading using Finite Element Method	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT)- ISSN: 2249 – 8958	ISSN: 2249 – 8958	
19.	Ms. Serin Issac	Experimental Investigation on Leachate-Contaminated Lateritic Soil	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949110	UGC
20.	Mr. Prakash Appasaheb Nayakar	Equilibrium Equations for Thermal Buckling Analysis of Annular Plates	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949165	UGC
21.	Ms. Geethu V	Reuse and Recycling of Construction and Demolition Waste	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-3307	http://ijsrcseit.com/CSEIT1949114	UGC
22.	Mr. Rahul N K	Effect of Building Height on Torsional Rotation of Base Isolated Structures	IJRTE – (Elsevier Scopus) ISSN: 2277-3878,	DOI:10.35940/ijrte.C4599.098319	UGC
		Pushover Analysis of Irregular Steel Structure with Varying Irregularity Ratios	International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ISSN : 2456-	http://ijsrcseit.com/CSEIT1949113	UGC

			3307		
23.	Dr. Mahesha Nanje Gowda	Geochronological studies of Archean metapelites from Eastern Dharwar Craton, Southern India.	IJETT ISSN: 2231-5381.	http://www.internationaljournals.org/special_issues/specialissues_paperlist/14-Part1-22	Scopus

Academic Year: 2018-19

Total no. of Publication (2018-2019) = 51

Table 5.8.1.4 Paper Publication (journal – Faculty wise-18-19)

Sl. No.	Authors	Title	Conference/ Journal	DOI no	Citation Index
1.	Dr. Jagadeesh C B	Development of Intensity Duration -Frequency Curves for Vrishabhavathi Sub Water Shed	Impact f Global Atmospheric Changes on Natural Resources- (IGCANR-2018) ISBN-978-93-84007-77-5	International Conference proceeding UVCE	UGC
		Morphometric Analysis of a Vrishabhavathi Sub-Watershed Using Remote Sensing and Geographical Information System: A Case Study	IJRET eISSN: 2319-1163	https://ijret.org/volumes/2014v03/i07/IJRET20140307017.pdf	UGC
2.	Mr. Surendra B V	A Study on Affordable Roofing System Using Bricks as Infill	Asian Journal of Science and Technology ISSN: 0976-3376	http://www.journalajst.com/sites/default/files/issues-pdf/7054.pdf	
		The Perception of Stakeholders of Construction Industry towards Health and Safety of Construction Workers: Indian Context	IJMTE ISSN NO : 2249-7455	https://app.box.com/s/73m1mo7gsw3ckfb6t06tc2c1a1flaovg	UGC
		Approach to Improve Health and Safety of Indian Construction Workers	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJMTE.2019.V9I7.19.28628	UGC
3.	Dr. Geetha Varma V	Biogas Production by anaerobic digestion of Food waste	IJTIES e-ISSN: 2455-2585	http://www.ijset.net/journal/1783.pdf	UGC

		Green Buildings for Environmental Protection	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05107150711161005.pdf	UGC
4.	Dr. Vinay Kumar B M	Assessment of Potential of Brick Masonry Waste for the Production of Cement Stabilized Masonry Blocks - Experimental Study	IJSCER ISSN 2348-7607	file:///C:/Users/student/AppData/Local/Temp/AssessmentofPotentialofBrickMasonry-74971.pdf	UGC
		The Perception of Stakeholders of Construction Industry towards Health and Safety of Construction Workers: Indian Context	IJMTE ISSN NO : 2249-7455	https://app.box.com/s/73m1mo7gsw3ckfb6t06tc2c1a1flaovg	UGC
		Approach to Improve Health and Safety of Indian Construction Workers	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJMTE.2019.V9I7.19.28628	UGC
		Strength and Water absorption characteristics of Cement Stabilized Masonry Blocks using Brick Masonry Waste	Proceedings of Lecture notes in Civil Engineering, Springer Nature. 978-981-15-3360-0	https://doi.org/10.1007/978-981-15-3361-7_10	Scopus
		Experimental studies on utilization of recycled coarse and fine aggregates in high performance concrete mixes	Alexandria Engineering Journals	DOI: 10.1016/j.aej.2017.05.00	Scopus
5.	Mr. Satish Deosugur	Effect of steel slag as a coarse aggregate on strength parameters of slag cement concrete mix	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05105150511145159.pdf	UGC
		Comparative analysis of porotherm blocks and solid concrete blocks in low cost housing	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJMTE.2019.V9I5.19.28220	UGC
		Effects of Cinder in Slag Based Solid Concrete Blocks	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05106150626170021.pdf	UGC
		Compatibility and efficiency of super plasticizers for different brands of cement	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJMTE.2019.V9I7.19.28615	UGC
6.	Ms. Swetti Jha	Highway Construction using Plastic waste	IJREAM ISSN : 2454-9150	DOI : 10.18231/2454-9150.2019.0252	UGC

		Porous Asphalt Pavement	IJREAM ISSN : 2454-9150	DOI : 10.18231/2454-9150.2019.0308	UGC
7.	Mr. Rajendra T N	Effect of steel slag as a coarse aggregate on strength parameters of slag cement concrete mix	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05I05150511145159.pdf	UGC
		Comparative analysis of porotherm blocks and solid concrete blocks in low cost housing	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJMTE.2019.V9I5.19.28220	UGC
		An Experimental Study on Strength Parameters of Concrete Mix Using Steel Slag as Coarse Aggregate	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJMTE.2019.V9I7.19.28651	UGC
		Compatibility and Efficiency of new Generation Superplasticizers for Different Brands of Cement	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05I07150705165651.pdf	UGC
8.	Mr. Harish G R	Design of Flexible Pavements using Geogrid Reinforcement	National Conference on application of Geosynthetics Ports, waterways and Coasts		Conference
		Use of Geosynthetics for Sustainable Pavements	Proceedings of Lecture notes in Civil Engineering, Springer Nature.	DOI: 10.1007/978-981-13-6717-5_27	Scopus
9.	Ms. Snehal Rajendra Lahande	Experimental study on behaviour of concrete by partial replacement of coarse aggregate by coconut shells	IJRASET ISSN : 2454-9150	DOI : 10.18231/2454-9150.2019.0124	UGC
		Design of Culvert with Realignment of the Road	IJRASET ISSN : 2454-9150	DOI : 10.35291/2454-9150.2019.0090	UGC
10.	Ms. Suma Parlada	Steel fibre reinforced self-compacting concrete	IJRASET ISSN : 2454-9150	DOI : 10.18231/2454-9150.2018.1394	UGC
		Impact of Incorporating polypropylene fibres on characteristics of self-compacting concrete	IJRASET ISSN : 2454-9150	DOI : 10.35291/2454-9150.2019.0003	UGC

11.	Mr. Sudhakar G N	Effects of Cinder in Slag Based Solid Concrete Blocks	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05I06150626170021.pdf	UGC
		Compatibility and efficiency of new generation super plasticizers for different brands of cement	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05I07150705165651.pdf	UGC
		An Experimental Study on Strength Parameters of Concrete Mix Using Steel Slag as Coarse Aggregate	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJMTE.2019.V9I7.19.28651	UGC
12.	Mr. Nitish Kumar K	Experimental study on behaviour of bacterial concrete	IJTICES e-ISSN: 2455-2585	http://ijtimes.com/papers/finished_papers/IJTICESV05I03150311152926.pdf	UGC
		Sugarcane bagasse ash and human hair use in concrete block	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJMTE.2019.V9I4.19.27476	UGC
13.	Ms. Ramya H S	A Parametric Study on Bridge due to Dynamic Loading	IJRASET ISSN : 2454-9150	DOI : 10.22214/ijraset.2019.4594	UGC
		Sugarcane bagasse ash and human hair use in concrete block	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJMTE.2019.V9I4.19.27476	UGC
		Floating Concrete for Large Work boat	IJTICES e-ISSN: 2455-2585	http://ijtimes.com/papers/finished_papers/IJTICESV05I05150508131017.pdf	UGC
14.	Mr. Channabasava	Strength and Stability analysis of straight shafted pile foundation in cohesion less soil conditions using Finite Element Method	IJEAT ISSN: 2249 – 8958	https://www.ijeat.org/wp-content/uploads/papers/v8i3/C5923028319.pdf	UGC
		An Experimental Analysis of Flexural Behaviour of the bubble deck slab in comparison with conventional concrete slab	IJSRD	http://www.ijesrd.com/articles/IJSRDV7I50343.pdf	UGC
15.	Mr. Prakash Appasaheb Nayakar	Estimation of Crack width in reinforced concrete members	IJTICES e-ISSN: 2455-2585	http://ijtimes.com/papers/finished_papers/IJTICESV05I05150509150652.pdf	UGC

		Hybrid Fibre Reinforced Concrete with the Addition of Styrene Butadiene Rubber (SBR) Polymer	IJRASET ISSN: 2321-9653	DOI : 10.22214/ijraset.2019.7119	UGC
16.	Ms. Meghana A Patankar	Study of behaviour of flat slab with base frame, shear wall, steel bracings. Infill wall under seismic loading by push over analysis	IJTICES e-ISSN: 2455-2585	http://ijtimes.com/papers/finished_papers/IJTICESV04I1151127134458.pdf	UGC
		Study of seismic behaviour of Irregular building in comparison with Regular building using Etabs software	IJTICES	http://ijtimes.com/papers/finished_papers/IJTICESV05I05150513103924.pdf	UGC
17.	Mr. Yogesh K S	Stability analysis of tied arch bridge under IRC loading condition using finite element method	Springer - ICETCE-2018	https://www.springerprofessional.de/en/stability-analysis-of-tied-arch-bridges-under-irc-loading-condition/17560218	Scopus
		Nonlinear explicit analyses of RC columns under blast loading using finite element method	RESEARCH REVIEW International Journal of Multidisciplinary ISSN 2455-3085	https://rrjournals.com/past-issue/nonlinear-explicit-analyses-of-rc-columns-under-blast-loading-using-finite-element-method-2/	UGC
		Strength and Stability analysis of straight shafted pile foundation in cohesion less soil conditions using Finite Element Method	IJEAT ISSN: 2249 – 8958	https://www.ijeat.org/wp-content/uploads/papers/v8i3/C5923028319.pdf	UGC
		An Experimental Analysis of Flexural Behaviour of the bubble deck slab in comparison with conventional concrete slab	IJSRD	http://ijsrd.com/Article.php?manuscript=IJSRDV7I50343	UGC
18.	Mr. Sandeep T D	Experimental study on behaviour of bacterial concrete	IJTICES e-ISSN: 2455-2585	http://ijtimes.com/papers/finished_papers/IJTICESV05I03150311152926.pdf	UGC
		A Parametric Study on Bridge due to Dynamic Loading	IJRASET ISSN : 2454-9150	DOI : 10.22214/ijraset.2019.4594	UGC
		Partial replacement of demolished concrete waste as fine and coarse aggregate in concrete	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05I05150514140021.pdf	UGC

19.	Dr. Mahesha Nanje Gowda	Petrography and Mineral chemistry of Archaean Metapelites from Eastern Dharwar Craton, Southern India.	IJTICES -ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05I06150625141119.pdf	UGC
		Petrography and Mineral chemistry of Calc-silicate rocks from Bandihalli area, Tumkur District, Karnataka.	IJTICES -ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/IJTICESV05I06150627171438.pdf	UGC

Academic Year: 2017-18

Total no. of Publication (2017-2018) – 48

Table 5.8.1.5 Paper Publication (journal – Faculty wise-17-18)

Sl. No.	Authors	Title	Conference/ Journal name	DOI no	Citation Index
1.	Mr. Surendra B V	A Study on Steel Fibre Reinforced Concrete	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150626100405.pdf	UGC
		Cost Analysis of Rubbercrete Blocks and Conventional Concrete Blocks	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150628161726.pdf	UGC
		Effect of chemical (sodium hydroxide, sodium silicate, borax) dosage on setting time and compressive strength of GGBS mortar	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150622160404.pdf	UGC
		A Study on Rubbercrete Blocks	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150628161957.pdf	UGC
2.	Mr. Ranganathan Bangalore Alwar	Major Requirements and Demands for Building Smart Homes in metropolitan Cities by using Internet of Things Technologies	IJRASET ISSN: 2321-9653	http://www.ijraset.com/files/serve.php?FID=12078	UGC
		Inter - Linking of Rivers- most needed and Importance for Development of India.	IJCESR ISSN (PRINT): 2393-8374	http://troindia.in/journal/ijcesr/vol5iss2part4/19-22.pdf	UGC
3.	Dr. Geetha Varma V	Biogeocomposite material and its heavy metal adsorption potential from aqueous solutions	IJSE (Taylor & Francis)	DOI:10.1080/19397038.2017.1420111	Scopus
		Copper contaminated wastewater–An evaluation of Bioremedial options	Indoor and Built Environment	DOI:10.1177/1420326X16669397	UGC

		Nanotechnology for Water Treatment - A Review	IJREAM ISSN : 2454-9150	DOI : 10.18231/2454 9150.2018.005 0	UGC
4.	Mr. Satish Deosugur	Interface bond strength of ultra-thin white-topping (UTW) and hot mix asphalt (HMA) composites by direct shear	Journal of Testing and Evaluation (ASTM)	https://doi.org/10.1520/JTE20160154	Scopus
		Study on Behaviour of Concrete by Replacing of Cement by Lime Stone Powder	IJAMTE ISSN NO : 2249-7455	DOI:16.10089. IJAMTES.201 8.V8I04.15.206 49	UGC
		Experimental investigation on partial replacement of cement with marble dust in concrete mix	IJAMTE ISSN NO : 2249-7455	DOI:16.10089. IJAMTES.201 8.V8I04.15.206 48	UGC
5.	Ms. S. SatyaPriya	Hydrologic Analysis on Instantaneous Unit Hydrograph using Clark's Method	IRJET e-ISSN: 2395-0056	https://www.irjet.net/archives/V5/I5/IRJET-V5I5255.pdf	UGC
		Ground Water Potential Zone of kushavathi Watershed in Kolar District	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150626100405.pdf	UGC
6.	Mr. Rajendra T N	A Study on Steel Fibre Reinforced Concrete	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150626100405.pdf	UGC
		Cost Analysis of Rubbercrete Blocks and Conventional Concrete Blocks	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150628161726.pdf	UGC
		Effect of chemical (sodium hydroxide, sodium silicate, borax) dosage on setting time and compressive strength of GGBS mortar	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150622160404.pdf	UGC
		A Study on Rubbercrete Blocks.	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150628161957.pdf	UGC

7.	Mr. Harish G R	Experimental Investigation on Silty Sand Stabilized with Fly-ash	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150624125807.pdf	UGC
		Experimental Investigation of Fiber Reinforced Concrete using Different types of Steel Fibers	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150625005300.pdf	UGC
8.	Ms. Suma Parlada	Pervious Concrete with Varying Percentage of Fine Aggregate	IJRASET ISSN: 2321-9653	DOI : 10.22214/ijras et.2018.1329	UGC
		An Experimental Investigation on Strength Characteristic of Rice Husk Ash Base Low Cost Sandcrete Blocks	IJREAM ISSN : 2454-9150	DOI : 10.18231/2454 - 9150.2018.0172	UGC
9.	Mr. Pawan Kumar	Comparison of Game Engines for Interactive Visualization of BIM data in Architecture, Engineering and Construction Industry (AEC)	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150626105325.pdf	UGC
		Reduction of Setting time of GGBS based Geo-polymer by the use of Borax	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150626091315.pdf	UGC
10.	Mr. Sudhakar G N	A Study on Strength Properties of Concrete with Partial Replacement of Cement by Fly Ash and Silica Fume	IJCESR ISSN : 2393-8374	http://troindia.in/journal/ijcesr/vol5iss1part6/74-76.pdf	UGC
		Study on Strength Development of Geo-Polymer Concrete	IJRASET ISSN: 2321-9653	DOI : 10.22214/ijras et.2018.1331	UGC
		Mechanical Properties of Concreting Optical and Glass Fibre	IOSR - Journal of Mechanical and Civil Engineering -ISSN: 2320-334X	DOI: 10.9790/1684-1501035665	UGC
11.	Mr. Nitish Kumar K	Utilization of pre-stressed sleeper waste as road material	IJRASET ISSN: 2321-9653	DOI : 10.22214/ijras et.2018.1443	UGC

		Life cycle cost analysis of flexible and rigid pavement material	IJTIMES e-ISSN: 2455-2585	http://ijtimes.com/papers/finished_papers/150622120345.pdf	UGC
12.	Mr. Sandeep T D	Experimental Study on Sustainability on Concrete by Retarding ASR by using Suitable Alkali & Glass Powder	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150525160737.pdf	UGC
		Optimization of Concrete Batch Mix plant using Inventory Management	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150531111525.pdf	UGC
13.		Experimental Investigation on Effect of Alccofines and Microsilica and Durability Properties of High Performance Concrete – A Comparative Study.	IJMTE ISSN NO : 2249-7455	DOI:16.10089. IJAMTES.2018.V8I02.15.20633	UGC
		Comparative study on interlocking block masonry and conventional brick masonry using different experimental investigations	IJAMTE ISSN NO : 2249-7455	DOI:16.10089. IJAMTES.2018.V8I04.15.20661	UGC
14.	Ms. Serin Issac	Identification of Accident Spots and Their Control Measures	IJRASET ISSN: 2321-9653	http://www.ijraset.com/files/serve.php?FID=11849	UGC
		Stabilization of Expansive Kuttanad clay using Lime Treated Rice Straw Fibres	IJRASET ISSN: 2321-9653	DOI : 10.22214/ijraset.2018.2082	UGC
		Bio-enzyme stabilized soil as Pavement Subgrade	IJTIMES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150521140248.pdf	UGC
15.	Mr. Prakash Appasaheb Nayakar	A Comparative Study of the Effect of Infill Materials on Seismic Performance of Reinforced Concrete Buildings	IJCESR ISSN : 2393-8374	http://troindia.in/journal/ijcesr/vol5iss1/35-44.pdf	UGC
		Analysis of a multi storied building with and without shear wall	IJREAM ISSN : 2454-9150	DOI : 10.18231/2454-9150.2018.0330	UGC
16.	Ms. Meghana A Patankar	Study on Strengthening by Rehabilitation of Cracked RC Slabs using Different FRP sheets under Impact Loading	IRJET eISSN: 2319-1163	doi.org/10.15623/ijret.2018.0701004	UGC

		Comparative study on interlocking block masonry and conventional brick masonry using different experimental investigations	IJAMTES ISSN NO : 2249-7455	DOI:16.10089.IJAMTES.2018.V8I04.15.20661	UGC
		Experimental Investigation on Effect of Alccofines and Microsilica and Durability Propertiers of High Performance Concrete – A Comparative Study.	IJMTE ISSN NO : 2249-7455	DOI:16.10089.IJAMTES.2018.V8I02.15.20633	UGC
17.	Dr. Mahesha NanjeGowda	Mineral Chemistry and Thermobarometry of Etapelites from Bandihalli area, Tumkur District, Karnataka	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150705144151.pdf	UGC
		Provenance signatures from whole rock geochemistry of archean metapelites from eastern dharwar craton, southern India	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150704174923.pdf	UGC
18.	Ms. Vandana Patyal	Nanotechnology for Water Treatment - A Review	IJREAM ISSN : 2454-9150	DOI : 10.18231/2454-9150.2018.0050	UGC
19.	Ms. Kommajosyula Sharmila	Efficiency of Cement on Stabilization of Gravel Soil as Road Construction Material	IRJET e-ISSN: 2395-0056	https://www.irjet.net/archives/V4/i10/IRJET-V4I10221.pdf	UGC
		A study on Utilization of Cement Sand Mixes on Red Soil as Sub Base and Base Course Materials	IJRASET ISSN: 2321-9653	DOI : 10.22214/ijraset.2018.2129	UGC
20.	Ms. Neethu Elizabeth John	Identification of Accident Spots and Their Control Measures	IJRASET ISSN: 2321-9653	http://www.ijraset.com/fileservice.php?FID=11849	UGC
		Stabilization of Expansive Kuttanad clay using Lime Treated Rice Straw Fibres	IJRASET	DOI : 10.22214/ijraset.2018.2082	UGC
		Foot over Bridge at East Fort	IJTICES e-ISSN: 2455-2585	http://www.ijtimes.com/papers/finished_papers/150519121905.pdf	UGC

Ph.D. guided during the assessment periods while working in the institute.

Table 5.8.1.6 Ph.D. guided during the assessment periods while working in the institute.

Sl. No	Faculty Name	Student Name	Research Area	Research Title	Year of Registration	University Name
1	Dr. Niranjana P S	Mr. P Ramachandra	Concrete Technology	A Study on the Characterization and use of Recycled Aggregates and Steel Slag in Self Compacting Concrete	2016	VTU
		Mr. B V Ramesh	Concrete Technology	Investigation on Physical & Chemical Properties of Foamed Concrete Masonry Blocks	2017	VTU
		Mr. Pawan Kumar K R	Concrete Technology	Composite Stone Structures by augmenting Flexural and Tensile Strength by Reinforcing Steel	2017	VTU
		Mr. Bojgowda V T	Concrete Technology	An Experimental Study of FLAG (Fly Ash, Lime, Alccofine and Gypsum) Composites as Building Material	2017	VTU
		Mr. RaviChandra R	Concrete Technology	Physico Mechanical Properties of Ultra High performance Fiber Reinforced Concrete with Micro Steel Fiber	2017	VTU
		Ms. Vibha N Dalawai	Concrete Technology	Study on Performance of Mortar Less Dry Masonry System and Hollow Clay Block Masonry System under Seismic condition	2020	VTU

Patents Published

Table 5.8.1.7 Patents published during the assessment years

Faculty Name	Patent Published	Year
Satish D	Breaking head attachment for conducting bond strength test	2018
Pawan Kumar K R	Jacketed pervious bricks	2018

Ph.D. awarded during the assessment periods while working in the institute.

Table 5.8.1.8 Ph.D. awarded during the assessment periods while working in the institute.

Sl. No.	Name of Faculty Member	University	Year of Completion
1	Dr. Geetha Varma V	North Cap University	2017
2	Dr. Giri Prasad C	Sri Satya Sai University of technology and Medical Sciences	2019

5.8.2 Sponsored Research (20)

Funded research from outside:

(Provide a list with Project Title, Funding Agency, Amount and Duration) Funding Amount (Cumulative during CAYm1, CAYm2 and CAYm3):

Amount > 50 Lakh – 20 Marks,

Amount > 40 and < 50 Lakh – 15 Marks, Amount > 30 and < 40 Lakh – 10 Marks, Amount > 15 and < 30 Lakh – 5 Marks, Amount < 15 Lakh – 0 Marks

-NIL

Table 5.8.2.1 List of Sponsored Research

2019-20							
Sl. No.	Name of Faculty (PI & Co-PI)	Name of the Funding Agency	Title of the Project	Sanctioned order no.	Sanctioned date	Total Amount Sanctioned (In Rupees)	Amount Received (In Rupees) during the year
1.	Dr. Sheelan Misra & Ms. Suma P	AICTE	Skill & Development Programme Center for SC/ST Students (SPDP) (Grant in Aid Rs.25 Lakhs for 2 years) Rs. 12,50,000 (Closing Date Extended due to Delay in Release of Funds (2nd Installment/2nd year Funding due to Delayed Review at AICTE HQ) Jointly Executed by MBA & Civil Dept. (Interdisciplinary Project)	F.No.65-12/RIFD/SPDP/Policy-1/2016-17 dt. 15.05.2017 2nd Installment Due during 2018-19. Reminders have been <i>Sent to AICTE for release of Balance Amount</i>	9/15/2018	1250000	525000
2.	Dr.K. Gopalakrishnan Dr. K.C.R. Nisha Mr. Sudip Kar Dr. Mahesha N	ITCA, UNISEC, DRL, TSC	Design and Development of CubeSat 2U; ADSB including Launch Cost; Indo-Israel Joint Development under UNISEC India, ITCA Consortium (Total Project Cost: Rs. 2,69,82,000/- (2 Years) Civil Dept Component: Rs.12 Lakhs) (Interdisciplinary Project)	ITCA-UNISEC/Oct/09-2018-19	10/26/2018	26982000	600000
				Total (2019-20)			11,25,000/-

2018-19							
Sl.No.	Name of Faculty (PI & Co-PI)	Name of the Funding Agency	Title of the Project	Sanctioned order no.	Sanctioned date	Total Amount Sanctioned (In Rupees)	Amount Received (In Rupees) during the year
1.	Dr. Sheelan Misra Ms.Suma P	AICTE	Skill & Development Programme Center for SC/ST Students (SPDP) (Grant in Aid Rs.25 Lakhs for 2 years) Rs. 12,50,000 (Closing Date Extended due to Delay in Release of Funds (2nd Installment/2nd year Funding due to Delayed Review at AICTE HQ) Jointly Executed by MBA & Civil Dept. <i>(Interdisciplinary Project)</i>	F.No.65-12/RIFD/SPDP/Policy-1/2016-17 dt. 15.05.2017 2nd Installment Due during 2018-19	9/15/2018	1250000	450000
2.	Dr.K.Gopalakrishnan Dr. K.C.R. Nisha Mr. Sudip Kar Dr.Maheshan	ITCA, UNISEC, DRL, TSC	Design and Development of CubeSat 2U; ADSB including Launch Cost; Indo-Israel Joint Development under UNISEC India, ITCA Consortium (Total Project Cost: Rs. 2,69,82,000/- (2 Years) Civil Dept Component: Rs.12 Lakhs) <i>(Interdisciplinary Project)</i>	ITCA-UNISEC/Oct/09-2018-19	10/26/2018	26982000	1200000
3.	Mr. Manish Ranjan Dr.C.S.R.Prashanth Dr. Jagadeesh C B	AIU, IBM, BCIC, UNISEC India	Bangalore Chamber of Industry and Commerce (BCIC) and NHCE has Organized Inter-College 48 Hours Hackathon "Accelathon '19": Social Innovation using Digital Technologies held during 12-14 April, 2019 at NHCE <i>(Interdisciplinary Event)</i>	BCIC/20-19	4/14/2019	700000	700000
4.	Prof. Chetan Kumar D.S. Dr. Geetha Varma	KSCST	Design and Fabrication of Separation of Waste Garbage Using Smart Crusher	42S_BE_1105	27/03/19	5000	5000
						Total (2018-19)	23,55,000/-

2017-18							
Sl. No.	Name of Faculty (PI & Co-PI)	Name of the Funding Agency	Title of the Project	Sanctioned order no.	Sanctioned date	Total Amount Sanctioned (In Rupees)	Amount Received (In Rupees) during the year
1.	Dr. Manjunatha and Dr. K. Gopalakrishnan, Dr. Mahesha N	ITCA UNISEC Planet Aerospace	Hands-on Education Program for Technical Advancement: HEPTA-Sat Training Kit as Class Room Satellite (Engineering Model Prototype for Testing) 2U + ADSB/Remote Sensing Camera Payload with D'vine Research Labs and ITCA Consortium/UNISEC India. 2 Years (Total Project Cost: Rs. 15,00,000/- Civil Dept Component: Rs.6.5 Lakhs) <i>(Interdisciplinary Project)</i>	Ref. ITCA/UNISEC/PA/SR-Kind/003	22.10.2018	1500000	650000
2.	Dr. Manjunatha and Dr. K. Gopalakrishnan, Dr. Mahesha N	ITCA, DRL, UNISEC IIA	Hands-on Education Program for Technical Advancement: HEPTA-Sat Training Kit as Class Room Satellite (Engineering Model Prototype for Testing) 1U with ITCA Consortium and UNISEC India (Total Project Cost: Rs. 9,00,000/- Civil Dept Component: Rs.3.5 Lakhs) Camera Payload Terrain Mapping Studies. <i>(Interdisciplinary Project)</i>	Ref. ITCA/DRL/UNISEC/SR-Kind/006	19.11.2018	900000	350000
3.	Dr. Manjunatha and Dr. K. Gopalakrishnan, Dr. Mahesha N	ITCA UNISEC	Students' Satellite Competition with the Support of Indian Technology Congress Association (ITCA) and UNISEC India. <i>(Interdisciplinary Event)</i>	Ref: ITCA/UNISEC/Sr-Kind/017	28.07.2018	1000000	300000
				Total (2017-18)			13,00,000/-
2016-17							
1.	Dr. K. Gopalakrishnan & Dr. Sridhar Kurse, Dr. Mahesha N	Enti Innovations Pvt Ltd.	Setting up Composites Centre of Excellence at NHCE	EIPL/CCOE/NHCE/AD M/020/2017-18	08.02.2017	6276760	900000

Table 5.8.2.2 List of Faculty Membership in Professional Bodies

Sl.No.	Faculty Name	Membership in Professional Bodies	
		National	International
1	Dr. Niranjan P S	Life Member- Indian Concrete Institute, Bangalore Chapter MISTE, MIE	
2	Mr. Surendra B V	Life Member- Indian Concrete Institute, Bangalore Chapter. Life Member- ISTE	
3	Mr. Ranganathan B A	Member-Karnataka Safety Association	
4	Dr. N. Mahesha	Life Member- Geological Society of India Member-BOE Bangalore University Member- Indian Society of Analytical Scientists, Bangalore Chapter	
5	Ms. Suma Paralada	Life Member- Indian Concrete Institute, Bangalore Chapter	
6	Ms. Serin Issac	Member- Indian Concrete Institute, Kochin Chapter	
7	Ms. Swetti Jha	Member-United Nation Environmental Programme Member-Disaster Risk Reduction Member-Environmental Management, Mangalore Chapter	
8	Dr. Giri Prasad C	Indian Geotechnical Society American Society of Civil Engineering Deep Foundation of India International Highway Engineering	

5.8.3 Development activities (15)

- Product Development
- Research laboratories
- Instructional materials
- Working models/charts/monograms etc.

5.8.3.1 Product Development:

Table 5.8.3.1 Product Development 2019-20

Sl. No.	Name of the faculty/Students	Name of the project	Description
1	Faculty: Mr. Channabasava Student: Yeshwanth. K	Mega floating structure: concept, design criteria, analysis with a prototype	Aim: To study the design criteria of prototype mega floating structure
2	Faculty: Dr. Nachimuthu Student: Aishwarya Manoj	QUAY wall of the port of LE HAURE	Aim: To study load effects against wave action and to estimate the size of Quay wall
3	Faculty: Mr. Harish G R Student: Harshith Reddy.V	Performance evaluation of hot mix asphalt and warm mix asphalt with incorporation of copper slag	Aim: Evaluating the efficiency of asphalt mix with copper slag
4	Faculty: Ms. Serin Issac Student: Lavanya P	Stabilization of reinforced lithomargic clay using hypo sludge	Aim: To study the variation of strength of lithomargic clay using hypo sludge by CBR test
5	Faculty: Dr. Geetha Varma V Student: Thanseeh Ayoob PK	Assessment of solid waste in management in Mahadevapura zone in Bangalore city and improvement techniques for waste disposal	Aim: To assess the process of Solid Waste disposal and to provide solution for improvement in techniques in Mahadevapura zone in Bangalore city

Table 5.8.3.2 Product Development 2018-19

Sl. No.	Name of the faculty/Students	Name of the project	Description
1	Faculty: Mr. Pawan Kumar K R Student: Sachin Patil	Study on Planning, Analysing and Design of Building in BIM Process	Aim: To plan, analyse and design a building in BIM software
2	Faculty: Mr. Sandeep T D Student: Monesh B	Parametric Studies on Telecommunication Towers Due to Dynamic Loading	Aim: To study the effect of dynamic loading on tower structure
3	Faculty: Mr. Nitish Kumar K Student: Kiran Kumar	Experimental study on strength development in Geo Polymer concrete at elevated temperature	Aim: To study strength development in Geo Polymer concrete by at elevated temperature
4	Faculty: Dr. Vinay Kumar B M Student: Karthick Naidu	Experimental Studies on Utilization of Coarse Recycled Concrete Aggregates (CRCA) in Normal Concrete Mixes	Aim: To study the strength properties of concrete using Coarse Recycled Concrete Aggregates.
5	Faculty: Mr. Harish G R Student: Javed Ali	Applications of Geo-synthetics in Highway Pavement	Aim: To study the variation of strength of soil by using Geo-synthetics in highways

Table 5.8.3.3 Product Development 2017-18

Sl. No.	Name of the faculty / Students	Name of the project	Description
1	Faculty: Ms. Geetha Varma V Student: Kumar Shivankar	Biogas Generation with Food Waste by Anaerobic Digestion Using Sludge Slurry as a Medium	Aim: To scientifically dispose food waste and produce biogas fuel from it by adding sludge slurry
2	Faculty: Mr. Harish G R Student: Gangamma K	Experimental Investigation on Fiber Reinforced Concrete Using Different Types of Steel Fibers	Aim: To study the efficiency of different types of steel fibres in improving strength properties of concrete
3	Faculty: Mr. Prakash A N Student: Gajendra.R	Effect of Adding Styrene Butadine Rubber Admixture on Concrete Properties	Aim: To study the effect of Effect of Adding Styrene Butadine Rubber Admixture on Concrete Properties
4	Faculty: Ms. Sathya Priya Student: Dileep Kumar G	Redesign of Storm Water Drains in Chinnappanahalli Kere Catchment	Aim: To study existing drains and re-design them to increase the storage volume of the lake.
5	Faculty: Mr. Rajendra T N/ Mr. Surendra B.V Student: Anup Pudasaini	A comparative study of seismic coefficient method and response spectrum method of seismic analysis for a multistorey building	Aim: To compare seismic coefficient method and response spectrum methods of analysis with reference to the Indian standards

- **Research Laboratories**

Table 5.8.3.4 Research Laboratories

Name of the lab	Description
Concrete and Highway Material Testing Lab	This laboratory facility is utilized to carry out research work on properties of concrete (nominal and special) and Highway materials.
Geotechnical Lab	This laboratory facility is utilized to carry out research work on Soil properties
Material Testing Lab	This laboratory facility is utilized to carry out research work on steel and RCC specimens.
Environmental Lab	This laboratory facility is utilized for testing quality parameters of fresh and waste water.
Computer-Aided Design Laboratory	This laboratory facility is utilized to carry out Research work related to Analysis and Design of Structures.

The main objectives of Research Laboratories' are

- To organize workshops on the use and application of different laboratory facilities for students and faculties.
- To provide laboratory facilities to faculties and students to enable them to carry out Research & Development work.

Instructional materials:

Table 5.8.3.5 Instructional Materials

Sl. No.	Name of the faculty	Instruction Material
1	Dr. Niranjana P S	E-Notes, Ppts, Videos, Manuals
2	Dr. Muralikrishna	E-Notes, Ppts, Videos, Manuals
3	Dr. Jagadeesh C B	E-Notes, Ppts, Videos, Manuals
4	Dr. Balamurugan	E-Notes, Ppts, Videos, Manuals
5	Mr. Surendra B V	E-Notes, Ppts, Videos, Manuals
6	Dr. Natchimuthu Subramani	E-Notes, Ppts, Videos, Manuals
7	Dr. Geetha Varma V	E-Notes, Ppts, Videos, Manuals

8	Dr. Vinay Kumar B M	E-Notes, Ppts, Videos, Manuals
9	Dr. Ranganathan	E-Notes, Ppts, Videos, Manuals
10	Dr. Harish Velagiri	E-Notes, Ppts, Videos, Manuals
11	Dr. Giri Prasad C	E-Notes, Ppts, Videos, Manuals
12	Mr. Satish Deosugur	E-Notes, Ppts, Videos, Manuals
13	Mr. Sunil M Horaginamani	E-Notes, Ppts, Videos, Manuals
14	Mr. Rajendra T N	E-Notes, Ppts, Videos, Manuals
15	Mr. Harish G R	E-Notes, Ppts, Videos, Manuals
16	Mr. Sudhakar G N	E-Notes, Ppts, Videos, Manuals
17	Ms. Ramya H S	E-Notes, Ppts, Videos, Manuals
18	Ms. Suma Parlada	E-Notes, Ppts, Videos, Manuals
19	Ms. Swetti Jha	E-Notes, Ppts, Videos, Manuals
20	Ms. Snehal Rajendra Lahande	E-Notes, Ppts, Videos, Manuals
21	Mr. Pawan Kumar K R	E-Notes, Ppts, Videos, Manuals
22	Mr. Nitish Kumar K	E-Notes, Ppts, Videos, Manuals
23	Mr. Channabasava	E-Notes, Ppts, Videos, Manuals
24	Mr. Yogesh K S	E-Notes, Ppts, Videos, Manuals
25	Ms. Serin Issac	E-Notes, Ppts, Videos, Manuals
26	Mr. Vijay N C	E-Notes, Ppts, Videos, Manuals
27	Mr. Sandeep. T. D	E-Notes, Ppts, Videos, Manuals
28	Mr. Prakash Appasaheb Nayakar	E-Notes, Ppts, Videos, Manuals
29	Ms. Geethu V	E-Notes, Ppts, Videos, Manuals
30	Mr. Rahul N K	E-Notes, Ppts, Videos, Manuals
31	Ms. Meghana A Patankar	E-Notes, Ppts, Videos, Manuals
32	Ms. S Satya Priya	E-Notes, Ppts, Videos, Manuals
33	Ms. Shalini Rankavat	E-Notes, Ppts, Videos, Manuals
34	Ms. Sujatha Kota	E-Notes, Ppts, Videos, Manuals
35	Mr. Raghavendra K	E-Notes, Ppts, Videos, Manuals

Working models /charts /monograms etc.

Working models are available in all labs to understand the basic concepts in Engineering.

Lab Instruction Charts, Equipments part charts and conversion factor charts are available in all labs to understand the working principle of each instrument.

5.8.4 Consultancy (from Industry) (20)

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Funding Amount (Cumulative during CAYm1, CAYm2 and CAYm3):

Amount >10 Lakh	20 Marks,
Amount <10 and > 8 Lakh	15 Marks,
Amount < 8 and > 6 Lakh	10 Marks,
Amount < 6 and > 4 Lakh	5 Marks,
Amount < 4 and > 2 Lakh	2 Marks,
Amount < 2 Lakh	0 Mark

Table 5.8.4.1 Consultancy Projects 2018-19 (CAY m1)

Sl No	Principal Investigator	Project Title	Funding Agency	Amount	Duration
1	Dr. P.S. Niranjana	Structural Consultancy	Anjani Tent House	50000	2 Months
2	Dr. P.S. Niranjana	Testing and Evaluation	Manasa Gardens	40000	1 Month
3	Dr. P.S. Niranjana / Mr. Pawan Kumar K R	Planning and Structural Design	Rajan Painters	25000	2 Months
4	Dr. P.S. Niranjana	Planning and Structural Design	Rajan Painters	25000	2 Months
5	Dr. P.S. Niranjana	Supervision	Rajan Painters	25000	2 Months
6	Dr. P.S. Niranjana	Supervision	Rajan Painters	25000	2 Months
7	Dr. P.S. Niranjana	Planning and Structural Design	SLV Ramakrishna	25000	2 Months
8	Dr. P.S. Niranjana	Supervision	SLV Ramakrishna	25000	2 Months

9	Dr. P.S. Niranjan	Planning and Preparing of BOQ	Lassi Shop (Anand)	50000	1 Month
10	Dr. P.S. Niranjan	Construction Supervision	Lassi Shop (Anand)	25000	3 Months
11	Dr. P.S. Niranjan	Consultancy	Ganesh-G Concepts	50000	2 Months
12	Dr. P.S. Niranjan	Planning, Preparing of BOQ and Supervision	Udupi Park	50000	4 Months
Total				4150000	

Table 5.8.4.2 Consultancy Projects 2017-18(CAY m2)

Sl. No.	Principal Investigator	Project Title	Funding Agency	Amount	Duration
1.	Dr. Niranjan P S / Mr. Sudhakar G N	Testing and validation	Rajan – Painter	50,000.00	2 Months
2.	Dr. Niranjan P S	Consultancy	Anjani Tent House	50,000.00	2 Months
3.	Dr. Niranjan P S	Testing & evaluation	Manasa Gardens	40,000.00	2 Months
4.	Dr. Niranjan P S / Mr. Surendra B V	Consultancy and supervision	Sarah Enterprises	50,000.00	4 Months
5.	Dr. Niranjan P S / Mr. Surendra B V	Consultancy and supervision	Sarah Enterprises	50,000.00	5 Months
6.	Mr. Sunil H M/ Sudhakar G N	Structural Consultancy and supervision	Ganesh G concepts	50,0000	5 Months
7.	Mr. Satish D / Mr. Rajendra T N	Planning, Structural Design, Concrete Mix Design and Supervision.	Sri Ganesh Textiles	50,000.00	6 Months
8.	Mr. Satish D / Mr. Rajendra T N	Planning, Structural Design, Concrete Mix Design and Supervision.	Sri Ganesh Textiles	70,000.00	6 Months

9.	Mr. Surendra B V	Renovation, Planning and supervision	Swadista Catering	25,000.00	2 Months
10.	Mr. Surendra B V	Renovation, Planning and supervision	Swadista Catering	25,000.00	2 Months
11.	Dr. Niranjan P S / Mr. Sudhakar G N	Properties Testing	RMK Bricks	7000	15 Days
12.	Dr. C B Jagadeesh / Mr. Sudhakar G N	Mix design of concrete	Ultra tech Ltd	8000	15 Days
13.	Dr. Niranjan P S/ Serin Issac	Mixing rice husk ash with OPC to improve the strength of concrete	ACC Ltd	6000	1 Month
14.	Dr. Geetha Varma V/ Satya Priya	Self-compacting concrete using fly ash and alkaline	Build Tech Solutions	8000	1 Month
15.	Dr. Niranjan P S/ Ms. Swetti Jha	Mix design of concrete	JSW Ltd	6000	15 Days
16.	Dr. Niranjan P S / Satya Priya	Material characterization	Ultra tech Ltd	8000	15 Days
17.	Ms. Swetti Jha / Satish D	Usage of molasses in concrete as water reducing and retarding	India Cements Ltd	6000	15 Days
18.	Mr. Surendra B V / Rajendra T N	Study on fast-track construction technology	Sobha Developers	5000	1 Month
19.	Dr. N Mahesha / K. Sharmila	Analysis and comparative study of bricks and concrete blocks	RMK Bricks	6000	1 Month
20.	Dr. Vinaykumar BM/ Neethu Elizabeth John	Material characterization for sustainable development	SLV Developers	6000	1 Month
21.	Dr. Geetha Varma	Enhancement of waste water	Sankhla industries	7000	15 Days

		treatment using geotextile material			
22.	Mr. Vijay N C	An experimental investigation on stabilization of black cotton soil	Radical Infrastructure Pvt Ltd	5000	1 Month
23.	Dr. P S Niranjan	Testing and Validation Rig	JV Global Services LLP	15000	1 Month
24.	Mr. Surendra B V/ Rajendra T N	Rebound Hammer Test for Column and Base Slab	42 Estates / Queens Square	10000	1 Month
25.	Mr. Surendra BV/ Rajendra T N	Cube Test	42 Estates / Queens Square	600	1 Day
26.	Mr. Surendra B V/ Rajendra T N	Cube Test	42 Estates / Queens Square	300	1 Day
27.	Mr. Surendra B V/ Mr. Sunil H M	Cube Test	Sreenath Girish	900	1 Day
28.	Mr. Sunil H M	Cube Test	42 Estates / Queens Square	900	1 Day
29.	Mr. Sunil H M	Cube Test	42 Estates / Queens Square	150	1 Day
30.	Mr. Sunil H M / Mr. Sudhakar G N	SBC of Soil	Agarwal Gene Research Foundation	22800	15 Days
31.	Dr. Niranjan P S / Ms. Serin Isac	SBC of Soil	Mr. Arun Naik	6000	15 Days
Total				594650	

Table 5.8.4.3 Consultancy Projects 2016-17(CAY m2)

Sl. No	Principal Investigator	Project Title	Funding Agency	Amount	Duration
1.	Mr. Satish D	Highway Quality Control Testing	Radical Infrastructure Pvt. Ltd.	60000	1 Month

2.	Mr. Harish G	Highway Quality Control Testing	Adarsha Global Building Projctcs Pvt. Ltd.	43500	1 Month
3.	Mr. Dayalan J	Material Testing and Evaluation	Harish Tent House	25000	1 Month
4.	Mr. Dayalan J	Material Testing and Evaluation	Manasa Garden	30000	1 Month
5.	Dr. Niranjana P S	Structural Consultancy and supervision	Nischinth Construction	100000	6 Months
6.	Mr. Surendra B V	Structural Consultancy and supervision	R V Construction	100000	6Months
7.	Ms. Serin Isac	Soil investigation work	Go Turf	55000	20 Days
8.	Ms. Serin Isac	Soil investigation work	Swathi Glass	100000	1 Month
9.	Mr. Sunil Horaginamani	Material testing and Concrete Mix Design	Sri Balaji Industries	100000	1.5 Months
10.	Mr. Sunil Horaginamani	Material testing and Concrete Mix Design	Rajan Painters	25000	15 Days
11.	Mr. Surendra B V	Material testing and Concrete Mix Design	Chhabria Tiles	50000	15 Days
12.	Dr. Niranjana P S	Material testing and Concrete Mix Design	SV Catering	50000	1 Month
13.	Mr. Ranganathan B A	Testing and Evaluation	Nithay Enterprises	20000	15 days
14.	Dr. Niranjana P S	Structural Consultancy and supervision	Durga Book Agency	100000	6 Months
Total				858500	

Table 5.8.4.4 Consultancy Project-Summary

SI No.	Academic Year	Amount
1	2018-19	4,15,000/-
2	2017-18	5,94,650/-
3	2016-17	8,58,500/-
Total		18,68,150/-

5.9 Faculty Performance Appraisal and Development System (FPADS) (10)

Faculty members of Higher Educational Institutions today have to perform a variety of tasks pertaining to diverse roles. In addition to instruction, Faculty members need to innovate and conduct research for their self-renewal, keep abreast with changes in technology, and develop expertise for effective implementation of curricula. They are also expected to provide services to the industry and community for understanding and contributing to the solution of real-life problems in industry. Another role relates to the shouldering of administrative responsibilities and co-operation with other Faculty, Heads- of-Departments and the Head of Institute. An effective performance appraisal system for Faculty is vital for optimizing the contribution of individual Faculty to institutional performance.

The assessment is based on:

- * A well-defined system for faculty appraisal for all the assessment years (5).
- * Implementation of faculty appraisal and its effectiveness (5).

The Institution follows the Performance Based Assessment System as prescribed by the UGC. The system was adopted after a thorough discussion and review. The performance review gives a great opportunity to the concerned faculty and the department to look into the areas for improvement and take necessary remedial steps. The purposes of this evaluation are following:

- a) To assess and promote excellence in the teaching/learning process.
- b) To meet the educational needs of students and community by continually monitoring instructional performance.
- c) To provide a constructive framework for evaluating faculty performance by identifying areas of strength and areas for improvement in classroom instruction.
- d) To provide a basis for professional growth and development.

Basic Criteria for Appraisal System:

- * Teaching Based Appraisal:
- * Percentage of Assigned Classes taken.
- * Projects supervised.
- * Swayam / NPTEL courses completed in Blended mode.
- * Innovation in teaching pedagogy.
- * Number of Guest Lectures/Workshops/Seminar organized for the students.
- * Designing of new courses / Revision of courses.
- * Extra activities carried out with regard to slow and fast learners.
- * MOOC courses completed. Open POWER Academia and Research Webinar
- * Proper maintenance of Course Files as per the prescribed list of contents.
- * Attainment of Course Outcomes (COs).
- * Awards/ Recognitions received for excellence in teaching/ research/ students' projects.

Research Based Appraisal:

- * Papers published in SCOPUS Indexed/UGC Approved journals.
- * Outside Consultancies completed during the assessment period.
- * Conference organized by the school during the assessment period.
- * Papers presented at Conferences, Seminars, Workshops, Symposia, Trade Journals (National/International).
- * Membership of professional bodies
- * Funded Research Projects handled as Principle Investigator (PI) or as Co-PI during the membership of Chapters Patents granted in the school
- * Initiatives and Outreach activities.
- * Conduct of Training Programs (FDP/Workshop) should be the Organizer.

Performance Rating Scale: Sample copy

NEW HORIZON COLLEGE OF ENGINEERING

ANNUAL SELF APPRAISAL OF TEACHING STAFF

Academic Year:

Name:.....

Designation:.....

Department:.....

NOTE:

(This document consists of evaluation (i) of teacher by students (ii) by teachers themselves and (iii) of the concerned of Head, all considered together. This evaluation is conducted at the end of each academic year and forms an important document of performance evaluation)

PERFORMANCE APPRAISAL: TEACHING STAFF

In conformity with the job responsibilities (prescribed by AICTE) Assessment period from August 2018 to July 2019

PART'A'

(Personal Particular)

Name : _____

Educational Qualifications : _____

(If you possess a Doctorate degree, state if you are a recognized guide) : _____

Department : _____

Designation : _____

No. of years served in NHCE till date : _____

Total Experience till date : _____

Any extraordinary achievement during the assessment period : _____

Part'B'

Academic Duties and responsibilities assigned

	Subject Assigned	No. of Classes Planned	No. of Classes Conducted	Remarks
ODD Semester Theory				

	Laboratory	No. of Experiments Planned	No. of Experiments Conducted	Remarks
ODD Semester Laboratory				

	Subject Assigned	No. of Classes Planned	No. of Classes Conducted	Remarks
EVEN Semester Theory				

	Laboratory	No. of Experiments Planned	No. of Experiments Conducted	Remarks
EVEN Semester Laboratory				

Applicable to Faculties handled Autonomous scheme

	Subjects Assigned	Self Study / Sem / Student	Assignments / Semester	Quiz / Semester
ODD SEMESTER				

	Subjects Assigned	Self Study / Sem / Student	Assignments / Semester	Quiz / Semester
EVEN SEMESTER				

Part 'C'

A brief pen picture of self, not exceeding in 5 to 6 lines, highlighting the administrative and support activities entrusted

Part 'D'

(Appraisal on a 5 point rating scale)

Note: Please put a tick in the appropriate rating

- Proper maintenance of course files and attendance registers (as per Check list) with necessary proof**

25	20	15	10	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outstanding	Very Good	Good	Fair	Poor

- Proper valuation & maintenance of blue books of students with necessary proof**

15	12	9	6	3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outstanding	Very Good	Good	Fair	Poor

3. Contribution in development of lab manuals, addition of new experiments and innovations and modernization of labs

5	4	3	2	1	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	Fair	Poor	NA

4. Participation in co-curricular activities

5	4	3	2	1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	Fair	Poor

(Here contributions in areas like ISTE, forum activities, arranging guest lectures, symposiums / seminars, Workshops, blood donation, sports and other fruitful activities need to be taken into consideration.)

5. Initiatives taken towards counseling / Mentoring, guidance & overall character building of students

10	8	6	4	2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	Fair	Poor

6. Initiatives and interest shown in acquiring and disseminating new knowledge and skill through paper publications. Minimum 02 per Academic Year. Update in HRMS. For 02 publications 15 points

25	20	15	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	NA

7. Initiatives and interest shown in acquiring and disseminating new knowledge and Skill through attending external seminars/ workshops/ conferences: Minimum 02 per Academic Year. Update in HRMS. 15 points for minimum 02 external programs.

25	20	15	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	NA

8. Efforts made in attending education program (MOOCS): Update in HRMS. Minimum 01 online program – 15 points

25	20	15	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	NA

9. Initiative & involvement in curriculum development (Suggestions to improve the Curriculum):

5	4	3	2	1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	Fair	Poor

10. Involvement in planning & organizing workshop / seminars / conference / symposium/exhibition / guest lectures etc., please specify

5	4	3	2	1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	Fair	Poor

11. Initiative taken towards Societal Development (adult literacy drives & bringing awareness in the society towards hygiene/moral & ethical value etc):

5	4	3	2	1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	Fair	Poor

12. Degree of integrity, efficiency, effectiveness & dedication shown during the course of discharging assigned responsibilities:

5	4	3	2	1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outstanding	Very Good	Good	Fair	Poor

PART 'E'

Formula Used: (Grand Result % * 5) / 100

(Result Conversion Scale: 100% - 5, 80% - 4, 60% - 3, 40% - 2, 20% - 1, 0% - 0)

ODD Semester						
	Sub 1	Sub 2	Sub 3	Sub 4	Sub 5	Average
Student Feedback						
Result						

EVEN Semester						
	Sub 1	Sub 2	Sub 3	Sub 4	Sub 5	Average
Student Feedback						
Result						

Grand Average			
	ODD	EVEN	Grand
Student Feedback			
Result			

SUMMARY

SUMMARY OF PART "D"

- ❖ Total points awarded to staff: (D1)
- (Points Obtained / Maximum Points *5)
- ❖ Points awarded with 75% weight age: (D1*0.75)

SUMMARY OF PART "E"

- ❖ Average of student Feedback and Result (E1)=
- ❖ 25% weightage based on grand average: (E1*0.25).....

OVERALL SUMMARY

❖ Annual performance index (D + E) = _____

**CORRESPONDING RANKING TAKING INTO ACCOUNT THE POINT SCORE AND
CONVERTING IT TO TOTAL WEIGHTAGE OF 75%+25%= 100**

Final Grade:

4.5 – 5.0 : OUTSTANDING

4.0 – 4.4 : Very good

3.0 – 3.9 : Good

2.0 – 2.9 : Fair

Less than 2: Poor

OTHERS

Additional weightage for the following will be considered :

1. No. of patents filed (Please furnish details and update in HRMS)

2. No. of books published (please furnish details and update in HRMS) per patent

3. Contribution in promoting institute industry, R & D activities and consultancy services
(Minimum 02 proposals per academic year for Professor cadre)

4. Contribution through Projects

Signature of faculty member

Date:.....

Areas for improvement:

Signature of HOD

Date:

Remarks of Principal:

Signature of Principal

Date:

GUIDELINES TO HEADS OF DEPARTMENT FOR FILLING UP PERFORMANCE APPRAISAL FORM IN RESPECT OF TEACHING STAFF

1. Every faculty person will be assessed on items/areas of achievement on the pressure point rating scale. The concept of rating scale are given below:

- ❖ Outstanding : Excellent professional competence, unblemished track record, utmost efficiency & effectiveness, optimum human capacity utilization, punctuality , sincerity and dedication of highest order.
- ❖ Very good: Satisfactory professional competence with reasonable efficiency & effectiveness, reasonable extent of human capacity utilization and high order of punctuality, sincerity and dedication.
- ❖ Good: Just satisfactory performance with marginal level of efficiency and effectiveness. Medium human capacity utilization, punctuality, sincerity and dedication just adequate to deliver minimum satisfactory performance.
- ❖ Fair: Performance much below the level of expectations. Lack of efficiency and effectiveness, zeal and enthusiasm in performing his/her duties. Under utilization of capacity advertently or inadvertently(due to physical, mental disabilities)
- ❖ Poor: A deplorable performance devoid of initiative efforts, zeal or enthusiasm. A liability for the organisation with either total lack of capacity, utilization to perform or advertently shirking from responsibilities.

2. PROCEDURE OF COMPUTATION OF GRADING

- ❖ 75% weightage of the total points awarded in performance appraisal.
- ❖ 25% weightage will be given for points awarded in the faculty evaluation by students both from both semesters.

3. CORRESPONDING RANKING TAKING INTO ACCOUNT THE POINT SCORE AND CONVERTING IT TO TOTAL WEIGHTAGE OF 75%+25%= 100%

4.5 – 5.0 : OUTSTANDING

4.0 – 4.4 : Very good

3.0 – 3.9 : Good

2.0 – 2.9 : Fair

Less than 2: Poor

4. HOD's are required to fill up the performance appraisal proforma in presence of the concerned teaching staff by asking the staff explain item wise performance and their perceptions about the point grades. The HOD's after taking into account the submissions and expectations of the concerned staff & his own perceptions/ option about the capability of the staff, will put a tick on mark particular point scale. In case the ticked grade does not tally with the expectations of the staff, the reasons for variations must be told to staff by HOD in explicit terms.
5. The HODs are to ensure that assessment is based on the performance of the individual throughout the stipulated assessment period and not based on seasonal performance. Further biases all sorts and preferential treatment to selected ones should be avoided to make the appraisal system totally transparent and purposeful.
6. Both the HOD and the staff have to sign in the appraisal proforma at the appropriate place meant for the purpose. The employees should invariably sign even if they have some reservation on the assessment grades given by HOD's on certain items. They can mention the particular items where they have reservations/ disagreement below their signature at the appropriate place mentioned there in. These dissenting items/points or divergences will be discussed by the staff with Principal at appropriate time after seeking interview or if otherwise automatically called by Principal.
7. The decision of the Principal on all dissenting matters will be final & binding on employees. No further query or representations on the subject will be entertained at later stage.

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

Adjunct faculty also includes Industry experts.

Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty etc.

Provision of visiting/adjunct faculty (1)

Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc. (9)

(Minimum 50 hours' interaction in a year will result in 3 marks for that year; 3marks x 3years=9 marks)

Summary of the Visiting/Adjunct/Emeritus Faculty

Table 5.10.1 Summary of the Visiting/Adjunct/Emeritus Faculty

Academic Year	No of Hours
2019-20	50
2018-19	50
2017-18	50

The details are given in the tables below

Table 5.10.2 List of 2019-20 (ODD SEM) Visiting Faculty

Sl. No.	Date	Name of the Expert	Designation	Organization	Title of The Topic	Time	Beneficiaries
1.	10.08.19	Mr. N R Ashok	Director and Chief Consultant	Ace Technologies	Foundation, Types (Shallow/Deep) and their suitability. Causes of failure of the foundation, Site exploration techniques, purpose of the site exploration	3 Hrs	3 rd Semester Students
2.	24.08.19				Introduction, Various terms used, Classification of masonry, Stone Masonry - Classifications of stone masonry: Rubble masonry, Ashlars masonry	2 Hrs	3 rd Semester Students
3.	14.09.19				Material for form work, form work details in RCC columns, beams and floors	3 Hrs	3 rd Semester Students
4.	19.10.19				Purpose of plastering, Materials of plastering, Methods of plastering, Defects in plastering.	2 Hrs	3 rd Semester Students
5.	10.08.19	Mr. S Vijay Kumar	Senior Manager	Thermax limited	Limit State Design of Beams: Ultimate flexural design of flanged & rectangular sections.	3 Hrs	5 th Semester Students
6.	24.08.19				Torsion shear stress – reinforcement for torsion, calculation of short and long term deflection in beams. Limit State Design of Slabs: Limit state design of one way and two way slabs for various boundary conditions	3 Hrs	

8.	14.09.19				Limit State Design of Columns: Limit state design of axially loaded short R.C. column. Design of columns with uni-axial bending – using SP16.	2 Hrs	5 th Semester Students
9.	19.10.19				Limit State Design of Footings: Design of isolated square & rectangular footing for axial load and uni-axial moment	3 Hrs	
10	10.08.19	Mr. Sunil R K	Founder & CEO	M/s.3E-Services	Rate Analysis -Definition and Purpose of rate analysis; rate analysis PCC bed, SSM in Foundation, DPC	3 Hrs	7 th Semester Students
	24.08.19				BBM in super structure flooring, plastering, RCC works, centering and form work for different RCC items	2 Hrs	
	14.09.19				Wood and steel works for doors, windows and ventilators	2 Hrs	
	19.10.19				Contracts and valuation	3 Hrs	

Table 5.10.3 List of 2019-20 (EVEN SEM) Visiting Faculty

Sl. No.	Date	Name of the Expert	Designation	Organization	Title of the Topic	Time	Beneficiaries
1.	25.01.20	Mr. Manjunatha L R	DGM & Zonal Head– Sale & Marketing	GGBS-JSW Cement limited	Mix Proportioning of concrete-concepts of concrete mix design, factors affecting mix design, exposure conditions	3 Hrs	4 th Semester Students
2.	08.02.20				Procedure of mix design as per IS 10262-2009, Numerical examples of mix design.	2 Hrs	4 th Semester Students
3.	29.02.20				In-Situ Testing and Special Concretes: Non-destructive testing; rebound hammer, ultrasonic pulse velocity, penetration and pull out test, principle, applications and limitations.	3 Hrs	4 th Semester Students
4.					Special concretes: Introduction to fiber reinforced concrete, high strength concrete, self-compacting concrete, geo polymer concrete and ready-mix concrete	2 Hrs	4 th Semester Students
5.	25.01.20	Mr. S Vijay Kumar	Senior Manager	Thermax limited	Preparation of bar bending schedule for beams, columns, slabs and footings	3 Hrs	6 th Semester Students
6.	08.02.20				Layout Drawing: General layout of building showing, position of columns, footings, beams and slabs with standard notations.	2 Hrs	
7.	29.02.20				Detailing of continues beams and floor slabs	2 Hrs	
8.					Detailing of One Way & Two Way slab with torsional reinforcement	3 Hrs	

Table 5.10.4 List of 2018-19 (ODD SEM) Visiting Faculty

Sl. No.	Date	Name of the Expert	Designation	Organization	Title of the Topic	Time	Beneficiaries
1.	11.08.18	Mr. N R Ashok	Director and Chief Consultant	Ace Technologies	Foundations: Foundation, Types (Shallow/Deep) and their suitability, Causes of failure of the foundation, Site exploration techniques, purpose of the site exploration.	3 Hrs	3 rd Semester Students
2.	01.09.18				Building masonry: Introduction, Various terms used, Classification of masonry, Stone Masonry - Classifications of stone masonry: Rubble masonry, Ashlars masonry.	2 Hrs	3 rd Semester Students
3.	06.10.18				Form work: Material for form work, form work details in RCC columns, beams and floors	3 Hrs	3 rd Semester Students
4.	17.11.18				Plastering: Purpose of plastering, Materials of plastering, Methods of plastering, Defects in plastering.	2 Hrs	3 rd Semester Students
5.	11.08.18	Mr. Manjunatha L R	DGM & Zonal Head- Sale & Marketing	GGBS-JSW Cement limited	Mix design-concepts of concrete mix design, factors affecting mix design	3 Hrs	5 th Semester Students
6.	01.09.18				Exposure conditions, procedure of mix design as per IS 10262-2009, Numerical examples of mix design	2 Hrs	5 th Semester Students
7.	06.10.18				Special Concretes-Properties and applications of fibre reinforced concrete,	3 Hrs	
8.	17.11.18				Self-compacting concrete, high performance concrete	2 Hrs	5 th Semester Students

9.	11.08.18	Mr. Ramesh Taterao	Managing Director,	NTPC:GE Power Services Pvt. Ltd.	Rate Analysis – Definition and Purpose of rate analysis; rate analysis PCC bed, SSM in Foundation, DPC, BBM in super structure flooring, plastering, RCC works	3 Hrs	7 th Semester Students
10.	01.09.18				Centering and form work for different RCC items,	2 Hrs	
11.	06.10.18				Wood and steel works for doors, windows and ventilators. -	2 Hrs	
12.	17.11.18				Contracts & Valuation	3 Hrs	

Table 5.10.5 List of 2018-19 (EVEN SEM) Visiting Faculty

Sl. No.	Date	Name of the Expert	Designation	Organization	Title of The Topic	Time	Beneficiaries
1.	09.02.19	Mr. N R Ashok	Director and Chief Consultant	Ace Technologies	Specifications for residential and public buildings, Functional design of buildings	3 Hrs	4 th Semester Students
2.	23.02.19				Preparation of water supply and sanitary layouts,	3 Hrs	4 th Semester Students
3.	09.03.19				Development of plan, elevation and sections	2 Hrs	4 th Semester Students
4.	23.03.19				Development of plan, elevation and sections	2 Hrs	4 th Semester Students

5.	09.02.19	Mr. S Vijay Kumar	Senior Manager	Thermax limited	Preparation of bar bending schedule for beams, columns, slabs and footings.	3 Hrs	6 th Semester Students
6.	23.02.19				Layout Drawing: General layout of building showing, position of columns, footings, beams and slabs with standard notations.	2 Hrs	6 th Semester Students
7.	09.03.19		Senior Manager	Thermax limited	Detailing of continues beams and floor slabs,	3 Hrs	
8.	23.03.19				Detailing of One Way & Two Way slab with torsional reinforcement.	2 Hrs	6 th Semester Students

Table 5.10.6 List of 2017-18 (ODD SEM) Visiting Faculty

Sl. No.	Date	Name of the Expert	Designation	Organization	Title of the Topic	Time	Beneficiaries
1.	12.08.17	Mr. S Vijay Kumar	Senior Manager	Thermax limited	Foundations Foundation, Types (Shallow/Deep) and their suitability	2.5 Hrs	3 rd Semester Students
2.	09.09.17				Causes of failure of the foundation, Site exploration techniques, purpose of the site exploration	2.5 Hrs	3 rd Semester Students
3.	16.09.17				Form work, Scaffolding, Shoring and Underpinning, thermal insulation	2.5 Hrs	3 rd Semester Students
4.	11.11.17				Sound proof, water proofing and termite treatment techniques	2.5 Hrs	3 rd Semester Students
5.	12.08.17	Mr. M N Ramesh	Chief	Savcor India	Consolidation of Soil: Definition, Mass-spring analogy, Terzaghi's one	3 Hrs	5 th Semester Students

			Executive Officer	Pvt. Ltd.	dimensional consolidation theory- assumption and limitations (no derivation), Normally consolidated, under consolidated and over consolidated soils,		
6.	09.09.17	Mr. M N Ramesh	Chief Executive Officer	Savcor India Pvt. Ltd.	Pre-consolidation pressure and its determination by Casagrande's method. Consolidation characteristics of soil (C_c , a_v , m_v and C_v).	2 Hrs	5 th Semester Students
7.	16.09.17				Determination of Shear Strength Shear strength Parameters-Mohr Coulomb strength theory, determination of shear strength parameters	2 Hrs	5 th Semester Students
8.	11.11.17				Tri-axial shear tests under three drainage conditions namely UU, CU & CD direct shear test, unconfined compressive strength and vane shear tests	3 Hrs	5 th Semester Students
9.	12.08.17	Mr. Ramesh Taterao	Managing Director,	NTPC:GE Power Services Pvt. Ltd.	Rate Analysis – Definition and Purpose of rate analysis; rate analysis PCC bed, SSM in Foundation, DPC, BBM in super structure flooring,	3 Hrs	7 th Semester Students
10.	09.09.17				Plastering, RCC works, centering and form work for different RCC items,	2 Hrs	7 th Semester Students
11.	16.09.17	Mr. Ramesh Taterao	Managing Director,	NTPC:GE Power Services Pvt. Ltd.	Wood and steel works for doors, windows and ventilators	2 Hrs	
12.	11.11.17				Contracts and Valuation	3 Hrs	7 th Semester Students

Table 5.10.7 List of 2017-18 (EVEN SEM) Visiting Faculty

Sl. No.	Date	Name of the Expert	Designation	Organization	Title of the Topic	Time	Beneficiaries
1.	10.02.18	Mr. S Vijay Kumar	Senior Manager	Thermax limited	Specifications for residential and public buildings, Functional design of buildings	3 Hrs	4th Semester Students
2.	24.02.18				Preparation of water supply and sanitary layouts,	3 Hrs	4th Semester Students
3.	10.03.18				Development of plan, elevation and sections	2 Hrs	4th Semester Students
4.	24.03.18				Development of plan, elevation and sections	2 Hrs	4th Semester Students
5.	10.02.18	Mr. M N Ramesh	Chief Executive Officer	Savcor India Pvt. Ltd.	Lateral Earth Pressure: Active and Passive earth pressures, Earth pressure at rest. Rankine's and Coulomb's Earth pressure theories—assumptions and limitations, Graphical solutions for active earth pressure (cohesion less soil only)	3 Hrs	6 th Semester Students
6.	24.02.18				Culmann's and Rebhann's methods, Lateral earth pressure in cohesive and cohesion less	2 Hrs	6 th Semester Students
7.	10.03.18	Mr. M N Ramesh	Chief Executive Officer	Savcor India Pvt. Ltd.	Foundation Settlement: Importance and Concept of Settlement Analysis, Immediate, Consolidation and Secondary settlements	3 Hrs	6 th Semester Students
8.	24.03.18				Tolerance. BIS specifications for total and differential settlements of footings and rafts.	2 Hrs	6 th Semester Students



DEPARTMENT OF CIVIL ENGINEERING

CRITERION 6

FACILITIES AND TECHNICAL SUPPORT

CRITERION 6	FACILITIES & TECHNICAL SUPPORT	80
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6.1 ADEQUATE WELL EQUIPPED LABORATORIES AND TECHNICAL MANPOWER (40)

Department of Civil Engineering has well Equipped laboratories, Core labs which include Mechanics of Fluid, Hydraulics And Hydraulics Machinery Lab, Plane Surveying Lab, Higher Surveying Lab, Material Testing Lab, Concrete Technology Lab, Analysis Of Indeterminate Structures, Applied Geotechnical Lab, Design and Drawing of Steel Structure Element lab, Highway Material lab, Environmental Engineering lab are well equipped with all the equipments as specified by the University .Software labs have tool like ETABS, SAP, MATLAB, ANSYS etc as per the curriculum. Enough number of personal computers is available for the smooth conduction of the lab. Safety instructions, safety tools including first aid box are provided in all the labs. Qualified technical staff supported by a technical assistant is available in the labs to assist the students by providing constant support and to ensure proper laboratory maintenance.

Table 6.1.A. Adequate, Well-Equipped Laboratories, And Technical Manpower

Sl No	Name of The Laboratory	No of Students Per Setup (Batch Size)	Name of Important Equipment	Weekly Utilisation Status (All The Course for which the Lab Is Utilised)	Technical Man Power Support		
					Name of Technical Staff	Designation	Qualification
1.	Mechanics Of Fluids Laboratory	4students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ Venturi Meter, ➤ Bernoulli's Apparatus, ➤ Venturi Flume Apparatus ➤ Orifice& Mouthpiece Apparatus ➤ Frictional Losses in Pipe Line ➤ Vertical Orifice ➤ Minor Loss Apparatus, ➤ Dead Weight Pressure Gauge ➤ Metacentric Height 	Odd semester: 33 hrs	Mr. Sanjeevi Kumar	Foreman	Diploma
2.	Hydraulics & Hydraulics Machinery Laboratory	4 students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ Kaplan turbine, ➤ Pelton turbine ➤ Centrifugal pump ➤ Impact of Jet 	Even semester: 33 hrs	Mr. Sanjeevi Kumar	Foreman	Diploma
3	Plane Surveying Laboratory	4students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ Auto Level ➤ Dumpy Level, ➤ Theodolite ➤ Cross Staff, ➤ Chains ➤ Prismatic Compass, 	Odd semester:33 hrs	Mr. Shamal Kumar. N	Lab Instructor	ITI
4	Higher Surveying Laboratory	4 students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ Auto Level ➤ Dumpy Level, ➤ Theodolite ➤ Total station ➤ Plane Table 	Even semester: 33 hrs	Mr. Shamal Kumar. N	Lab Instructor	ITI

Criterion-6 Self-Assessment Report (SAR)

5	Material Testing Laboratory	4 students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ UTM ➤ Torsion Testing Machine ➤ Rockwell cum Brinell hardness testing machine ➤ Sieve Shaker ➤ Pendulum Type impact testing machine, Tile flexural testing machine ➤ Digital Hot Air Oven 	Odd semester: 44 hrs	Mr. Umesh. K. G	Lab Instructor	ITI
6	Concrete Technology Laboratory	4 students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ Compression Testing Machine ➤ Vee Bee Consistometer ➤ Compaction factor Apparatus ➤ Vibrating Table ➤ Concrete Pan type & drum type ➤ Rebound Hammer, J-ring Apparatus ➤ Flow table Apparatus ➤ Cement Auto clave –digital ➤ Electronic Weighing Machine ➤ Flexural Testing Machine ➤ Hot air Oven ➤ Slump Test Apparatus ➤ Vicat Apparatus ➤ Sieves shaker ➤ Vibration Machine ➤ U -flow test apparatus ➤ V-flow test Apparatus-box apparatus 	Odd semester: 33 hrs	Mr. Muttanna	Lab Assistant	ITI
7	Analysis of Indeterminate Structures Laboratory	4 students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ Computers 	Odd semester: 33 hrs	Mr. Parashuramappa	Lab Instructor	BE

Criterion-6 Self-Assessment Report (SAR)

8	Applied Geotechnical Engineering Laboratory	4 students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ Vane Shear Test Apparatus, ➤ Direct Shear Test Apparatus, ➤ Triaxial Test Apparatus, ➤ Unconfined Compression Tester ➤ Consolidation Test Apparatus ➤ Universal Automatic Compactor Test Apparatus ➤ Permeability Apparatus with Over Head Tank, ➤ Sieve Shaker ➤ Hot Air Oven 	Odd semester: 33 hrs	Mr. Umesh. K. G	Lab Instructor	ITI
9	Design & Drawing Of Steel Structural Elements Laboratory	4 students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ Computers 	Odd semester: 3 hrs	Ms. Ramya.K	Lab Instructor	Diploma
10.	Environmental Engineering Laboratory	4 students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ PH meter ➤ Conductivity meter ➤ Spectrophotometer ➤ BOD incubator ➤ Jar test apparatus 	Even semester: 33 hrs	Mr. Sanjeevi Kumar	Foreman	Diploma
11	Highway Materials Laboratory	4students per setup (20 To 25)	<ul style="list-style-type: none"> ➤ Aggregate Impact Testing Machine ➤ Ductility Testing Machine- Digital ➤ Ring & Ball Apparatus, ➤ Los Angeles Abrasion Testing Machine ➤ Marshall Stability Apparatus, ➤ Marshall Specimen Extruder ➤ Flash & Fire Point Apparatus 	Odd semester: 44 hrs	Mr. Muttanna	Lab Assistant	ITI

Criterion-6 Self-Assessment Report (SAR)



			<ul style="list-style-type: none">➤ CBR Test Apparatus➤ Penetration Test Apparatus➤ Viscosity Test Apparatus➤ Water Bath➤ Hot Plate				
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6.2 Laboratories: Maintenance and Overall Ambience

6.2 A. Maintenance of Laboratory Equipment

1. Preventive Maintenance

- i) Major Components' Service and Maintenance are carried out regularly based on frequency of execution (daily, weekly, monthly, quarterly, half yearly and yearly) as identified.
- ii) Consumables are periodically verified and replaced if required.
- iii) Electrical safety is properly ensured for all the laboratories.
- iv) Hygiene is maintained in overall department
- v) Preventive measure is carried out by the technical staff of the department based on available resources and expertise.
- vi) Calibration of Instruments is done frequently.
- vii) Chart assisted learning is adopted to demonstrate the process.
- viii) Informative notice board containing safety, Do's & Don'ts is properly maintained.

2. Breakdown Maintenance

- i) Unexpected breakdown of equipment in the laboratory is recorded in the breakdown maintenance record.
- ii) Services are carried out by the technical staff of the department based on available resources and expertise.
- iii) If Company service is required, the issue is conveyed to the vendor to address it at the earliest.
- iv) Computer Based services are carried out by the System Department of the Institution

3. Repair Work

- i) Repair works in all the laboratories are classified into three modes:
 - Minor
 - Major
 - Non-repairable.

- ii) Minor repair works are carried out by the technical assistants in the laboratory internally. Technical assistants from other departments are also utilized if required.
- iii) Major repair works that cannot be carried out internally are sent to the external service centers/suppliers. The equipment is initially checked for non-functionality and based on the type of repair; technical person from the industries/suppliers is called for carrying out the repair work.
- iv) The equipment or kits that are obsolete / cannot be repaired / non availability of the spares and other such difficulties fall under Non-repairable category. These items are inspected by the technical committee of the Institution and based on their report, the items will be classified as Non-repairable condemned items.
- v) Technical staffs are well trained for maintenance and calibration process.

6.2. B – Overall Ambience of laboratories

- i) Department has adequate number of laboratories which are utilized throughout the year on a academic time table basis to meet the curriculum requirements and also to enhance the practical skills of the students.
- ii) Necessary furniture for students is provided in each laboratory.
- iii) Laboratories are equipped with sufficient number of equipments to conduct the experiments.
- iv) Laboratory manuals containing vision, mission, PEO, PO, PSO, safety precautions, equipment handling instructions along with the details of the experiments are distributed to students well in advance.
- v) UPS facility is available in all the laboratories.
- vi) Lighting system is very effective, along with the natural light in every laboratory.
- vii) All the laboratories are equipped with teaching- learning aids such as white board, projector, computers, Internet, etc.
- viii) ICT supported learning strategies are used for the enhancement of teaching learning process.
- ix) Every laboratory has separate dedicated technical staff possessing competent skills for handling hardware software tools pertaining to the laboratory.
- x) Research laboratory is available for all faculty members and students to carry out their research activities, minor and major projects.
- xi) Students are encouraged to conduct open ended experiments to improve their practical skills.

6.2. B1 – Code of conduct for the laboratories:

- i) Wearing ID card is mandatory.
- ii) Regularity and punctuality must be adhered to without fail.
- iii) The students have to come prepared for the experiments as per the cycle of experiments.
- iv) The students shall carry observation book and Laboratory record duly completed compulsorily.
- v) Attendance for all the laboratory and internal tests is compulsory.
- vi) Students must handle laboratory equipment as per the instructions and should help in maintaining the laboratory clean and tidy.
- vii) Disciplinary actions are taken against any student found indulging or meddling with systems/equipment configuration.
- viii) Students are advised not to use any non-educational applications or sites.

6.2. B2 – Files to be maintained for the laboratories:

SAMPLE FORMAT

SL NO	PARTICULARS	ASSET NO	QTY	DATE OF MAINTENANCE	NEXT DATE OF MAINTENANCE	SIGN OF L/I	SIGN OF L/C	SIGN OF HOD	REMARKS
1	AGGERAGETE IMPACT TESTER	NHCE/CED/AIT/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
2	AIR PERMEABILITY APPARATUS	NHCE/CED/APA/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
3	AIR PERMEABILITY APPARATUS	NHCE/CED/APA/HCL/002-003	2 NO	20/02/19	21/03/19	(Signature)			cleaned
4	CEMENT AUTO CLAVE DIGITAL	NHCE/CED/CACD/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
5	COMPACTION FACTOR APPARATUS	NHCE/CED/CFA/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
6	ELECTRONIC WEIGHING M/C	NHCE/CED/EW/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
7	COMPRESSION TESTING M/C 2000 K N	NHCE/CED/CTM/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
8	HOT PLATE	NHCE/CED/HP/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
9	HEATER COILED TYPE	NHCE/CED/HCL/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
10	CRUSHING VALUE APPARATUS	NHCE/CED/CVA/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
11	CONCRETE MIXER LAB TYPE	NHCE/CED/CMLT/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
12	CONCRETE MIXER PAN TYPE	NHCE/CED/LCMP/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
13	LOS ANGELES ABRASION TESTING M/C	NHCE/CED/LAA/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
14	MARSHAL APPARATUS	NHCE/CED/MA/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned
15	MANUAL WEIGHING M/C 100 KG	NHCE/CED/MW/HCL/001	1 NO	20/02/19	21/03/19	(Signature)			cleaned

Fig 1: -Maintenance Register

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

DEPARTMENT OF CIVIL ENGINEERING GEOTECHNICAL ENGINEERING LAB

SL NO	DATE OF ARIVAL	PARTICULARS	QTY	VENDOR	SERVED DATE	NEXT SERVICE DATE	NAME OF SERVING COMPANY	SIGN OF SERVICE MAN	SIGN OF L/I	SIGN OF L/C	SIGN OF HOD	REMARKS
1	22/2/12	CBR RATIO TEST APPARATUS	1	AIMIL LTD	22/08/19	21/8/20	Lawson & KMA	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	Working good condition
2	22/2/12	CONSOLIDATION APPARATUS	1	AIMIL LTD	22/08/19	21/8/20	—	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	—
3	22/2/12	DIRECT SHEAR APPARATUS	1	AIMIL LTD	22/08/19	21/8/20	—	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	—
4	30/1/12	LIQUID LIMIT DEVICE	1	V.K INSTRUMENTS	22/08/19	21/8/20	—	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	—
5	2/03/15	CASAGRANDE TYPE WITH ASTM GROOVING TOOL	2	V.K INSTRUMENTS	22/08/19	21/8/20	—	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	—
6	22/2/12	LABORATORY VANE SHEAR	1	AIMIL LTD	22/08/19	21/8/20	—	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	—
7	22/2/12	PERMEABILITY APPARATUS WITH OVER HEAD TANK	1	AIMIL LTD	22/08/19	21/8/20	—	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	—
8	02/3/15	SIEVE SHAKER	1	V.K INSTRUMENTS	22/08/19	21/8/20	—	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	—

Fig 2: -Service Register

AccuTech
LAB SOLUTIONS

Supplier of Lab Instruments, Material Testing equipments, Construction & Survey Instruments & Also undertaking Calibration of Survey Instruments, Lab Instruments & RMC batching Plants.

CALIBRATION CERTIFICATE

CUSTOMER NAME	THE DEPT OF CIVIL ENGINEERING NEW HORIZON COLLEGE OF ENGINEERING MARATHANALLI ROAD, BANGALORE
CERTIFICATE NO.	AT/CDL/9793-2/19-20
MACHINE NAME / SL NO.	FLEXURAL TESTING MACHINE / NHCE-GEOMCL/FLOO1
DATE OF CALIBRATION	22.01.2020
CALIBRATION DUE ON	21.01.2021
CAPACITY / L.C.	UNILAB / 100KN / 0.5 KN
L.S. NO.	F.T.M. 100KN (PRESSURE GAUGE RAM DIA 63MM)
SERIAL INSTRUMENT / SL NO.	PROVING RING INCBM CERTIFIED / 100KN 245
ENVIRONMENTAL CONDITIONS	TEMPERATURE: 27.10 °C, HUMIDITY: 65 %

MASTER INSTRUMENT DETAILS

SIGNATURE	SL NO.	CAPACITY	DIAL GAUGE NO.	TRACEABILITY / DATE	VALIDITY
PROVING RING	100KN 245	100KN	ASAHI —	CL - 2636 / 20 AUG 2019	20 AUG 2021

RESULTS OF CALIBRATION

PROVING RING DEFLECTIONS (DIVISIONS)	PROVING RING DEFLECTIONS (ON DIVISIONS)				AVERAGE READINGS (DIVISIONS)	DIFFERENCE	% ERROR (±1)
	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 4			
62.8	63.0	63.5	63.5	63.33	0.33	0.33	
133.9	134.0	134.5	134.5	134.17	0.67	0.26	
204.8	205.2	205.0	205.0	205.03	1.03	0.50	
270.0	272.0	275.0	277.5	277.50	1.50	0.54	
348.7	350.0	350.0	350.0	350.17	1.47	0.42	
421.0	423.0	423.0	423.0	423.17	2.17	0.46	
491.7	494.0	493.5	494.5	494.0	3.30	0.67	
564.3	566.5	566.5	566.5	566.50	2.70	0.48	
638.0	640.0	640.0	640.0	640.33	4.33	0.68	
708.8	—	—	—	—	—	—	

NOTE: THIS FLEXURAL TESTING MACHINE HAS BEEN VERIFIED AND THE RESULTS HAVE BEEN FOUND WITHIN THE PERMISSIBLE LIMITS OF ACCURACY (±2% AS PER IS 1819:1959)

RESULTS REPORTED ARE VALID AT THE TIME OF AND UNDER THE STATED CONDITIONS OF MEASUREMENTS

CHECKED BY: *[Signature]*

CALIBRATED BY: *[Signature]*

2685, 14th Main, E Block, 2nd Stage, Rajajinagar, Bangalore - 560 010. Phone: 080-23329430
Mob.: 9972095797 / 9448173262 Email: jaganpr@yahoo.co.in Web: www.accutechlabsolutions.com

Fig 3: -Calibration Record

NEW HORIZON COLLEGE OF ENGINEERING
EQUIPMENT HISTORY RECORD

DEPT: CIVIL
Equipment SL.No.: CONCRETE MIXER PAN TYPE/17611 LAB: C&H
(Asset No.) NHCE/CEO/HCL/LNHP/001 Date of Commissioning: 07/04/2017
Make/Model: 9891 Warranty Status: ONE YEAR COMPLETED

Sl. No	Date/Time	Nature of Break Down	Date of Last Service	Action Taken	Brief Description of service done/parts changed	Total Break down time	Approximate Cost of Service	Signature of Lab Instructor	Sign of HOD
1	01/06/2019	Pan Drum not lifting & tilting	01/09/2018	Informed to Servicing Person	Pan Drum Motor wheel changed	48 Hrs	Free	[Signature]	[Signature]

Fig 4: -Equipment Record

Exam Sem - 2019-2020

NEW HORIZON COLLEGE OF ENGINEERING
SYSTEM HISTORY RECORD

DEPT: CIVIL ENGINEERING LAB: Civil Design Lab C:009

Sl. No	System Asset No.	Break Down Date/Time	Nature of Break Down	Action Taken	Brief Description of service done/parts replaced	Total Break down time	Approximate Cost of Service	Signature Lab Incharge	Signature HOD
1.	NHCE-CEO-CBL Monitor - 08 CPU - 08	22.01.2020	O.S. corrupted	New O.S. installed	- Formatted the system - O.S. windows 10 - Basic software installed	8 Hrs	-	[Signature] Lab Incharge	
2.	NHCE-CEO-CBL Monitor - 11 CPU - 11	23.01.2020 9:30 AM	System showing no signal message	Reassembled the RAM and then re assembled the system	- De assembled the RAM and then re assembled the system	1 hour	-	[Signature] Lab Incharge	
3.	NHCE-CEO-CBL Monitor - 10 CPU - 10	27.01.2020	O.S. corrupted	New O.S. installed	- Formatted the system - New O.S. installed with basic software	8 Hrs	-	[Signature] Lab Incharge	
4.	NHCE-CEO-CBL Monitor - 19 CPU - 19	14.02.2020	O.S. corrupted	New O.S. installed	- System is formatted - O.S. windows 10 installed - Microsoft basic software are installed	1 day	-	[Signature] Lab Incharge	
5.	NHCE-CEO-CBL Monitor - 26 CPU - 26	03.02.2020	O.S. corrupted	New O.S. installed	- System is formatted - O.S. windows 10 installed - Microsoft basic software are installed	1 day	-	[Signature] Lab Incharge	
6.	NHCE-CEO-CBL Monitor - 28 CPU - 28	11.02.2020	O.S. corrupted	New O.S. installed	- System is formatted - O.S. windows 10 installed - Microsoft basic software are installed	1 day	-	[Signature] Lab Incharge	

Fig 5: -System History Record

NEW HORIZON COLLEGE OF ENGINEERING DEPARTMENT OF CIVIL ENGINEERING										papergrid									
Date: / /										Date: / /									
SL. NO.	MONTH	DATE	TIME	DURATION	EXPERIMENT	SEM I	SEM II	SEM III	SEM IV	SEM V	SEM VI	SEM VII	SEM VIII	SEM IX	SEM X	SEM XI	SEM XII	SEM XIII	SEM XIV
1.	July	28.07.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
2.	Aug	03.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
3.	Aug	04.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
4.	Aug	05.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
5.	Aug	06.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
6.	Aug	07.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
7.	Aug	08.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
8.	Aug	09.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
9.	Aug	10.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
10.	Aug	11.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
11.	Aug	12.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
12.	Aug	13.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
13.	Aug	14.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
14.	Aug	15.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
15.	Aug	16.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
16.	Aug	17.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
17.	Aug	18.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
18.	Aug	19.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
19.	Aug	20.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
20.	Aug	21.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
21.	Aug	22.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
22.	Aug	23.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
23.	Aug	24.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
24.	Aug	25.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
25.	Aug	26.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
26.	Aug	27.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
27.	Aug	28.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
28.	Aug	29.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
29.	Aug	30.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
30.	Aug	31.08.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A
31.	Aug	01.09.2019	1.50 to 4.50 pm	3 hrs	Civil	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Fig 6: -Lab Usage Record

Photographs of the Equipments from Each laboratories

FLUID MECHANICS AND HYDRAULIC MACHINERY LAB



Fig 7:- Impact of jet on Vanes



Fig 8:- Pelton Turbine



Fig 9:- Orifice And Mouthpiece Set Up



Fig 10:- Vertical Orifice



Fig 11:- Bernoulli's Apparatus



Fig 12:- Friction loss in pipe lines

ENVIRONMENTAL ENGINEERING LAB





Fig 13:- Flame Photometer



Fig 14:- Jar Test Apparatus



Fig 15:- Muffle Furnace



Fig 16:- Ph Meter



Fig 17:- Conductivity Meter



Fig 18:-B.O.D Incubator

MATERIAL TESTING LAB





Fig 19:- Pendulum Type Impact Testing



Fig 20:- U.T.M



Fig 21:-Hardness Testing Machine

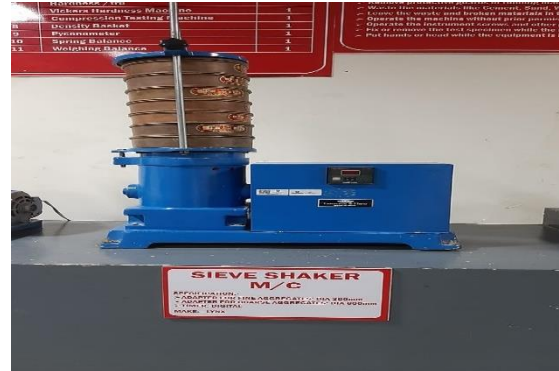


Fig 22:-Sieve Shaker Machine



Fig 23: - Torsion Testing Machine



Fig 24: -Tile Testing Machine

GEOTECHNICAL ENGINEERING LAB

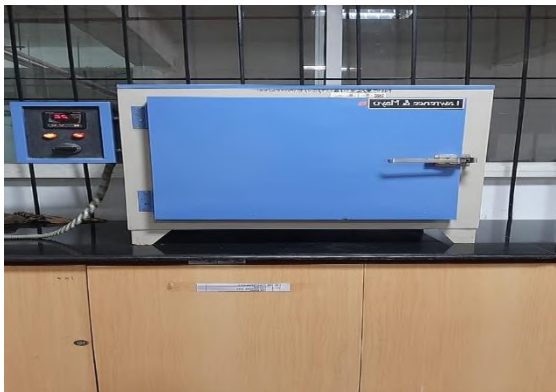


Fig 25:- Digital Hot Air Oven



Fig 26:- Triaxial Test Apparatus



Fig 27:- Direct Shear Apparatus



Fig 28:- Universal Auto Matic Compactor

CONCRETE TECHNOLOGY LAB



Fig 29:-CBR Test Apparatus



Fig 30:- Marshall Stability Apparatus



Fig 31:- Hot Air Oven



Fig 32:- Vee-Bee Consistometer

6.3 SAFETY MEASURES IN LABORATORIES (10)

Various Safety Measures adopted in each laboratory are listed below in Table B.6.3

Table B.6.3 Laboratory Safety Measures

Sr. No.	Name of the Laboratory	Availability of Safety Measures
1.	Mechanics of Fluids Laboratory	<ul style="list-style-type: none"> • Fire extinguisher • First-Aid Box • Sprinkler • Electrical Fuses of correct ratings • Display of Laboratory instructions/guidelines in the laboratory. • Calibrated, ensured proper wiring and grounding.
2.	Hydraulics & Hydraulics Machinery Laboratory	<ul style="list-style-type: none"> • Fire extinguisher • First-Aid Box • Sprinkler • Electrical Fuses of correct ratings • Display of Laboratory instructions/guidelines in the laboratory. • Calibrated, ensured proper wiring and grounding.
3.	Plane Surveying Laboratory	<ul style="list-style-type: none"> • First-Aid Box • Fire extinguisher • Sprinkler • Fuses of correct ratings • Display of Laboratory instructions/guidelines in the laboratory. • Calibrated and ensured proper wiring and grounding.
4.	Higher Surveying Laboratory	<ul style="list-style-type: none"> • Fire extinguisher • First-Aid Box • Sprinkler • Electrical Fuses of correct ratings • Display of Laboratory instructions/guidelines in the laboratory. • Calibrated, ensured proper wiring and grounding.
5.	Material Testing Laboratory	<ul style="list-style-type: none"> • First-Aid Box • Fire extinguisher

		<ul style="list-style-type: none"> • Sprinkler • Electrical Fuses of correct ratings • Display of Laboratory instructions/guidelines in the laboratory. • Calibrated, ensured proper wiring and Grounding
6.	Concrete Technology Laboratory	<ul style="list-style-type: none"> • Fire extinguisher • First-Aid Box • Sprinkler • Electrical Fuses of correct ratings • Hand gloves • Display of Laboratory instructions/guidelines in the laboratory. • Calibrated, ensured proper wiring and grounding
7.	Analysis of Indeterminate Structures Laboratory	<ul style="list-style-type: none"> • Fire extinguisher • First-Aid Box • Sprinkler • Electrical Fuses of correct ratings • Display of Laboratory instructions/guidelines in the laboratory. • Calibrated, ensured proper wiring and grounding
8.	Applied Geotechnical Engineering Laboratory	<ul style="list-style-type: none"> • Fire extinguisher • First-Aid Box • Sprinkler • Electrical Fuses of correct ratings • Hand gloves • Display of Laboratory instructions/guidelines in the laboratory. • Calibrated, ensured proper wiring and grounding
9.	Design & Drawing of Steel Structural Elements Laboratory (Computer Aided Design Laboratory)	<ul style="list-style-type: none"> • Fire extinguisher • First-Aid Box • Sprinkler • Electrical Fuses of correct ratings • Display of Laboratory instructions/guidelines in the laboratory • Calibrated, ensured proper wiring and grounding
10.	Highway Materials Laboratory	<ul style="list-style-type: none"> • Fire extinguisher • First-Aid Box • Sprinkler • Hand gloves • Display of Laboratory

		<p>instructions/guidelines in the laboratory.</p> <ul style="list-style-type: none"> • Calibrated, ensured proper wiring and grounding
11.	Environmental Engineering Laboratory	<ul style="list-style-type: none"> • Fire extinguisher • First-Aid Box • Sprinkler • Electrical Fuses of correct ratings • Display of Laboratory instructions/guidelines in the laboratory. • Calibrated, ensured proper wiring and grounding

PHOTOS OF SAFETY MEASURES IN THE LAB'S



Fig 33: Fire Extinguisher



Fig 34: MCB



Fig 35: First Aid Kit



Fig 36: Sealed Lan Connector

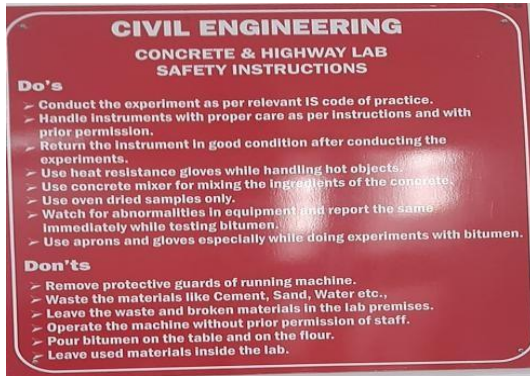


Fig 37: - Do's and Don'ts

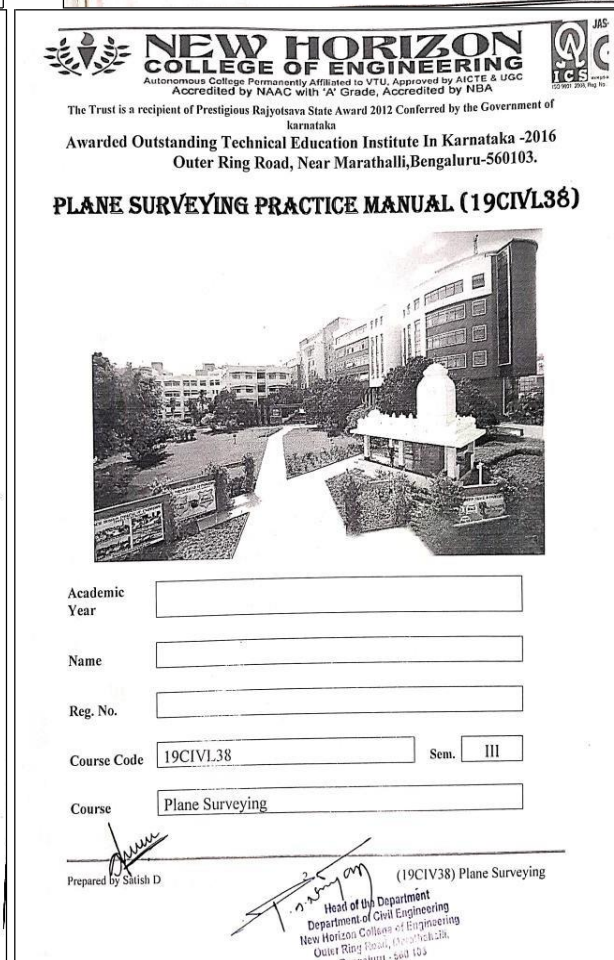
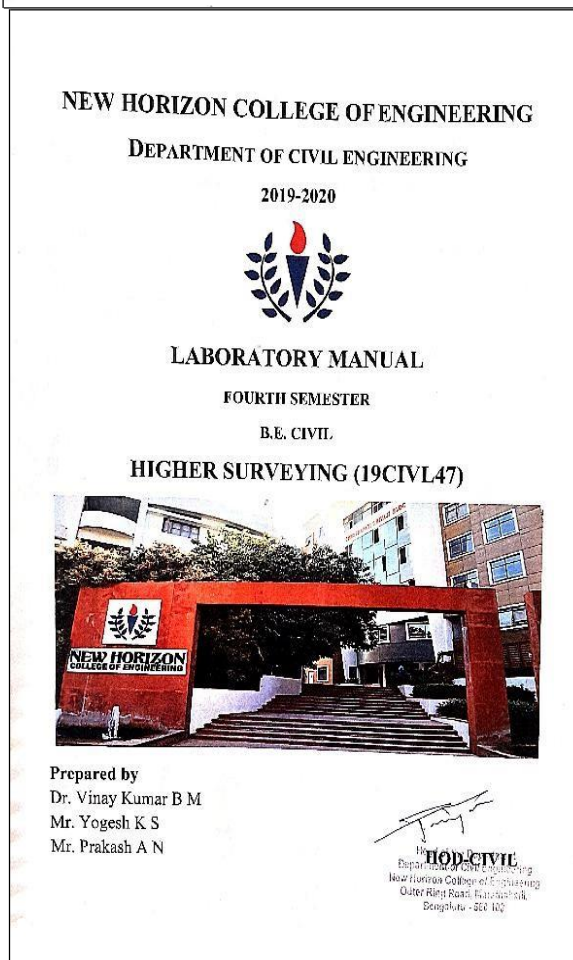
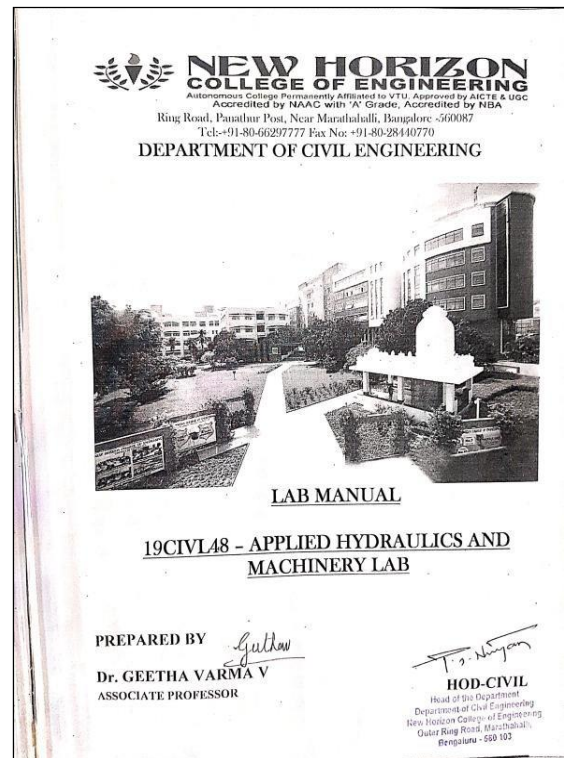
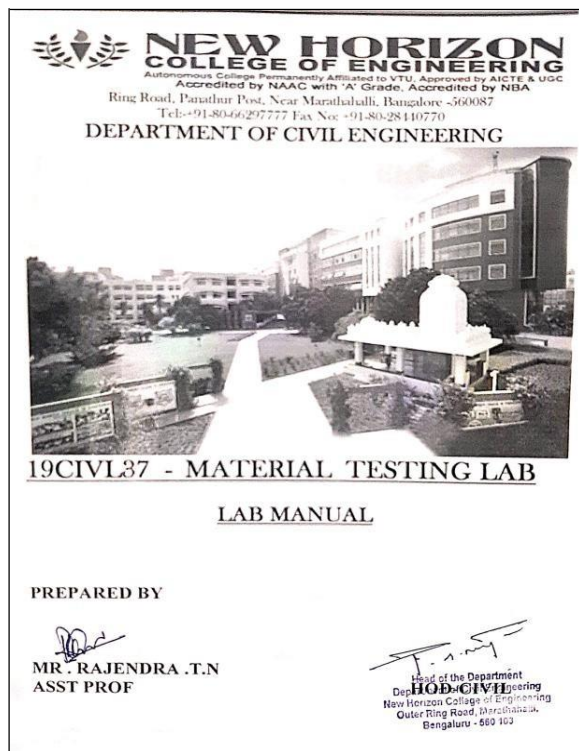


Fig 38: - Sprinkler



Fig39: -Hand Gloves

Lab manual sample copy top cover sheet



6.4 Project Laboratory/ Facilities (20)

6.4.1 Project Facilities: For projects the following major facilities are available to the students:

- 24 X 7 uninterrupted power supply
- 24 x 7 Wi-Fi connections in the campus
- Subscriptions to e-Journals.
- State of the art equipment's are available in the departments.
- High Speed latest computers with latest software.
- Opportunity for the students to display their project to Public

6.4.2 Project/Research Laboratories:

- Environmental Engineering Laboratory
- Material Testing Laboratory
- Computer-Aided Design Laboratory
- Concrete and Highway laboratory
- Geotechnical laboratory
- Center of Excellence laboratory

6.4.3 Experimental Setup:

- Universal Testing Machine(UTM)
- Consolidation apparatus
- Triaxial apparatus
- CBR test apparatus
- Flexural testing machine
- PH & jar test set up
- Compression Testing Machine
- Marshall Stability Apparatus

6.4.4 Implementation of innovative project

- Students are encouraged to implement their own creative and innovative ideas with the well-established Project/Research lab.
- Project/ Research lab provides the platform for the students to complete their academic requirements like mini projects and major projects.
- Project lab is exclusively utilized for the research and project work with the instruments and software facilities available.

6.4.5 Laboratory Manuals: Manuals have been prepared for the following laboratories

- Mechanics of Fluid Laboratory
- Hydraulic & Machinery Laboratory
- Concrete Technology Laboratory
- Plane surveying Laboratory
- Higher surveying Laboratory
- Highway Materials Laboratory
- Applied Geotechnical Engineering Laboratory
- Material testing Laboratory
- Environmental Engineering Laboratory
- Design and drawing of steel structural element Laboratory
- Analysis of Indeterminate Structure Laboratory

B.6.4.a.b.c Provides the successfully implemented projects of our students under the guidance of Departmental faculty members at our project/research/center of Excellence lab.

Projects (2017-18)

Sl. No	Topic Name	Student Name	Guide	Lab	Remarks
1.	Flash flood estimation management and assessment of upper Ponnayar, watershed Bengaluru urban area using GIS and Remote Sensing	Keerthi Shabeer Ali Sharvana Monish Raj	Dr. Mahesha N	Computer Aided Design Lab	ARCGIS 10.3.1 and QGIS Software
2.	Study on performance of steel slag Aggregates as fine Aggregate in Concrete Mix	Parri Jaswanth Madhu M Maruthi Reddy Mohan M Diggi	Mr. Pawan Kumar K	Concrete Technology Lab	Compression Testing Machine, Flexure testing machine
3.	Use of Demolished Concrete Waste in Partial Replacement of Fine and Coarse Aggregate in Concrete	Goutham V Charan U T B R Bheema Reddy Darshan A M	Mr. Sandeep T D	Concrete Technology Lab	Compression Testing Machine, Flexure testing machine

4.	Biogas Generation with Food Waste by Anaerobic Digestion Using Sludge Slurry as A Medium	Khalid Ajaz Kumar Shivankar Adil Mohd. Jeelani Basha R K Pintu	Ms. Geetha Varma V / Ms. Vandana Patyal	Environment Engineering Lab	Turbidity Meter, Spectrophotometer , Ph Meter, Titration Apparatus, Jar Test,
5.	Compatibility & Efficiency of Super Plasticizer & New Generation Super Plasticizer with Different Brands of Cement	Adarsh Lokesh Reddy Dunnu ' Manoj R Madhu Patil	Mr. Sudhakar G N	Concrete Technology Lab	Compression Testing Machine, Flexure Testing Machine, Marsh cone

Projects (2018-19)

Sl. No	Topic Name	Student Name	Guide	Lab	Remarks
1.	Re-Designing the Sewer and Storm Control Management in Nhce Campus for Future Forecasting	Ravishankar N Varun Kumar V Vinayak M Jadhav Madhu B N	Ms. Swetti Jha	Environmental Engineering Lab	Turbidity Meter, Spectrophotometer, Ph Meter, Titration Apparatus
2.	A Parametric Study of Waste Water and Partially Replacement of Its Sludge in Construction Material	Akshay R T Indumathi N Mahantesh Seema B C	Ms. Ramya H S	Concrete Technology Lab	Compression Testing Machine, Flexure testing machine
3.	Experimental Study On Partial Replacement of Steel Slag as Fine Aggregate in Slag Cement Concrete Mix	S Pawan Kalyan Reddy Uday Kumar K K	Mr. Satish D	Concrete Technology Lab	Compression Testing Machine, Flexure testing machine

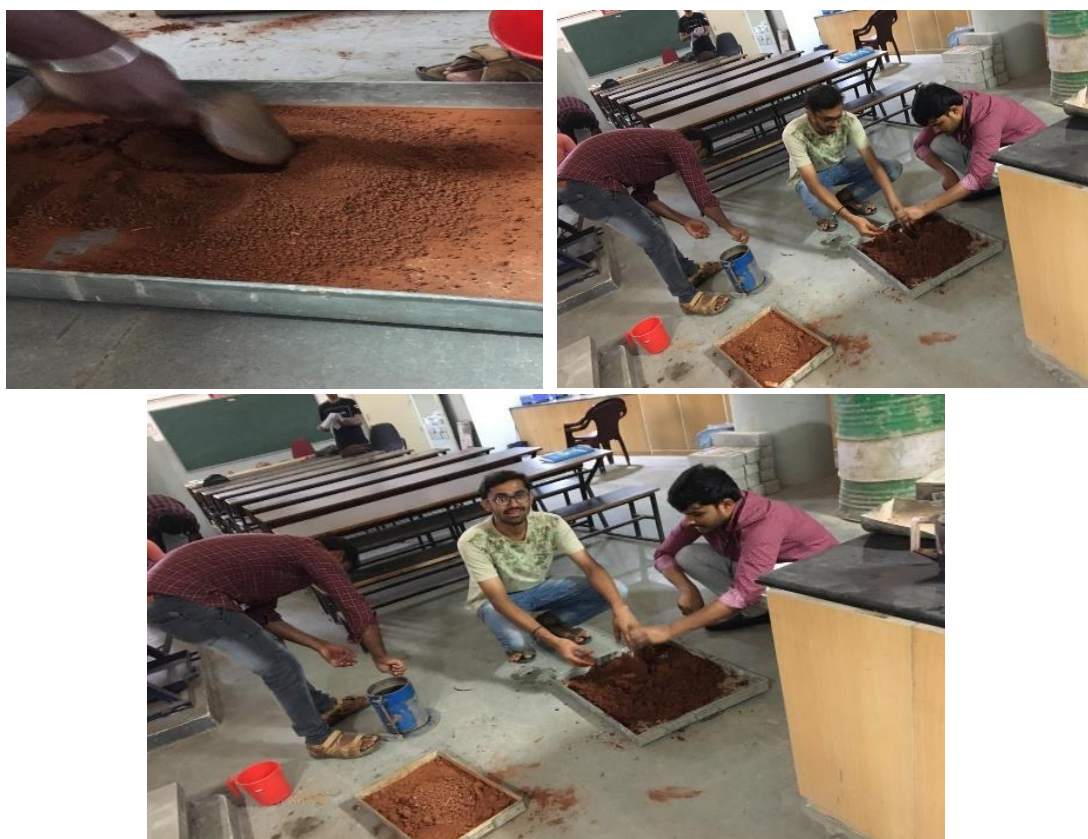
4.	Partial Replacement of Cement with Ggbs and Fly Ash in Self Compacting Concrete	Mohith G N Prashanth. A Yashwanth Vivekanada	Ms. Suma Paralada	Concrete Technology Lab	Compression Testing Machine, Flexure testing machine, SCC apparatus
5.	Experimental Study of Ultra High Performance Concrete	S.V Jatin Reddy Sai Prasad Praveen	Dr. Niranjan P. S	Concrete Technology Lab	Compression Testing Machine, Flexure testing machine

PROJECTS (2019-20)

Sl. No	Topic Name	Student Name	Guide	Lab	Remarks
1.	Stabilization of Geogrid Reinforced Lithomargic Soil Using Hyposludge	Alisha Priya R Lavanya P Prerana Shashi Kumar	Ms. Serin Issac	Geotechnical Engineering	Std proctor apparatus, California bearing apparatus, Unconfined compression apparatus
2.	Study on theoretical load capacity of FRP reinforced concrete beams using codal provisions against experimental results	Borse Harshal Nithin Nanda Kishore Varun Patil	Mr. Rajendra T. N	Concrete Technology Lab	Universal Testing Machine, Compression Testing Machine
3.	Analysis & Design of multistory construction	Kumara Vishwa Kishore Mallikarjun Gautham	Mr. Rahul N. K	Computer Aided Design Lab	ETABs Software

4.	Geopolymer concrete using rice husk ash	Deeraj Deekshith Abhishek Shiva Prasad	Mr. Sudhakar G N	Concrete Technology Lab	Compression Testing Machine, Flexure Testing Machine
5.	Studies on repair of concrete elements	Sanjay Rakshith Pramod Anajenya	Mr. Channabasa va	Concrete Technology Lab	Compression Testing Machine, Flexure Testing Machine

CONCRETE TECHNOLOGY LAB PROJECT WORK



GEOTECHNICAL ENGINEERING LAB ROJECT WORK



Fig 40: -Photos of students doing their project work in the labs

CONCRETE TECHNOLOGY LAB PROJECT WORK



GEOTECHANICAL ENGINEERING LAB PROJECT WORK



Fig40: -Photos of students doing their project work in the labs



DEPARTMENT OF CIVIL ENGINEERING

CRITERION 7

CONTINUOUS IMPROVEMENT

CRITERION 7	CONTINUOUS IMPROVEMENT	75
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7.1. Actions taken based on the results of evaluation of each of the POs & PSOs (30)

Identify the areas of weaknesses in the program based on the analysis of evaluation of POs & PSOs attainment levels. Measures identified and implemented to improve Pos & PSOs attainment levels for the assessment years.

Table 7.1: POs Attainment Levels and Actions for improvement – CAYm1 (Batch 2015-2019)

POs	Target Level	Attainment Level	Observation
PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of Civil Engineering problems.			
PO1	1.89	2.62	<p>Civil engineering curriculum needs sound knowledge of physics and mathematics. Students should be able to correlate the theoretical concepts from basic sciences with Civil engineering applications.</p> <p>Observations:</p> <ol style="list-style-type: none"> 1. Some lateral entry students were not exposed to fundamental in the mathematics/Science subjects before joining their engineering course. 2. Some students found it difficult to understand mathematical based engineering subjects. 3. Some students could not relate basic engineering subject to core engineering subject. <p>Target level has been attained except in courses 16HSS322, 16CIV44, CIV54, and CIV63.</p> <p>The following actions were considered / implemented to sustain/improve this attainment level.</p>
<p>Action taken:</p> <ol style="list-style-type: none"> 1. Workshops were arranged. 2. Tutorials were engaged with additional assignments for slow learners. 3. Seminars were conducted to boost the application oriented technical knowledge. 4. Industrial visits were arranged and internship to core industries was encouraged to get practical exposure. 			

5. Students were encouraged to participate in technical events where they could apply both basic and engineering knowledge.

PO2: Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO2	1.80	2.61	<p>The first- and second-year curriculum helps in shaping the problem solving and analysis skills required for major Civil engineering courses in the subsequent years. Limited real time applications-oriented case example hampers the students understanding levels.</p> <p>Target level has been attained except in courses 16HSS322, 16CIV44, CIV54, and CIV63.</p> <p>The following actions were considered/implemented to sustain/improve this attainment level</p>
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Action taken:

1. Slow learners were identified and provided with additional assignments.
2. Additional classes were conducted beyond the regular planned classes.
3. Industrial visits were arranged and internship to core industries was encouraged to get practical exposure.

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO3	1.76	2.65	<p>Most of the project works undertaken by the students focus on engineering and technical aspects with emphasis on sustainability, social, cultural and environmental concerns.</p> <p>Target Achieved except in courses 16HSS322, 16CIV44, and CIV63.</p> <p>The following actions were considered/implemented to sustain/improve this attainment level.</p>
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Action taken:

1. Students were encouraged to participate in various societal and environmental relevant activities organized such as Swachh Bharat Abhiyan (Clean India Drive and Awareness programme).
2. Periodic programmes on social, cultural and environmental awareness.
3. Encouraging students to visit industries and take internship to get practical exposure.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information related to Civil Engineering problems to provide valid conclusions.

PO4	1.69	2.58	<p>Curriculum provides Scope for research-based learning through final year project. Most of the students are making progress in conducting research-based investigations of complex problems and reaching conclusions through project.</p> <p>Target level has been attained except incourses16HSS322, 16CIV44, CIV54, and CIV63.</p> <p>The following actions were considered/implemented to sustain/improve this attainment level.</p>
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Action taken:

1. Project phase1 & 2 in the curriculum for final year students helps to improve the research ideology, analysis of complex problems in the civil engineering domain and provide the information of the research outcome.
2. Case studies in laboratory and theory courses were discussed and students are encouraged to do mini projects.
3. Students were encouraged to participate in Live-in-Labs projects of a multidisciplinary real-life problem-solving, field-oriented projects, facilitates research, development and deployment of solutions for challenges faced by the rural communities.
4. Several Workshops on Design of Experiments were conducted.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex civil engineering activities with an understanding of the limitations.

PO5	1.60	2.71	<p>Selected laboratory courses are conducted with the usage of modern tools wherever possible.</p> <p>Target Achieved except incourse16HSS322.</p> <p>The following actions were considered /implemented to sustain/improve this attainment level.</p>
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Actions Taken:

1. Students were encouraged to visit various construction sites and also to take up internships at design office to familiarize with the modern equipment / software tools.
2. Seminars and workshops were conducted to give hands on experience to various software/IT and modern equipment used in industry.
3. Faculty members were encouraged to take up industrial consultancy to make use of the laboratory facilities as well as to provide the students to work on the real-world problems.
4. Upgrading the computational infrastructure is taken.
5. Case studies on subject areas were encouraged and allowed students to explore the same using relevant software tools.

PO6: Engineer and society: Apply the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the civil engineering professional practice.

PO6	1.53	2.62	<p>Civil engineering profession is highly linked to societal well-being, health and safety, legal and cultural dimensions of built environment.</p> <p>Target level has been attained except in course 16HSS322.</p> <p>The following actions were considered/implemented to sustain/improve this attainment level.</p>
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Action taken:

1. Awareness program on Fire and Safety was organized to inculcate a strong sense of responsibility among the budding student engineers.
2. Students were encouraged to participate in social clubs like NSS, Nature Club, and Social Welfare Club.
3. Students were advised to devote their time for charity work.

Industrial visits, safety and health related workshops and seminars were arranged for the students, that helped to gain the knowledge of safety, health and social aspects of civil engineering applications.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO7	1.44	2.68	<p>The students should be aware of major environmental issues of infrastructure projects and come up with innovative solutions for sustainable development.</p> <p>Target level has been attained except in course 16HSS322.</p> <p>The following actions were considered / implemented to sustain/improve this attainment level.</p>
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<p>Action taken:</p> <ol style="list-style-type: none"> 1. Students were encouraged to take up projects focusing sustainability of built environment. 2. Proper guidance was given to the students to implement projects leading to right selection and optimized material that would guarantee sustainable development. 3. Visit to Effluent treatment, hazard and waste management plants were arranged. 			
<p>PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.</p>			
PO8	1.49	2.51	<p>The electives of cultural education and humanities provide the insights about professional ethics, however, in real life situations it needs to be addressed.</p> <p>Target level has been attained except in course 16HSS322.</p> <p>Observations: Students were not able to apply ethical principal and responsibilities towards engineering practice.</p> <p>The following actions were considered/implemented to sustain/improve this attainment level.</p>
<p>Action taken:</p> <ol style="list-style-type: none"> 1. Following Technical activities were organized by department to achieve the target: Training on Aptitude/ group discussion/ HR training/ Reasoning, Quantitative test were conducted. 2. Numerous Guest Lectures were arranged on topics related to professional ethics / value education. 3. Special Lectures were organized on personality development of the students. 4. Career guidance program, corporate lectures and motivational talks were arranged to gain knowledge of professional ethics and responsibilities. 			
<p>PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.</p>			
PO9	1.48	2.75	<p>Ability to work as a team and coordination among the team members are found to be good. The students are capable of working on a project/idea as a team.</p> <p>Target level has been attained except in course 16HSS322.</p> <p>Observations:</p> <ol style="list-style-type: none"> 1. Absence of correlation among the team Members during the project work were observed. 2. It has been observed sometimes some students did not perform given task individual as required.

			The following actions were considered/implemented to sustain/improve this attainment level.
<p>Action taken:</p> <ol style="list-style-type: none"> 1. Students were motivated to participate in various club activities where they will learn to function effectively both as individuals and as team members in a group. 2. Several students' chapter activities were organized to demonstrate their abilities as team members in a group. 3. Projects and seminars given to the students was help them to work effectively as an individual and team. 4. Students were encouraged for participation in social activities like visit to orphanages, old age home, tribal schools, NGOs as group activity. 5. Students were encouraged to organize and participate in technical events to improve their leadership and personal development. 			
<p>PO10: Communication: Communicate effectively on complex civil 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 instructions.</p>			
PO10	1.50	2.73	<p>Presentation, report writing and communication skills needs further improvement among some of the students.</p> <p>Target level has been attained except in course 16HSS322.</p> <p>The following actions were considered/implemented to sustain/improve this attainment level.</p>
<p>Action taken:</p> <ol style="list-style-type: none"> 1. Students were trained to write effective reports and make effective presentations on projects undertaken. 2. Students were encouraged to participate in class room presentations and national/international conferences/seminars/symposium/hackathon. 			
<p>PO11: Project management and finance: Demonstrate knowledge and understanding of the civil 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 as a civil engineer.</p>			
PO11	1.74	2.63	<p>Course on principles of management is offered. Still, more relevant courses can be identified to improve the managerial skills to the students.</p> <p>Target level has been attained except in course 16HSS322.</p> <p>The following actions were considered/implemented to sustain/improve this attainment level.</p>

<p>Action taken:</p> <ol style="list-style-type: none"> 1. Project management including economics and organizational processes were exposed to the students through core and electives courses in 2015 curriculum. 2. The students were encouraged to organize and lead various technical and cultural events to improve the managerial skills. 3. Students were motivated to handle financial management during Technical & Non-Technical project work. 			
<p>PO12: Life-long learning: Recognize the need for, willingness to prepare for and to exhibit pro-activeness to engage in independent and life-long learning in the broadest context of technological change with respect to civil engineering field.</p>			
PO12	1.43	2.73	<p>Final year courses emphasize the attitude for lifelong learning to learn about contemporary developments.</p> <p>Target level has been attained except in courses 16HSS322 and CIV44.</p> <p>The following actions were considered/implemented to sustain/improve this attainment level.</p>
<p>Action taken:</p> <ol style="list-style-type: none"> 1. Students were exposed to various online learning platforms to learn core and specialized subjects. 2. Teachers were advised to highlight the need for lifelong learning to the students. 3. Broad concepts regarding the recent developments in Civil Engineering were introduced to the students. 4. Students were motivated to pursue higher studies. 			
<p>PSOs: Attainment Levels and Actions for improvement – CAYm1 (Batch 2015-2019)</p> <p>Table 7.2: PSOs Attainment Levels and Actions for Improvement</p>			
<p>PSO1: Graduates of this programme will acquire proficiency to enable them to apply fundamental technical knowledge and skills to find innovative solutions for challenges and problems in various domains of Civil Engineering.</p>			
PSO1	1.83	2.50	<p>The curriculum provides fundamental engineering concepts and technical knowledge with practical applications in diverse Civil engineering field.</p> <p>Target level has been attained except in courses 16HSS322, CIV44, CIV54 and CIV63.</p> <p>Observations:</p> <ol style="list-style-type: none"> 1. Students were not able to apply the theoretical knowledge in designing the projects.

			The following actions were considered/implemented to sustain/improve this attainment level.
<p>Action taken:</p> <ol style="list-style-type: none"> 1. As Civil Engineers rely on complex and sophisticated software to develop designs, and manage projects, workshops were conducted to enhance the students' technical proficiency to meet industry standards. 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. 3. Industrial visits were arranged and internship to core industries was encouraged to get practical exposure. 			
<p>POS2: Graduates will be able to practice Civil Engineering profession in an ethical manner, as an individual or a team member to conceptualize and implement eco-friendly sustainable technologies for the benefit of mankind.</p>			
PSO2	1.67	2.57	<p>Target level has been attained except in courses 16HSS322, CIV44, and CIV54.</p> <p>The following actions were considered/implemented to sustain/improve this attainment level</p>
<p>Green technologies make buildings more energy efficient and sustainable. They have lower carbon foot print and a reduced impact on environment. Hence workshops were conducted to enhance the students' knowledge in related areas such as Biodegradable Materials, Green Insulation, use of smart appliances, cool roofs, Low Energy House & Zero Energy Building Design, Water Efficiency Technologies, and Self-Powered Buildings.</p>			

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

7.2.1 The Academic audits

The main objective of an academic audit is to ensure both quality of academic practices in the department and attainment of target achievement by implementing quality assurance mechanisms. The different reports and feedbacks from various authorities are reviewed in the department and necessary corrective measures are recommended to improve further. In order to implement continuous improvement in the teaching learning process, a formal feedback mechanism comprising attributes such as academic activities, associated practices, responsible person for carrying out audit, and frequency of audit.

The Academic audits are conducted once in a semester. The process consists of internal audits and external audits. Audits are conducted to improve the faculty teaching/learning process, augment Laboratory facilities, and to widen departmental activities.

7.2.2. Academic internal audit process:

Academic Audits are:

- a) Teaching/Learning Centric, and
- b) Student Centric

Academic internal audit committee inspects the pertaining documents and recommends necessary actions on various shortfalls. Table 7.3 shows the list of Auditors year wise.

Table 7.3: List of Auditors

Year	Auditors
2019-20 (CAY)	Ms. Hima Bindhu, Educational Prog.analyst, NHQASDC
	Dr. Meenatchi Sundaram, Assoc. Prof, MCA
	Dr. Adhikari, Professor, CSE
	Dr. Anitha S Rai, HOD, Library& information center, Convener
2018-19 (CAYm1)	Dr. Anitha S Rai, HOD, Library& information center, Convener
	Dr. Anandhavardhan, HOD, Biotech
2017-18 (CAYm2)	Dr. Anitha S Rai, HOD, Library& information center, Convener
	Dr. Girija S, Head, NHQASDC

Roles and responsibilities:

- i. Verifying number of students admitted with the Roll call list of the Department.
- ii. Verifying class timetables as per the schedule.
- iii. Preparing schedule for conducting meetings with all counselors for updating the database.
- iv. Verifying the course files and Course notes.
- v. Verifying the quality of Internal Question Papers.
- vi. Verifying the quality of students projects (Mini & Major).
- vii. Suggesting measures related to result analysis.

The flow chart depicting process of Academic internal audit is as below:

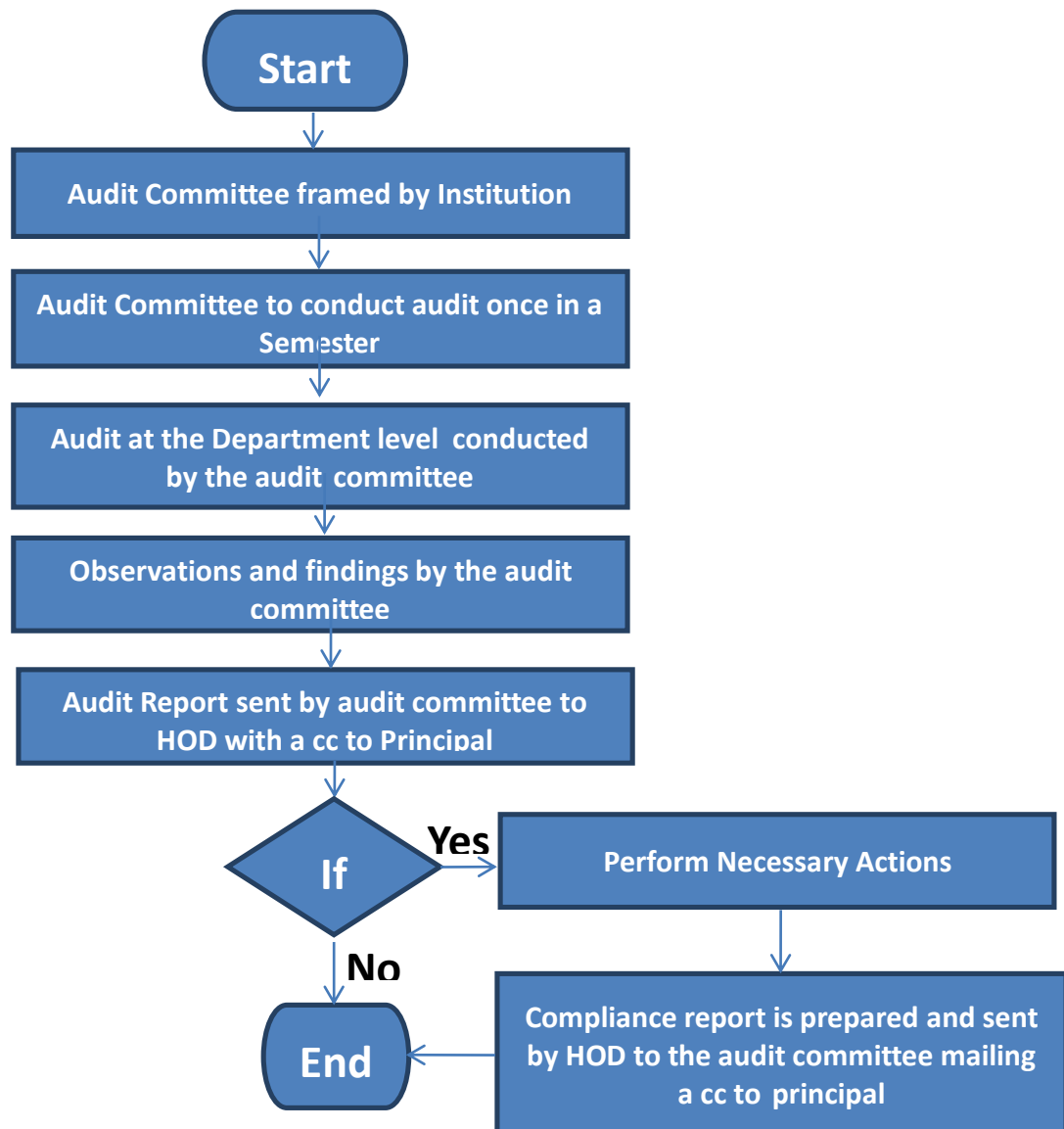


Figure 7.1: Flow diagram for internal audit process

7.2.2 (a1) Faculty (Teaching/Learning) centric program- Audit Attributes

Documents pertaining to different subsections of various parameters as mentioned in the below table are verified during the internal academic audits.

Table 7.4: Academic Audit Attributes checklist

Sl. No.	Activities	Mechanism
1.	Verification of Course File	Check list: 1. Calendar of Events 2. Subject Allotment 3. Time Table 4. Syllabus 5. Lesson Plan 6. Attendance Register 7. Assignment Questions 8. Internal Question Paper and Scheme of Evaluation 9. Internal Test Marks 10. IA- Result Analysis & CAPA Report 11. Previous Year Question Papers 12. Special Class Records (if conducted) 13. Teacher- Appraisal Feedback 14. Exam Related Work
2.	Laboratory Facilities	Check List: 1. Stock Register 2. Consumable register 3. Login Register/Issue Register 4. Maintenance Register 5. Service Register
3.	R&D /Consultancy Activities	Check List: a. Details about Research Center / Supervisors / Research Scholars b. Details about publications / grants / patents c. Details about Consultancy d. Students publication details
4.	Faculty Development Activities	Check List: a. Conferences / Symposium / Seminars / FDPs attended by the faculty. b. Conferences / Symposium / Seminars / FDPs organized. c. Course Handouts & Books published by the faculty. d. MOUs executed

5.	Board of Studies (BOS) As per Statutory guidelines	Check List: a. Constitution of BOS as per norms. b. Meeting and its minutes – at-least once in a year (ensure for the structure)
6.	Board of Examiners (BOE)	Check List: a. Constitution as per norms b. Meeting and its minutes c. Quality of question papers at SEE d. No. of QPs set by External & Internal Examiners

7.2.2(a2) Faculty (Teaching/Learning) centric program- corrective action

Table 7.5: List of Academic Audit Attributes and their corrective action

Sl. No	Activities	Mechanism (Check List)	Responsible persons to carry out audit	Frequency of Audit	Audit Reports (Action Plan)	Corrective Action
1.	Verification of course File	a. Calendar of Events	Head of Department at Departmental level. Academic Audit Committee at Institute level	Once in a semester	All course files and lesson plans are prepared as per the time table and syllabus before commencement of the new semester by respective Course coordinators.	Re-auditing will be done for the nonconformity.
		b. Subject Allotment				
		c. Time Table			Curriculum delivery progress is monitored by Head of Department fortnightly.	If any course is lagging in the coverage of syllabus as per the lesson plan, the respective faculty will be counseled by Head of Department. They are suggested to take extra classes.
		d. Syllabus and Lesson Plan				

		e. Attendance Register	Verification of reports by HOD.	Monthly	Enlisting Absentees	Students who have less than 50% attendance are counseled and their parents are informed
		f. Assignment questions, internal question paper and scheme of valuation		One week before conduction of CIE	Quality of Assignments, CIE question papers and scheme of valuation, and quizzes are checked by internal audit committee	If the quality is not of desired standard, the concerned faculty is counseled to improve it in compliance with RBT Levels.
		g. Internal Test Marks, IA-Result Analysis, CAPA Report & Special Class Records (if conducted)			Marks are collected from the faculty members and the results are analyzed. Identify students' learning capability based on CIE marks	Based on the students' performance, the students are divided into two categories: Slow and Fast learners. The identified slow learners are counseled and special care has been given to those students to improve their performance.

		h. Teacher-Appraisal Feedback	Dean Academic	Once in a semester	.	On Students' feedbacks, analysis is made on 5-point scale. If any of the faculty members having feedback is less than 3. 5-point scale the respective faculty will be personally called and given suggestions by Head of Department.
		i. Exam Related Work	Controller of Examination	Once in a semester	As per Academic schedule in the BOE meeting, committee member's check question papers with the relevance of questions to COs & RBT levels.	If there are any suggestions, concerned course coordinator refines the question paper based on the suggestion given BOE committee. If there are no suggestions committee will give approval.

2.	Laboratory Facilities	<p>Check List:</p> <ul style="list-style-type: none"> a. Lab Manual and Evaluation scheme b. Student records c. Equipment and software status d. Stock Register e. Consumable register f. Login Register/Issue Register g. Maintenance Register h. Service Register 	Verification of reports by HOD.	Before the start of Semester	<p>1. Laboratory manuals and evaluation scheme are prepared before commencement of the semester by respective course coordinator.</p> <p>2. All these files are verified and approved by Head of Department.</p>	If documents are found incomplete, necessary action is taken and re-auditing will be done.
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3.	R&D Activities	<p>Check List:</p> <p>a. Details about Research Center / b. Supervisors / Research Scholars</p> <p>c. Details about publications / grants / patents</p> <p>d. Students publication details</p>	Verification by HOD	Once in Semester	<p>1. Appropriateness in allocation of budget for support of research and professional development.</p> <p>2. Ensuring the proper laboratory facilities to facilitate Research activities.</p>	<p>1. Encouraging faculty and students to pursue their research plans by submitting research proposals to various agencies and scientific laboratories.</p>
4.	Faculty Development Activities	<p>Check List:</p> <p>a. Conferences / Symposium / Seminars / b. FDPs attended by the faculty.</p> <p>c. Conferences / Symposium / Seminars / d. FDPs conducted.</p> <p>e. Chapters& Books published by the faculty.</p>	Verification by HOD	Once in Semester	<p>The data of faculty members and students who have participated in seminars, workshops, symposiums inside and outside the campus, is recorded.</p>	<p>Inactive Students are motivated by explaining the importance of the programs and provided with necessary suggestions and guidelines.</p>

		f. MOUs executed				
5.	Board of Studies (BOS) As per Statutory guidelines	Check List: a. Constitution of BOS b. Meeting and its minutes – at least once in a year (ensure for the structure)		Once in Year	Scrutiny of Syllabus and modification wherever necessary.	Take suggestions for the necessary amendments in the course curriculum to enhance the employability of the students and to cater the needs of the modern industries.
6.	Board of Examiners (BOE)	Check List: a. Constitution b. Meeting and its minutes c. Quality of question papers at SEE d. No. of QPs set by External & Internal Examiners		Once in Semester	Scrutiny of SEE Question papers and their scheme of evaluation. for approval /rejection.	Recommending SEE Question papers and their scheme of evaluation which satisfy norms and rejecting non complaints.

7.2.2(b1) Student Centric assessment program- Audit Attributes

Documents pertaining to different subsections of various parameters as mentioned in the below table are verified during the internal academic audits

Table 7.6: List of Student Centric audit attributes

Sl. No.	Activities	Mechanism
1.	Students Mentoring Process	<p>Check List:</p> <p>Students Mentoring Process</p> <ul style="list-style-type: none"> a. Mechanism of student's feedback b. Policies for ensuring students discipline c. Assigning students to faculties for mentoring d. Mentoring record books (update in CONTINEO) e. Parents Teachers Meeting(PTM)
2.	Coaching Class	<p>Check List:</p> <ul style="list-style-type: none"> a. Identifications of the subjects b. List of students c. Time Table d. Details of classes conducted and attendance e. Test / Assignment / Quiz (conducted if any)
3.	Guest Lectures / Expert talks	<p>Check List:</p> <ul style="list-style-type: none"> a. Details of Guest Faculty/Experts. b. Topics covered c. Reports of Guest lecture

4.	Industrial visit & Interaction	Check List: a. Details of visit carried out b. List of students and Faculty visited c. Detailed Report
5.	Placement Activities	Check List: a. Number of students placed in different companies. b. Different types of Technical training given to students

7.2.2(b2) Student Centric assessment program- corrective action
Table 7.7: List of Student Centric audit attributes and their corrective action

Sl. No.	Activities	Mechanism (Check List)	Responsible persons to carry out audit	Frequency of Audit	Audit Reports (Action Plan)	Corrective Action
1.	Students Counseling (Mentoring Process)	Check List: a. Mentoring the students	Mentor	Twice in a semester	Faculty members are mentors who constantly monitor all activities academics of students	The reports are verified by mentor coordinator and Heads of Department.
		b. Students feedback	Head of Department	Once in a semester	1. Obtaining online feedback about faculty and facilities. 2. Obtaining employee, alumni feedback and exit surveys whenever necessary.	Verification by HOD

					<p>3. Reviewing of feedback with the Head of Department.</p> <p>4. Counseling the faculty to strengthen their performance.</p> <p>5. Preparing a consolidated department wise report.</p> <p>6. Submitting of report to the HOD in the prescribed format</p>	
		c. Policies for ensuring students discipline			An incremental academic growth of all students is monitored through the student counseling.	
		d. Assigning of students to faculties	Head of Department	Day to Day	<p>A faculty is assigned as a counselor for every 20 students. Student and parent information of individual student is collected by the faculty counselor. Every student is counseled by the respective counselor</p>	The reports are verified by mentor coordinator and Heads of Department.

2	Coaching Class	Check List: a. courses identified b. List of students c. Time Table d. Details of classes conducted and attendance e. Test / Assignment / Quiz (conducted if any)	Head of Department	Once in a semester	Improve the performance of slow learners and encourage Fast learners	The remedial classes are conducted beyond the regular timings by preparing special time table, for the students who have performed poor in the internal examinations. Fast learners are encouraged with seminars and diverse assignments.
3.	Guest Lectures / Expert talks	Check List: a. Conducted in the department	Head of Department	Throughout semester	To update the students about recent developments in the domain.	To ensure minimum number of Guest lectures
4.	Industrial visit & Interaction	Any visit carried out	Head of Department	Once in a semester	The industrial visits are planned in order to provide exposure on real time industry working environment	To ensure minimum number of Industrial Visits
5.	Placement Activities	Check List: a. Number of students placed in different companies.	Head of Department	Once in a year	Technical and Aptitude training programmes are arranged for employability.	To ensure more employability.

		b. Different types of Technical training given to students				
6.	Laboratory Audit (Facilities)	Check List: a. Lab Manuals and Evaluation scheme	Head of Department	Once in a semester	Laboratory manuals and evaluation scheme are prepared before commencement of the semester by respective subject faculty. All these files are verified and approved by Head of Department.	If any of the faculty members are unable to complete files, necessary action is taken and re-auditing will be done.
		b. Student records			Student Records are checked by respective Subject faculty.	To ensure the quality is being maintained
		c. Equipment and software status			Laboratory audit is done.	If any equipment or components are in shortage, lab

		d. Stock Register e. Consumable register f. Login Register/Issue Register g. Maintenance Register h. Service Register	Lab in-charges and Head of Department	Once in a semester	Check the equipment's, components and software status Periodically.	in-charge checks the list and recommends purchasing the components and equipment. If any equipment is damaged or not working properly, it must be serviced by lab technicians or service agencies
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The sample of the internal audit report is shown below for reference.
Academic Audit for the year 2019-20 Odd semesters

Table 7.8: Internal Academic Audit report

NEW HORIZON COLLEGE OF ENGINEERING ACADEMIC AUDIT OBSERVATION- Civil				
Date: 29/08/2019			Time: 2:00 pm to 4:30 pm	
Sl. No.	Parameters	Sub Sections	Available/ Not available	Remarks
1.	Board of Studies (BOS)	Constitution	Available	
	As per Statutory guidelines	Meeting and its minutes – at-least once in a year (ensure for the structure)	Not available	All respective Internal/external stakeholder's feedback need to be considered in BOS, Agenda needs a revision
2.	Board of Examiners (BOE)	Constitution	Available	
		Meeting and its minutes	Available	2nd Agenda needs a revision to include the consistency of CO's along with Bloom's level
		Quality of question papers at SEE	Available	
		No. of QPs set by External & Internal Examiners	Available	
3.	Scheme & Syllabus	All the semesters since inception – HARD COPY	Available	Well maintained; punched and kept it a file
		Frequency of its revision	Available	Brief Index can be maintained
4.	Teaching Learning & Evaluation	Vision & Mission	Available	
		PEOs & PSOs	Available	
		Rules & Regulations copy	Available	Suggested to circulate among all the staff members and familiar with academic rules
		Calendar of events	Available	
		Students list	Available	

	Registration of the course – including re-registration	Available	
	Students dropping of the course	Nil	
	Students withdrawal from the course	Nil	
	List of Professional & Open electives offered & its process	Available	But list for both open elective and professional electives are not matching with the recent class list.
	Adoption of MOOCs		
	Attainment of COs & POs	Available	Calculated CO and PO attainment only for internals from Contineo Final grade attainment is missing Order of Cos or Priority of Cos throughout the module has to be reviewed
	Group discussion	Not available	
	Pedagogical approaches / strategies used for Effective teaching learning?	Available	Pedagogical approaches for all strategies has to implement and proof should be shown for listed points in the file
	NSAR, NSSR list	Available	
	Result Analysis	Not available	
	Time Table & Work load	Available	
	IA Test details (TT, Invigilation diary, B –Form etc)	Available	
	Blue books	Available	

		Quality of CIE papers	Available	Only circular available for Internal BOE Other details like process/ Scrutinizing papers/ Minutes of Meeting has to maintain
		Mini Project details (if any)		
		i) Process schedule	Available	Available as overview only. Detailed schedule recommended.
		ii) Guide allotment	Available	
		iii) Topics	Available	
		iv) Assessment Pattern (Rubrics)	Available	Rubrics is available only for Final CIE. Since credit for Mini project is 4 point. Continuous evaluation or Each review rubrics will be recommended.
		v) Final Marks with break up	Available	
		Lab Manuals	Available	Rubrics in manual has to be updated based on recent one.
5.	Student Centric	Club activities	Available	2 events / Semester. But 1 event only seen. In Some Club events, the details of event like Brochure, Registration of participants / attendees details/ Report with outcome of the event is not available.
		Students Mentoring Process	Available	
		i) Mechanism of student's feedback	Available	
		ii) Feedback on courses	Available	

		iii) Healthy practices for ensuring students discipline	Available	
		iv) Assigning of students to faculties	Available	
		v) Mentoring record books (update in CONTINEO)	Available	
		vi) PTM	Available	
6.	Academic files	Check List as per Academic file	Available	
		Calendar of Events	Available	
		Subject Allotment	Available	
		Time Table	Available	1) Assignments should have - CO / PO / RBT
		Syllabus	Available	2) Assignments should have schemes
		Lesson Plan	Available	3) Vision & Mission to be kept in Academic File
		Attendance Register	Available	
		Assignment Questions	Available	
		Internal Question Paper and Scheme of Evaluation	Available	
		Internal Test Marks	Available	
		IA- Result Analysis & CAPA Report	Available	
		Previous Year Question Papers	Available	
		Special Class Records (if conducted)	Available	
		Teacher- Appraisal Feedback	Available	
		Exam Related Work	Available	
7.	Coaching Class	Identifications of the subjects	Available	Justification of courses - required

		List of students	Available	Needs a rework to produce evidences
		Time Table	Available	
		Details of classes conducted and attendance	Available	
		Test / Assignment / Quiz (conducted if any)	Not available	
8.	R&D Activities	Details about Research Center / Supervisors / Research Scholars	Available - Good	
		Details about publications / grants / patents	---	Instead of hand-written, Index must be typed
		Students publication details	--	
		Conferences / Symposium / Seminars / FDPs attended by the faculty.	Available - Good	
		Conferences / Symposium / Seminars / FDPs conducted.	Available	Invitation, approval, list of participants is required
		Chapters & Books published by the faculty.	---	
		MOUs executed	Available	Need execution plan and evidences
9.	Result Analysis		18-19 result analysis not done	Graphs need to prepared course-wise, semester-wise, batch-wise
10.	Placement Activities		Available	
11.	Guest Lectures / Expert talks	Conducted in the department	Available	
12.	Industrial visit & Interaction	Any visit carried out	Available	

13.	Administration	Teaching Staff list	Available	
		Non-Teaching Staff list	Available	
		Minutes of the department meeting	Available	
		Faculty performance	Available	
Signature of Auditee:			Signature of Auditor:	

7.3. Improvement in Placement, Higher Studies and Entrepreneurship (10)

7.3.1 Placement Details:

i) Number of Students Placed:

Table 7.9: Placement data between 2016-17 and 2018-19

Year	No. of Students Placed/ Out of Total number of Students	Student Placement in %
2016-17	72/118	61.01
2017-18	47/113	41.59
2018-19	121/141	85.81

Table 7.10: Placement data for the year 2018-19

Sl. No.	Name of the Company	Number of students placed	Salary per annum per student (in Lakhs)
1.	Shriram Properties	03	5.77
2.	STUP Consultants	10	4.50
3.	CBRE	05	5.00
4.	NCCL	10	6.92
5.	Target Corporation	01	7.47
6.	BSR Developers Pvt Ltd.	11	4.80

7.	Ideas91 India Pvt Ltd	01	1.25
8.	Udaan	03	7.85
9.	Aparna Constructions	05	8.74
10.	Regallia Civils	15	4.75
11.	Salarpuria Sattva	07	7.98
12.	Shri Aruna Constructions	12	7.98
13.	H M Construction	19	4.98
14.	Cyient Ltd	01	5.75
15.	Extra Marks	01	1.46
16.	IBM	01	7.59
17.	NHEI	04	8.40
18.	Shobha Developers	02	6.00
19.	Sowparnika Projects & Infrastructure Pvt Ltd	10	6.20
Total number of students placed		121	
Total number of students		141	
Student Placement in %		85.81	

Table 7.11: Placement data for the year 2017-18

Sl. No.	Name of the Company	Number of students placed	Salary per annum per student (in Lakhs)
1.	Chowgule Construction	03	3.00
2.	Raaga Construction	06	4.38
3.	STUP Consultants	07	2.40
4.	Salarpuria Sattva	14	5.15
5.	TCS	09	3.36
6.	IBM	08	3.50
Total number of students placed		47	
Total number of students		113	
Student Placement in %		41.59	

Table 7.12: Placement data for the year 2016-17

Sl. No.	Name of the Company	Number of students placed	Salary per annum per student (In Lakhs)
1.	DSR Infrastructure	05	3.76
2.	H M Group	04	4.80
3.	Incadea	10	7.20
4.	ITC Infotech	05	5.99
5.	Profinch	07	6.75
6.	Pin Click	01	6.43
7.	Raaga Constructions	06	3.38
8.	Sattva Group	03	4.58
9.	Secon	01	5.92
10.	Sobha Developers	03	4.77
11.	Speridian Technologies	01	5.75
12.	Sunquest Information Systems	02	1.92
13.	Volvo IT	08	10.4
14.	Wipro	16	3.20
Total number of students placed		72	
Total number of students		118	
Student Placement in %		61.01	

ii) The improvement of the placement of Students

The improvement of the placement has been depicted in Figure 7.2 - 7.3. Placement statics from 2016 to 2019

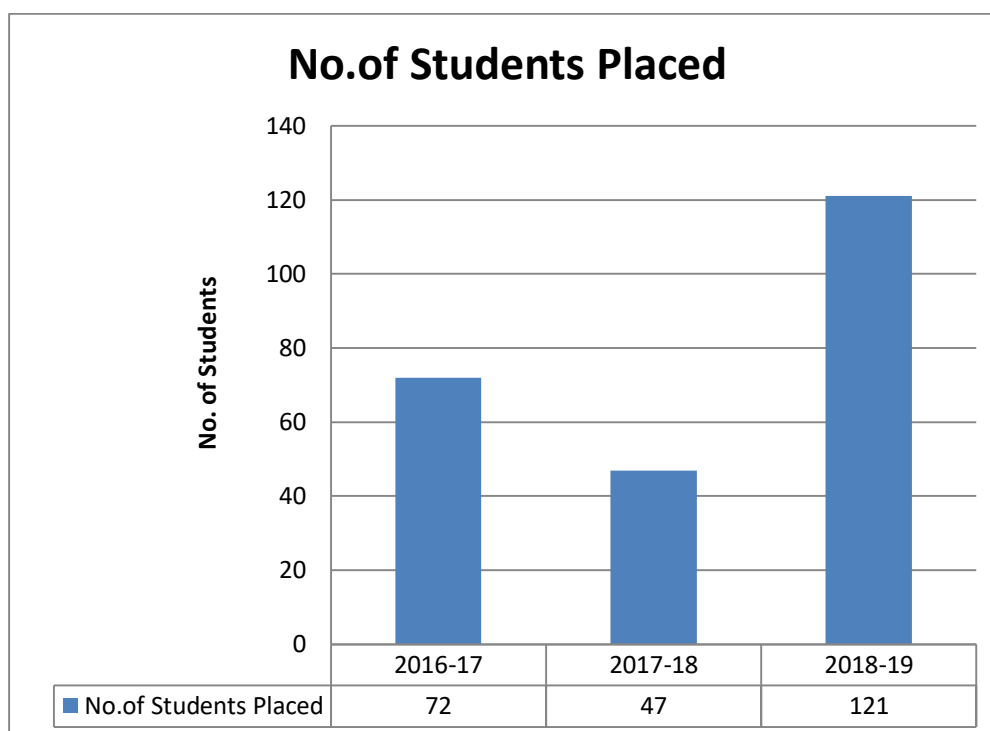


Figure 7.2: Record of placement

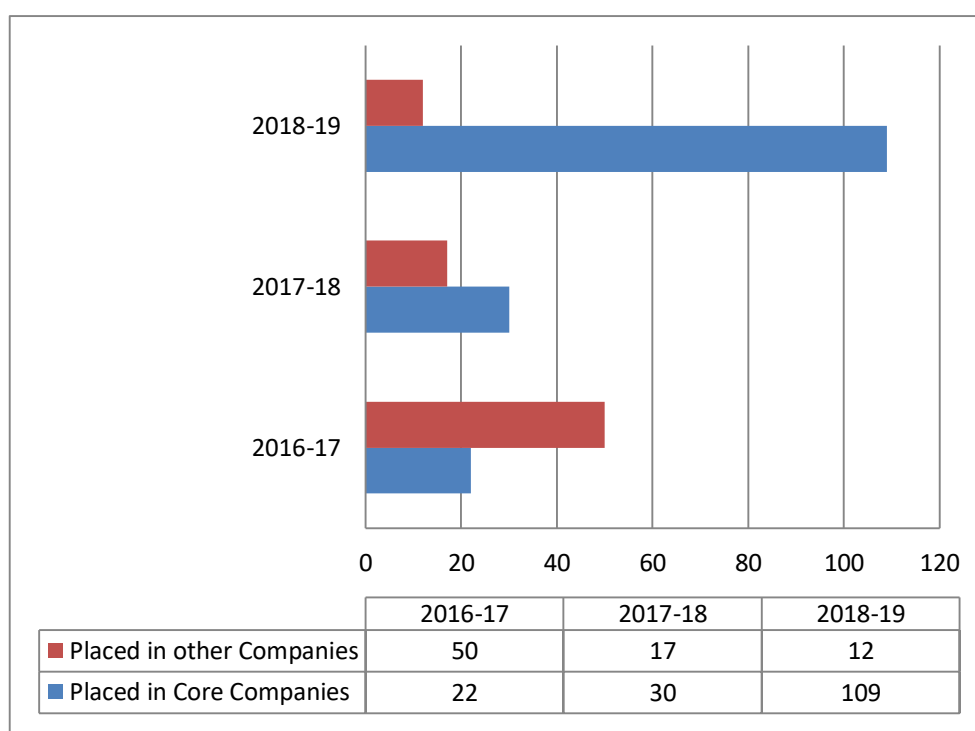


Figure 7.3: Record of Core and Non-Core placement

iii) Number of Students Placed in Core Civil Engineering Industries.

Table 7.13: Students placed in core companies

Year	Total number of students placed in core companies out of Total number of Students placed	Student Placement in core companies %
2016-17	22/72	31
2017-18	30/47	64
2018-19	109/121	91

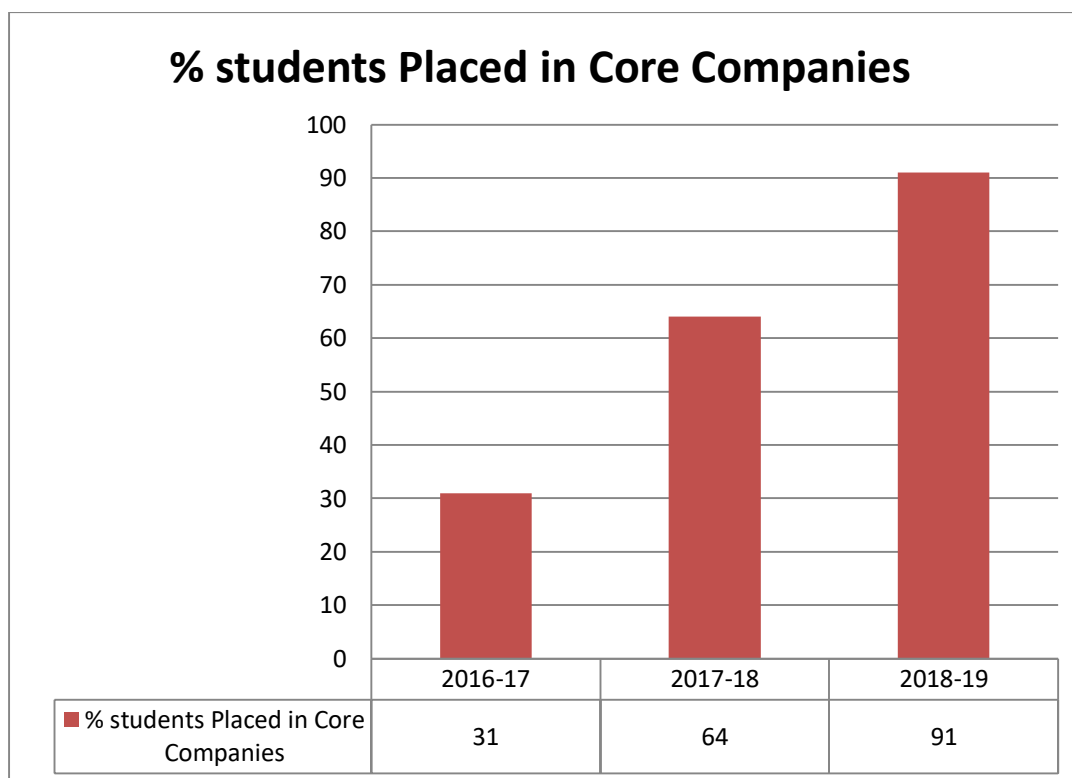


Figure 7.4: Placement in core industries

Table 7.14: Placement in Core Civil Engineering Industries data for the year 2018-19

Sl. No.	Name of the core Company	Number of students placed in core companies	Salary per annum per student (in Lakhs)
1.	Shriram Properties	03	5.77
2.	STUP Consultants	10	4.50
3.	NCCL	10	6.92
4.	BSR Developers Pvt Ltd.	11	4.80
5.	Aparna Constructions	05	8.74
6.	RegalliaCivils	15	4.75
7.	SalarpuriaSattva	07	7.98
8.	ShriAruna Constructions	12	7.98
9.	H M Construction	19	4.98
10.	Cyient Ltd	01	5.75
11.	NHEI	04	8.40
12.	Shobha Developers	02	6.00
13.	Sowparnika Projects & Infrastructure Pvt Ltd	10	6.20
Total number of students placed in core companies out of Total number of Students placed.		109/121	
Total number of Students graduated.		141	
Student Placement in core companies, %		91	

Table 7.15: Placement in Core Civil Engineering Industries data for the year 2017-18

Sl. No.	Name of the core Company	Number of students placed in core companies	Salary per annum per student (in Lakhs)
1.	Chowgule Construction	03	3.00
2.	Raaga Construction	06	4.38
3.	STUP Consultants	07	2.40
4.	Salarpuria Sattva	14	5.15
Total number of students placed in core companies out of Total number of Students placed.		30/47	
Total number of Students graduated.		113	
Student Placement in core companies, %		64	

Table 7.16: Placement data in Core Civil Engineering Industries for the year 2016-17

Sl. No.	Name of the core Company	Number of students placed in core companies	Salary per annum per student (In Lakhs)
1.	DSR Infrastructure	05	3.76
2.	H M Group	04	4.80
3.	Raaga Constructions	06	3.38
4.	Sattva Group	03	4.58
5.	Secon	01	5.92
6.	Sobha Developers	03	4.77
Total number of students placed in core companies out of Total number of Students placed.		22/72	
Total number of Students graduated.		118	
Student Placement in core companies, %		31	

iv) Pay Packages.

(a) Minimum Package and Maximum Package

Table 7.17: Minimum Package and Maximum Package

Year	Minimum Package (Lakhs)	Maximum Package (Lakhs)
2016-17	1.92	10.4
2017-18	2.40	5.15
2018-19	1.25	8.74

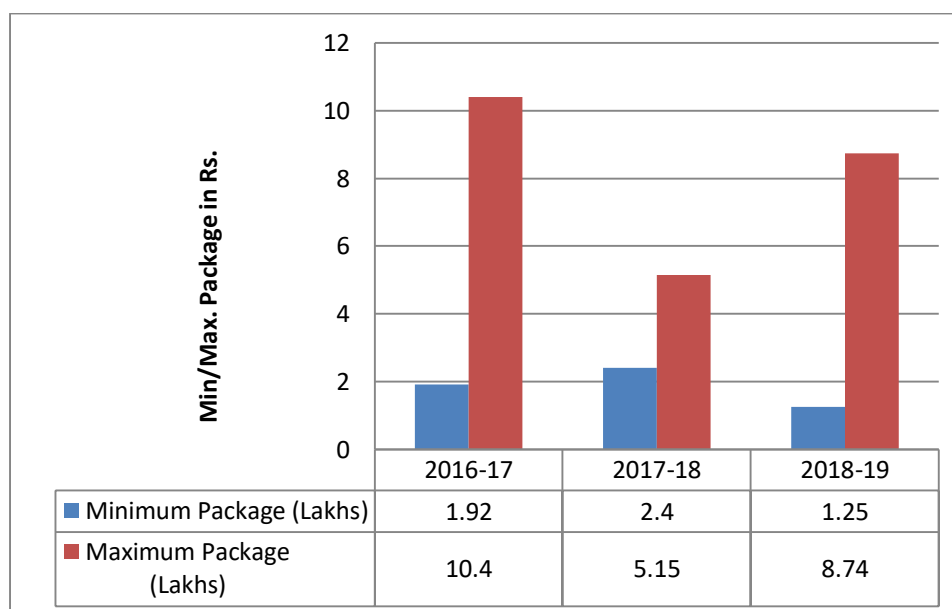


Figure 7.5: Minimum Package and Maximum Package

(b) Average Package

Table 7.18: Average Package

Year	Average Package (in Lakhs)
2016-17	5.34
2017-18	3.63
2018-19	5.96

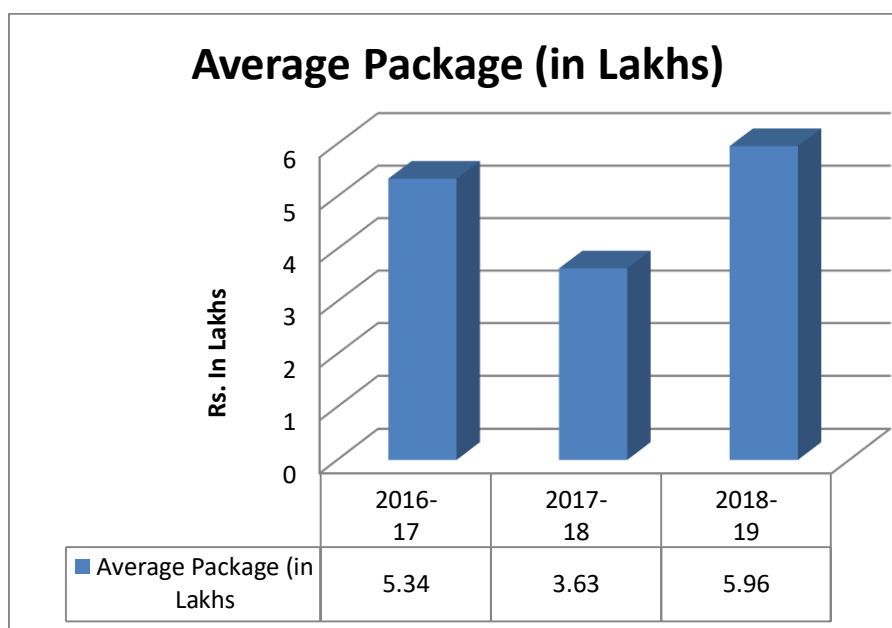


Figure 7.6: Minimum Package and Maximum Package

7.3.2. Higher Studies Details

Table 7.19: Higher Studies details

Sl. No.	Year	Competitive Examinations			Total
		IELTS	GATE	PG CET	
1.	2018-2019	3	1	8	12
2.	2017-2018	-	-	20	20
3.	2016-2017	-	-	12	12

7.3.3. Entrepreneur Details

Table 7.20: Entrepreneur details

Sl. No.	Year	Number of students attempted for company registration	Number of students registered and started
1.	2018-19	5	5
2.	2017-18	13	13
3.	2016-17	7	7

7.3.4. Overall view of Placement, Higher Studies and Entrepreneurship

Table 7.20: Placement, Higher Studies and Entrepreneurship details

Item	CAY 2018-19	CAYm1 2017-18	CAYm2 2016-17
Total No. of Final Year Students (N)	141	113	118
No. of students placed in companies or Government Sector (x)	121	47	72
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	12	20	12
No. of students turned entrepreneur in engineering/technology (Z)	5	13	7
$x + y + z =$	138	80	91
Placement Index: $(x + y + z)/N$	P1=0.978	P2=0.707	P3=0.771
Average placement= $(P1 + P2 + P3)/3$	0.818		

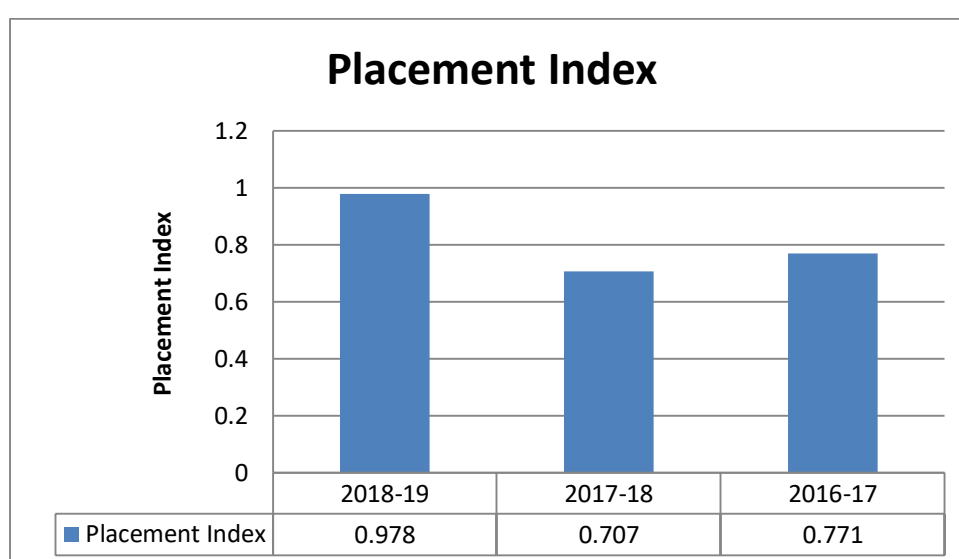


Figure 7.6: Placement Index

7.4. Improvement in the quality of students admitted to the program (20)

Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage marks in Physics, Chemistry and Mathematics in 12th Standard and percentage marks of the lateral entry students.

Table 7.21: Quality of students admitted

Item		CAY 19-20	CAYm1 2018-19	CAYm2 2017-18
National Level Entrance Examination (Name of the Entrance Examination)	No. of Students admitted	-	-	-
	Opening Score/Rank	-	-	-
	Closing Score/Rank	-	-	-
State/Institute/Level Entrance Examination/Others (KCET)	No. of Students admitted	55	68	51
	Opening Score/Rank	28760	23900	8529
	Closing Score/Rank	55270	51621	41893
Name of the Entrance Examination for Lateral Entry or lateral entry details (Diploma CET)	No. of Students admitted	14	23	23
	Opening Score/Rank	2165	4968	583
	Closing Score/Rank	5232	7904	5307
Karnataka Religious & Linguistic Minority (KRLM) Entrance test	No. of Students admitted	38	54	36
	Opening Score/Rank	167	36	384
	Closing Score/Rank	833	630	626
Average CBSE/Any other Board Result of admitted students (Physics, Chemistry & Mathematics)		73.379	80.704	74.78

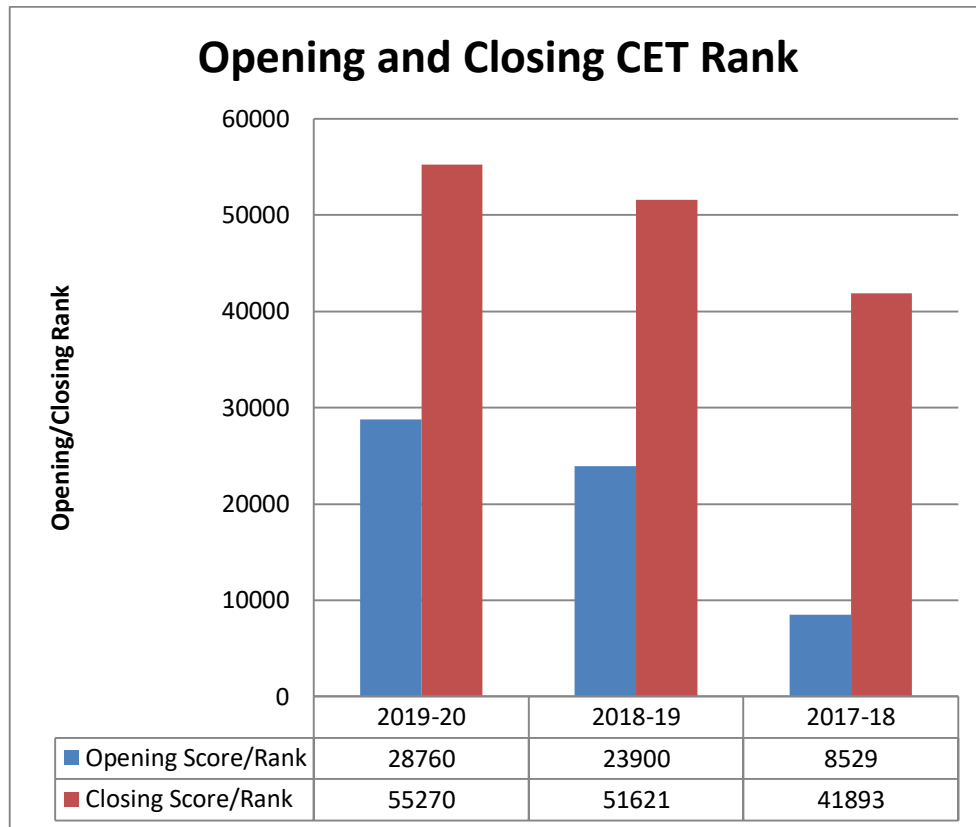


Figure 7.7: Opening and Closing Rank

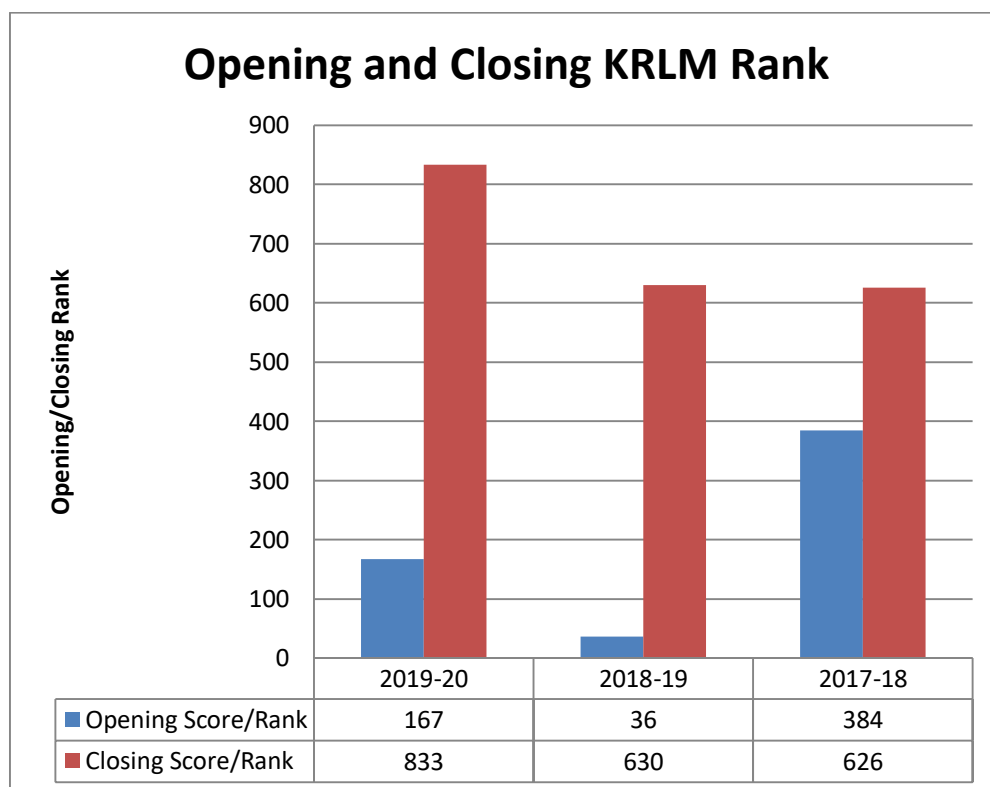


Figure 7.8: Opening and Closing Rank

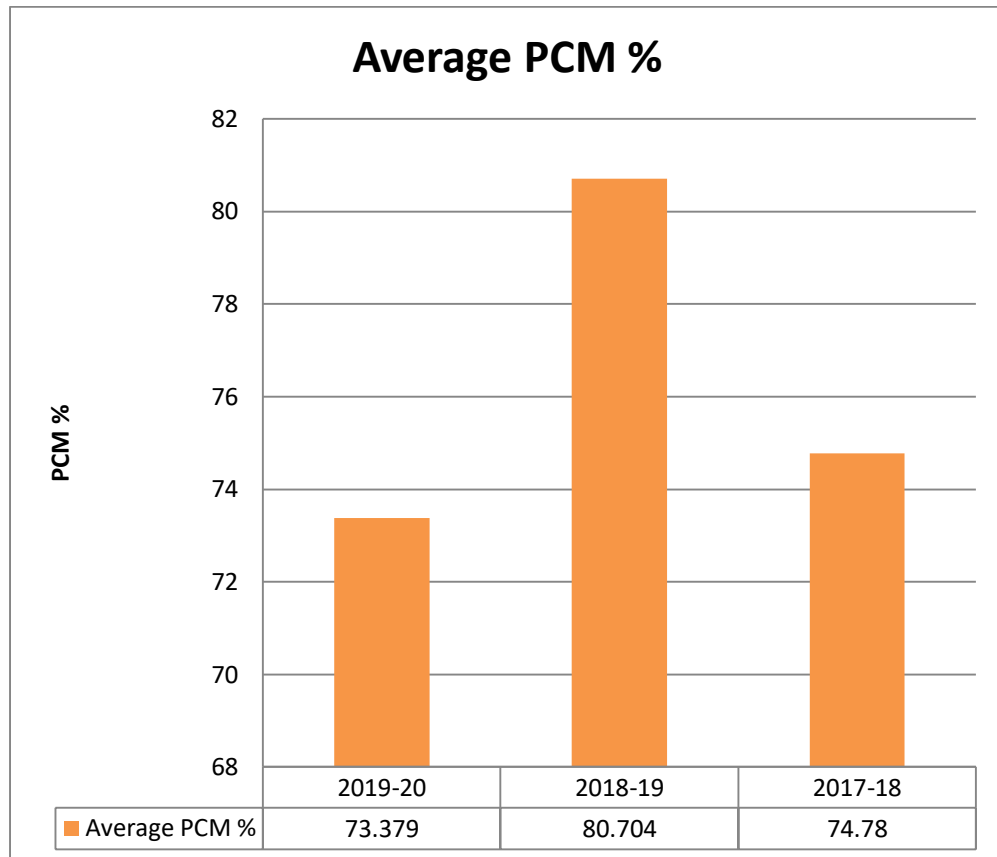


Figure 7.9: Average PCM%

Serial Code & Link to the Item	Item	Page No.
	Institute Level Criteria	
8	First Year Academics	466-490
9	Student Support Systems	491-650
10	Governance, Institutional Support and Financial Resources	651-735
PART C	Declaration by the Institution	736
Annexure I	Program Outcomes(POs) & Program Specific Outcomes (PSOs)	737-738



DEPARTMENT OF CIVIL ENGINEERING

CRITERION 8

FIRST YEAR ACADEMICS

CRITERION 8	FIRST YEAR ACADEMICS	50
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8.1: First Year Student-Faculty Ratio (FYSFR, 5)

Data for first year courses to calculate the FYSFR:

Table 8.1.

Year	Number of Students (Approved intake strength)	**Number of Faculty Members (Considering fractional load)	FYSR	* Assessment = (5x15) / FYSFR (Limited to max. 5)
CAYm2(2017-18)	1020	72	14	5
CAY m1 (2018-19)	1080	76	14	5
CAY (2019-20)	1200	82	15	5
Average	1100	76	14	5

**** All faculties are dedicated to first year only**

8.2 Qualification of Faculty Teaching First Year Common Courses (5)

Assessment of qualification = $(5x + 3y)/RF$,

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, Faculty definition as defined in 5.1

Table 8.2

Year	X	Y	RF	* Assessment of Faculty qualification $(5x+3y) / RF$
CAYm2 (2017-18)	9	57	51	4
CAY m1 (2018-19)	16	54	54	4
CAY (2019-20)	20	56	60	4
Average				4

8.3 First Year Academic Performance (10)

Table 8.3

Academic Performance	Civil Engineering		
	CAYm1	CAYm2	CAYm3
Mean CGPA of all successful students (x)	7.64	7.96	7.89
Total no. of successful students (y)	171	118	116
Total students appeared in the examination (Z)	202	131	137
API = $x*(y/Z)$	6.47	7.17	6.68
Average	6.77		

Academic Performance = ((Mean of 1st Year Grade Point Grade Point Average of all successful students on a 10-point scale) or (Mean of the percentage of marks in first year of all successful students/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the second year.

8.4 Attainment of Course Outcome of First Year Courses

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)

Table 8.4: Tools used in measuring CO

Assessment Tool Type	Assessment Tool Title	Tool Description
Direct Assessment	Continuous Internal Evaluation (CIE)	This is used as an assessment tool to evaluate the attainment of course outcomes, through Assignments, Quizzes, Internal Assessment (Average of 3 Exams) which are conducted throughout the semester and designed in such a way that the evaluation of complete syllabus is covered. This is done for all courses of the semester.
	Laboratory Examinations	The performance in laboratory is evaluated through appropriate rubrics. The students are tested for their confidence in terms of design of a system and experimentation. Ability of the students to analyze and interpret the results of experiments is continuously evaluated by the faculty during laboratory classes. The strength of the students in using their skills and tools in the laboratory is also evaluated in external laboratory examinations.
	Semester End Examinations (SEE)	This tool examines at all cognitive levels the ability and understanding of the students with respect to the concepts taught and their applicability in solving complex Engineering problems. The ability of the students to understand and apply knowledge of mathematics, science and engineering concepts in solving engineering problems is keenly evaluated.

Table 8.5 Calculation of CO attainment

CO Attainment	Weightage	Assessment Tools
Overall CO Attainment	100%	Continuous Internal Evaluation CIE (50%)
Direct Attainment		Semester End Examinations (SEE) (50%)

The individual COs of the courses is mapped with Correlation level and is being evaluated by prescribed assessment tools. The attainment of individual CO is calculated by assigning separate weightage to the continuous Internal Evaluation, Semester End examination, assignments and quizzes. The attainment of COs is compared with the target level. The CO is said to be attained if its attainment value is greater than or equal to target attainment level.

8.4.1.1. Theory Course Evaluation

Assignments, Quizzes, Internal assessment test, semester end examinations are conducted and evaluated for (both theory and lab) integrated courses.

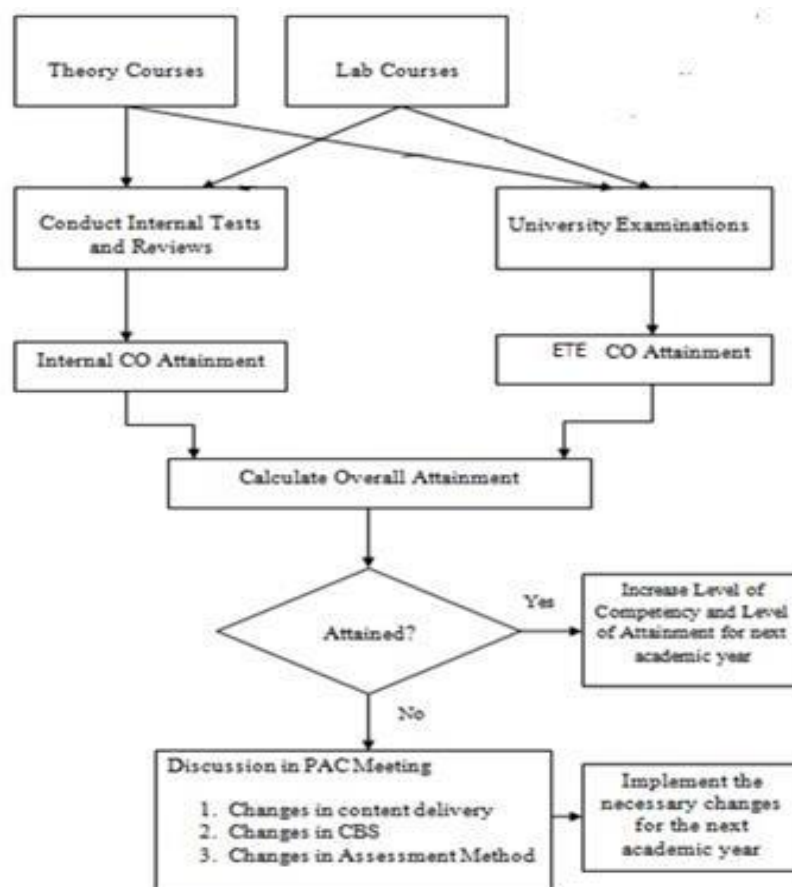
The distribution of marks for theory courses (Sample) is as given in table below.

Table 8.6: Distribution of marks for theory & Lab courses evaluation

Assessment Tool	Maximum Marks	Marks Scaled to	Weightage
Assignments	15	15	50%
Quizzes	10	10	
Internal Assessment Exam (Avg of 3 Exams)	25	25	
Everyday Lab session (Each Expt. 10 marks)	10	10	
Lab Internal Exam	15	15	
Semester End Examination - Theory	100	50	50%
Semester End Examination - Lab	50	25	

The Process for Assessment and Attainment of COs is described in the flowchart as shown in Flow Chart

Fig 8.1. Process of assessment and attainment of CO



8.4.2 Record the attainment of Course Outcomes of all First Year Courses (5)

Program shall have set attainment levels for all first year courses. (The attainment levels shall be set considering average performance levels in the institution level 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 institution level examination)

Table 8.7.

Attainment Levels: Internal Assessment

Course	Attainment Level	CAYm3 2016-17	CAYm2 2017-18	CAYm1 2018-19
Mathematics I	0	less than 37% scored ≥ 28	less than 40% scored ≥ 28	less than 45% scored ≥ 28
	1	37% to 46% scored ≥ 28	40% to 49% scored ≥ 28	45% to 54% scored ≥ 28
	2	47% to 56% scored ≥ 28	50% to 59% scored ≥ 28	55% to 64% scored ≥ 28

	3	57% and more scored ≥ 28	60% and more scored ≥ 28	65% and more scored ≥ 28
Engineering Physics	0	less than 45% scored ≥ 34	less than 45% scored ≥ 38	less than 45% scored ≥ 28
	1	45% to 54% scored ≥ 34	45% to 54% scored ≥ 38	45% to 54% scored ≥ 28
	2	55% to 64% scored ≥ 34	55% to 64% scored ≥ 38	55% to 64% scored ≥ 28
	3	65% and more scored ≥ 34	65% and more scored ≥ 38	65% and more scored ≥ 28
Elements of Civil Engineering	0	less than 40% scored ≥ 23	less than 42% scored ≥ 25	less than 44% scored ≥ 25
	1	40% to 49% scored ≥ 23	42% to 51% scored ≥ 25	44% to 53% scored ≥ 25
	2	50% to 59% scored ≥ 23	52% to 61% scored ≥ 25	54% to 63% scored ≥ 25
	3	60% and more scored ≥ 23	62% and more scored ≥ 25	64% and more scored ≥ 25
Elements of Mechanical Engineering	0	less than 40% scored ≥ 34	less than 40% scored ≥ 36	less than 40% scored ≥ 25
	1	40% to 49% scored ≥ 34	40% to 49% scored ≥ 36	40% to 49% scored ≥ 25
	2	50% to 59% scored ≥ 34	50% to 59% scored ≥ 36	50% to 59% scored ≥ 25
	3	60% and more scored ≥ 34	60% and more scored ≥ 36	60% and more scored ≥ 25
Basic Electrical Engineering	0	less than 35% scored ≥ 21	less than 45% scored ≥ 23	less than 50% scored ≥ 25
	1	35% to 44% scored ≥ 21	45% to 54% scored ≥ 23	50% to 59% scored ≥ 25
	2	45% to 54% scored ≥ 21	55% to 64% scored ≥ 23	60% to 69% scored ≥ 25
	3	55% and more scored ≥ 21	65% and more scored ≥ 23	70% and more scored ≥ 25
Engineering Physics Lab	0	Included with Theory as it is an integrated subject	Included with Theory as it is an integrated subject	less than 50% scored ≥ 15
	1			50% to 59% scored ≥ 15
	2			60% to 69% scored ≥ 15
	3			70% and more scored ≥ 15

Basic Electrical Engineering Lab	0	No Lab Course	No Lab Course	less than 40% scored ≥ 15
	1			40% to 49% scored ≥ 15
	2			50% to 59% scored ≥ 15
	3			60% and more scored ≥ 15
Mathematics II	0	less than 37% scored ≥ 28	less than 40% scored ≥ 28	less than 45% scored ≥ 28
	1	37% to 46% scored ≥ 28	40% to 49% scored ≥ 28	45% to 54% scored ≥ 28
	2	47% to 56% scored ≥ 28	50% to 59% scored ≥ 28	55% to 64% scored ≥ 28
	3	57% and more scored ≥ 28	60% and more scored ≥ 28	65% and more scored ≥ 28
Engineering Chemistry	0	less than 45% scored ≥ 34	less than 45% scored ≥ 38	less than 45% scored ≥ 28
	1	45% to 54% scored ≥ 34	45% to 54% scored ≥ 38	45% to 54% scored ≥ 28
	2	55% to 64% scored ≥ 34	55% to 64% scored ≥ 38	55% to 64% scored ≥ 28
	3	65% and more scored ≥ 34	65% and more scored ≥ 38	65% and more scored ≥ 28
Programming in C & Data Structures	0	less than 40% scored ≥ 34	less than 40% scored ≥ 38	less than 45% scored ≥ 38
	1	40% to 49% scored ≥ 34	40% to 49% scored ≥ 38	45% to 54% scored ≥ 38
	2	50% to 59% scored ≥ 34	50% to 59% scored ≥ 38	55% to 64% scored ≥ 38
	3	60% and more scored ≥ 34	60% and more scored ≥ 38	65% and more scored ≥ 38
Computer Aided Engineering Drawing	0	less than 40% scored ≥ 25	less than 40% scored ≥ 27	less than 40% scored ≥ 28
	1	40% to 49% scored ≥ 25	40% to 49% scored ≥ 27	40% to 49% scored ≥ 28
	2	50% to 59% scored ≥ 25	50% to 59% scored ≥ 27	50% to 59% scored ≥ 28
	3	60% and more scored ≥ 25	60% and more scored ≥ 27	60% and more scored ≥ 28

Basic Electronics	0	less than 30% scored ≥ 28	less than 30% scored ≥ 29	less than 30% scored ≥ 30
	1	30% to 39% scored ≥ 28	30% to 39% scored ≥ 29	30% to 39% scored ≥ 30
	2	40% to 49% scored ≥ 28	40% to 49% scored ≥ 29	40% to 49% scored ≥ 30
	3	50% and more scored ≥ 28	50% and more scored ≥ 29	50% and more scored ≥ 30
Programming in C & Data Structures lab	0	Included with Theory as it is an integrated subject	Included with Theory as it is an integrated subject	less than 45% scored ≥ 13
	1			45% to 54% scored ≥ 13
	2			55% to 64% scored ≥ 13
	3			65% and more scored ≥ 13
Engineering Chemistry Lab	0	Included with Theory as it is an integrated subject	Included with Theory as it is an integrated subject	less than 50% scored ≥ 15
	1			50% to 59% scored ≥ 15
	2			60% to 69% scored ≥ 15
	3			70% and more scored ≥ 15
Business / Professional communication	0	less than 30% scored ≥ 25	less than 32% scored ≥ 13	less than 34% scored ≥ 13
	1	30% to 39% scored ≥ 25	32% to 41% scored ≥ 13	34% to 43% scored ≥ 13
	2	40% to 49% scored ≥ 25	42% to 51% scored ≥ 13	44% to 53% scored ≥ 13
	3	50% and more scored ≥ 25	52% and more scored ≥ 13	54% and more scored ≥ 13
Environmental Science & Awareness	0	less than 40% scored ≥ 25	less than 44% scored ≥ 30	Course removed and included in higher semester
	1	40% to 49% scored ≥ 25	45% to 54% scored ≥ 30	
	2	50% to 59% scored ≥ 25	55% to 64% scored ≥ 30	
	3	60% and more scored ≥ 25	65% and more scored ≥ 30	

Table 8.8.: Attainment Levels: External Assessment

Course	Attainment Level	CAYm3 2016-17	CAYm2 2017-18	CAYm1 2018-19
Mathematics I	0	less than 37% scored ≥ 56	less than 40% scored ≥ 56	less than 45% scored ≥ 56
	1	37% to 46% scored ≥ 56	40% to 49% scored ≥ 56	45% to 54% scored ≥ 56
	2	47% to 56% scored ≥ 56	50% to 59% scored ≥ 56	55% to 64% scored ≥ 56
	3	57% and more scored ≥ 56	60% and more scored ≥ 56	65% and more scored ≥ 56
Engineering Physics	0	less than 45% scored ≥ 68	less than 45% scored ≥ 76	less than 45% scored ≥ 56
	1	45% to 54% scored ≥ 68	45% to 54% scored ≥ 76	45% to 54% scored ≥ 56
	2	55% to 64% scored ≥ 68	55% to 64% scored ≥ 76	55% to 64% scored ≥ 56
	3	65% and more scored ≥ 68	65% and more scored ≥ 76	65% and more scored ≥ 56
Elements of Civil Engineering	0	less than 40% scored ≥ 46	less than 42% scored ≥ 50	less than 44% scored ≥ 50
	1	40% to 49% scored ≥ 46	42% to 51% scored ≥ 50	44% to 53% scored ≥ 50
	2	50% to 59% scored ≥ 46	52% to 61% scored ≥ 50	54% to 63% scored ≥ 50
	3	60% and more scored ≥ 46	62% and more scored ≥ 50	64% and more scored ≥ 50
Elements of Mechanical Engineering	0	less than 40% scored ≥ 68	less than 40% scored ≥ 72	less than 40% scored ≥ 50
	1	40% to 49% scored ≥ 68	40% to 49% scored ≥ 72	40% to 49% scored ≥ 50
	2	50% to 59% scored ≥ 68	50% to 59% scored ≥ 72	50% to 59% scored ≥ 50
	3	60% and more scored ≥ 68	60% and more scored ≥ 72	60% and more scored ≥ 50
Basic Electrical Engineering	0	less than 35% scored ≥ 42	less than 45% scored ≥ 46	less than 50% scored ≥ 50
	1	35% to 44% scored ≥ 42	45% to 54% scored ≥ 46	50% to 59% scored ≥ 50
	2	45% to 54% scored ≥ 42	55% to 64% scored ≥ 46	60% to 69% scored ≥ 50

	3	55% and more scored ≥ 42	65% and more scored ≥ 46	70% and more scored ≥ 50
Basic Electrical Engineering Lab	0	No Lab	No Lab	less than 40% scored ≥ 30
	1			40% to 49% scored ≥ 30
	2			50% to 59% scored ≥ 30
	3			60% and more scored ≥ 30
Engineering Physics Lab	0	Included with Theory as it is an integrated subject	Included with Theory as it is an integrated subject	less than 50% scored ≥ 30
	1			50% to 59% scored ≥ 30
	2			60% to 69% scored ≥ 30
	3			70% and more scored ≥ 30
Mathematics II	0	less than 37% scored ≥ 56	less than 40% scored ≥ 56	less than 45% scored ≥ 56
	1	37% to 46% scored ≥ 56	40% to 49% scored ≥ 56	45% to 54% scored ≥ 56
	2	47% to 56% scored ≥ 56	50% to 59% scored ≥ 56	55% to 64% scored ≥ 56
	3	57% and more scored ≥ 56	60% and more scored ≥ 56	65% and more scored ≥ 56
Engineering Chemistry	0	less than 45% scored ≥ 68	less than 45% scored ≥ 76	less than 45% scored ≥ 56
	1	45% to 54% scored ≥ 68	45% to 54% scored ≥ 76	45% to 54% scored ≥ 56
	2	55% to 64% scored ≥ 68	55% to 64% scored ≥ 76	55% to 64% scored ≥ 56
	3	65% and more scored ≥ 68	65% and more scored ≥ 76	65% and more scored ≥ 56
Programming in C & Data Structures	0	less than 40% scored ≥ 68	less than 40% scored ≥ 76	less than 45% scored ≥ 76
	1	40% to 49% scored ≥ 68	40% to 49% scored ≥ 76	45% to 54% scored ≥ 76
	2	50% to 59% scored ≥ 68	50% to 59% scored ≥ 76	55% to 64% scored ≥ 76
	3	60% and more scored ≥ 68	60% and more scored ≥ 76	65% and more scored ≥ 76

Computer Aided Engineering Drawing	0	less than 40% scored ≥ 50	less than 40% scored ≥ 54	less than 40% scored ≥ 56
	1	40% to 49% scored ≥ 50	40% to 49% scored ≥ 54	40% to 49% scored ≥ 56
	2	50% to 59% scored ≥ 50	50% to 59% scored ≥ 54	50% to 59% scored ≥ 56
	3	60% and more scored ≥ 50	60% and more scored ≥ 54	60% and more scored ≥ 56
Basic Electronics	0	less than 30% scored ≥ 56	less than 30% scored ≥ 58	less than 30% scored ≥ 60
	1	30% to 39% scored ≥ 56	30% to 39% scored ≥ 58	30% to 39% scored ≥ 60
	2	40% to 49% scored ≥ 56	40% to 49% scored ≥ 58	40% to 49% scored ≥ 60
	3	50% and more scored ≥ 56	50% and more scored ≥ 58	50% and more scored ≥ 60
Programming in C & Data Structures lab	0	Included with Theory as it is an integrated subject	Included with Theory as it is an integrated subject	less than 45% scored ≥ 26
	1			45% to 54% scored ≥ 26
	2			55% to 64% scored ≥ 26
	3			65% and more scored ≥ 26
Engineering Chemistry Lab	0	Included with Theory as it is an integrated subject	Included with Theory as it is an integrated subject	less than 50% scored ≥ 30
	1			50% to 59% scored ≥ 30
	2			60% to 69% scored ≥ 30
	3			70% and more scored ≥ 30
Business / Professional communication	0	less than 30% scored ≥ 50	less than 32% scored ≥ 26	less than 34% scored ≥ 26
	1	30% to 39% scored ≥ 50	32% to 41% scored ≥ 26	34% to 43% scored ≥ 26
	2	40% to 49% scored ≥ 50	42% to 51% scored ≥ 26	44% to 53% scored ≥ 26
	3	50% and more scored ≥ 50	52% and more scored ≥ 26	54% and more scored ≥ 26

Environmental Science & Awareness	0	less than 40% scored ≥ 50	less than 44% scored ≥ 60	Course removed and included in higher semester
	1	40% to 49% scored ≥ 50	45% to 54% scored ≥ 60	
	2	50% to 59% scored ≥ 50	55% to 64% scored ≥ 60	
	3	60% and more scored ≥ 50	65% and more scored ≥ 60	

8.4.2.1 Calculations

Direct Attainment (DA) = Semester End Examination * 0.5 + Continuous Internal Assessment * 0.5

Total Attainment = DA

8.4.2.2 The following table shows the attainment of course outcome. CO Attainment 2016-17

Table 8.9 CO Attainment CAYm3 (2016-17)

S. No.	Course Code	Course Name	Direct Attainment		Overall CO attainment
			CIE Evaluations	Semester End Exam	
1	15MAT11	Engineering Mathematics I	3	3	3
2	15PHY12/22	Engineering Physics	3	3	3
3	15MEE13/23	Elements of Mechanical Engineering	3	3	3
4	15CIV14/24	Elements of Civil Engineering	3	3	3
5	15EEE15/25	Basic Electrical Engineering	3	3	3
6	15HSS162	Business Communication	3	3	3
7	15MAT21	Engineering Mathematics II	3	3	3

8	15CHE12/22	Engineering Chemistry	3	3	3
9	15CSE13/23	Introduction to Programming with C	3	3	3
10	15MEE14/24	Computer Aided Engineering Drawing	3	3	3
11	15ECE15/25	Basic Electronics	3	3	3
12	16HSS161/261	Environmental Science and Awareness	3	3	3

CO Attainment 2017-18
Table 8.10: CO Attainment CAYm2 (2017-18)

S. No.	Course Code	Course Name	Direct Attainment		Overall CO attainment
			CIE Evaluations	Semester End Exam	
1	MAT11	Engineering Mathematics I	3	3	3
2	PHY12/22	Engineering Physics	3	3	3
3	MEE13/23	Elements of Mechanical Engineering	3	3	3
4	CIV14/24	Elements of Civil Engineering	3	3	3
5	EEE15/25	Basic Electrical Engineering	3	3	3
6	HSS162/262	Professional Communication	3	3	3
7	MAT21	Engineering Mathematics II	3	3	3
8	CHE12/22	Engineering Chemistry	3	3	3
9	CSE13/23	Introduction to Programming with C	3	3	3
10	MEE14/24	Computer Aided Engineering Drawing	3	3	3

11	ECE15/25	Basic Electronics	3	2.8	2.9
12	HSS161/261	Environmental Science & Awareness	3	3	3

CO Attainment 2018-19
Table 8.11 CO Attainment CAYm1 (2018-19)

S. No.	Course Code	Course Name	Direct Attainment		Overall CO attainment
			CIE Evaluations	Semester End Exam	
1	18MAT11	Applied Mathematics I	3	3	3
2	18PHY12/22	Engineering Physics	3	3	3
3	18MEE13/23	Elements of Mechanical Engineering	3	3	3
4	18CIV14/24	Elements of Civil Engineering	3	3	3
5	18EEE15/25	Basic Electrical Engineering	3	2.6	2.8
6	18PHL16/26	Engineering Physics Lab	3	3	3
8	18EEL17/27	Basic Electrical Engineering Lab	3	3	3
9	18MAT21	Applied Mathematics II	3	3	3
10	18CHE12/22	Engineering Chemistry	3	3	3
11	18CSE13/23	Introduction to Programming with C	3	2.8	2.9
12	18MEE14/24	Computer Aided Engineering Drawing	3	2.8	2.9
13	18ECE15/25	Basic Electronics	3	3	3
14	18CHL17/27	Engineering Chemistry Lab	3	3	3
15	18CSL18/28	Programming with C Lab	3	3	3

8.5. Attainment of Program Outcomes from first year courses (20)

8.5.1. Indicate results of evaluation of each relevant PO and/or PSO if applicable (10)

The relevant program outcomes that are to be addressed at first year need to be identified by the institution Program Outcome attainment levels shall be set for all relevant POs and/or PSOs through first year courses.

(Describe the assessment processes that demonstrate the degree to which the Program Outcomes and Program Specific Outcomes are attained through first year courses and document the attainment levels. Also include information on assessment processes used to gather the data upon which the evaluation of each Program Outcome is based indicating the frequency with which these processes are carried out)

The process to assess the attainment of the Program Outcomes and Program Specific Outcomes begins with the assessments of course outcomes attainment. The assessment of POs /PSOs during first year involves direct methods of assessment only.

POs/PSOs attainment	Assessment method	Assessment Tool	Frequency
	Direct Method	Course outcomes attainment	At end of every semester

DAC collects the data for internal and external assessment of POs and PSOs from the respective source and calculate the attainment. Direct assessment level of POs and PSOs is determined by taking average of course attainment level across all courses addressing that PO and/or PSO.

Programme Articulation Matrix CAYm3 (2016-17)

Table 8.12: Programme Articulation Matrix CAYm3 (2016-17)

Course	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
15MAT11	Engineering Mathematics I	3	3	3	2	2	-	-	-	-	2	-
15PHY12/22	Engineering Physics	3	2	2	-	-	-	-	-	2	-	-
15MEE13/23	Elements of Mechanical Engineering	3	1	3	-	3	2	1	-	-	3	-
15CIV14/24	Elements of Civil Engineering	3	3	3	-	-	-	-	-	-	-	-
15EEE15/25	Basic Electrical Engineering	3	3	3	2	-	-	-	-	-	2	1
15HSS162/262	Business Communication	-	-	-	-	-	-	-	3	2	3	-
15MAT21	Engineering Mathematics II	3	3	3	3	3	-	-	-	1	3	-
15CHE12/22	Engineering Chemistry	3	3	-	-	-	-	3	-	-	-	-
15CSE13/23	Introduction to Programming with C	3	3	3	1	3	-	-	-	3	1	-
15MEE14/24	Computer Aided Engineering Drawing	2	-	2	2	1	-	-	-	-	2	-
15ECE15/25	Basic Electronics	3	2	2	-	-	-	-	-	-	-	-
16HSS161/261	Environmental Science and Awareness	3	2	-	2	-	-	3	1	-	-	-
Average		2.91	2.5	2.67	2.0	2.4	2.0	2.33	2.0	2.0	2.29	1.00

Programme Articulation Matrix CAYm2 (2017-18)

Table 8.13 Programme Articulation Matrix CAYm2 (2017-18)

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
MAT11	Engineering Mathematics I	3	3	3	2	2	-	-	-	-	1	-	3
PHY12/22	Engineering Physics	3	2	2	-	-	-	-	-	2	-	-	1
MEE13/23	Elements of Mechanical Engineering	3	1	3	-	3	2	1	-	-	3	-	1
CIV14/24	Elements of Civil Engineering	3	2	1	1	-	-	-	-	-	-	-	1
EEE15/25	Basic Electrical Engineering	3	3	2	2	-	-	-	-	-	2	1	-
MAT21	Engineering Mathematics II	3	3	3	3	3	-	-	-	1	3	-	3
CHE12/22	Engineering Chemistry	3	3	-	-	-	-	3	-	-	-	-	3
CSE13/23	Introduction to Programming with C	3	3	3	1	3	-	-	-	3	1	-	1
MEE14/24	Computer Aided Engineering Drawing	2	-	2	2	1	-	-	-	-	2	-	2
ECE15/25	Basic Electronics	3	2	2	-	-	-	-	-	-	-	-	-
HSS161/261	Environmental Science and Awareness	3	3	-	3	-	-	3	2	-	-	-	-
HSS162/262	Professional Communication	-	-	-	-	-	-	-	3	2	3	-	3
Average		2.9	2.5	2.3	2.0	2.4	2.0	2.3	2.5	2.0	2.1	1.0	2.0

Programme Articulation Matrix CAYm1 (2018-19)

Table 8.14 Programme Articulation Matrix CAYm1 (2018-19)

Course	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
18MAT11	Applied Mathematics I	3	3	3	2	2	-	--	-	-	2	-	3
18PHY12/22	Engineering Physics	3	2	2	-	-	-	-	-	2	-	-	1
18MEE13/23	Elements of Mechanical Engineering	3	1	3	-	3	2	1	-	-	3	-	1
18CIV14/24	Elements of Civil Engineering	3	2	1	1	-	-	-	-	-	-	-	1
18EEE15/25	Basic Electrical Engineering	3	3	2	1	1	-	-	-	-	-	2	-
18PHL16/26	Engineering Physics Lab	3	2	2	-	-	-	-	-	2	-	-	1
18EEL17/27	Basic Electrical Engineering Lab	3	3	2	1	1	-	-	3	-	-	-	2
18MAT21	Applied Mathematics II	3	3	3	3	3	-	-	-	1	3	-	3
18CHE12/22	Engineering Chemistry	3	3	-	-	-	-	3	-	-	-	-	3
18CSE13/23	Introduction to Programming with C	3	3	3	1	3	-	-	-	3	1	-	1
18MEE14/24	Computer Aided Engineering Drawing	2	-	2	2	1	-	-	-	-	2	-	2
18ECE15/25	Basic Electronics	3	2	2	-	-	-	-	-	-	-	-	-
18CHL17/27	Engineering Chemistry Lab	3	3	-	-	-	-	3	-	-	-	-	3
18CSL18/28	Programming with C Lab	3	3	3	3	3	-	-	-	3	-	-	3
18HSS16/26	Professional Communication	-	-	-	-	-	-	-	3	2	3	-	3
Average		2.9	2.5	2.3	1.8	2.1	2.0	2.3	3.0	2.2	2.3	2.0	2.1

PO Attainment CAYm3 (2016-17)

Table 8.15 PO Attainment CAYm3 (2016-17)

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
15MAT11	3	3	3	3	3	-	-	-	3	3	-	3
15PHY12/22	3	3	3	-	-	-	-	-	3	-	-	3
15MEE13/23	3	3	3	-	3	3	3	-	-	3	-	3
15CIV14/24	2.96	3	2.95	-	-	-	-	-	-	-	-	-
15EEE15/25	3	3	3	3	-	-	-	-	-	3	3	-
15HSS162/262	-	-	-	-	-	-	-	3	3	3	-	3
15MAT21	3	3	3	3	3	-	-	-	3	3	-	3
15CHE12/22	3	3	-	-	-	-	3	-	-	-	-	3
15CSE13/23	3	3	3	3	3	-	-	-	3	3	-	3
15MEE14/24	3	-	3	3	3	-	-	-	-	3	-	3
15ECE15/25	3	3	3	-	-	-	-	-	-	-	-	-
16HSS161/261	3	3	-	3	-	-	3	3	-	-	-	-
Direct Attainment	2.995	3	2.995	3	3	3	3	3	3	3	3	3

PO Attainment CAYm2 (2017-18)

Table 8.16 PO Attainment CAYm2 (2017-18)

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
MAT11	3	3	3	3	3	-	-	-	-	3	-	3
PHY12/22	3	3	3	-	-	-	-	-	3	-	-	3
MEE13/23	3	3	3	-	3	3	3	-	-	3		3

CIV14/24	3	3	3	-	-	-	-	-	-	-	-	3
EEE15/25	3	3	3	3	-	-	-	-	-	3	3	-
MAT21	3	3	3	3	3	-	-	-	3	3	-	3
CHE12/22	3	3	-	-	-	-	3	-	-	-	-	3
CSE13/23	3	3	3	3	3	-	-	-	3	3	-	3
MEE14/24	3	-	3	3	3	-	-	-	-	3	-	3
ECE15/25	2.86	2.75	2.75	-	-	-	-	-	-	-	-	-
HSS161/261	2.9	3	-	3	-	-	2.9	3	-	-	-	-
HSS162/262	-	-	-	-	-	-	-	3	3	3	-	3
Direct Attainment	2.98	2.97	2.97	3	3	3	2.97	3	3	3	3	3

PO Attainment CAYm1 (2018-19)

Table 8.17 PO Attainment CAYm1 (2018-19)

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
18MAT11	3	3	3	3	3	-	-	-	-	3	-	3
18PHY12/22	3	3	3	-	-	-	-	-	3	-	-	3
18MEE13/23	3	3	3	-	3	3	3	-	-	3	-	3
18CIV14/24	3	3	3	3	-	-	-	-	-	-	-	3
18EEE15/25	2.81	2.81	2.81	2.81	2.81	-	-	2.7	-	-	2.92	2.7
18PHL16/26	3	3	3	-	-	-	-	-	3	-	-	3
18EEL17/27	3	3	3	3	3	3	3	3	-	-	-	3
18MAT21	3	3	3	3	3	-	-	-	3	3	-	3
18CHE12/22	3	3	-	-	-	-	3	-	-	-	-	3

18CSE13/23	2.815	2.75	2.75	2.75	2.82	-	-	-	2.82	2.795	-	2.81
18MEE14/24	3	-	2.56	3	3	-	-	-	-	3	-	3
18ECE15/25	2.845	2.87	2.87	-	-	-	-	-	-	-	-	-
18CHL17/27	3	3	-	-	-	-	3	-	-	-	-	3
18CSL18/28	3	3	3	3	3	-	-	-	3	-	-	3
18HSS16/26	-							3	3	3	-	3
Direct Attainment	2.96	2.96	2.91	2.94	2.95	3	3	2.95	2.97	2.96	2.92	2.98

Target Attainment Level

Target Attainment Level	2016-17	2017-18	2018-2019
	2.2	2.4	2.6

8.5.2. Actions taken based on the results of evaluation of relevant POs (5)

PO Attainment Levels and Actions for Improvement: 2018-19 (Civil)

PO	Target Level	Attainment Level	Observations
PO-1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO-1	2.6	2.96	Target Achieved
PO	Target Level	Attainment Level	Observations
PO-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.			
PO-2	2.6	2.96	Target Achieved
PO	Target Level	Attainment Level	Observations
PO-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.			
PO-3	2.6	2.91	Target Achieved
PO	Target Level	Attainment Level	Observations
PO-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.			
PO-4	2.6	2.94	Target Achieved
PO	Target Level	Attainment Level	Observations
PO-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.			
PO-5	2.6	2.95	Target Achieved
PO	Target Level	Attainment Level	Observations

PO-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.			
PO-6	2.6	3	Target Achieved
PO	Target Level	Attainment Level	Observations
PO-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.			
PO-7	2.6	3	Target Achieved
PO	Target Level	Attainment Level	Observations
PO-8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO-8	2.6	2.95	Target Achieved
PO	Target Level	Attainment Level	Observations
PO-9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.			
PO-9	2.6	2.97	Target Achieved
PO	Target Level	Attainment Level	Observations
PO-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.			
PO-10	2.6	2.96	Target Achieved
PO	Target Level	Attainment Level	Observations
PO-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.			
PO-11	2.6	2.92	Target Achieved
PO	Target Level	Attainment Level	Observations

PO-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.

PO-12	2.6	2.99	Target Achieved
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DEPARTMENT OF CIVIL ENGINEERING

CRITERION 9

STUDENT SUPPORT SYSTEMS

CRITERION 9	STUDENT SUPPORT SYSTEMS	50
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9.1 Mentoring system to help at individual level (5)

(Type of mentoring: Professional guidance/career advancement/coursework specific/laboratory specific/all-round development, number of faculty mentors, number of students per mentor, Frequency of meeting. The institution may report the details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system)

The role of the faculty as a mentor is one of nurturing and providing support for a student during the transition period in academic, professional as well as personal augmentation. In all departments of the Institution, mentoring is a continuous process where faculty mentors serve as a resource who will respond to many questions, trivial or complex, that the student might pose; support students in choosing course work that meets their needs and interests; encourage students to actively participate in seminars and laboratory work that are realistic in scope; and counsel the students on any other academic, professional, personal growth, etc., for necessary advice/guidance/help.

Role of a Mentor

- Keeps the records of student's profile in the prescribed format
- Maintains the records of absentees, problems/issues
- Explains to students the academic rules and regulation.
- Collects or downloads the attendance of each student for all courses either on monthly basis (if done manually) or fortnightly
- Examines the results of the students and counsel for poor results within a week after the results is published.
- Communicates with parents of students to discuss students' performance, any attendance issues and future plan at least twice in a semester.
- Gives specific guidance to students in selecting elective courses for registration.
- Gives guidance and information to plan for industry internship.
- Ensures to provide study material for advanced courses or advance study
- Gives guidance to students for selecting project topic, project guide, counsel them on back papers and debarred courses.

- Reports Unresolved cases of students to Dean / HOD and if Dean / HOD require further attention to resolve the issue, the unresolved cases can be brought to the attention of higher authorities'/ student counselors.

Mentoring System consists of the following phases

- 9.1a Mentoring activities done towards student
- 9.1b Training activities
- 9.1c Counseling System
- 9.1d Efficacy of mentoring/counseling system

9.1a Mentoring activities done towards student

I. Academic Growth

- First, mentors educate their mentees in a particular course, serving as masters to the developing learners by analyzing their performance in continuous internal evaluation tests (CIE).
- Based on academic record, students with good performance are encouraged to achieve next higher level of performance and slow learners are motivated and guided to improve the performance.
- The mentors counsel the students for their low attendance, low performance in examination (with the emphasis on the reason(s) of low attendance and performance).
- Information of academic planners, academic schedules and e-learning resources are shared to enhance their knowledge.
- Students are given training for taking up competitive exam GATE, IES, UPSC etc.
- Faculty members encourage students to do poster presentation on the mini-projects and PBL based project learning.

II. Professional Guidance

- The students are encouraged and guided to register themselves in the professional bodies like IEEE, CSI, and ISTE etc. to create awareness and enhance the knowledge about the various activities including research in their area of specialization.
- Mentors support their learning and enhance their laboratory and research skills through technical workshops/symposiums.
- Industry based training is offered to students to improve their chances of employability.
- Students are encouraged to develop their oral and written communication skills by

writing research papers /articles and presenting in national and international conferences.

- The projects are designed based on real time scenarios to apprise students about the working culture of industry and industry expectations.

III. Career Advancement

- Students are supported to take up online certification courses offered by MOOC/NPTEL/SWAYAM to strengthen the qualification for their academic progression. This also helps them to achieve higher career paths in the applied areas of their specializations.
- Career guidance and counseling is provided by senior faculty members and placement Co-coordinators
- Value added training programs are arranged to enhance their placement opportunities as well as to support their research in industry. Students are also encouraged to take up international professional certification for example in CISCO, Microsoft, Java, etc. This helps the students to improve their profiles for future.

IV. Laboratory Specific

- Counsel irregular students to laboratory classes to attend regularly and complete backlog experiments during specified extra hours.
- Arrange special lab coaching for Students with backlogs in external lab exams.

V. All-round Development

- Encourage and support students towards all round development through participation in literary, cultural and sports activities which helps to develop leadership qualities, decision making abilities, team spirit, socio-psychological awareness, and shapes the student into an intellectually integrated person.

VI. Student Personality development

- Empower and enable inner adjustments by individual students to counter and cope with physical, emotional, mental, social and environmental challenges through student-counselor interaction/ through meditation workshops/ through other specialized workshops / activities.
- Use of therapeutic interventions by counselors where necessary; such as Cognitive Behavior Therapy(CBT), Rational Emotive Behavior Therapy (REBT), Desensitization Therapy, Psychodynamic therapy, Group therapy and so on.
- Engage in family /peer counseling by Counselor/ Mentor /HOD to strengthen student's interpersonal relationships thereby improving their grades.

9.1b List of Training activities

- Orientation of the students prior to Placement season.
- Aptitude Training.
- Mock online aptitude practice test.
- Technical training through labs.
- Mock online technical practice test.
- One to one career counseling and guidance to all the students.
- Mock Group Discussion practice.
- Personality development activities.
- Life skill trainings.
- Verbal and written communication trainings.
- Company specific trainings.
- Mock face to face interviews.
- Industry visits.
- Internship opportunities.
- Participation in Hackathon and other coding challenge contests.

Table 9.1.1: Summary of Mentoring System

Parameter	Description
Types of mentoring activities	Academic growth / Professional guidance / career advancement / laboratory specific / All – round development / Student personality development
Number of faculty mentors	33
Number of students per mentor	18-20
Frequency of meeting	Once in a month
Counselor available for specific number of students	One per branch

The student mentoring process flow is shown below

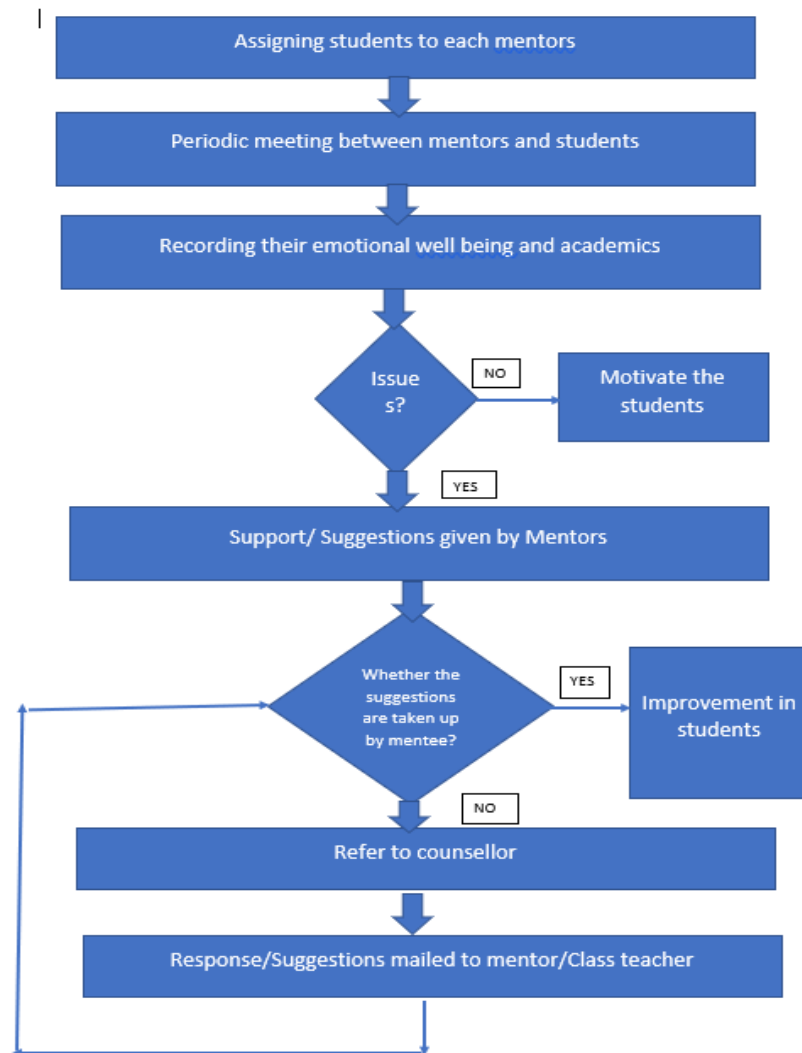


Figure 9.1.1: The structure of mentoring report

9.1c Counseling System

Department of Counseling offers individual, group and family counseling in the campus. The Department is equipped with 6 professionally qualified counselors who are easily approachable to the students and help them to deal with their daily life challenges and develop an insight for making right choices and decisions in their lives. In the department, each counselor allows an individual to have an opportunity to improve upon their understanding of themselves, including their pattern of thoughts, behavior, feelings and the ways in which these may have been problematic in their lives. It also helps to examine how to tap into existing resources or develop new ones that enhance their academic and personal lives

Procedure to be followed by counselors at NHCE:

- Department of counseling always focuses on mental health as well as academic achievement of students.
- Counselors are easily approachable to the students in two ways either through

referral or self -walk in.

- Counselor helps them to deal with their daily life challenges and develop an insight for making right choices and decisions in their lives.
- After first session of counseling, counselor always follows up the students.
- If requires counselor uses paper pencil tests to find out the exact issue of students.
- Counselor always maintains soft copy report of the students. Department of counseling conducts awareness program for the students.
- In this pandemic situation it's difficult to meet the students in person but department of counseling always ready to help students online or offline.

Table 9.1.2: Details of Counselors committee members

Sl. No.	Name	Designation
1	Dr. Reena Jain	Chief Counselor
2	Mrs. Deepa S	Student Counselor
3	Mrs. Arghyasri Sensarma	Student Counselor
4	Mrs. Roshina Jacob	Student Counselor
5	Mrs. Shanthala Roa	Student Counselor
6	Mrs. Sahana S	Student Counselor

Format used by Counselors

NEW HORIZON COLLEGE OF ENGINEERING
THE OFFICE OF DEAN STUDENT AFFAIRS
INTAKE FORM FOR COUNSELING

Please provide following information for our records which shall remain confidential.

Date : ____/____/____

Name : _____

Gender : Male [] Female [] Date of Birth : ____/____/____

Address : _____

City : _____ Pin Code : _____

Mobile No. : _____

E-mail Address : _____

Emergency contact information : Relationship to client : _____
Phone No. : _____

Please list any persistent physical symptoms or health concerns _____

Are you having any problems with your sleep habits ?
Sleeping too little [] Sleeping too much [] Poor quality sleep [] Disturbing dreams []

Are you having difficulty with appetite or eating habits ?
Eating less [] Eating more [] Binging [] Restricting []

Have you ever consumed alcohol ? No [] Yes []
If yes - Regularly [] Occasionally [] Rarely []

How often do you engage in recreational drug use?
Daily [] Weekly [] Monthly [] Rarely [] Never []

Are you currently in a romantic relationship ? No [] Yes []

Do you act impulsively ? No [] Yes []

Are you experiencing any of the following ?

ISSUES	No	Yes	Sometimes	Often	Never	Always
Mood Swings						
Extreme Anxiety						
Panic Attacks						
Phobias						
Sleep Disturbance						
Frequent Body Complaints						
Eating Disorder						
Body Image Problems						
Repetitive / Strange Thoughts						
Depression						
Difficulty in any subject						
Social Isolation, Loneliness						
Feeling of Loss						
Sad, Hopeless about Future						
Excessive Feelings of Guilt						
Low Self-Esteem						
Anger, Irritable, Hostile						
Memory problems or trouble concentrating						
Trouble explaining myself to others						
Problems understanding what others tell us						

What do you consider to be some of your strengths ? _____

What do you like most about yourself ? _____

What do you consider to be some of your weakness ? _____

What are your goals for future ? _____

Rate the following

How well you are doing in your family relationship : 0 1 2 3 4 5 6 7 8 9

How well you are doing in relationship with people outside your family : 0 1 2 3 4 5 6 7 8 9

Please rate your general happiness and well - being : 0 1 2 3 4 5 6 7 8 9

How well do you manage your time : 0 1 2 3 4 5 6 7 8 9

Signature of the student _____

Figure 9.1.2: Format of the counseling form used by counselor

9.1d Efficacy of mentoring/counseling system:

The mentoring/counseling system developed by the college is very effective as defined by different parameters as listed.

Table 9.1.3: Efficacy of Mentoring System

Parameters	Outcome
Student's Attendance:	Enhanced / improved
The Involvement of Students in the Academics, Co-Curricular and Extra-Curricular:	Has improved
Individual Student's Talents/ Skills Identified and Nurtured towards:	Excellence (the mentor/counselor/student ratio being optimum for supported growth).
Students' Self-Confidence/ Self-Esteem:	Improved over time, thus making inner adjustments easier and coping with and tackling successfully external challenges like facing job interviews/ speaking in public /giving presentations/ even mentoring peers.

9.1 (A) Sample Format of Mentoring System for CSE

Figure 9.1.3: A snap shot of the mentoring system

Table 9.1.4: List of Courses offered for Life Long Learning

Semester	Course Code	Subject Name
Course Specific		
I	CSE13	Introduction to Programming with C
III	CSE34	Data Structures using C
III	CSE35	UNIX System Programming
IV	CSE43	Object Oriented Programming with C++
V	CSE51	Analysis and Design of Algorithms
V	CSE52	Operating System
V	CSE53	Database Management Systems
V	CSE54	Software Engineering
VI	CSE61	Core JAVA Programming
VI	CSE62	Computer Networks
VI	CSE641	Social Network Analysis
VI	CSE642	Soft Computing
VI	CSE643	Usability and Human Computer Interaction
VII	CSE71	Web Technologies
VII	CSE72	Software Testing
VII	CSE73	Mobile Application Development
VII	CSE741	Fundamentals of Data Science
VII	CSE742	Cryptography & Network Security
VII	CSE743	Artificial Intelligence
VII	CSE745	Cyber Security, Forensics and Law
VIII	CSE81	Object Oriented Analysis and Design
VIII	CSE82	Data Mining and Machine Learning
Laboratory Specific		
I	CSE13	Programming with C Lab
III	CSE34	Data Structures using C Lab
III	CSE35	UNIX System Programming Lab
IV	CSE43	Object Oriented Programming with C++
V	CSE51	Analysis and Design of Algorithms Lab
V	CSE53	Database Management Systems Lab
V	CSE553	Big Data Analytics with HP Vertica
VI	CSE61	Core JAVA Programming
VI	CSE62	Computer Networks
VII	CSE71	Web Technologies

VII	CSE72	Software Testing
VII	CSE73	Mobile Application Development
All-round Development		
I	HSS171	Essential English
I	HSS172	Constitution of India and Professional Ethics
II	HSS271	Professional Communication
III	HSS322	Life skills for Engineers
III	HSS321	Economics for Engineers
IV	HSS422	Life skills for Engineers
IV	HSS421	Economics for Engineers
Student personality development activity		
III	CSE36	Mini Project in C
IV	CSE46	Mini Project in C++
V	CSE56	Mini Project in DBMS
VI	CSE65	Mini Project in JAVA
VII	CSE76	Mini Project in Mobile Application Development
VIII	CSE83	Internship
VIII	CSE84	Project

9.1 (B) Sample Format of Mentoring System for CV

The screenshot displays the 'contineo' mentoring system interface. At the top, there is a navigation bar with links: Home, Notice-Board, Proctorship, Change Password, Search student, All Field Report, User Manual, and Logout. Below this, a user profile for Suma P is shown. The main section is titled 'Mentoring Report' and features a filter bar with options: Registration Data, Performance, Profile, and Mentoring. The interface lists five student profiles, each with a photo, name, ID, semester, and a set of four colored status indicators (blue, pink, green, grey). The 'Counselling Details' for each student are provided, showing the last counselling date and time.

Student Name	ID	Semester	Status Indicators	Last Counselling
AMAL THOMAS	1NH16CV011	SEM06	Blue, Pink, Green, Grey	17-03-2020 02:18:19
ANAND VIJAYAN M	0 1NH16CV014	SEM06	Blue, Pink, Green, Grey	17-03-2020 02:21:32
ARJUN G V	1NH16CV016	SEM06	Blue, Pink, Green, Grey	17-03-2020 02:24:00
ARUN GOPINATH	1NH16CV017	SEM06	Blue, Pink, Green, Grey	17-03-2020 02:27:21
LAISHANGBAM BIKASH SINGH	0 1NH16CV054	SEM06	Blue, Pink, Green, Grey	

Figure 9.1.4: Sample Student mentoring in contineo

Sl. No	Name	USN	Roll No	Semester	Nature of Counselling	Issue/Details	Suggestion/Action Plan	Date Of Session
1	AMAL THOMAS	1NH16CV011		SEM06	Periodic counseling	Irregular to classes, He is good but lack in concentration	stage2	17-03-2020
2	ANAND VIJAYAN M	1NH16CV014	0	SEM06	Periodic counseling	He is irregular to classes and lacks interest in studying	stage2	17-03-2020
3	ARJUN G V	1NH16CV016		SEM06	Periodic counseling	not regular.... average scoring in internals	none	17-03-2020
4	ARUN GOPINATH	1NH16CV017		SEM06	Periodic counseling	irregular and absent in most of subjects cie	stage2	17-03-2020
5	M GIRISHANKAR	1NH16CV057	0	SEM06	Periodic counseling	he s regular to classes but should concentrate in class and work hard.	none	17-03-2020
6	SHUHAIL M	1NH16CV101		SEM06	Periodic counseling	he is very irregular to class.	stage2	17-03-2020
7	ABDUL ROUF WANI	1NH17CV001		SEM06	Periodic counseling	Quite good in the studies, However there is a scope for improvement	none	18-03-2020
8	ABHINAV DUBEY	1NH17CV002		SEM06	Periodic counseling	student is regular and disciplined, no issues in academics and behaviour	none	18-03-2020
9	ABHISHEK B V	1NH17CV003		SEM06	Periodic counseling	good student no issues	none	18-03-2020
10	ABHISHEK P	1NH17CV004		SEM06	Periodic counseling	good student no issues	none	18-03-2020
11	AKRITI NAIK	1NH17CV008		SEM06	Periodic counseling	v good student no issues	none	18-03-2020

Mentor:suma p

HOD

Figure 9.1.5: Sample Student Mentoring Report

NEW HORIZON COLLEGE OF ENGINEERING COUNSELLING REPORT (DEPT. OF CIVIL ENGINEERING)					COUNSELLOR - Ms. SAHANA.S	
Last of Students failed in 2 or more subjects in CIE - 1 EVEN Sem 2019-20						
Sl.No	Semester	USN	Student Name	Subjects < 40%	SESSION SUMMARY	
1	IV A	1NH16CV102	SIDDHESH S	19CIV44-Analysis of Determinate Structures 19CIV46-Applied Hydraulics and Machinery	Re- registered student who said subjects seems to be a little different now and hence is taking time to understand. Oriented him the importance of academics and advised him to approach teachers for any difficulties. He seems to be confident this internals.	
2	IV A	1NH16CV124	YUVRAJ YADAV	19CIV44-Analysis of Determinate Structures 19CIV45-Higher Surveying 19CIV46-Applied Hydraulics and Machinery	Re- registered student who said MATH is a new added subject now and hence is taking time to understand. Oriented him the importance of academics and advised him to approach teachers for any difficulties. He seems to be promising this time.	
3	IV A	1NH17CV017	BILLI LOMBI	19CIV44-Analysis of Determinate Structures 19CIV45-Higher Surveying	He said he was earlier in C sec and then was shifted to A sec which made him difficult to cope with the teaching techniques of different teachers. Advised him to approach teachers for any doubts and concentrate to study well. Oriented him the importance of studies. he seems more confident for this internals.	
4	IV A	1NH17CV019	CHANDAN SURYA L H	19CIV44-Analysis of Determinate Structures 19CIV46-Applied Hydraulics and Machinery	He said he was earlier in C sec and then was shifted to A sec where the syllabus was much ahead than the previous class and hence missed classes. Advised him to approach teachers for any doubts and concentrate to study well. Oriented him the importance of studies. he seems more assuring now.	
5	IV A	1NH17CV054	MADHU SUDANA K	19CIV44-Analysis of Determinate Structures 19CIV45-Higher Surveying	He said he joined late for the semester and by then most of the syllabus was covered and hence could not do well. Oriented him the importance of attendance and academics. Advised him to approach teachers when missed classes to clear doubts. He Seems more comfortable for this coming internals.	

Figure 9.1.6: Sample Counseling Report

Daily Counselling report (14.05.2020)

No. of students called	Type of issue	Mode of communication	Plan of action
1 (CIVIL)	Confusion regarding the CIE marks calculation.	Mobile Texts	Advised him to enquire his teachers for further marking queries and request them to look into if any discrepancies.
1 (CIVIL)	Anxiety regarding pandemic and scheduling of end sem exams.	Mobile Texts	Counselled and built hope in him regarding the current crisis. Advised him to not panic regarding the exams, since the administration will take steps which are appropriate.

SAHANA.S
Student counsellor
ISE & CIVIL

Figure 9.1.7: Counseling report

Table 9.1.5: List of Courses offered for Life Long Learning

Semester	Course Codes	Course Name
I	19HSS171	Essential English
I/II	19HSS172	Constitution of India and Professional Ethics
II	19HSS271	Professional Communication
III	19HSS321	Economics for Engineers
III	19HSS323	Environmental Science and Awareness
IV	19HSS422	Life skills for Engineers
		All civil engineering courses

9.1 (C) Sample Format of Mentoring System for ECE

Table 9.1.6: List of Courses offered for Life Long Learning

Semester	Course Codes	Course Name
I	15MA11	Engineering Mathematics I
I	15CH12	Engineering Chemistry
I	15HP16	Personality Development and Soft skills
II	15MA21	Engineering Mathematics II
II	15HB26	Business Communication
III	16MAT31	Engineering Mathematics -III
III	16HSS322	Life Skills for Engineers
III	16ECE34	Electronic circuits-1
III	16ECE35	Network Analysis
III	16ECE36	Signals and Systems
IV	16MAT41	Engineering Mathematics-IV
IV	16ECE44	Digital Signal Processing
IV	16ECE45	Control Systems
V	ECE53	CMOS VLSI Design
V	ECE54	Information Theory and Coding
V	ECE55	Engineering Electromagnetics
VI	ECE62	Embedded System Design
VI	ECE63	Microelectronics circuits
VI	ECE651	Routing and Switching
VIII	ECE81	Routing and Switching-3
VIII	ECE82	Internship
VIII	ECE83	Project Phase-I
VIII	ECE84	Project Phase-II
VIII	ECE85	Project Phase- III

Sl. No	Name	USN	Roll No	Semester	Nature of Counselling	Issue/Details	Suggestion/Action Plan	Date Of Session
19	ANJU GOPINATH	1NH16EC708		SEM08	Follow up of previous discussion	No issues. Got placed in Hexaware. project 2nd review is done.	none	14-04-2020
20	B VAMSI KRISHNA REDDY	1NH16EC710		SEM08	Follow up of previous discussion	No issues. Attending online classes and happy with classes. Doing final year project. Searching for Job.	none	14-04-2020
21	BALAJI L	1NH16EC711		SEM08	Follow up of previous discussion	Doing final year project. No issues.	none	14-04-2020
22	CHIRAG S	1NH16EC713		SEM08	Follow up of previous discussion	Attending online classes and project 2nd review is done. Trying for Job. No issues.	none	14-04-2020
23	GAGANA M R	1NH16EC714		SEM08	Follow up of previous discussion	No issues. 80% of the final year project is completed. Planning to do higher studies in Australia. Got offer letters from 2 universities.	none	14-04-2020
24	GOWRI SNEHA PRIYA S	1NH16EC715		SEM08	Follow up of previous discussion	Doing final year project and no issues.	none	14-04-2020
25	GURRAM VENKATA NIKESH	1NH16EC716		SEM08	Follow up of previous discussion	Happy with online classes. Project 2nd review not done and going to do this week due to lock down and unavailability of components.	none	14-04-2020

Mentor: Ms. Parepalli Ramanamma (P Rama)

HOD

Figure 9.1.8: Sample Student Mentoring Report

IIIA

Sl.No.	USN	STUDENT NAME	Session Summary
1.	1NH18EC001	ABHIRAG	The student said that he did not study as he missed classes due to fast track exam He was asked to reflect on how he gets fastrack and how that affects the upcoming semester. He was to be more responsible and take academics seriously.
2.	1NH18EC005	AMITH SABU	The student said that he did not study that is the reason he could not perform well. Spoke to him on the consequences of not securing enough marks for the internals. Motivated him to study better for the coming internals.
3.	1NH18EC016	AYAAN KHAN S	It was understood from the session that the student is not taking his academics seriously. Spoke to him on the consequences of not securing enough marks for the internals. Motivated him to study better for the coming internals.

Figure 9.1.9: Sample report by counselor

9.1 (D) Sample Format of Mentoring System for ME



New Horizon College of Engineering
Mechanical Engineering
Student Mentoring Report

Rectangular Snip

Sl. No	Name	USN	Roll No	Semester	Nature of Counselling	Issue/Details	Suggestion/Action Plan	Date Of Session
1	B MAHITHESH GOWD	1NH15ME708	0	SEM08	Periodic counseling	NOT REGULAR TO CLASS AS HE IS REREGISTERED.	none	18-03-2020
2	MOHAMMED RIYAZ BAIG	1NH15ME727	0	SEM08	Periodic counseling	since he has very less basicCS HE NEEDS TO PREPARE MORE	none	18-03-2020
3	RAKSHITH REDDY	1NH15ME735	0	SEM08	Periodic counseling	Irregular to classes.working on internship	none	18-03-2020
4	ABHISHEK	1NH16ME700		SEM08	Periodic counseling	no issues observed.	none	18-03-2020
5	GOUTHAM G	1NH16ME718		SEM08	Parent teacher meeting	student was not willing to come to college and hence parent had to come with him	none	18-03-2020
6	ADHARSH MADHUSUDAN	1NH16ME701		SEM08	Periodic counseling	Good student. No issue with him.	none	18-03-2020

Figure No. 9.1.10: Student Counseling Report (Faculty)

Counselling Report on Students scored less than 10 in CIE1- Odd Semester, 2019 Department of Mechanical Engineering- 3rd Semester			
	Name	Response	Session Summary
16ME025	Dhanush R	I was not regular before because of dengue and later accident. But now regular and will improve scores in the next exam	Helped him to orient towards semester requirements in terms of attendance and marks. Encouraged to set target scores for all these subjects in second internal to achieve a safe semester average score. Appeared to be confident.
18ME089	Prashanth M	Scored less in CAMD, MOM, MSM and all are numerical subjects. Didn't get answer correct.	Helped to set target score to compensate on marks and encouraged to seek help from teachers and friends for better subject understanding.
18ME082	Nishanth Manoj	Due to fever, I couldn't do well. Will get retest	Appeared to be confident about scoring better and suggested to contact teachers for the re-test
18ME081	Nischal P	Difficulty with numerical subjects and because of fever also couldn't do well. Asked for retest	Suggested to take help from teachers or friends for better subject clarity.
18ME424	Aneesh Ahmed	Joined late for the semester and some basics are missing. Requested for retest.	Needs to work on motivation. Helped to set target scores according to the shortage to compensate on marks.
18ME759	Yathish Ravindra	Because of viral fever couldn't do well.	Helped to set target scores accordingly for the next exam.

Figure No. 9.1.11: Student Counseling Report (Counselors)

Table 9.1.7: Impact of efficacy of mentoring/counseling system

Type of Mentoring/ Counseling	2018-19		2017-18		2016-17	
	No. of students counseled	No. of students improved	No. of students counseled	No. of students improved	No. of students counseled	No. of students improved
Academic guidance	58	36	47	31	37	25

9.2 Feedback analysis and reward /corrective measures taken, if any (10)

(Feedback collected for all courses Specify the feedback collection process Average Percentage of students who participate Basis of reward/ corrective measures, if any; Indices used for measuring quality of teaching& learning and summary of the index values for all courses/teachers; Number of corrective actions taken).

9.2.a Methodology Adopted for Feedback analysis

The entire process is executed in following three stages

- Feedback collection
- Feedback analysis

I. Feedback Collection Process

- Feedback mechanism is well organized system in the college for all courses.
- All the students are allowed to give feedback.
- Computerized feedback is collected from students for all the courses. The feedback collection process is discussed in Table 9.2.1

Table 9.2.1: Feedback collection process

Title	Description
Feedback collection process	Online feedback from all students on respective courses
Process	Online on CONTINEO
Frequency of feedback Collection	Twice in a semester
Metrics used for calculation	5-Excellent 4-Very Good 3-Good 2-Satisfactory 1-Below average

II. Feedback Analysis Process

Summary of the feedback reports pertaining to course, program and teaching- learning is prepared, usually on the scale of 1to5. The minimum expected feed back for a faculty member from the students is 3.5 on 5-point scale rating system. The feedback is shared

with heads of the respective departments. Informal feedback is also taken directly by the heads from time to time during the ongoing semester. A special emphasis is paid on transparency and impact of the feedback system. A broad range of parameters that are used for collecting the feedback data is as given below.

- Particular on timely coverage of syllabus
- Ability to integrate content with other courses
- Depth of the course content including project work, if any
- Learning value (in terms of knowledge, concepts, manual skills, analytical abilities and broadening perspectives)
- Lectures are interesting
- Logical structuring & sequencing of course content into modules
- Promptness & adequacy of feedback provided by teacher on academic performance
- Promptness in Evaluation of Tests, Assignments and Quizzes
- Punctuality (starting time & ending time for lectures, Lab classes and Tutorials Classes)
- Recap of last lecture, assignments, quizzes, projects, discussion, case studies etc.
- Teacher comes well prepared to teach in the class
- Teacher encourages students to ask questions and are satisfied with answers
- Teacher encourages students to think independently
- Teacher gives real life examples/ uses videos
- Teacher is approachable to students for Academic/ personal advice
- Teacher is clear with course concepts
- Teacher is enthusiastic about teaching the course
- Teacher provides course and lecture outline at the semester beginning
- Teacher suggests web-links related to the topics taught
- Teacher takes extra care to ensure learning
- Teacher uploads the teaching material well before the class
- The course materials (e.g. text, case studies, readings etc.) are helpful in learning the course. The evaluation process is well designed during the course
- There is clarity in presentation, considering language, voice and black board writing

A format of student feedback on teaching -learning is given below

FORMAT of Student Feedback on Teaching - Learning

Questionnaire

1. Clarity in explaining the subject
2. Subject explained was easy to understand
3. Content quality is relevant and useful
4. Faculty answers to your queries/questions
5. Coverage of topic/subject is on time
6. The concepts were explained with examples
7. Faculty preparation for the class
8. Faculty guidance for preparation of seminar, conference and exam
9. Punctuality of the faculty for the class
10. Communicates distinctly and effectively
11. Treats students with respect and effectively
12. Control of the classroom by faculty
13. Relevance of assignments to the subject
14. Overall satisfaction
15. Discussion of any interesting topic beyond the syllabus but relevant to the field.
16. Usefulness of the question papers of internal tests in your preparation for the examination.
17. Helpfulness of the online course material (question bank, etc.) and assignments for you to understand and prepare and for tests and examination.
18. Accessibility availability after the class hours in the college.

Rating of Scale

- 5-Excellent
- 4-Very Good
- 3-Good
- 2-Fair
- 1-Poor

Figure 9.2.1: Format of student feedback on Teaching – Learning

9.2a (A) Sample Feedback analysis for CSE

A broad range of parameters that are used for collecting the feedback data is as given below.

- Particular on timely coverage of syllabus
- Ability to integrate content with other courses

- Depth of the course content including project work, if any
- Learning value (in terms of knowledge, concepts, manual skills, analytical abilities and broadening perspectives)
- Lectures are interesting
- Logical structuring & sequencing of course content into modules
- Promptness & adequacy of feedback provided by teacher on academic performance

STUDENT FEEDBACK - EVEN TERM 2020

This form is given to you to analyze the effectiveness of the service offered at NHCE. Please answer the questions below to the best of your ability to reflect your individual feeling about the course so far, and not those of your collective group. This would help us in accurately evaluating how the course is perceived by each one of you individually, and the level of interaction between you, faculty and the institution. Please be honest and candid in your feedback. Your opinion is treated completely confidential.

Neuroanatomical And Functional Focus (ST2252) Dr. Asita B. M.

FEEDBACK ON FACULTY

Sl. No.	Particulars	Response
1	Clarity in explaining the subject.	Select ▼
2	Subject explained was easy to understand.	Select ▼
3	Content quality is relevant and useful.	Select ▼
4	Faculty answers to your queries/questions.	Select ▼
5	Coverage of topic/subject is on time.	Select ▼
6	The concepts were explained with examples.	Select ▼
7	Faculty preparation for the class.	Select ▼
8	Faculty guidance for preparation of seminar, conference and exam.	Select ▼
9	Punctuality of the faculty for the class.	Select ▼
10	Communicates distinctly and effectively.	Select ▼
11	Treats students with respect and courtesy.	Select ▼
12	Control of the classroom by faculty.	Select ▼
13	Relevance of assignments to the subject.	Select ▼
14	Overall satisfaction.	Select ▼
15	Discussion of any interesting topic beyond the syllabus but relevant to the field.	Select ▼
16	Usefulness of the question papers of internal tests in your preparation for the examination.	Select ▼
17	Helpfulness of the online course material (question bank, etc.) and assignments for you to understand and prepare for tests and examination.	Select ▼
18	Accessibility availability after the class hours in the college.	Select ▼

Figure 9.2.2: Sample Students feedback on Teaching -Learning

- Promptness in Evaluation of Tests, Assignments and Quizzes
- Punctuality (starting time & ending time for lectures, Lab classes and Tutorials Classes)
- Recap of last lecture, assignments, quizzes, projects, discussion, case studies etc.
- Teacher comes well prepared to teach in the class
- Teacher encourages students to ask questions and are satisfied with answers
- Teacher encourages students to think independently
- Teacher gives real life examples/ uses videos
- Teacher is approachable to students for Academic/ personal advice
- Teacher is clear with course concepts
- Teacher is enthusiastic about teaching the course

- Teacher provides course and lecture outline at the semester beginning
- Teacher suggests web-links related to the topics taught
- Teacher takes extra care to ensure learning
- Teacher uploads the teaching material well before the class
- The course materials (e.g. text, case studies, readings etc.) are helpful in learning the course
- The evaluation process is well designed during the course
- There is clarity in presentation, considering language, voice and blackboard writing

9.2a (B) Sample Feedback analysis for CV

The faculty members who follow good and innovative teaching pedagogies are appreciated and awarded along with the monetary benefit of increment, in recognition of their exemplary efforts of

- Resourcefulness
- Innovations in bringing about the change
- Dependability in their work
- Expertise used and developed in academics, research and patenting

Corrective actions are taken for the faculty whose feedback score is less than the institution standard

- Encouraging faculty to attend more Faculty Development Programs (FDPs). Suggestions are given to enhance their academic skill set with the peer support within a stipulated time period. The performance is reviewed by the head of the department regularly.

These corrective actions taken are as shown in Figure

A format of student feedback on teaching -learning is given in figure

New Horizon College of Engineering																								
Student Feedback Report																								
Department CV																								
Faculty Name Suma p																								
SR. No.	Name of the faculty	CLASS	No of Students	Subjects	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10	Q 11	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18	Avg.	
1	Suma p	CV SEM VI SEC A	54	CIV653	4.54	4.52	4.59	4.54	4.48	4.5	4.56	4.31	4.5	4.48	4.46	4.5	4.52	4.5	4.39	4.43	4.46	4.44	4.48	
		CV SEM IV SEC B	42	19CIV43	4.52	4.4	4.48	4.43	4.48	4.45	4.33	4.43	4.43	4.38	4.48	4.43	4.48	4.43	4.24	4.4	4.36	4.43	4.42	
		Overall avg			4.53	4.46	4.54	4.49	4.48	4.48	4.45	4.37	4.47	4.43	4.47	4.47	4.5	4.47	4.32	4.42	4.41	4.44	4.45	
Q 1	Clarity in explaining the subject										Q 9	Punctuality of the faculty for the class.												
Q 2	Subject explained was easy to understand.										Q 10	Communicates distinctly and effectively.												
Q 3	Content quality is relevant and useful.										Q 11	Treats students with respect and courtesy.												
Q 4	Faculty answers to your queries/questions.										Q 12	Control of the classroom by faculty.												
Q 5	Coverage of topic/subject is on time.										Q 13	Relevance of assignments to the subject.												
Q 6	The concepts were explained with examples.										Q 14	Overall satisfaction.												
Q 7	Faculty preparation for the class.										Q 15	Discussion of any interesting topic beyond the syllabus but relevant to the field.												
Q 8	Faculty guidance for preparation of seminar, conference and exam.										Q 16	Usefulness of the question papers of internal tests in your preparation for the examina												
											Q 17	Helpfulness of the online course material (question bank, etc.) and assignments for yo												
											Q 18	Accessibility availability after the class hours in the college.												
	SCALE USED																							
Not Applicable	0																							
Poor	1																							
Fair	2																							
Good	3																							
Very Good	4																							
Excellent	5																							

Figure 9.2.4: Sample Students feedback on Teaching –Learning

A format of feedback analysis on teaching -learning is given in figure

Table 9.2.2: Sample feedback analysis on Teaching –Learning

NEW HORIZON COLLEGE OF ENGINEERING DEPARTMENT OF CIVIL ENGINEERING Faculty Feedback Analysis - 2019-20 - EVEN SEM			
Sl.No.	Feedback range	Name of the faculty	Score
1	4.5 - 5	Dr. Niranjana P S	4.64
2		Dr. N Mahesha	4.52
3		Ms. Suma Paralada	4.45
4	4-4.5	Mr. Surendra B V	4.4
5		Ms. Serin Issac	4.36
6		Dr. Geetha Varma	4.35
7		Ms. Vandhana P	4.32
8		Ms. Swetti Jha	4.32
9		Mr. Channabasava	4.31
10		Mr. Vijay N.C	4.3
11		Mr. Sudhakar G N	4.23
12		Ms. Geethu V	4.23
13		Dr. Muralikrishna	4.21
14		Mr. Pawan Kumar	4.2
15		Dr. Ranganthan	4.12
16		Ms. Neethu Elizabeth John	4.12

17		Mr. Yogesh	4.12
18		Dr. Giriprasadchandran	4.07
19		Mr. Rahul N K	4.05
20		Mr. Harish G R	4.03
21		Dr. Vinaykumar B M	4.01
22		Ms. Athuliya	4.01
23	3.5 - 3.99	Ms Sathya Priya	3.98
24		Mr. Sunil M Horaginamani	3.95
25		Mr. Prakash A N	3.94
26		Mr. Nitishkumar	3.93
27		Mr. Satish D	3.92
28		Mr. Rajendra T N	3.91
29		Mr. Sandeep T. D	3.91
30		Ms. Meghana. P	3.9
31		Ms. K. Sharmila	3.86
32		Ms. Ramya H S	3.81
33		Dr. Balamurugan	3.76
34		Dr. Jagadish C B	3.67
35		Dr. Nachimuthusubramani	3.66
36		Dr. Harish Velagiri	3.91
37		Ms. Snehal R L	3.54

A format of feedback analysis on teaching -learning is given in figure

Faculty Feedback Analysis for EVEN sem 2020		
Total number of Faculties		37
Feedback	4.5-5	2
Feedback	4-4.5	20
Feedback	3.5-3.99	15
Feedback	less than 3.5	0

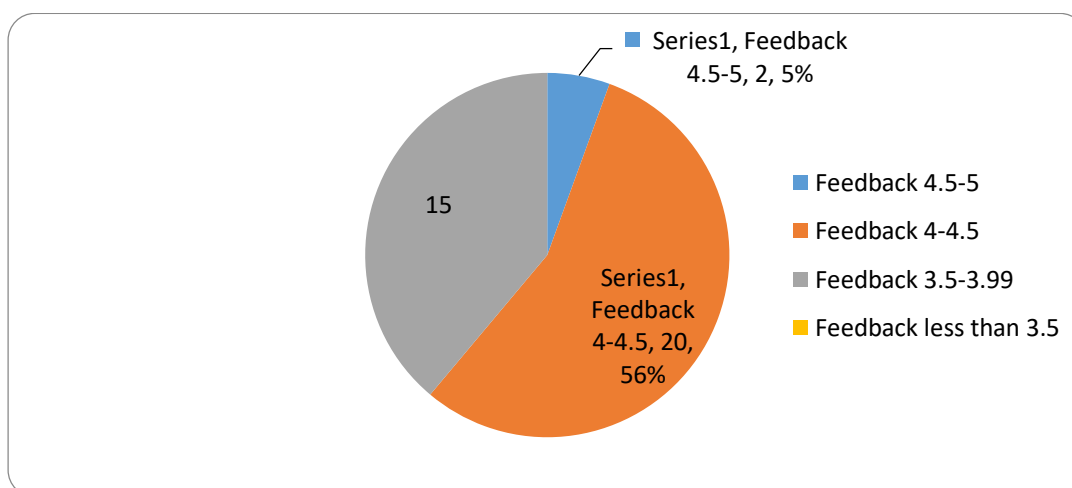



Figure 9.2.5: Sample feedback analysis on Teaching –Learning

- 1) List of faculties with student feedback <3.5-----Nil
- 2) Activity followed for faculty having student feedback <3.5-----Nil
- 3) FDP attended by faculty having student feedback<3.5-----Nil
- 4) NPTEL courses attended by faculties having student feedback <3.5-----Nil


9.2 (C) Sample Feedback analysis for ECE



New Horizon College of Engineering

Student Feedback Report

Consolidated Faculty Scorecard for EC Department



SR. No.	Name of the faculty	CLASS	of Stud	Subjects	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Avg.	
1	Ms. Monika Gupta	EC SEM IV SEC A	1	ECE44	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
		EC SEM IV SEC A	1	ECE44	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		EC SEM IV SEC A	3	ECE45	4.67	4.67	4.67	4.67	4.67	4.67	4.67	4.33	4.67	4.67	4.67	4.67	4.67	4.67	4.33	4.67	4.67	4.67	4.63	
		EC SEM IV SEC A	43	19ECE45	4.09	4.12	4.02	4	4.28	4.05	4.33	4.05	4.37	4.1	4.17	4.05	4.07	3.93	3.65	4	3.93	3.88	4.06	
		EC SEM IV SEC A	19	19ECL48	3.89	3.74	3.68	3.68	3.84	3.63	3.74	3.58	4	3.79	3.79	3.53	3.74	3.74	3.78	3.53	3.74	3.68	3.73	
		EC SEM IV SEC A	12	19ECL48	4.42	4.33	4.58	4.17	4.5	4.33	4.42	4.25	4.42	4.25	4.42	4.33	4.5	4.25	3.82	4.42	4.33	4.25	4.33	
		Overall avg				4.35	4.31	4.33	4.25	4.38	4.28	4.36	4.2	4.41	4.3	4.34	4.26	4.33	4.27	4.1	4.27	4.28	4.25	4.29
SR. No.	Name of the faculty	CLASS	No of Student	Subjects	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Avg.	
2	Ms. Vijaya	EC SEM IV SEC B	1	18HSS272	4	4	3	3	3	4	3	4	3	4	3	4	4	3	4	3	4	3	3.5	
		Overall avg				4	4	3	3	3	4	3	4	3	4	3	4	4	3	4	3	4	3	3.5
SR. No.	Name of the faculty	CLASS	No of Student	Subjects	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Avg.	
3	Ishani Mishra	EC SEM IV SEC A	1	ECE43	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
		EC SEM IV SEC A	19	19ECL47	3.68	3.42	3.63	3.58	3.32	3.32	3.68	3.68	3.74	3.63	3.53	3.47	3.32	3.42	3.5	3.47	3.37	3.26	3.5	
		EC SEM IV SEC C	1	ECE44	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		EC SEM IV SEC C	1	ECE44	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		EC SEM IV SEC C	50	19ECE44	4.46	4.28	4.42	4.48	4.52	4.42	4.48	4.5	4.5	4.44	4.5	4.16	4.44	4.4	4.32	4.44	4.4	4.44	4.42	
		EC SEM VI SEC C	46	ECE61	4.3	4.33	4.3	4.28	4.33	4.24	4.35	4.28	4.5	4.33	4.37	4.33	4.41	4.37	4.35	4.3	4.35	4.33	4.34	
		EC SEM VI SEC C	14	ECE61	4.29	4.21	4.14	4.14	4.07	4.07	4.14	4.14	4.43	4.21	4.36	4.21	4.29	4.14	4.29	4.21	4.29	4.36	4.22	
		EC SEM VI SEC C	13	ECE61	4.23	4.23	4.31	4.38	4.46	4.23	4.46	4.23	4.54	4.15	4.31	4.15	4.38	4.38	4.08	4.08	4.15	4.08	4.27	
		EC SEM VI SEC C	19	ECE61	4.37	4.47	4.42	4.32	4.42	4.37	4.42	4.42	4.53	4.53	4.42	4.53	4.53	4.53	4.58	4.53	4.53	4.47	4.47	
		Overall avg				4.37	4.33	4.36	4.35	4.35	4.29	4.39	4.36	4.47	4.37	4.39	4.32	4.37	4.36	4.35	4.34	4.34	4.33	4.36

Figure 9.2.7: Sample Students feedback on Teaching -Learning

9.2 (D) Sample Feedback analysis for ME

New Horizon College of Engineering																							
Student Feedback Report																							
Consolidated Faculty Scorecard for ME Department																							
Sr. No.	Name of the faculty	CLASS	No of Students	Subjects	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Q.10	Q.11	Q.12	Q.13	Q.14	Q.15	Q.16	Q.17	Q.18	Avg.
1	Prof. Puneeth H V	ME SEM IV SEC A	69	MEE452	4.77	4.77	4.77	4.77	4.7	4.72	4.77	4.64	4.7	4.64	4.67	4.57	4.64	4.75	4.64	4.7	4.65	4.62	4.69
		ME SEM IV SEC A	24	MEE452	4.88	4.83	4.88	4.79	4.63	4.83	4.88	4.58	4.63	4.79	4.58	4.54	4.63	4.83	4.79	4.79	4.71	4.67	4.74
		ME SEM IV SEC A	23	MEE452	4.65	4.65	4.7	4.65	4.65	4.61	4.65	4.57	4.7	4.61	4.7	4.57	4.61	4.65	4.52	4.57	4.61	4.57	4.62
		ME SEM IV SEC A	22	MEE452	4.77	4.82	4.73	4.86	4.82	4.73	4.77	4.77	4.77	4.5	4.73	4.59	4.68	4.77	4.59	4.73	4.64	4.64	4.72
		Overall avg			4.77	4.77	4.77	4.77	4.7	4.72	4.77	4.64	4.7	4.64	4.67	4.57	4.64	4.75	4.64	4.7	4.65	4.63	4.69
Sr. No.	Name of the faculty	CLASS	No of Students	Subjects	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Q.10	Q.11	Q.12	Q.13	Q.14	Q.15	Q.16	Q.17	Q.18	Avg.
2	Prof. Ronald Reagan R	ME SEM IV SEC A	69	MEE462	4.84	4.78	4.84	4.78	4.7	4.75	4.84	4.71	4.72	4.72	4.64	4.78	4.72	4.75	4.65	4.74	4.7	4.7	4.74
		ME SEM IV SEC A	24	MEE462	4.92	4.83	4.92	4.83	4.79	4.88	4.92	4.79	4.75	4.71	4.71	4.79	4.71	4.71	4.5	4.75	4.67	4.75	4.77
		ME SEM IV SEC A	23	MEE462	4.78	4.74	4.78	4.78	4.61	4.7	4.74	4.61	4.7	4.65	4.48	4.83	4.65	4.74	4.7	4.7	4.7	4.7	4.74
		ME SEM IV SEC A	22	MEE462	4.82	4.77	4.82	4.73	4.68	4.68	4.86	4.73	4.73	4.82	4.73	4.73	4.82	4.82	4.77	4.77	4.73	4.64	4.76
		Overall avg			4.84	4.78	4.84	4.78	4.7	4.75	4.84	4.71	4.73	4.73	4.64	4.78	4.73	4.76	4.66	4.74	4.7	4.7	4.74
Sr. No.	Name of the faculty	CLASS	No of Students	Subjects	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Q.10	Q.11	Q.12	Q.13	Q.14	Q.15	Q.16	Q.17	Q.18	Avg.
3	Dr. Kavitha	ME SEM IV SEC A	69	MAT41	4.12	4.07	4.16	4.32	4.42	4.14	4.39	4.14	4.41	4.19	4.33	3.91	4.42	4.25	4	4.14	4.1	4.23	4.21
		Overall avg			4.12	4.07	4.16	4.32	4.42	4.14	4.39	4.14	4.41	4.19	4.33	3.91	4.42	4.25	4	4.14	4.1	4.23	4.21
Sr. No.	Name of the faculty	CLASS	No of Students	Subjects	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Q.10	Q.11	Q.12	Q.13	Q.14	Q.15	Q.16	Q.17	Q.18	Avg.
4	Prof. Raghu Tilak Reddy	ME SEM IV SEC A	69	MEE442	4.52	4.46	4.52	4.54	4.51	4.41	4.54	4.33	4.55	4.51	4.55	4.36	4.51	4.45	4.36	4.51	4.52	4.52	4.48
		ME SEM IV SEC A	24	MEE442	4.5	4.42	4.5	4.54	4.63	4.46	4.58	4.25	4.58	4.5	4.58	4.33	4.58	4.46	4.33	4.5	4.54	4.46	4.49
		ME SEM IV SEC A	23	MEE442	4.39	4.3	4.35	4.35	4.17	4.17	4.3	4.17	4.39	4.43	4.35	4.13	4.22	4.17	4.17	4.3	4.35	4.52	4.29
		ME SEM IV SEC A	22	MEE442	4.68	4.68	4.73	4.73	4.73	4.59	4.73	4.59	4.68	4.59	4.73	4.64	4.73	4.73	4.59	4.73	4.68	4.59	4.68
		Overall avg			4.52	4.47	4.53	4.54	4.51	4.41	4.54	4.34	4.55	4.51	4.55	4.37	4.51	4.45	4.36	4.51	4.52	4.52	4.49

Figure No. 9.2.8: Faculty Feedback

Faculty Feedback Analysis for EVEN Semester 2018		
Total number of Faculties		57
Feedback	4.5-5	29
Feedback	4-4.5	25
Feedback	3.5-3.99	03
Feedback	less than 3.5	00

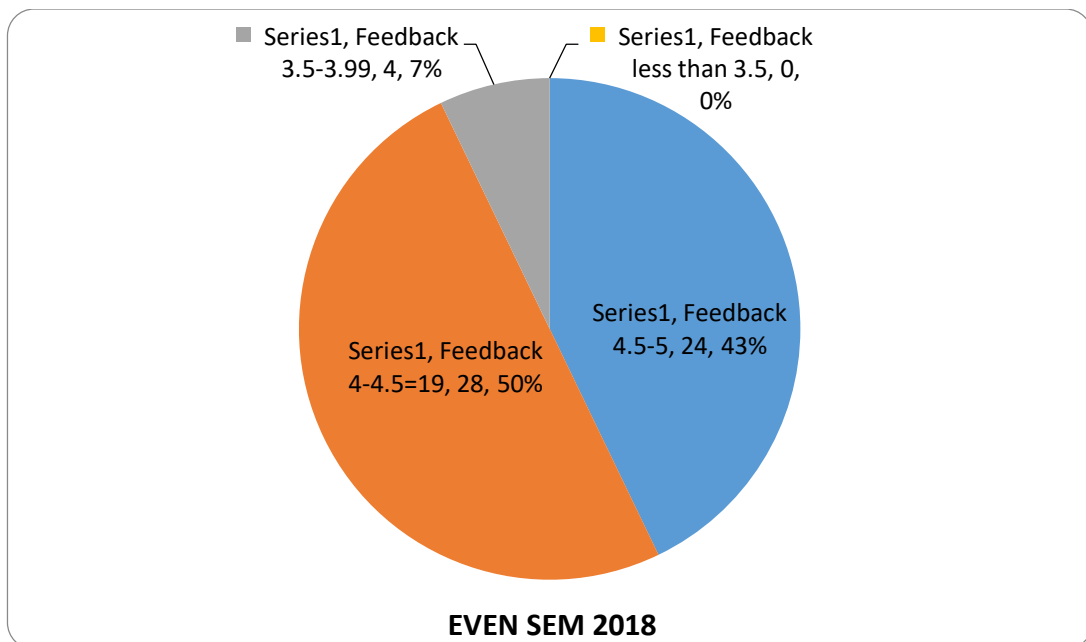


Figure No. 9.2.9: Faculty Feedback analysis

- 1) List of faculties with student feedback <3.5-----Nil
- 2) Activity followed for faculty having student feedback <3.5-----Nil
- 3) FDP attended by faculty having student feedback<3.5-----Nil
- 4) NPTEL courses attended by faculties having student feedback <3.5-----Nil

9.2b Methodology for Reward / corrective measures

Based on the consolidated feedback and faculty self-appraisal reports, the faculty members are appraised about their performance. Some of the faculty members are appreciated and awarded monetarily, in recognition of their exemplary efforts of

- Resourcefulness
- Innovations in bringing about the change
- Dependability in their work
- Expertise used and developed in academics, research and patenting

Necessary corrective actions taken for the faculty members whose feedback score is less than the institution standard, are as given below.

Head of the Department chairing the senior faculty members advise the faculty member suitably with regard to

- Clarity in explanation, effective communication, syllabus coverage
- Participating in Faculty Development Programs (FDPs).
- Enhancing their academic skill set with the peer support within a stipulated time period.

The performance is reviewed regularly.

9.2b (A) Sample Rewards/Corrective Measures of CSE

Based on the consolidated feedback reports and faculty self-appraisal reports, the faculty members are apprised about their performance.

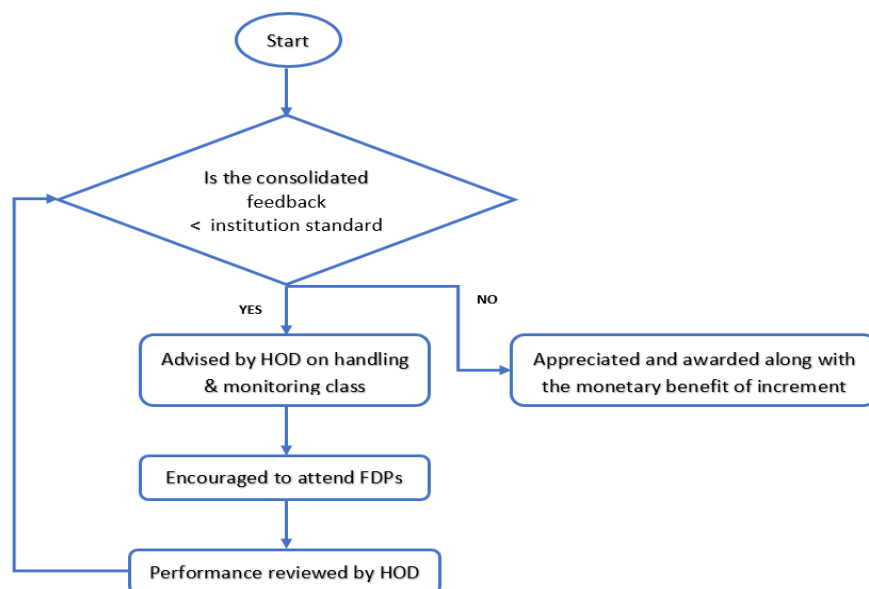


Figure 9.2.3: Sample Corrective Measure on teaching-learning

9.2b (B) Sample Rewards/Corrective Measures of CV

Format of corrective measures on faculty feedback on teaching-learning is given in figure

NEW HORIZON COLLEGE OF ENGINEERING, BANGALURU
DEPARTMENT OF CIVIL ENGINEERING
FACULTY FEEDBACK AND CORRECTIVE MEASURE ANALYSIS

FACULTY NAME: -

DESIGNATION: -

SEM/YEAR: -

Sl. No	Curriculum, Teaching, Learning and Evaluation:	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
1	Clarity in explaining the subject & Treats students with respect and courtesy.					
2	Communicates distinctly and effectively.					
3	Aims and objectives of the syllabi are well defined and clear to students					
4	Course content is followed by corresponding reference books/materials					
5	The course/syllabus has good balance between theory and Lab.					
6	The course/syllabus of this subject increased my knowledge and perspective in the subject area					
7	The course/program of studies carries sufficient number of optional papers.					
8	Counseling the faculty through counselors About building confidence in handling the subject(referral*)					
9.	Deputing faculty to FDP (if any) (referral)					

REMARK IF ANY

Figure 9.2.6: Sample Corrective Measure on teaching-learning

9.3. Feedback on facilities (5)

(Assessment is based on student feedback collection, analysis and corrective action taken).

A standard procedure of feedback on facilities demonstrates a commitment to excellence in the planning and provision of services across different departments of the University. The feedback is collected from the students on the facilities available in the university such as class room infrastructure, library, laboratories, hostel, playground, Internet facility, food court etc.

The feedback is analyzed and the necessary corrective measures are implemented after discussions with the management.

The feedback on facilities is taken up in the department as per the following steps:

- a. Feedback collection
- b. Feedback analysis
- c. Corrective measures

9.3a Feedback Collection:

A formal feedback is gathered, at least once during every semester, about the use and satisfaction with a variety of facilities and services which are categorized as

- General Facilities & Services
- Technology Services
- Specialized Services

A broad range of parameters that are used for collecting feedback on facilities is given below:

- Availability of teaching aids such as multimedia projectors, speakers etc. in classrooms/ tutorial rooms
- Library space and ambience, timings and usage
- Adequacy of number of titles in library or range of text and reference books covering syllabus relating to different courses
- Adequacy of Internet facilities in terms availability of terminals & band width
- Drinking water facilities & their maintenance
- Canteen facilities
- Medical & first-aid facilities
- Housekeeping & maintenance
- Infrastructure for Co-curricular and extra-curricular activities
- Mentoring system to help students at individual level

The feedback format consists of following questions

Questionnaire

1. How do you rate the Canteen facilities provided by the institution?
2. How do you rate the class room Infrastructure?
3. How do rate the cyber lab facility provided by the institution?
4. Are you satisfied with the extracurricular infrastructure at College?
5. Are you satisfied with the Hostel Facility provided by the institution?
6. How do you rate the Lab facilities at the institution?
7. How do you rate the Library Facilities provided by the institution?
8. Are you satisfied with the placement support provided?
9. How is the responsiveness of Accounts office?
10. How is the responsiveness of College Admin office?
11. How is the responsiveness of Exam office?
12. How do you rate the Sports facilities provided by the Institution?
13. Are you satisfied with the toilet facilities and Maintenance?
14. How do you rate the transport facility provided by the college?

Rating of Scale

- 5-Excellent
- 4-Very Good
- 3-Good
- 2-Satisfactory
- 1-Below Average

On the institution website, a student's portal is made available to post students' grievances. When students register their complaints, they are being referred to corresponding department for timely resolution.

The details of feedback collection process on facilities are summarized in Table 9.3.1

Table 9.3.1: Details of feedback collection process

Items	Description
Feedback collected on all facilities provided by the college.	YES
Feedback collection process	Computerized
Feedback receiver	Administrative officer / Admin manager
Frequency of feedback collection	Once in an academic year
Metrics used for calculation	Strongly agree Agree Partially agree Disagree
Purpose of comments	For improving the quality of facilities.

9.3b Feedback Analysis

A combined report is prepared on the basis of students' feedback under the supervision of committee and corrective action suggested to the appropriate departments/person to resolve these problems and improve the facilities continuously. A sample feedback on facilities is given below.

On university website, a student's portal is made available to post students grievances. When students register their complaint, they are being referred to corresponding department for timely resolution.

9.3(A) Feedback analysis for CSE

A combined report is prepared on the basis of students' feedback under the supervision of committee and corrective action suggested to the appropriate departments/person to resolve these problems and improve the facilities continuously.

Feedback to Placement					
Sl.No.	Particulars	Rating	Sl.No.	Particulars	Rating
1	Quality of training programs provided - Technical.	Select ▼	2	Quality of training programs provided - Non Technical (Soft Skills & Aptitude).	Select ▼
3	Satisfaction on number of opportunities provided.	Select ▼	4	Placement Office responsiveness to students.	Select ▼
5	Satisfaction on profile of companies visiting NICE.	Select ▼	6	Overall satisfaction on placement assistance.	Select ▼

Feedback to the college					
Sl.No.	Particulars	Rating	Sl.No.	Particulars	Rating
1	Library facilities.	Select ▼	2	Canteen facilities.	Select ▼
3	Placement support provided.	Select ▼	4	Lab facilities.	Select ▼
5	Cyber Lab facility.	Select ▼	6	Classroom Infrastructure.	Select ▼
7	Extra-curricular activities at College.	Select ▼	8	Responsiveness of college admin office.	Select ▼
9	Responsiveness of Exams office.	Select ▼	10	Responsiveness of Accounts office.	Select ▼
11	Transport facilities of the College.	Select ▼	12	Toilet facilities and maintenance.	Select ▼
13	Hostel Facility.	Select ▼	14	Sports Facility.	Select ▼

Feedback for placement Trainer/Institute Aptitude Training					
Sl.No.	Particulars	Rating	Sl.No.	Particulars	Rating
1	Faculty's preparation for the class.	Select ▼	2	Explanation of concepts with examples.	Select ▼
3	Subject explained was easy to understand.	Select ▼	4	Faculty answers to your queries / questions.	Select ▼
5	Clarity in explaining the subject.	Select ▼	6	Overall satisfaction.	Select ▼
7	Content quality - relevant & usefulness.	Select ▼	8	Communicates distinctly and effectively.	Select ▼

Comments (if any):
 COMMENTS : . . .

Submit

Figure 9.3.3: Sample Student feedback on facilities

9.3(B) Feedback analysis for CV

NEW HORIZON COLLEGE OF ENGINEERING, BANGALURU
DEPARTMENT OF CIVIL ENGINEERING
FEEDBACK FORM ON FACILITIES

YEAR:.....

SEM:.....

SEC:.....

FACILITIES/ RATINGS	EXCELLENT (5)	VERY GOOD (4)	GOOD (3)	AVERAGE (2)	FAIR (1)
CLASS ROOM INFRASTRUCTURE					
LIBRARY					
LABORATORIES					
CANTEEN					
PLAYGROUND					
INTERNET FACILITY					
INDOOR STADIUM					
PARKING SPACE					
COLLEGE AMBIENCE					
MEDICAL FACILITY					
OVERALL RATING					

REMARK IF ANY

Figure 9.3.4: Sample Student feedback on facilities

9.3(C) Feedback analysis for ECE

Respected sir,

The following are the key points from the student feedback and the action has been taken.

Sl. No.	Year	Problem	Action taken
1	2 nd	The number of engineering mathematics book in library are less.	Informed to Library
2		Mini project guide is not supportive. Any time we try to meet her she is busy. She is not able to guide properly.	Addressed the mini project in charge and asked to communicate the same to all guides
3		AEC lab equipment, especially the CRO have lot of problems showing the output waveform which result in not completing the experiment on time.	Informed the lab instructors to maintain and service the equipments.
4		Change the teacher of analog electronic, he is dis-respecting the students.	Class was monitored by Dean Academics and suggestions were given.
5	3 rd	The course work this year has been too hectic. Two case studies along with extra curricular certificate is not feasible. It should be made to one case study and one certificate	In coming semester there will be one case study and one co- curricular certificate
6		The components in AC lab are broken or not working most of the time.	Informed the lab instructors to maintain and service the equipments.

Figure 9.3.5: Sample Student feedback on facilities

9.3.4 Feedback analysis for ME

Mechanical Engineering Semester: SEM IV Section: SEC B		
Sl No	Remarks	Class teachers Remarks
1	Due to such massive pandemic plz let the students stay at home safely and continue their semesters	Informed
2	I have been working with HR dept. and Executive Director Prof. Gurucharan Singh and his HR team have always guided and encouraged me, they have also responded to me after college hours. I thank ED sir for giving me the opportunity of being a brand ambassador for a Japanese company. I was just a student with academic knowledge but now I also know about corporate culture and this credit goes to ED sir and his team. Me being a student from mechanical dept. my HOD Dr.M.S Ganesha Prasad sir is soo supportive and he has always been there allowing me to take part in events and other extra curricular activities. Also my class teacher Prof.Rajesh sir has been protective and helping me cope up with the portions when I miss classes for events, he has also helped me to convey the required message to subject teachers. I hereby thank all the faculty and college officials for trusting me and giving me the opportunity and being soo friendly and helpful. THANK YOU ALL	Noted
3	Kindly request the college to provide information regarding the end semester exams and fasttrack semester as soon as possible. Request teachers to upload the timetable for online classes the previous evening to avoid confusion and provide clarity	Informed and conducted through parent-teachers /students-teachers
4	Place check over mechanics block washrooms have a proper flush to	Informed to the concerned staff
5	Please make college half day and decrease the price in canteen	No comment
6	Poor transportation from vidya mandir to college... And full off notice beside construction plz do it in mornig not night thank you	Informed to the concerned staff
7	SOME ANSWERS WERE RESPONSE FOR THE ONLINE CLASS EDUCATION SYSTEM. I AM NOT ABLE TO UNDERSTAND MUCH AS I AM A DULL STUDENT	Discussed with all students
8	There's little to no promotion for extra curricular activities for the amount of fee that we students pay. There is a lot of unnecessary transactions that are being levied on the students on different terms	No comments
9	Try to provide extra	Informed
10	Wifi provided by the college is not working properly. Hoping that it will be fixed soon	Informed

Feedback On Institution for AUGUST/SEPT ODD SEM 2018		
SL.NO.	Question	Avg. Rating
Engineering		
1	Canteen facilities	3.96
2	Classroom Infrastructure	3.63
3	Cyber Lab facility	3.75
4	Extra-curricular activities at College	3.65
5	Hostel Facility	3.31
6	Lab facilities	3.93
7	Library facilities	4.19
8	Placement support provided	3.64
9	Responsiveness of Accounts office	3.13
10	Responsiveness of college admin office	3.20
11	Responsiveness of Exam office	3.45
12	Sports Facility	3.49
13	Toilet facilities and maintenance	3.55
14	Transport facilities of the College	3.42
Total Average:		3.59
No of Students:		3.757

Figure No. 9.3.6: Feedback on facilities

9.3c Corrective Measures

Some of the corrective actions taken are

- Recreation Centre
- Dance room and music room in boys' hostel
- Gymnasium
- Table Tennis room
- Enhancement of food court



Figure 9.3.1: Table Tennis room



Figure 9.3.2: Gymnasium

9.4 Self-Learning (5)

(The institution needs to specify the facilities, materials and scope for self-learning / learning beyond syllabus, Webinars, Podcast, MOOCs etc. and evaluate their effectiveness)

9.4a1 Scope of Self-learning

Self-learning is endorsed in the institution by generating self-learning facilities under various learning activities, resources and environments for students based on their academic background. Students are encouraged for self-learning by personal counseling and mentoring.

- Web based learning (Learning a course online or partially online through MOOCs, NPTEL, SWAYAM, edX, Coursera, Webinars, YouTube)
- Library and Digital Library
- McGraw-Hill digital books
- Learning activities around collaborative projects (PBL- Project Based Learning)
- Learning around case descriptions (Case Study)

- Assignments
- Professional bodies
- Club activities

Additional resources for online learning for both faculty and students

Exposure was given for additional learning resources both for faculty and students. Some of the resources are listed below:

- NHCE digital library resources on the Internet (earlier it was on Intranet) – text books / Question papers / Lesson modules / Student project reports / other references / e-books are available online
- 3062 users from New Horizon College of Engineering registered on the portal vtuconsortium.org, qualifying as the highest number among all the colleges as per the communication received from Prof. Konnur, Advisor- VTU Consortium, VTU, Belagavi
- Virtual labs
- e-Content URL's
- Open access resources
- 408 e-books
- Online certification courses
- Websites for academic enrichment
- Webinars

9.4a.2 Process of Self Learning***In the classrooms:***

- Faculty members run at least 2 video lectures per course and evaluate as per Table 9.4.4

Giving Reference of Materials:

- Faculty member shall give reference of video lectures or other online materials for every topic.
- The reference shall be mentioned in the lecture schedule

9.4b1 Facilities for Self-Learning

Following are the various modes of self-learning and facilities created in the institution.

Table 9.4.1: Self Learning Facilities

Web based learning	<ul style="list-style-type: none"> • It creates the opportunity for sharing ideas & knowledge and also helps improving lifelong learning skills by providing easy access to global resources. • It improves cross-cultural relation-ships which lead to collaboration between institution educators and learners locally and internationally. • Enhances active learning. • Contextualized content can be shared by all
Library/Digital Library	<ul style="list-style-type: none"> • The college library provides information and ideas that are fundamental to functioning successfully in today's information and knowledge-based society. • College library equips students with learning skills and develop their knowledge <p>The Digital Library offers</p> <ul style="list-style-type: none"> • NPTEL videos. • Sufficient systems with multimedia facilities. • Institutional membership of DELNET, a library networking database. • Internet facility
Project Based Learning	<ul style="list-style-type: none"> • Enables students to think from different angles or simply 'to think out of the box'. • To aid in language development and in particular subject areas of study. • Helps in building knowledge base. • Helps in building Team work
Case study	<p>Students are actively engaged in figuring out the principles by abstracting from the examples. This develops their skills in:</p> <ul style="list-style-type: none"> • Problem solving • Analytical tools, quantitative and/or qualitative, depending on the case • Decision making in complex situations • Coping with ambiguities
Professional Bodies	<ul style="list-style-type: none"> • Joining a professional association will be one of the most important activities in a student's career.

	<ul style="list-style-type: none"> To increase knowledge in their own fields, expand networking possibilities or jump start to job hunt, a professional association membership is an option which is worth exploring. All career options are corresponding professional association that offers valuable information and resources for their career enhancement. ISTE, IEEE and CSI student chapters are established where the students can achieve the knowledge about the advance engineering skills.
Club Activities	<ul style="list-style-type: none"> Helps in building knowledge base. It increases visibility, credibility, and competitive advantage It can be an excellent chance to network with other people in related field, allowing the student to feel more integrated into professional community.
Assignments	<ul style="list-style-type: none"> It enables students to go through the topics in a more elaborate manner in order to explore the academic topic which lead to an overall better learning experience for students. Assignments help the students to understand the subject in a more detailed pattern. Faculty will conduct assignments on regular basis with two units of every subject and these are graded.

9.4b2 The Source and Tools of Self Learning

The sources and tools of self-learning used are as shown in Table 9.4.3

Table 9.4.2: Sample Sources and tools of self-learning

Sl. No.	Self-Learning Sources	Tools	ICT Support
1.	E Courses/ Learning	NPTEL	Computer System Internet Connection
		Course Era	
		Swayam	
		Udemy	
2.	Workshops	Conducted by different organizations	Computer System Internet Connection
3.	Conferences	Organized by various institution	Computer System Internet Connection

4.	Self-Study	Self-study topics as specified by faculty handling courses	Computer System Internet Connection
5.	Projects Based Learning	Students gain knowledge and skills by developing mini projects and projects	Computer System Internet Connection

9.4.b3 Webinars for Self-Learning

Table 9.4.3: A sample list of webinars organized during COVID

Webinars organized by New Horizon College of Engineering during Covid (to name a few)	
Coping with studies during dark clouds of COVID19 “College dunia”	
How to sharpen the skills?	
Math works	
MATLAB	
Intellectual property rights	
Competency mapping and career direction	
Career opportunities post Covid 19	
Latest trends in Machine Language	
Embracing the new normal	
Future of HR	
Cracking the code of career development	
Data driven decision-making using AI	
Emerging trends in business and finance	
Power train and electromagnetic transients	
Reshaping of HR practices and business excellence	
AI applications in industries	

9.4b.4 Effective Utilization of Self-Learning

Table 9.4.4: Mode of evaluation with various related sources of self-learning

Sl.No.	Mode of Evaluation	Related Sources in which student shall be asked by faculty member to prepare through self-learning	Description
1.	Quiz	E-Books, Course and lecture materials	Questions are framed on the portion of content in which student are asked to prepare through self-learning using all sources mentioned Quiz is conducted in the class or it shall be conducted online or in extra class (if students are free)
2.	Quiz	On the video material posted by faculty for flipped class room.	Quiz is conducted in the class or it shall be conducted online
3.	Presentation	Magazine, Journal and articles	Student is asked to prepare on particular topics through self study (in magazine, journal)
4.	Assignment on problem solving	Course and lecture materials	Assignment on problem solving is given by faculty member on lecture material
5.	Report preparation	Magazine, Journal and articles	Students are asked to write a review report on literature
6.	Viva	Books, Course and lecture materials	Faculty member conducts viva voce to know the level of understanding
7.	Quiz /test	MOOC/SWAYAM/NPT EL other ICT tool	Students register and take up the examination and obtain certificates

9.4(A) Scope of Self-learning for CSE

MOOC Courses by Students

MOOC courses are used as an alternative method to bridge the gap and expand the existing knowledge. Every academic year students are appraised of the MOOC courses that can be considered as self-study for specific courses of the semester. Students are encouraged to take up at least one MOOC for the courses specified. This exposes the student to the different avenues of learning like interactive user forums and multimedia repositories, thereby ensuring the development of lifelong learning skills.

A year wise consolidation of the MOOC courses registered and completed by students is given in Table 9.4.5.

Table 9.4.5: MOOC Courses Registered and Completed

Sl. No	Year/ Sem	NPTEL Course Name	Course Duration	Total No. of Students Registered
Academic Year 2019-2020				
1	3rd/6 Sem	Social Network Analysis	12 Weeks	64
2	3rd/6 Sem	Cloud Computing	8 Weeks	27
3	3rd/6 Sem	Machine Learning with Python	12 Weeks	2
4	4th/7 Sem	Data Science for Engineers	8 Weeks	81
5	4th/7 Sem	Introduction to Machine Learning (IITKGP)	8 Weeks	3
6	4th/7 Sem	Introduction to Machine Learning (IITM)	12 Weeks	4
7	4th/7 Sem	Machine Learning for Engineering and Science Applications	12 Weeks	3
8	4th/7 Sem	Introduction to Internet of Things	12 Weeks	13
9	4th/7 Sem	Human Computer Interactions	8 Weeks	9
10	4th/7 Sem	Ethical Hacking	12 Week	4
11	4th/7 Sem	Practical Machine Learning with TensorFlow - Online	8 Weeks	7
Academic Year 2018-2019				
1	3rd/6 Sem	Social Networks	12 Weeks	40
2	3rd/6 Sem	Privacy and Security in Online Social Media	12 Weeks	25
3	3rd/6 Sem	Introduction to Soft Computing	8 Weeks	38
4	3rd/6 Sem	Multimodal Interaction	4 Weeks	36
Academic Year 2017 – 2018				
No NPTEL Planned for This Academic Year				

Paper Publication

The department also encourages students to publish papers in national/international journals. To promote this culture department/institution organizes National/International conferences as well. Table 9.4.6 shows the papers published by the students of Computer Science and Engineering in various journals/conferences

Table 9.4.6: Paper Publication by Students

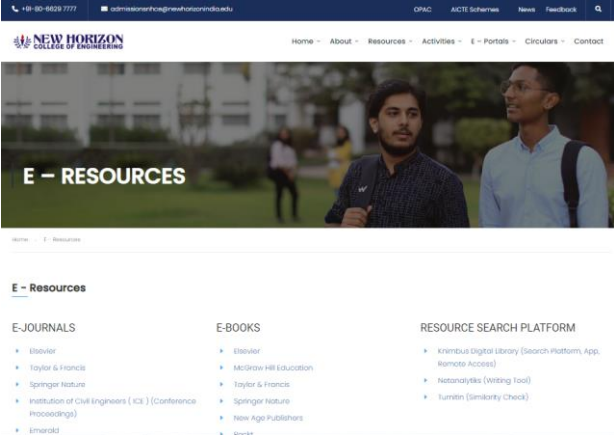
Sl. No	USN	Name of the Student	Title of the Paper	Journal	Date of Publication
Academic Year 2019-2020					
1	1NH16CS079 1NH16CS093 1NH14CS091	Eric, Pooja Nimje, Roshlin Acharya, Prachi Singh	Face emotion recognition techniques	International Journal of Scientific Research in Computer Science, Engineering and Information Technology ISSN: 2456-3307 UGC Journal No: 64718 Impact Factor = 4.032	Dec-19
2	1NH16CS064	Moni Krithika S	MoC++ Interpreter for the C++ language		Dec-19
3	1NH16CS009 1NH16CS069	Anand R Patil, Nasir Hasan	We Vote – Secure voting using Blockchain		Dec-19
4	1NH16CS077	P. Giri Kishore, Athira Ajayakumar	Intelligent Character Recognition- Character detection using Neural Networks		Dec-19
5	1NH16CS069	Nasir Hasan Dilawar	Big Data in Tele communication		Dec-19
6	1NH16CS073 1NH16CS074 1NH16CS145	Nirupashree S Nisha R Kalyan Naidu M	A review on emotional intelligence		Dec-19
7	1NH17CS745	Savion Mario Sequeira	Overview of Use of Raspberry Pi in Implementation of Machine Learning and Image Processing		Dec-19

8	1NH16CS094	S Sivan Chakravarthy	Analyzing GraphQL and implementing the framework on Android devices		Dec-19
9	1NH16CS066	Namratha L Bemane	Safe-Ride: Automatic Detection of Potholes and Humps on Roads using Ultrasonic Sensor and Notifying the Same to the Drivers		Dec-19
10	1NH16CS051 1NH16CS118	Kirti R Nambiar, Vaibhavi Kulkarni	Credit card reader with face recognition using webcam		Dec-19
11	1NH16CS727 1NH16CS701	Shalini Koyikkal, Anurag Rajshekar	Efficient Buildings– A key element to build smart cities		Dec-19
12	1NH17CS106	Punyasri H	Feature selection for smartphone-based recognition of human activities and postural transitions		Dec-19
13	1NH17CS753	Srinivas R	An Application of Autocrat Workshop		Dec-19
14	1NH16CS700 1NH16CS709	Alankrita Srivastava, Hritik	Natural language processing- Interaction between humans and machines		Dec-19

Academic Year 2018-2019					
1	1NH15CS084	Nissi Thomas	Indexing solr with MySQL database	International Journal of Information and Computing Science ISSN NO: 0972-1347	May-19
2	1NH16CS112	Sumangala S	APACHE PIG as a platform for Data analytics		May-19
3	1NH16CS736	V.C Chandra Kishore	A survey of Big Data analytics- it's challenges		May-19
4	1NH15CS092	Pranav M	Modelling cognitive states of pilots to minimize commercial aviation disasters		May-19
5	1NH15CS714	D. Sakthi Keerthana	Weather prediction using deep learning		May-19
6	1NH16CS086 1NH16CS733 1NH16CS750	Rahul Jain, Sriram Gupta Kaluva, Sandhya Reddy	Machine learning: Supervised learning		May-19
7	1NH15CS148	Soundarya Saravan	Hand gesture recognition using convolutional Neural network		May-19
8	1NH15CS048	Harshitha H	Agricultural crop yield prediction using Machine learning		May-19
9	1NH15CS044	H.D Nidhishree	Literature survey on predicting Thyroid Cancer using machine learning algorithms		May-19

10	1NH16CS733	Sriram Gupta Kaluva	Data and Pre-Processing of data for Machine Learning	May-19
11	1NH16CS031	Edwin Benny	Dairy farm tracking using Blockchain	May-19

9.4(B) Scope of Self-learning for CIVIL

<div>Web based learning</div>	<div>Compulsory NPTEL courses:</div> <div><table><tr><th colspan="3">New Horizon College of Engineering, Bangalore</th></tr><tr><th colspan="3">Department of Civil Engineering</th></tr><tr><th colspan="3">Mentors for V semester NPTEL Courses- ODD 2019-2020</th></tr><tr><td></td><td></td><td></td></tr><tr><th>Sl. No.</th><th>Name of the Course</th><th>Mentor</th></tr><tr><td>1</td><td>Design of Masonry Structures</td><td>Dr. N Subramani</td></tr><tr><td>2</td><td>Waste Water Treatment and Recycling</td><td>Dr. N Mahesha</td></tr><tr><td>3</td><td>Scheduling Techniques in Projects</td><td>Mr. Channabasava</td></tr></table></div>	New Horizon College of Engineering, Bangalore			Department of Civil Engineering			Mentors for V semester NPTEL Courses- ODD 2019-2020						Sl. No.	Name of the Course	Mentor	1	Design of Masonry Structures	Dr. N Subramani	2	Waste Water Treatment and Recycling	Dr. N Mahesha	3	Scheduling Techniques in Projects	Mr. Channabasava
New Horizon College of Engineering, Bangalore																									
Department of Civil Engineering																									
Mentors for V semester NPTEL Courses- ODD 2019-2020																									
Sl. No.	Name of the Course	Mentor																							
1	Design of Masonry Structures	Dr. N Subramani																							
2	Waste Water Treatment and Recycling	Dr. N Mahesha																							
3	Scheduling Techniques in Projects	Mr. Channabasava																							
<div>Library/Digital Library</div>	<div><div></div><div><ul style="list-style-type: none">• The Institution library provides information and ideas that are fundamental to functioning successfully in today’s information and knowledge based society.• The Institution library equips students with learning skills and develop the knowledge• Availability of NPTEL videos.• Sufficient systems with multimedia facilities.• Institutional membership of DELNET, a library networking database.• Internet facility</div></div>																								

	List of Journals			
	Sl. No.	Title	No of Issues	Publisher
	1	New Bldg, Materials & Construction World	12	NBM&C W
	2	Civil Engineering Construction Review	12	TSEPL
	3	Indian Concrete Journal	12	TICJ
	4	Journal of Construction Management	4	NICMAR
	5	Structural Engineering	4	IUP
	6	Indian Highways	12	IRC
Project Based Learning	<p>Project-based learning (PBL) promotes development of critical thinking and problem-solving skills by allowing students to work in teams on real world projects. However, in spite of its effectiveness, the use of PBL in engineering classrooms has been limited due to the challenges associated with its design and implementation.</p> <p>4 Mini Projects including Extensive survey and Final year projects are carried out based on Project Based Learning</p>			
Case study	<p>Through case studies, students will improve their ability to learn and retain concepts in their courses, on work terms and in their professional lives. One of the best means to create case studies is by converting them from student-generated work reports.</p>			
Professional Bodies	<p>Joining a professional body opens up a vast network of knowledge and expertise that is much wider than your immediate university community. Students will gain access to those who are one or two steps ahead of them and it helps them feel part of a community of like-minded people</p> <p>ICI Students Chapter is in existence</p>			

Club Activities	<p>Prakruthi club</p> <p>To identify major environmental problems and to find the best possible remedies.</p> <p>To create an awareness on the need for environment preservations for a better tomorrow.</p> <p>Avishkar club</p> <p>To provide insight into existing and evolving technologies.</p> <p>To familiarize with real life problems and the ideas to tackle them. -</p>
Assignments	<p>It enables students to go through the topics in a more elaborate manner in order to explore the academic topic which lead to an overall better learning experience for students.</p>
Industrial visit	<p>Industry visits help enhance interpersonal skills and communication techniques. Students become more aware of industry practices and regulations during industry visits. Industry visits broaden the outlook of students with exposure to different workforces from different industries</p>
Internships	<p>During an internship, students work on real projects, get acquainted with the current market trends, sharpen their technical skills, and learn in-demand technical skills. Apart from this, an internship introduces them to the corporate world, teaches them professional ethics and polishes their soft skills like communication and inter personal skills. With an internship they can become engineer's way before their graduation which could prove to be extremely helpful for an effortless adaptation to work environment when they join a full time job.</p>

Conference/Seminar/ Workshop	<p>Engineering is forever changing. Technology changes. Methods and processes change. Environmental focuses change. Everything changes. And the rate of change is ever-increasing. Conference/Seminar/workshop help student's in:</p> <ul style="list-style-type: none"> • Broadening their knowledge • Cross pollinating their ideas • Developing their Network • Advancing their careers • Re igniting their enthusiasm or passion.
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Table 9.4.7: Records of evaluation of self-learning activities

Records of Self Learning Activities to be maintained by each faculty								
Sl. No	Mode of Evaluation	Source of Self learning activities	Name of source of self-learning activities	URL Reference given by faculty	Date of event conducted by faculty	No. of participants	Avg marks (%)	Event conducted by faculty (Yes/No)
1	Quiz	Lecture	CIV824, lecture no.54	https://forms.gle/Wf3YUt2mRTSKfTZv6	17/04/2020	64	90%	Yes
		Videos of Flipped class room	Course video – on the topic “Manufacturing of concrete”	https://docs.google.com/forms/d/1uSM1JZOUpMuWRC9xeT7Dh-qhGorCvDM0EcjrDJ9yC8Y/edit	30/04/2020	54	72%	Yes
2	Presentation	Journal and articles	Institute of Civil Engineers - ICE	a) Suma. P (civ33)	07/11/2019	97	80%	Yes
				b) Suma. P (civ653)	19/05/2020	62	70%	Yes
				c) Swetti Jha (civ653)	24/04/2020	64	80%	Yes
				c) Swetti Jha (civ824)	19/05/2020	60	70%	Yes
3	Assignment on problem solving	Course and lecture Materials	Concrete technology – lecture materials on Concrete mix design	https://classroom.google.com/u/1/c/OTE3Nzk5NzEzMzla/a/OTE3Nzk5NzEzNTNa/submissions/by-status/and-sort-name/all	21/04/2020	52	100%	Yes
4.	Viva	NPTEL	Water resource engineering.	N. Mahesha (civ654)	19/05/2020	60	70%	Yes

Summary:

The overall aim of this review is to evaluate the effectiveness of self-directed learning which aims to enhance the professional skill of students.

- Most of the students agreed that self-learning process is an effective approach for learning in addition to traditional method of teaching.
- Most of the students admitted that self-learning process help them in preparing better to reach their goals.
- **Students are able to do better in competitive examinations and get placed in suitable com**

9.4 (C) Scope of Self-learning for ECE

Table 9.4.8: Records of evaluation of self-learning activities

Records of Self Learning Activities to be maintained by each faculty								
Sl. No	Mode of Evaluation	Sources of Self-learning	Name of source of self-learning	URL Reference given by faculty	Date of event conducted by faculty	No. of participants	Avg marks (%)	Event conducted by faculty (Yes/No)
1	Quiz	Videos of Flipped class room	Course – DSP video contents uploaded by the Faculty	https://youtu.be/5BURUMfuII8 , https://youtu.be/Zt7u4WAYQnk	24/3/2020	73	80%	Yes
2	Presentation and Report Preparation	Course-Rural Energy system-RDL 722	Animal Energy and its application	http://web.iitd.ac.in/~vkvi/jay/files/Animal%20Energy.pdf	16-9-2019	16(4 teams)	90%	Yes
		IISc-article	Design and fabrication of universal action bullock cart	http://www.kscst.iisc.ernet.in/sppArchive/public/Abstract/038/7962.pdf	17-9-2020	6(2 teams)	85%	Yes
3	Assignment on problem solving	Course - Routing and switching	Static and Dynamic Routing (NHOP09)	https://drive.google.com/file/d/1dXEyS1gHQgr0obZqRFEczDVta_Fm2rIc/view?usp=sharing	2/4/2020	35	80%	Yes

4	Viva	SWAYAM - "Embedded System Design with ARM"	ARM Cortex Architecture https://onlinecourses.nptel.ac.in/noc19_cs22/	https://drive.google.com/file/d/12eJTBF-ehZnAoRNXd69odD7Fi9Jxy915/view?usp=sharing	2-4-2020	12 teams	75%	Yes
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Utilization and its effectiveness:

- The overall aim of this review is to evaluate the effectiveness of self-directed learning on the professional development of students.
- Most of the students reached to a conclusion that self-learning process is an effective approach for learning but not more than the traditional method of teaching.
- Students are motivated to improve their initiation in reaching their goals.
- Students are able to scan through the reading material available to them.
- Many of the needs of students are best met by learning process. The students are encouraged to learn by themselves for their present and future needs.
- Students are able to do better in competitive examinations and get placed in suitable companies.

9.4(D) Scope of Self-learning for ME

Utilization and its effectiveness:

- The overall aim of this review is to evaluate the effectiveness of self-directed learning on the professional development of students.
- Most of the students reached to a conclusion that self-learning process is an effective approach for learning but not more than the traditional method of teaching.
- Students are motivated to improve their initiation in reaching their goals.
- Students are able to scan through the reading material available to them.
- Many of the needs of students are best met by learning process. The students are encouraged to learn by themselves for their present and future needs.
- Students are able to do better in competitive examinations and get placed in suitable companies.

Table 9.4.9: Detailed list of Mooc course certification for self-learning

Year	2017-18	2018-19	2019-20
Faculty	36	63	32
Students	125	137	658(combining 2 semesters and 2 nd , 3 rd and 4 th year students)

Table 9.4.10: Records of evaluation of self-learning activities

Year	No of Students	No of faculty	Courses
July -Dec 2019	128	2	Manufacturing Automation
			Robotics
			Aircraft Propulsion - Online
			Fluid Machines - Online
			Machine Learning for Engineering and Science Applications - Online
			Manufacturing of Composites - Online
Jan- Apr 2019	136	31	Electric Vehicles - Part 1
			Non-Conventional Energy Resources
			Product Design and Development
			Fundamentals of Welding Science and Technology
			Inspection and Quality Control in Manufacturing
			Electronic Packaging and Manufacturing
			Electronic Packaging and Manufacturing
			IC Engines and Gas Turbines
			Manufacturing Process Technology
			Inspection and Quality Control in Manufacturing
			Surface Engineering of Nanomaterials
			Roadmap for patent creation
July -Dec 2018	2	10	Nanotechnology in Agriculture
			Outcome based pedagogic principles for effective teaching
			Laws of thermodynamics
			Mechanics of Machining
			Processing of Polymers and Polymer Composites
			Fundamentals of Surface Engineering: Mechanisms, Processes and Characterizations
			Design Practice - II
			Leadership
			Introduction to Operations Research
			Nature and Properties of Materials
Jan- Apr 2018	0	26	Energy conservation and heat recovery
			Manufacturing of composites
			Fundamentals of Manufacturing process
			Refrigeration and air conditioning
			Processing of polymers and polymer composites
			Nature and properties of materials
			Energy conservation and waste heat recovery
			Two phase flow and heat transfer

9.5 Career Guidance, Training, Placement

NHCE offers career guidance and placement on all aspects of career planning, job searching and post-graduate studies. College provides individual counseling for all the students towards reaching goals.

9.5a Availability of career guidance facilities:

- The college has career guidance and placement cell with 9 full time staff members, headed by Executive Director – Placement & Training.
- The team fine tunes the students by providing insights into the complex dynamics of the corporate world and the current critical industrial & business scenarios.
- Campus Recruitment Training (CRT) program grooms the students in various areas like Quantitative Ability, Verbal Ability, Reasoning Ability, Group Discussion, Personality Development, Attitude and Behavioral Development and Facing Interview.
- An online portal is used for training the students. This portal allows students to register for placement, avail training using the numerous videos and take up tests to assess themselves. In addition, the portal also provides company specific question papers which can be used to ensure better performance in the aptitude/technical tests. Certified Trainers are deputed to take sessions on Verbal, Written and listening skills to ensure our students are well trained in Business English Communication
- Domain and technical training is provided based on the industry requirement.
- Mock interviews and GDs are conducted on a regular basis to equip final and pre-final students to face the challenges of recruitment scenario.
- The placement cell organizes on-campus and off-campus recruitments.
- In addition to the training conducted by the placement division the department organizes training on technical aspects like Data Structures, Java, C, C++ and Python.

An MOU was signed between New Horizon College of Engineering, New Horizon College and Zenken Corporation, Japan on 5th September 2018 to collaborate on campus recruitments for their operations in Japan (International Placements) and to establish Japan Career Centre at New Horizon Campus, Bangalore. Senior Executives from Zenken are deputed at New Horizon to train students on Japanese companies' requirements.

The College has created the following infrastructure facilities to conduct training program and campus recruitment.

Table 9.5.1: Facilities for Placement & Training

Facilities	Number
Office	1
Auditorium	1
Seminar hall	2
Rooms for Group Discussion	3
Interview Rooms	4
Computer Centers for Online Test	11

The college also has a placement committee that ensures that the needs of the students belonging to different branches of engineering are addressed and all are given equal opportunities.

Industry Sponsored Labs

- Cisco Networking Academy
- Indo French Center of Excellence in Electricity Automation and Energy
- Quest Global IIOT Centre of Excellence
- VMWARE IT Academy
- SAP Centre of Excellence
- HP Centre of Excellence
- IBM Open Power
- Automation Anywhere
- CAPGEMINI

Table 9.5.2: Details of Career guidance, Training, Placement committee members

Sl. No.	Name of the faculty	Designation
1	Prof. Gurucharan Singh	Exe, Director - Dept. of HRD
2	Mr. Ranjan Manish	Head - IIC
3	Dr. Sowmya	Prof. & Head Centre for life skills & lifelong learning
4	Mr. Anis Mirza	Sr, HR Manager - CR (L&D &P)
5	Mr. Binod Kumar Singh	HR Manager - CR (L&D &P)
6	Ms. Manisha Joshi	HR Manager - CR (L&D &P)
7	Mr. Manjunath R N	HR Manager - CR (L&D &P)
8	Ms. Sreelatha	Sr. Office Executive
9	Mr. Bharat Suundar	Aptitude Trainer

10	Mr. Karthikeyan	Aptitude Trainer
11	Mr. Santhosh	HR Executive
12	Ms. Suneetha	Sr. Lifeskills Trainer
13	Mr. Devranjan Chatterjee	Lifeskills Trainer
14	Mr. Ramesh	Lifeskills Trainer
15	Mr. Gangadhara Murthy	Lifeskills Trainer
16	Mr. Prabhu James	Lifeskills Trainer
17	Mr. Richard	Lifeskills Trainer

Department of HRD - Structure

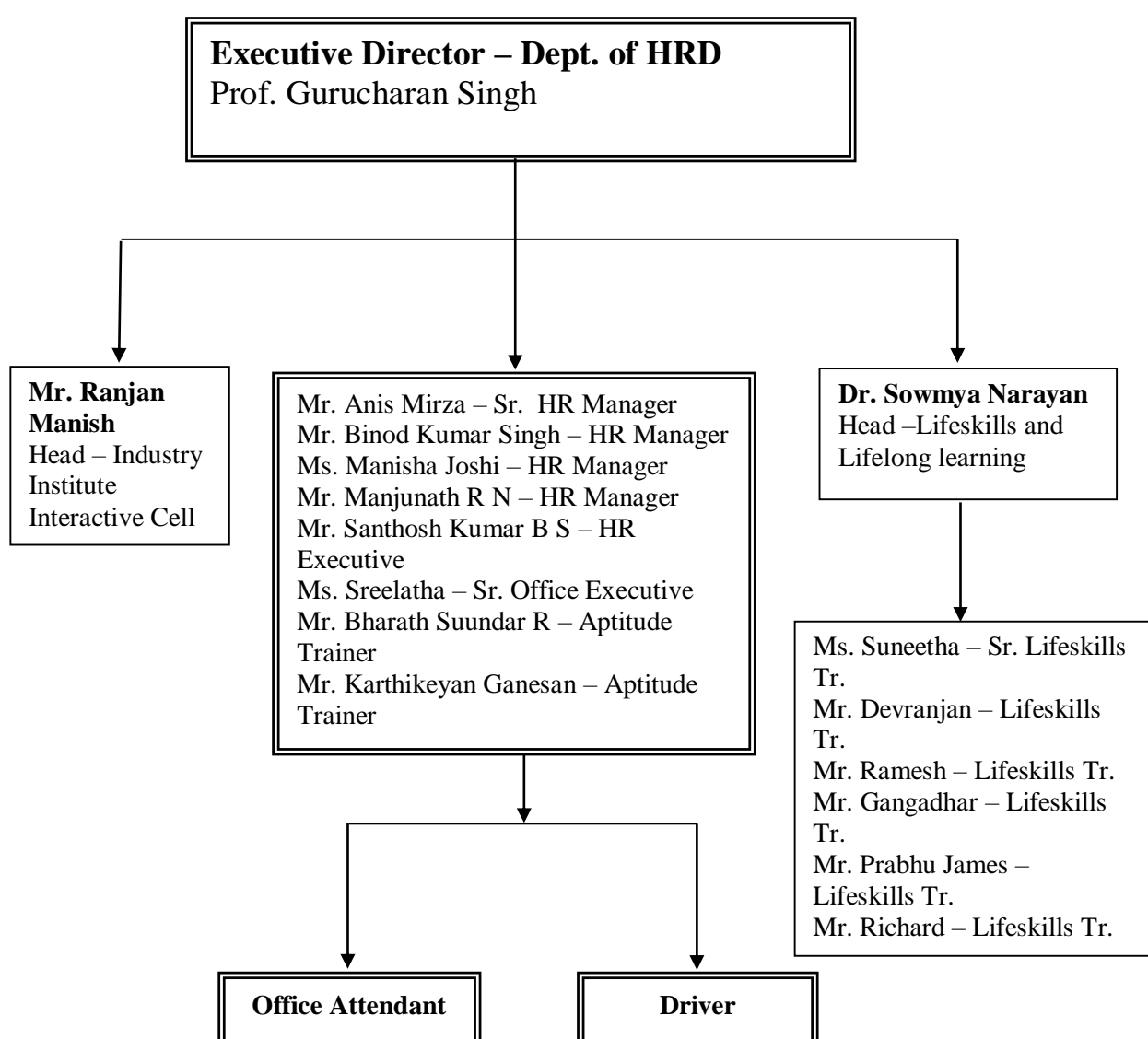


Figure No. 9.5.1: Structure of department of HRD

9.5b Career counseling for higher studies:

Career guidance and motivational lectures by Alumni, External guests and faculty are organized frequently.

9.5(A) Career counseling for higher studies (CSE)

Motivation for Higher Studies

Faculties of the department advise and motivate students to pursue higher education by introducing them to the range of benefits available to those who are better equipped. Students are briefed about the opportunities and advantages of pursuing higher education in India and abroad. International education offers the opportunity to broaden horizons and build skills and experiences and makes them more employable, as they gather experience that a lot of other candidates won't have. Students can widen their repertoire and communicate more effectively when exposed to education abroad.

Faculty let the students know that the opportunities for professional development are vast and by building their professional skills, they will move up the jobs ladder and are likely to increase their income quickly. Students are also made aware of the eligibility criteria and are advised to take up tests like GRE, GMAT, IELTS, TOEFL, etc if they are interested in pursuing education overseas. Students who want to pursue education in India are briefed about GATE, CAT, PG CET and given exposure to the various opportunities.

9.5(B) Career counseling for higher studies (CIVIL)

Table 9.5.3: Career counseling for higher studies

Sl. No	Name	Designation
1	Financial Literacy program for SC/ST Students	Dr. Sheelan Misra, HOD-MBA, NHCE
2	Workshop on Students exchange program to France	Dean-Academics, NHCE
3	Workshop on Overseas Education for M. S	Mr. Devanand M, Market Development Executive, Global reach, Brigade road, Bangalore
4	Quiz - InQuizitive Minds 2018	Career Launch, Marathalli
5	Motivational talk on Higher studies in Foreign Countries	Ms. Usha Mahadevappa, Manager, Business Development, International Education Specialist (IDP) IDP Education India Pvt. Ltd
6	Motivational talk on Opportunities for Higher Studies in Abroad	Mr. Shaon Basu, Manager, Operations & Academics,

	Jamboree Education, No. 539, ashwini complex, 2nd Floor, CMH Road, Indiranagar, Bangalore-38
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9.5(C) Career counseling for higher studies (ECE)

The Department of Electronics and Communication Engineering has organized student “Orientation program on Study abroad on 20th sep 2019. In association with IDP Education India Pvt. Ltd.

The Sessions are conducted in three different sessions for all the 2nd, 3rd and final year students. The orientation is on how to prepare for IETLS & SOP writing.

60+ students of Department of Electronics and Communication Engineering attended the launch of First Education event launch of IDP on 9th March at Whitefield, opposite to Brigade Metropolis.

9.5(D) Career counseling for higher studies (ME)

Table 9.5.4: Career counseling for higher studies (ME)

Sl. No	Name	Designation
1	Financial Literacy program for SC/ST Students	Dr. Sheelan Misra, HOD-MBA, NHCE
2	Workshop on Students exchange program to France	Dean-Academics, NHCE
3	Motivational talk on Higher studies in Foreign Countries	Mr. Rahul Sharan Renu, Research assistant, Mentor, Form Instructor Francis Marion University
4	Motivational talk on Opportunities for Higher Studies	Mr. Lance Fung, IEEE Asia Specific Region Director, R10.

9.5c Pre-Placement Training:

(a) The process involves

- Identification and grooming of capable students for a particular domain
- Arranging Training Sessions from industry resources regularly.
- Counseling the students having less attendance in trainings.
- Interacting with Life skills trainer regularly for inputs on training.
- Maintaining the attendance of the students and sharing the same with Centre for Life Skills and Life Long Learning.
- Ensuring students learn English essentials/business communication as a subject.
- Arranging Aptitude Development training sessions for all programmes of Undergraduate (UG).

- Vista Mind, Ethnus Consultants, Focus Academy for creative Education are engaged to conduct Aptitude Development training which is scheduled as part of academic schedules.
- Soft skills development sessions are scheduled for all UG programmes. PCC India handles Soft skills for all these students by the seasoned trainers experienced in corporate orientation.
- Arranging Technical and domain related sessions and the topics will vary from one programme to another programme. All circuit programmes are taught with basic programming subjects, C, DS etc. Non-circuit programmes students are trained with core subjects and the highlight would be fundamentals of Electrical Engg, Electronics Engg, Mechanical Engg, Civil Engg, Automobile Engg, etc. and some application orientation.

(b) The Roles and Responsibilities of Placement Committee (PC)

- To conduct research regarding the skills, abilities, and credentials employers seek from graduates and also to find relevant job titles and industries for graduates.
- To help students create their resumes and cover letters, find internship or externship sites, and apply for jobs in their fields.
- To arrange for mock interviews to give students practice answering common questions and provide information about companies hiring in the area.
- To develop strong rapport with employers and develop local partnerships with companies where students can do internships or externships or visit for job shadowing. And also to recommend students to these employers after they learn necessary skills.
- To schedule hiring events like job fairs which gives students exposure to potential jobs and helps local companies find suitable candidates.
- To Ensure students availability for all campus recruitment events
- To participate in pre-placement presentations conducted by companies
- To participate in exit meetings at the end of each company recruitment events and to implement suggestions regard to grey areas as mentioned in the feedback in the departmental activities.
- To coordinate with each Department regarding aptitude, soft skills and domain related training activities to students.
- To Visit companies for presenting Department's quality and talent pool availability
- To arrange for domain related training and re-training activities based on companies' feedback.

Training Time table Sample (Placements)

NEW HORIZON COLLEGE OF ENGINEERING

DEPARTMENT OF TRAINING AND PLACEMENTS

APTITUDE DEVELOPMENT TIME TABLE FOR 6TH SEM ENGG, 4TH SEM MCA & 2ND SEM M.TECH STUDENTS

(EVEN SEMESTER 2017 i.e., From 6th, Feb 2017 for MCA+M.Tech and 13th Feb'17 for B.E)

	9.00-10.00	10.00-11.00	11.10-12.10	12.10-1.10	LUNCH BREAK	1.50-2.50	2.50-3.50	3.50-
MON			MECH-B MCA- A+M.Tech(CSE,SE,CNE,MD ,Aero)	MECH-B MCA- A+M.Tech(CSE,SE,CNE,MD, Aero)		MCA-B+M.Teh(VLSI,COM.SYS)	MCA- B+M.Teh(VLSI,COM.SYS)	
TUE			MECH-A MCA - C	MECH-A MCA - C		MCA- A+M.Tech(CSE,SE,CNE,MD,Ae ro)	MCA- A+M.Tech(CSE,SE,CNE,MD ,Aero)	
WED						MCA-B+M.Teh(VLSI,COM.SYS)	MCA- B+M.Teh(VLSI,COM.SYS)	
THU			MECH-C ISE-A ISE-B MECH-B	MECH-C ISE-A ISE-B MECH-B				
			MECH-C ISE-A	MECH-C ISE-A		MCA-C	MCA-C	

Figure No. 9.5.3: Placement training schedule 2017

New Horizon College of Engineering								
Refresh Classes for Recruitment Process-2018								
Date/Day	B1(CSE)	B2(ISE)	B3(ECE-1)	B4(ECE-2)	B5(ME-1)	B6(ME-2)	B7(EEE)	B8(CV, BT,MCA)
24/09/2018 Monday	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)
25/09/2018 Tuesday	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)
26/09/2018 Wednesday	Apti-Test (5-7pm)	Tech-Test (5-7pm)	Apti-Test (5-7pm)	Apti-Test (5-7pm)	Tech-Test (5-7pm)	Tech-Test (5-7pm)	Tech-Test (5-7pm)	Apti-Test (5-7pm)
27/09/2018 Thursday	Tech-Test (5-7pm)	Apti-Test (5-7pm)	Tech-Test (5-7pm)	Tech-Test (5-7pm)	Apti-Test (5-7pm)	Apti-Test (5-7pm)	Apti-Test (5-7pm)	Tech-Test (5-7pm)
3/10/2018 Wednesday	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)
4/10/2018 Thursday	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)	Tech (3-5pm)	Apti (3-5pm)
5/10/2018 Friday	Apti-Test (5-7pm)	Tech-Test (5-7pm)	Apti-Test (5-7pm)	Apti-Test (5-7pm)	Tech-Test (5-7pm)	Tech-Test (5-7pm)	Tech-Test (5-7pm)	Apti-Test (5-7pm)
6/10/2018 Saturday	Tech-Test (5-7pm)	Apti-Test (5-7pm)	Tech-Test (5-7pm)	Tech-Test (5-7pm)	Apti-Test (5-7pm)	Apti-Test (5-7pm)	Apti-Test (5-7pm)	Tech-Test (5-7pm)
Batch wise Faculty Trainer:								
B1-CSE(Tech-Ms. Kavitha(MCA), Apti- Dr. Srinivasa G.(Math)), B5-ME-1(Tech-Mr. Shivabalan(CSE), Apti- Mr.Sub B2-ISE(Mr. Govinda Raju(MCA), Apti- Dr. Srinivasa G.(Math))),B6-ME-2(Tech-Ms. Vandana(ISE), Apti- Mr.Subrar B3-ECE-1(Tech-Mr. Gangadhar(ISE), Apti-Mr. Madhu Mohan Raju(Math))B7-EEE(Tech-Mr. Vishwanath(MCA), A								

Figure No. 9.5.4: Placement training schedule 2018

• Training schedule (CS)

SUBJECTS (V semester)		
Problem Solving	: 12 Hours	Lecture
Object Oriented Programming Revision	: 8 Hours	Lecture
C Programming Revision	: 4 Hours	Lecture
IT Latest Technology	: 4 Hours	Faculty PPT presentation
Public Speaking by students	: 4 Hours	Class Management
Tech Talk by students	: 4 Hours	Class Management
Placement Talk	: 2 Hours	
Alumni Talk	: 2 Hours	Class Management
Test	: 2 Hours	Invigilation (Oops concepts)
Tech Quiz	: 2 Hours	Invigilation (MCQs on C & C++)
Code Debugging	: 2 Hours	Invigilation (C or C++)
Faculty interaction	: 2 Hours	
Hands-On/Assignment	: 8 Hours	
TOTAL	: 56 Hours	

NEW HORIZON COLLEGE OF ENGINEERING, BANGALORE Autonomous college affiliated to VTU, Accredited with NAAC 'A' grade DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING TIME TABLE FOR EMPLOYMENT CENTRIC CLASSES From 23-31 July 2018 CLASS TEACHER: Ms Soja Rani SEMESTER: V SEC : C									
Day/Time	9:00-10:00	10:00-11:00	11:00-11:10	11:10-12:10	12:10-1:10	1:10-1:50	1:50-2:50	2:50-3:50	3:50-4:50
Mon	Placement Talk	Placement Talk	TEA BREAK	C Pgm Mr Muralidhara	Problem Solving Ms Soja	LUNCH BREAK	C Pgm Mr Muralidhara	IT Latest Techgy Ms Jaya	Hands-On/Assignment
Tue	Alumni Talk Ms Jaya	C Pgm Mr Muralidhara		Problem Solving Ms Soja	C Pgm Mr Muralidhara		Problem Solving Ms Soja	Tech Talk Ms SheebaPrabakaran	Hands-On/Assignment
Wed	OOPs Mr Muralidhara	Problem Solving Ms Soja		OOPs Mr Muralidhara	IT Latest Techgy Ms. Tina		Problem Solving Ms Soja	Public Speaking Ms. Jaya	Hands-On/Assignment
Thur	Alumni Talk Ms Jaya	OOPs Mr Muralidhara		Problem Solving Ms Soja	OOPs Mr Muralidhara		Problem Solving Ms Soja	Public Speaking Ms. Jaya	Hands-On/Assignment
Fri	IT Latest Techgy Ms HeyShanthini	Problem Solving Ms Soja		OOPs Mr Muralidhara	Problem Solving Ms Soja		OOPs Mr Muralidhara	Public Speaking Ms. Jaya	Hands-On/Assignment
Sat	IT Latest Techgy Ms Vasantha	OOPs Mr Muralidhara		Problem Solving Ms Soja	OOPs Mr Muralidhara		Problem Solving Ms Soja	Tech Talk Ms SheebaPrabakaran	Hands-On/Assignment

Figure No. 9.5.5: Placement training schedule CSE 2018

• Training schedule (CIVIL)

New Horizon College of Engineering, Bangalore Autonomous College affiliated to VTU, Accredited by NAAC with 'A' Grade, Accredited by NBA DEPARTMENT OF CIVIL ENGINEERING TECHNICAL TRAINING SESSIONS FOR FINAL YEAR STUDENTS SECTION - B						
Date/Time	9.30-11am	11-11.15am	11.15am-12.45pm	12.45pm-1.30pm	1.30pm-3pm	3pm-4.30pm
26-06-2019	Design of RCC Structural elements Mr.Surendra B V	Break	Surveying Mr.Nitish	Lunch Break	Highway engineering Mr.Harish G R	Environmental engineering Dr.Mahesha N
27-06-2019	Design of RCC Structural elements Mr.Surendra B V		Surveying Mr.Nitish		Highway engineering Mr.Harish G R	Concrete technology Ms.Suma P
28-06-2019	Design of RCC Structural elements Mr.Surendra B V		Surveying Mr.Nitish		Highway engineering Mr.Harish G R	Environmental engineering Dr.Mahesha N
29-06-2019	Pre stressed concrete Mr.Sudhakar		Geotechnical engineering Dr.Jagadeesh C B		Test - I	
01-07-2019	Strength of materials Mr.Snehal		Concrete technology Ms.Suma P		Alternate building materials and technology Dr.Vinay Kumar	Strength of materials Mr.Snehal
02-07-2019	Environmental engineering Dr.Mahesha N		Strength of materials Mr.Snehal		Alternate building materials and technology Dr.Vinay Kumar	Pre stressed concrete Mr.Sudhakar
03-07-2019	Pre stressed concrete Mr.Sudhakar		Alternate building materials and technology Dr.Vinay Kumar		Engineering Mechanics Ms.Meghana P	Test - II
04-07-2019	Analysis of indeterminate structures Ms.Ramya H S		Geotechnical engineering Dr.Jagadeesh C B		Fluid mechanics Dr.Greetha Varma	Engineering Mechanics Ms.Meghana P
05-07-2019	Engineering Mechanics Ms.Meghana P		Geotechnical engineering Dr.Jagadeesh C B		Analysis of indeterminate structures Ms.Ramya H S	Test - III

Note : Two Industrial visit's will be arranged based on the available slots from the company.

Figure No. 9.5.7: Placement training schedule CIVIL 2019

New Horizon College of Engineering, Bangalore
Autonomous College affiliated to VTU, Accredited by NAAC with 'A' Grade, Accredited by NBA
DEPARTMENT OF CIVIL ENGINEERING
TECHNICAL TRAINING SESSIONS FOR FINAL YEAR STUDENTS
SECTION - P1

Date/Time	9.30-11am	11-11.15am	11.15am-12.45pm	12.45pm-1.30pm	1.30pm-3pm	3pm-4.30pm
11/6/2018	Engineering mechanics Ms. Meghana P	Break	Strength of materials Mr. Sandeep	Lunch Break	Building Construction Mr. Sudhakar	Surveying Mr. Satish D
12/6/2018	Fluid mechanics Ms. Satya Priya		Strength of materials Mr. Sandeep		Engineering mechanics Ms. Meghana P	Strength of materials Mr. Sandeep
13/6/2018	Surveying Mr. Satish D		Fluid mechanics Ms. Satya Priya		Geotechnical engineering Ms. Serin Isaac	Analysis of indeterminate structures Mr. Rajendra
14/6/2018	Geotechnical engineering Ms. Serin Isaac		Analysis of indeterminate structures Mr. Rajendra		Highway engineering Mr. Harish G R	Design of RCC Structural elements Mr. Surendra B V
15/6/2018	Highway engineering Mr. Harish G R		Design of RCC Structural elements Mr. Surendra B V		Environmental engineering Dr. Mahesha N	Pre stressed concrete Mr. Sudhakar
18/6/2018	Pre stressed concrete Mr. Sudhakar		Concrete technology Ms. Suma P		Alternate building materials and technology Mr. Sudhakar	Construction Management Mr. Pavan Kumar
19/6/2018	Construction Management Mr. Pavan Kumar		Environmental engineering Dr. Mahesha N		Concrete technology Ms. Suma P	Advanced concrete technology Ms. Nilha Elizabeth

Principal: *M. Jayaram*
Dear Academics,
HOD: *T. S. Srinivas*

Figure No. 9.5.8: Placement training schedule CIVIL 2018

- Training schedule (ECE)

New Horizon College Of Engineering
Department Of Electronics and Communication Engineering.
Technical Training Details Even Sem (Aug- Dec 2017)
SEM: 5 SEC: B

Sl.No	Technical Topics	Faculty	Date	No of Students Present
1	Analog Communication	Mr Ashutosh	21-08-2017	68
2	Analog Communication	Mr Ashutosh	28-08-2017	68
3	Analog Communication	Mr Ashutosh	04-09-2017	77
	VLSI	Mr Karthik		73
4	Analog Communication	Mr Ashutosh	11-09-2017	73
	VLSI	Mr Karthik		70
5	Analog Communication	Mr Ashutosh	18-09-2017	81
	VLSI	Ms Nayana		78
6	Analog Communication	Mr Ashutosh	25-09-2017	85
	VLSI	Ms Nayana		75
7	Analog Communication	Mr Ashutosh	02-10-2017	78
	VLSI	Ms Nayana		70
8	Analog Communication	Mr Ashutosh	09-10-2017	82
	VLSI	Ms Nayana		76
9	Analog Communication	Mr Ashutosh	16-10-2017	83
	VLSI	Ms Nayana		70

Figure No. 9.5.9: Placement training schedule ECE 2017

NEW HORIZON COLLEGE OF ENGINEERING
Autonomous college affiliated to VTU , Accredited by NAAC with 'A' grade and Accredited by NBA
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
TIME TABLE FOR TECHNICAL TRAINING

Date / Time	Days	09:00 - 12:00	12.45 - 3.45	Date / Time	Days	09:00 - 12:00	12.45 - 3.45
01-06-2018	Friday	Batch 4 (ECE A) MCA LAB 1	Batch 4 (ECE A) MCA LAB 1	06-06-2018	Wednesday	Batch 4 (ECE A) MCA LAB 1	Batch 4 (ECE A) MCA LAB 1
		Batch 5 (ECE B) ISE LAB 2	Batch 5 (ECE B) ISE LAB 2			Batch 5 (ECE B) ISE LAB 2	Batch 5 (ECE B) ISE LAB 2
		Batch 6 (ECE C) MCA LAB 2	Batch 6 (ECE C) MCA LAB 2			Batch 6 (ECE C) MCA LAB 2	Batch 6 (ECE C) MCA LAB 2
02-06-2018	Saturday	Batch 4 (ECE A) MCA LAB 1	Batch 4 (ECE A) MCA LAB 1	07-06-2018	Thursday	Batch 4 (ECE A) MCA LAB 1	Batch 4 (ECE A) MCA LAB 1
		Batch 5 (ECE B) ISE LAB 2	Batch 5 (ECE B) ISE LAB 2			Batch 5 (ECE B) ISE LAB 2	Batch 5 (ECE B) ISE LAB 2
		Batch 6 (ECE C) MCA LAB 2	Batch 6 (ECE C) MCA LAB 2			Batch 6 (ECE C) MCA LAB 2	Batch 6 (ECE C) MCA LAB 2
04-06-2018	Monday	Batch 4 (ECE A) MCA LAB 1	Batch 4 (ECE A) MCA LAB 1	07-06-2018	Friday	Batch 4 (ECE A) MCA LAB 1	Batch 4 (ECE A) MCA LAB 1
		Batch 5 (ECE B) ISE LAB 2	Batch 5 (ECE B) ISE LAB 2			Batch 5 (ECE B) ISE LAB 2	Batch 5 (ECE B) ISE LAB 2
		Batch 6 (ECE C) MCA LAB 2	Batch 6 (ECE C) MCA LAB 2			Batch 6 (ECE C) MCA LAB 2	Batch 6 (ECE C) MCA LAB 2
05-06-2018	Tuesday	Batch 4 (ECE A) MCA LAB 1	Batch 4 (ECE A) MCA LAB 1				
		Batch 5 (ECE B) ISE LAB 2	Batch 5 (ECE B) ISE LAB 2				
		Batch 6 (ECE C) MCA LAB 2	Batch 6 (ECE C) MCA LAB 2				

Figure No. 9.5.10: Placement training schedule ECE 2018

NEW HORIZON COLLEGE OF ENGINEERING
Autonomous college affiliated to VTU , Accredited by NAAC with 'A' grade and Accredited by NBA
DEPARTMENT OF ELECTRONICS AND COMMUNICATION

Section A,B,C

Room No. : A217

Semester: VI

Wef:11.01.2018

Period	I	II	III	IV	V	VI
Day/ Time	8.00 -9.00	9.00 -10.00	10.00 - 11.00	11.10 -12.10	12.10 -1.10	1.10 -1.50
Monday					Technical Aptitude	
Tuesday					Technical Aptitude	
Wednesday						
Thursday						
Friday						
Saturday						

Figure No. 9.5.11: Placement training schedule ECE 2017/18

• **Training schedule (ME)**

NEW HORIZON COLLEGE OF ENGINEERING
DEPARTMENT OF TRAINING & PLACEMENTS
PRE-PLACEMENT RE-TRAINING

Batch 3 (ME & AU)																		
Name	Branch	Aptitude	Technical	Aptitude	Life Skills	Aptitude	Technical	Life Skills	Aptitude	Life Skills	Aptitude	Technical	Life Skills	Aptitude	Technical	Aptitude/Technical / Lifeskills	Total hours attended	Total hours conducted
		27.8.18	27.8.18	28.8.18	28.8.18	29.8.18	29.8.18	29.8.18	30.8.18	30.8.18	31.8.18	31.8.18	31.8.18	1.9.18	1.9.18			
		9.00-12.00	12.10-1.10 / 2.00-5.00	2.00-5.00	9.00-1.00	9.00-12.00	2.00-5.00	12.00-1.00	2.00-5.00	9.00-1.00	9.00-12.00	2.00-5.00	12.00-1.00	2.00-5.00	9.00-1.00			
Chatura S	ME	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	0
Rupak karki	ME	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	0
Shebeeb VK	ME	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	0

Figure No. 9.5.12: Placement training schedule ME 2018

NEW HORIZON COLLEGE OF ENGINEERING		
(Autonomous College affiliated to VTU, Accredited by NAAC with 'A' Grade & NBA)		
DEPARTMENT OF MECHANICAL ENGINEERING		
TIME TABLE FOR THE ACADEMIC YEAR 2020-21		
Core Training Classes for 7th Sem (A, B, C)		
From; 10/10/2020 to 15/10/2020		
Day/Time		
Saturday	MOM(9:30-11:00)	MOM(11:30-1:00)
Monday	FEM (9:30-11:00))	FEM (11:30-1:00)
Tuesday	BTD(9:30-11:00))	BTD (11:30-1:00)
Wednesday	MSM (9:30-11:00))	MSM (11:30-1:00)
Thursday	MOM (9:30-11:00))	BTD (11:30-1:00)
	FEM (2:00-3:00)	MSM (3:00- 4:00)
Subject	Faculty Name	
MOM	Prof. Hanamanth Y/ Prof. Pavan P	
MSM	Dr. Vishwanath B/ Dr. Hemanth Raju T	
BTD	Prof. Ravikumar M/ Prof. Kamalashish Deb	
FEM	Dr. Srinath M K	
	Dean, Professor & HoD-ME	

Figure No. 9.5.13: Placement training schedule ME 2020

Sessions of interactions –Department of mechanical Engineering 2018

S. No	Course with code	Date of introduction
1	CFD training/ SAP training /CATIA training	11-06-2018
2	CFD training/ SAP training /CATIA training	12-06-2018
3	CFD training/ SAP training /CATIA training	13-06-2018
4	CFD training/ SAP training /CATIA training	14-06-2018
5	CFD training/ SAP training /CATIA training	15-06-2018
6	CFD training/ SAP training /CATIA training	16-06-2018
7	Thermodynamics/Machine Design	26-06-2018
8	CNC programming	27-06-2018
9	heat transfer/Mechanics of materials	28-06-2018
10	Fluid mechanics/Theory of machines	29-06-2018

Figure No. 9.5.14: Placement training schedule ME 2018

New Horizon College of Engineering							
Dept of Training & Placements							
2018 Batch Phase-1 Vacation Training Schedule							
		28th July 2017 (Friday)				29th July 2017 (Saturday)	
Branch	9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm		9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm
ME - A	Softskills - Batch MEA1	Technical - Batch MEAT1	Aptitude		Technical - Batch MEAT1	Softskills - Batch MEA1	Aptitude
	Softskills - Batch MEA2	Technical - Batch MEAT2			Technical - Batch MEAT2	Softskills - Batch MEA2	
		Technical - Batch MEAT3			Technical - Batch MEAT3		
ME - B	Technical - Batch MEBT1	Aptitude	Softskills - Batch MEB1		Softskills - Batch MEB1	Aptitude	Technical - Batch MEBT1
	Technical - Batch MEBT2		Softskills - Batch MEB2		Softskills - Batch MEB2		Technical - Batch MEBT2
ME - C	Aptitude	Softskills - Batch MEC1	Technical - Batch MECT1		Aptitude	Technical - Batch MECT1	Softskills - Batch MEC1
		Softskills - Batch MEC2	Technical - Batch MECT2			Technical - Batch MECT2	Softskills - Batch MEC2
		31st July 2017 (Monday)				1st Aug 2017 (Tuesday)	
Branch	9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm		9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm
ME - A	Technical - Batch MEAT1	Softskills - Batch MEA1	Aptitude		Softskills - Batch MEA1	Technical - Batch MEAT1	Aptitude
	Technical - Batch MEAT2	Softskills - Batch MEA2			Softskills - Batch MEA2	Technical - Batch MEAT2	
	Technical - Batch MEAT3					Technical - Batch MEAT3	
ME - B	Softskills - Batch	Aptitude	Technical - Batch		Technical - Batch	Aptitude	Softskills - Batch

	MEB1		MEBT1		MEBT1		MEB1
	Softskills - Batch MEB2		Technical - Batch MEBT2		Technical - Batch MEBT2		Softskills - Batch MEB2
ME - C	Aptitude	Technical - Batch MECT1	Softskills - Batch MEC1		Aptitude	Softskills - Batch MEC1	Technical - Batch MECT1
		Technical - Batch MECT2	Softskills - Batch MEC2			Softskills - Batch MEC2	Technical - Batch MECT2
		2nd Aug 2017 (Wednesday)				3rd Aug 2017 (Thursday)	
Branch	9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm		9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm
ME - A	Aptitude	Softskills - Batch MEA1	Technical - Batch MEAT1		Technical - Batch MEAT1	Softskills - Batch MEA1	Aptitude
		Softskills - Batch MEA2	Technical - Batch MEAT2		Technical - Batch MEAT2	Softskills - Batch MEA2	
			Technical - Batch MEAT3		Technical - Batch MEAT3		
ME - B	Technical - Batch MEBT1	Aptitude	Softskills - Batch MEB1		Softskills - Batch MEB1	Aptitude	Technical - Batch MEBT1
	Technical - Batch MEBT2		Softskills - Batch MEB2		Softskills - Batch MEB2		Technical - Batch MEBT2
ME - C	Softskills - Batch MEC1	Technical - Batch MECT1	Aptitude		Aptitude	Technical - Batch MECT1	Softskills - Batch MEC1
	Softskills - Batch MEC2	Technical - Batch MECT2				Technical - Batch MECT2	Softskills - Batch MEC2
		5th Aug 2017 (Saturday)				7th Aug 2017 (Monday)	
Branch	9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm		9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm
ME - A	Softskills - Batch MEA1	Technical - Batch MEAT1	Technical - Batch MEAT1		Technical - Batch MEAT1	Softskills - Batch MEA1	Technical - Batch MEAT1

	Softskills - Batch MEA2	Technical - Batch MEAT2	Technical - Batch MEAT2		Technical - Batch MEAT2	Softskills - Batch MEA2	Technical - Batch MEAT2
		Technical - Batch MEAT3	Technical - Batch MEAT3		Technical - Batch MEAT3		Technical - Batch MEAT3
ME - B	Technical - Batch MEBT1	Softskills - Batch MEB1	Online Aptitude Test		Softskills - Batch MEB1	Technical - Batch MEBT1	Technical - Batch MEBT1
	Technical - Batch MEBT2	Softskills - Batch MEB2			Softskills - Batch MEB2	Technical - Batch MEBT2	Technical - Batch MEBT2
ME - C	Technical - Batch MECT1	Technical - Batch MECT1	Softskills - Batch MEC1		Technical - Batch MECT1	Softskills - Batch MEC1	Technical - Batch MECT1
	Technical - Batch MECT2	Technical - Batch MECT2	Softskills - Batch MEC2		Technical - Batch MECT2	Softskills - Batch MEC2	Technical - Batch MECT2
8th Aug 2017 (Tuesday)				9th Aug 2017 (Wednesday)			
Branch	9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm		9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm
ME - A	Softskills - Batch MEA1	Technical - Batch MEAT1	Softskills - Batch MEA1		Technical - Batch MEAT1	Technical - Batch MEAT1	Softskills - Batch MEA1
	Softskills - Batch MEA2	Technical - Batch MEAT2	Softskills - Batch MEA2		Technical - Batch MEAT2	Technical - Batch MEAT2	Softskills - Batch MEA2
		Technical - Batch MEAT3			Technical - Batch MEAT3	Technical - Batch MEAT3	
ME - B	Technical - Batch MEBT1	Softskills - Batch MEB1	Technical - Batch MEBT1		Technical - Batch MEBT1	Softskills - Batch MEB1	Technical - Batch MEBT1
	Technical - Batch MEBT2	Softskills - Batch MEB2	Technical - Batch MEBT2		Technical - Batch MEBT2	Softskills - Batch MEB2	Technical - Batch MEBT2
ME - C	Technical - Batch MECT1	Softskills - Batch MEC1	Technical - Batch MECT1		Softskills - Batch MEC1	Softskills - Batch MEC1	Technical - Batch MECT1
	Technical - Batch MECT2	Softskills - Batch MEC2	Technical - Batch MECT2		Softskills - Batch MEC2	Softskills - Batch MEC2	Technical - Batch MECT2
		10th Aug 2017 (Thursday)				11th Aug 2017 (Friday)	

Branch	9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm		9 to 11 am	11:10 - 01:40 pm	2:10 - 5:10pm
ME - A	Technical - Batch MEAT1	Softskills - Batch MEA1	Softskills - Batch MEA1		No Class	Technical - Batch MEAT1	Online Aptitude Test
	Technical - Batch MEAT2	Softskills - Batch MEA2	Softskills - Batch MEA2			Technical - Batch MEAT2	
	Technical - Batch MEAT3					Technical - Batch MEAT3	
ME - B	Technical - Batch MEBT1	Softskills - Batch MEB1	Softskills - Batch MEB1		Technical - Batch MEBT1	Softskills - Batch MEB1	Softskills - Batch MEB1 till 5:40pm
	Technical - Batch MEBT2	Softskills - Batch MEB2	Softskills - Batch MEB2		Technical - Batch MEBT2	Softskills - Batch MEB2	Softskills - Batch MEB2 till 5:40pm
ME - C	Softskills - Batch MEC1	Softskills - Batch MEC1	Technical - Batch MECT1		Softskills - Batch MEC1	Online Aptitude Test	Softskills - Batch MEC1 till 3:40pm
	Softskills - Batch MEC2	Softskills - Batch MEC2	Technical - Batch MECT2		Softskills - Batch MEC2		Softskills - Batch MEC2 till 3:40pm

Figure No. 9.5.15: Placement training schedule ME 2017

9.5d Placement Process & Support

NEW HORIZON SCHOLAR PROGRAM has focused an initiative to tap potential students at 2nd & 3rd year level and groom them to the best possible opportunities in Corporate, Government or Higher Education purposes. The following interventions are provided for the selected students.

- Conduct problem solving sessions by highly accomplished people in industry / institutions.
- Expose them on areas beyond the engineering textbooks – such as economy, emerging business areas, international affairs, social issues etc.

- Focused technology sessions such as Big Data Analytics, SMAC (Social Media – Mobility Analytics – Cloud Computing), Digital marketing etc.
- Motivation sessions by high achievers in business, entrepreneurship etc.
- Focused on recent advancement in Internet of Things (IOT) by enabling the interconnection and integration of the physical world and the cyber space.
- To develop insight into the usability challenges in developing Artificial Intelligence (AI) systems, and effective means of meeting these challenges and to gain knowledge for collaboration between the Human Computer Interface (HCI) and AI communities.
- Fundamental foundations and application skills for non-circuit branches.

Selection of students: Students are selected at 3rd / 4th semester level by heads of departments. The criteria for selection of students is broadly based on academic performance and exceptionally good students who may not be top in class but have the potential to excel in studies if they are given required support.

Operational arrangements: Identified students will be provided an environment for each other to discuss debate and interact on their thoughts at regular intervals. An exclusive space of about one class room size is provided with necessary aids within the room such as journals, some latest books on innovation, creativity. Two computers with internet connectivity and Air Conditioning facility with biometric based entry are also provided. This space can be branded and showcased for other students to aspire to belong this group.

Organizing coaching classes for competitive exams

The departments organize coaching classes for GATE and other competitive examinations.

- The placement cell organizes seminars on higher studies and conduct aptitude training sessions.
- Foundation course for Civil Services is offered for interested students appearing for Civil Services. Many books and periodicals are available in the library for the students.

Skill development (Spoken English, Computer Literacy etc.)

Communicative English has been incorporated into the curriculum. The English Language communication lab with a capacity of 60 consoles has been set up with innovation.

Industry – Institute Collaboration Activities:

The purpose of Industry Institute Collaboration Cell which shall be referred to as IIC hereon is to ensure a paradigm shift in the thought process of a New Horizon student from J2C (Job to Career). This should lead a student towards identification of a SMART

CAREER GOAL. Taking a step further, IIC would endeavour to establish connect between eminent faculty members and the relevant industries to join hands and work towards mutually beneficial cause/projects.



Figure No. 9.5.2: Industry Institute interaction

The ulterior aim of IIC is to work towards making New Horizon College of Engineering, a respectable and most sought after Engineering college which provides the best amalgamation of Innovation, entrepreneurship development, skill up gradation, passion and aptitude along with sound theoretical subject knowledge which in turn makes our students industry ready and innovators of tomorrow so that they can pursue their passion and think beyond a job. The efforts and orientation of IIC would be in a manner wherein industry academia alliance would help our students reach the pinnacle of success and also ensure our elite faculty members are amongst the most sought after teaching fraternity.

Centre of Excellence

- Develop best learning process using a comprehensive understanding of industry's best practices.
- Imbibe professionalism, behavioural aspects and awareness as per the industry expectations.
- Continuous improvement to achieve success and growth.

Industry/Incubation

- Align aspirations of the students with the needs of the industries.
- Solutioning is the need of the hour.
- Customer value creation for industry and students
- Attention to both individual and students and groups.

Industry Integration

- Leveraging networking and collaboration with partnership.
- Promote career counselling by organizing guidance lectures by senior corporate personnel.
- Regular interaction with the industry through Seminars, Guest Lectures, Conferences, Corporate Meets, etc.

Internship Visits

- Enable student readiness.
- Training on employable skills.
- Talent transformation.

9.5(A) Career Guidance and Placement support for CSE

The placement data for the last three academic years and the maximum & average pay package offered to the students of CSE are given in Table

Table 9.5.5: Placement details

Sl. No.	Name of the company	Number of students placed
Academic Year 2018-19		
1	Ad2pro Media Solutions Pvt Ltd	2
2	Applied Materials	1
3	Aquity Solution	1
4	Aricent	23

5	Betsol	1
6	Cameo Global	1
7	Catnip Infotech	1
8	CenturyLink Technologies India Pvt Ltd	1
9	Cerner Healthcare Solutions India Pvt Ltd	8
10	Covance India Pharmaceuticals Services Pvt Ltd	2
11	Danske IT and Support Services India Pvt Ltd	2
12	Cognizant Technologies	3
13	EKA Software	1
14	Eleation Academy	1
15	Emertxe	4
16	Epicor Software	1
17	Eurofins IT Solutions Pvt Ltd	5
18	EXL Service	5
19	Fintellix Solutions	1
20	GrayMatter Software Services Pvt Ltd	1
21	Harman Connected Services Corporation (I) Pvt. Ltd	1
22	Hiver	2
23	HP	1
24	HSBC	1
25	IBJ	2
26	IBM	1
27	Ideas91 India Pvt Ltd	2
28	Incadea India Pvt Ltd	2
29	Infosys Ltd	20
30	ITC Infotech	15
31	JMR Infotech	4
32	L & T Technologies	20
33	L&T Infotech	5
34	Lowe's Services India Pvt Ltd	2
35	McKinsey & Company	1
36	Mindtree	3
37	Moengage	2
38	Mu Sigma	3
39	Nineleaps	4
40	Novelsynth Soft Solutions	2
41	NTT DATA	2
42	Ocwen Financial	1

43	Pinclick	2
44	Primenumbers Technologies Pvt Ltd	1
45	Pulse Secure India Pvt Ltd	3
46	Rakuten	1
47	ServiceNow	2
48	Simeio Solutions	5
49	SonicWALL Technology Systems India Pvt Ltd	2
50	Speridian Technologies	1
51	Subex Ltd	1
52	Surya Software Systems Pvt Ltd	3
53	TCS	3
54	Telaverge Communications	2
55	Temairasu	1
56	Thermofisher Scientific	4
57	Udaan	4
58	Unisys	2
59	Velocis Systems Pvt Ltd	2
60	VVDN Technologies	1
61	Wipro	6
62	Zenken	1
Total Placed		208
Academic Year 2017-18		
1	Accion Labs	3
2	Allstate	4
3	Applied Materials	1
4	Artech (HP)	3
5	Bias Infotech	4
6	Broadridge	1
7	CCP IOT	4
8	Century Link	1
9	Cerner	9
10	Cropin Technologies	3
11	Datacorp Traffic	1
12	Datagres IT	1
13	DXC	1
14	Ellucian	3
15	Envision Financial	2
16	Epsilon	11

17	Eurofins IT	4
18	Exotel	6
19	Fintellix Solutions	1
20	Global Logic	6
21	Hexaware	3
22	Hotelsoft	6
23	IBM	1
24	Infosys Ltd	2
25	ITOrizon	5
26	Micro genesis	4
27	Mindtree	4
28	Netscope	2
29	Nine Leaps	4
30	NTTDATA	7
31	Profinch	9
32	Quintiles	4
33	TCS	5
34	Telaverge	4
35	Torry Harris	4
36	Valtech	1
37	Verdantis	2
38	VVDN	1
39	Wipro Ltd	13
Total Placed		150
Academic Year 2016-17		
1	24/7	1
2	All State	1
3	Amazon	1
4	Capgemini	12
5	Century Link	2
6	Cerner	23
7	Cigital Asia	12
8	Cropin Technologies	3
9	Cyient	1
10	Datacorp Traffic	2
11	Datagres IT	3
12	Epsilon	7
13	Eurofins IT	12

14	Exotel	2
15	FTD Automation	1
16	IBM Tech	2
17	ICT Technologies	9
18	Incadea	8
19	ITC Infotech	4
20	Lowe's	1
21	Mindtree	3
22	NTT Data	11
23	Orange Business Solutions	1
24	Pin Click	1
25	Profinch	9
26	RLE India	2
27	Servion Global Solutions	1
28	Software AG	2
29	Spirent Technologies	1
30	Stellapps	1
31	Tech Mahindra	4
32	Thomson Reuters	3
33	Torry Harris	6
34	Wipro	1
35	Zapcom Solutions	1
Total Placed		154

Table 9.5.6: Pay Package offered to students

2019-20	Maximum Salary	3000000
	Average Salary	908934.6613
2018-19	Maximum Salary	1100000
	Average Salary	683714.5385
2017-18	Maximum Salary	950000
	Average Salary	622649.9143

9.5(B) Career Guidance and Placement support FOR CV

A. Counseling for higher studies (GATE/GRE, GMAT etc):

Students who are looking for a change and want to get a self-direction are counseled so that they can explore and make an incredible career by opting for higher studies like an

MBA or M.Tech in their field or related fields. Students are shared with opportunities available by manging talks by Colleges like RICS School of Built Environment that offers various MBA courses like MBA in Construction Project Management, and MBA in Construction Economics and Quantity Surveying, helping students build a definitive career after civil engineering. Counselling is also organized related to the techno-managerial education and various examinations like GATE/GRE/UPSC/PSC etc. that help students get job opportunities in Public/Private Sector Industries, Government Jobs, Defense sector or obtain higher degrees abroad.

Table 9.5.7: No. of students opted for Higher Education

Higher Education M.Tech/MS/Ph.D	2016 - 2017	2017 - 2018	2018 - 2019
	No. of Students	No. of Students	No. of Students
M.Tech/MS	12	20	12

C. Placement Committee (PC):

The Career Guidance and Placement Cell have constituted a Placement Committee (PC) for smooth functioning.

(a)Members of the Placement Committee:

The members of the Placement Committee are as below:

Table 9.5.8: Members of the Placement Committee

Name of the Faculty	Designation	Department
Prof. Gurucharan Singh	Executive Director	Dept. of HRD
Mr. Binod Kumar Singh	HR Manager	Dept. of HRD
Dr. Niranjana P S	HOD & Professor	Dept. of Civil Engineering
Ms. Suma Paralada	Sr. Asst Professor	Dept. of Civil Engineering
Mr. Channabasava	Asst Professor	Dept. of Civil Engineering

(c) Achievements:

Table 9.5.9: Placement details - Academic Year 2018-19

Name of the company	No. of students placed
Aparna constructions	5
BSR Developers Pvt Ltd.	11

CBRE South Asia Pvt Ltd	5
Cyient Ltd	1
Extra Marks	1
H M Constructions	19
IBM	1
Ideas91 India Pvt Ltd	1
NCCCL India	10
NHEI	4
Regalia Civils	15
Salarpuria Sattva	7
Shobha Developers	2
Shri Aruna Constructions	12
Shriram Properties	3
Sowparnika Projects & Infrastructure Pvt Ltd	10
STUP Consultants	10
Target Corporation	1
Udaan	3
Total number of students placed	121

Academic Year 2017-18

Name of the company	No. of students placed
STUP Consultants	7
Chowgule	3
TCS	9
IBM	8
Raaga Constructions	6
Salarpuria Sattva	14
Total number of students placed	47

Academic Year 2016-17

Name of the company	No. of students placed
DSR Infrastructure	5
H M Group	4
Incadea	10
ITC Infotech	5

Pin Click	1
Profinch	7
Raaga Constructions	6
Sattva Group	3
Secon	1
Sobha Developers	3
Speridian	1
Sunquest	2
Volvo IT	8
Wipro	16
Total number of students placed	72

Table 9.5.10: Pay Package offered to students

1	Maximum Salary	14,63,000
2	Average Salary	5,50,000

9.5(C) Career Guidance and Placement support for ECE

NHCE offers career guidance and placement on all aspects of career planning, job searching and post-graduate studies. College will provide individual counseling for all the students towards reaching goals.

Table 9.5.11. List of MoUs with Industries

Sl. No.	Organization	Date of MoU
1	Compute Silicon	26/4/2019
2	Electronics for you	1/5/2019
3	Edu Saksham	17/9/2018

Table 9.5.12: Members of the Placement Committee

Sl. No.	Name of the Faculty	Designation	Department
1	Dr. B. Mohan Kumar Naik	Professor	ECE
2	Prof. Ashok	Asst. Professor	ECE

Table 9.5.13: Placement details

Sl. No	Name of Company	Number of students Placed
Academic Year 2018-19		
1	42Gears Mobility Systems	3
2	Altran Gurgaon	2
3	Allstate Solutions Pvt Ltd	3
4	Aeronautical Development Agency(ADA)	1
5	Aricent	5
6	Anora Semiconductors	3
7	Astromeda	1
8	Applied Materials	1
9	Elmeasure	7
10	EXL Service	5
11	CenturyLink Technologies India Pvt Ltd	2
12	Eurofins IT Solutions Pvt Ltd	2
13	Extra Marks	1
14	Infosys Ltd	6
15	IBM	1
16	Huawei Technologies	2
17	IBM, Pune	1
18	Ideas91 India Pvt Ltd	5
19	ITC Infotech	11
20	L&T Infotech	5
21	L & T Technologies	11
22	JMR Infotech	11
23	LGSOFT India Pvt Ltd	1
24	Mindtree	3
25	Moengage	2
26	Microchip Technology India Pvt Ltd	1
27	Nineleaps	1
28	Lowe's Services India Pvt Ltd	2
29	NTT DATA	8
30	Ocwen Financial	1
31	Pinclick	1
32	QtPi Robotics	2
33	SOCTRONICS	1
34	SoCtronics Technologies Pvt Ltd	1
35	Sony India	2
36	SonicWALL Technology Systems India Pvt Ltd	4

37	Softcell technologies	1
38	Speridian Technologies	3
39	TCS	5
40	Torry Harris Business Solutions	3
41	Telaverge Communications	5
42	Tricon infotech Pvt Ltd	1
43	Surya Software Systems Pvt Ltd	4
44	Wipro	8
45	Yokogawa	1
46	Udaan	3
47	VVDN Technologies	1
48	Velocis Systems Pvt Ltd	4
Total Students Placed		158
Academic Year 2017 - 2018		
1	Infosys Ltd	2
2	DXC	10
3	Servion	2
4	Mindtree	8
5	Sonata	4
6	Envision Financial	4
7	NTT Data	6
8	Torry Harris	1
9	Wipro	9
10	Cameo Global	6
11	Valtech	5
12	Cyient	1
13	Verdantis	4
14	CCP IOT	3
15	Quintiles	3
16	Eximius Design	3
17	IBM	1
18	Profinch	4
19	Hexaware	2
20	Quick Logic	5
21	Sankalp Semiconductor	6
22	Century Link	3
23	Microchip Technology	1
24	Zapcom Solutions	6
25	Secpod	1
26	EFI	5

27	Broadridge	1
28	Sony	6
29	Allstate	1
30	Hotelsoft	3
31	Speridian Technologies	1
32	Datagres IT	4
33	Ellucian	4
34	VVDN	5
35	NineLeaps	1
36	Intimetec	2
37	Applied Materials	1
38	Fintellix Solutions	3
39	Eurofins IT	4
40	Juniper Networks	3
Total Students Placed		144
Academic Year 2016 - 2017		
1	Ellucian	1
2	Tech Mahindra	16
3	Capgemini	9
4	Mindtree	1
5	Amazon	1
6	Microland	2
7	NTT Data	10
8	Sigma infosolutions	1
9	Wipro	6
10	Thomson Reuters	4
11	Speridian	2
12	Cyient	1
13	Servion Global Solutions	1
14	Sprinklr	11
15	Anora Semiconductors	11
16	Sankalp Semiconductors	11
17	Epsilon	4
18	Torry Harris	2
19	Global Logic	21
Total Students Placed		115

Table 9.5.14: Pay Package offered to students

2018-19	Maximum Salary	1463000
	Average Salary	786188
2017-18	Maximum Salary	1200000
	Average Salary	724680
2016-17	Maximum Salary	950393
	Average Salary	553981

Table 9.5.15: Higher Education

Higher Education	2018 – 2019	2017 – 2018	2016 – 2017
M.Tech/MS/Ph.D	No. of Students	No. of Students	No. of Students
	15	15	16

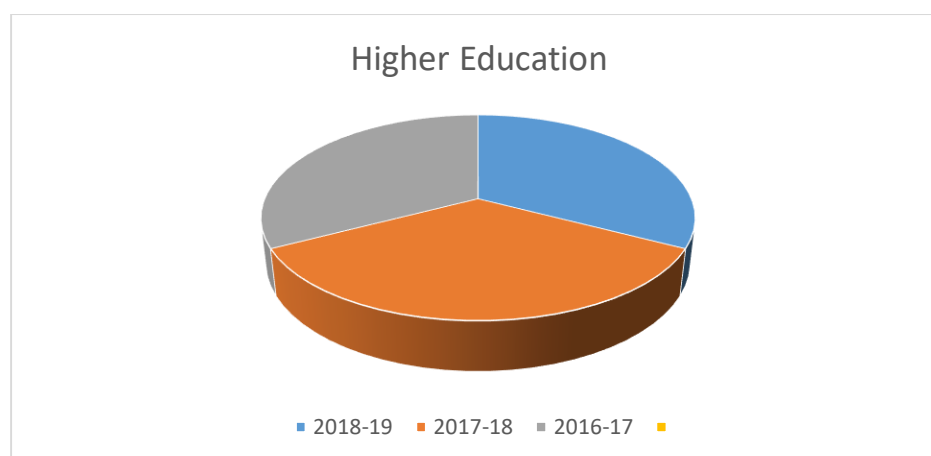


Figure No 9.5.16: Higher studies Statistics

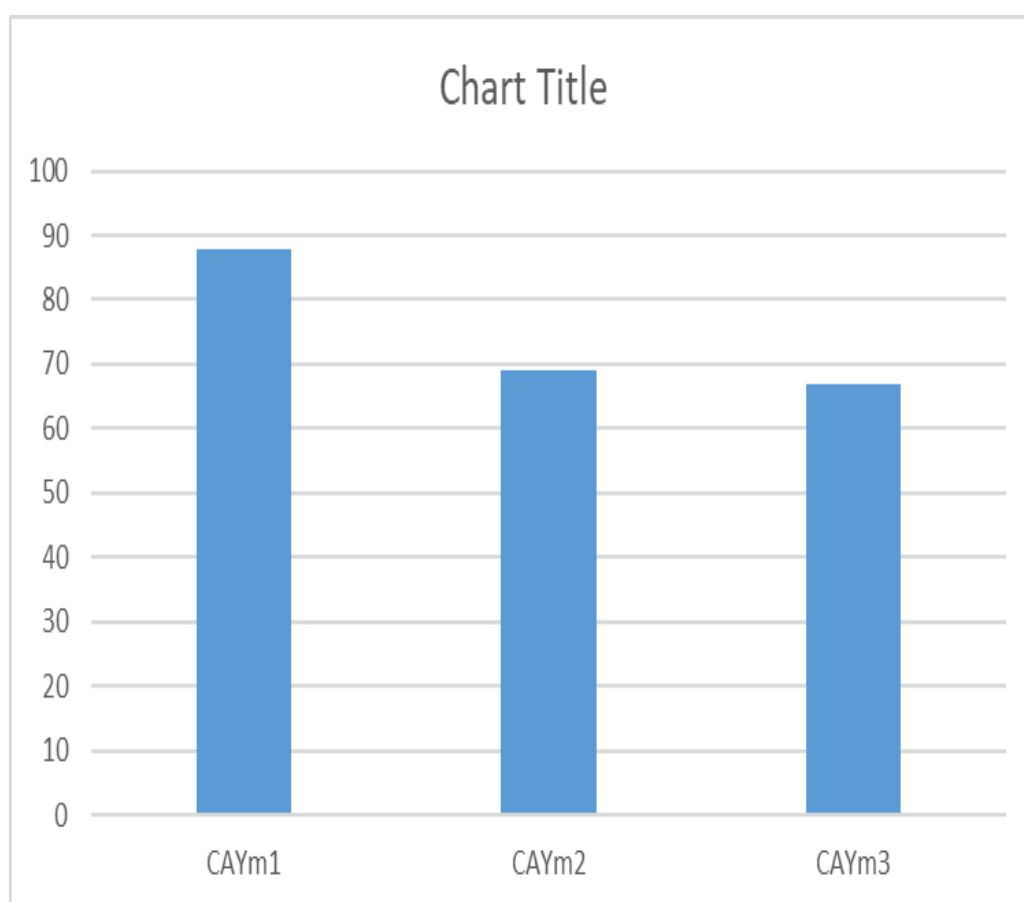
9.5(D) Career Guidance and Placement support for ME

NHCE offers career guidance and placement on all aspects of career planning, job searching and post-graduate studies. College will provide individual counseling for all the students towards reaching goals.

Efficacy of career Guidance, Training, Placement

Table 9.5.16: Impact of career guidance, training, placement and certification

Sl. No.	Academic year	Total no. of students	No. of students placed	No. of students admitted to higher studies	No. of students as entrepreneur
1	2018-19	210	88	53	05
2	2017-18	187	69	57	04
3	2016-17	175	67	61	02



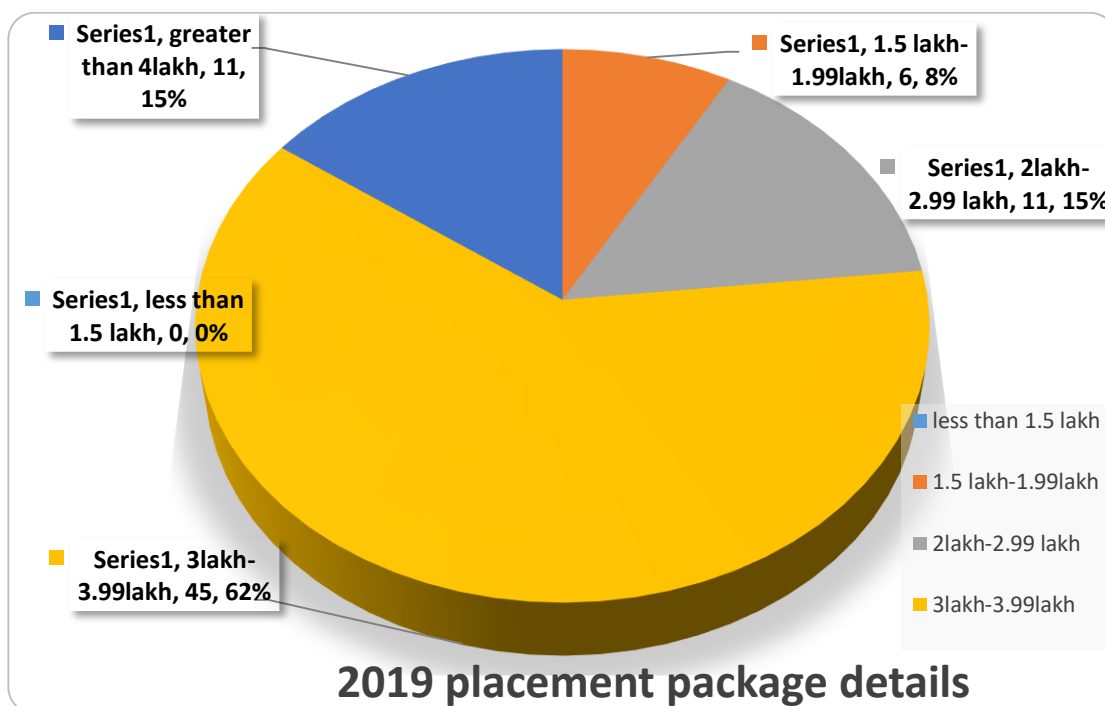


Figure No 9.5.17: Placement Statistics

Table 9.5.17: Quality of Placement

Year	% of IT placement	% of Core placement
2018-19	46/88 = 52.28	42/88 = 47.72
2017-18	32/69 = 46.37	37/69 = 53.62
2016-17	51/67 = 76.12	16/67 = 23.88

9.6 Entrepreneurship Cell (5)

- NH-EDC was established in August 2011, under the aegis of Department of Management Studies. NH-EDC is headed by Dr. Sheelan Misra, Prof. & HoD–MBA with a team of faculty coordinators from other departments of the college.
- The goal of NH-EDC is to assist students, entrepreneurs, including Institutes' faculty, with pre-venture, start-up or existing business with financial management, marketing, technology and product development and commercialization issues.
- Working in collaboration with National Entrepreneurship Network (NEN), since its inception, NH-EDC has conducted various activities for the college students creating and promoting entrepreneurship awareness at the campus. E-WEEK is one of such initiatives where array of activities is conducted raising the spirit of innovation and creativity which are considered as sparkplugs of entrepreneurship.
- The students are given latest inputs about the industry, the changes happening and the expectations just to make them understand the employability options and opportunities to control unemployment and create better opportunities for youngsters.

9.6a Entrepreneurship Initiatives:

- To create an environment for self-employment, promote innovation, incubation and Entrepreneurship development through formal and non-formal programs
- To introduce the concept of Entrepreneurship in curriculum at degree levels
- To develop management personnel at appropriate levels for non-corporate and unorganized sectors like education, rural development, small-scale industry etc
- To utilize the infrastructure facilities and technically trained manpower for the development of non-corporate and unorganized sectors.
- To promote employment opportunities
- Technology Commercialization Assistance and Management Evaluation
- Intellectual Property Rights/Management
- Help with Regulatory Compliance
- Feasibility Study (Technical and Financial)
- Help with Business Basics
- Marketing Assistance/Market Research/Pilot Study/Test Marketing.
- Enhancement of Marketing Skills, Commercialization/Scale up: Access to Bank Loans, Loan Funds and Guarantee Programs and Access to Angel Investors or Venture Capital etc.
- Business Structuring Advisory: Help with Accounting/Financial Management/ Company Formation/Management Team Identification/HR Services.
- Help with Presentation Skills and Business Etiquettes.
- Comprehensive Business Training Programs.

9.6a.1 Entrepreneurship Development (ED) Cell facilities:

The infrastructure facilities of Entrepreneurship Development (ED) Cell at NHCE are tabulated in Table 9.6.1 and the details of ED cell committee members are listed in Table 9.6.2.

Table 9.6.1: List of Entrepreneurship Development Cell facilities and physical infrastructure at NHCE

Sl. No.	Description	Number
1	Computer	3
2	Printer	3
3	Scanner	1
4	LCD Projector	1
5	Interactive White Board	1
6	Furniture's	Table-5, Chair-30
7	Seminar Halls/Conference Rooms	1
8	Discussion Rooms	1
9	Video Conferencing Facilities	50 Seats
10	Incubation Space (Cubicles)	1000 Sq.mt
11	Office Space	250 Sq.mt

9.6a.2 Entrepreneurship Development Cell committee management:

Table 9.6.2. Entrepreneurship Development Cell committee members

Sl. No.	Name	Dept.	Position
1	Dr. Smita Harwani	MBA	Associate Professor
2	Mr. Sidde Gowda	MCA	Assistant Professor
3	Mr. Prashanth K S	BSH	Assistant Professor
4	Mr. Gagan Purad	CSE	Assistant Professor
5	Ms. Vandana	ISE	Assistant Professor
6	Mr. Mohan B S	EEE	Assistant Professor
7	Dr. Piruthiviraj P	ECE	Associate Professor
8	Mr. Yogesh K S	CIVIL	Assistant Professor
9	Mr. Puneeth	ME	Assistant Professor
10	Mr. Sunil	AU	Assistant Professor
11	Dr. Upendra	BT	Assistant Professor

Entrepreneurship Development Cell (EDC) conducts various events to help students to know the importance of being an entrepreneur and ways to get financial assistance to become a successful entrepreneur. The list of events conducted is mentioned in Table 9.6.3.

Table 9.6.3: List of Events (CS)

Event	Date	Venue
Talk on “ Motivation for starting own venture ”	29/2/2018	Falconry Seminar Hall
MOU WITH CIMSME (Confederation of Indian Micro, Small and Medium Enterprises) to establish the Centre of Excellence for Innovation, Incubation and Entrepreneurship	22/10/2019	Conference Hall
Start-ups Pitch-athon	04/12/2019	Sap Gen Next Lab
World Entrepreneurship Summit in association with Global Entrepreneurs Grid (GEG)	8/2/2020	Department of Management Studies
Launching of QuestI IoT Center of Excellence	14/2/2020	New Horizon College of Engineering

9.6(A) Data on Entrepreneurship Initiatives for CSE

These initiatives of the Entrepreneurship Development Cell have been successful and have resulted in the setting up of various startups by the students of the Department of CSE. The details are given below.

Table 9.6.4: List of Entrepreneurship Initiatives

Sl. No.	Name of the Student/Alumni USN/Semester/ Section/Mobile/ Email etc.	Graduating Year (Applicable for Student/ Alumni)	Name of the Company Incubated Mentor/ Faculty Advisors	Nature of Business/ Technology/ Activities/ Business Solutions etc.	Remarks/ Progress/ Patents Filed/ Partnership Deed/Funding/ Investor Identified/ Publications/ Participation in Outside Events etc.
1	Sanketh S Huddar BE (CSE) 3 Sem "C" Sec (9740496061) 1NH16CS751 proxy.sudo@gmail.com	2019-20	GEEKSPACE Inc TM Dr.K. Gopalakrishnan, Dean (R&D)	Providing High-tech Services and Solutions, Professional Training/Internships and Project Solutions etc. in the emerging IT/ITES domains	Networked with IBM Open POWER, Object Automation, Nvidia. Started Doing Trainings/Events with them!
2	G. Vishwa, BE (CSE) 3 Sem "A" Sec (9480199973) 1NH16EE059 vishgoki@gmail.com	2019-20	Career Tech Solutions TM Dr.K. Gopalakrishnan, Dean (R&D)	Providing Online Skill-Gap Analytics-Career Guidance Tool along with Professional Certifications. Road map for hi-tech skill training on emerging areas of S&T and Management.	Patents Filed. "IBM Watson IoT and Power AI Developer Conference" scheduled on 3 rd November 2017 at an Auditorium, IIT Madras Research Park, Chennai-600113
3	G. Vishwa & Sanketh S Huddar BE (CSE) 3 Sem "C" Sec (9740496061) 1NH16CS751 proxy.sudo@gmail.com	2019-20	Career ReadyWizard TM Dr.K. Gopalakrishnan, Dean (R&D)	Virtual Finishing School and providing single platform for related services and solutions	-do- Patents Filed
4	S. Sivan Chakravarthy BE (CSE) 3 Sem "B" Sec (9448928290) 1NH16CS094 sivan.sundar@gmail.com	2019-20	Dream Factory Solutions TM Dr.K. Gopalakrishnan, Dean (R&D)	Providing Virtual Production Design Solutions remotely and connecting funding sources with talented or	-do- Patents Filed

				needy technicians in “dream factory” solutions.	
5	Vinayaka S.S. Sandilya BE (CSE) 3 Sem “B” Sec (9401333313) 1NH16CS123 Nishant Jha, BE (Mech) 3 Sem “C” Sec (9481015089) 1NH16ME732	2019-20	Bhoral Solutions	Advanced Web Design/App Development and Providing Turnkey Solutions for Data Analytics	Currently Active in the Business, since last 3 years!
6	Mr. Rohit Mulay, Mr. Goutham. R &Mr. Sidharth. BE (CSE) 5 Sem “C” Sec (8951102065) 1NH15CS106 rohitmulaynhce@gmail.com	2017-18	Own Your LMS	Personalized LMS based on individual competency and skill mapping	Patent Draft under Review/Filing in Progress (30 Dec 2017). "IBM Watson IoT and Power AI Developer Conference" scheduled on 3 rd November 2017 at an Auditorium, IIT Madras Research Park, Chennai-600113
7	Mr. Rohit Mulay	2017-18	AgroFix	Providing on demand Agro based solutions	
8	Mr. Rohit Mulay	2017-18	Easy Learn	Providing virtual personalized/customized Learning Management Solutions	

9.6(B) Data on Entrepreneurship Initiatives CV

Entrepreneurship Development Cell Events:

Entrepreneurship Development Cell (EDC) conducts various events to help students to know the importance of being an entrepreneur and ways to get financial assistance to become a successful entrepreneur.

Table 9.6.5: List of Events (Civil Engineering)

Events	Date	Venue	Number of students
Dept. of MBA Organized a visit to Cheemasandhra and to Nimbakaypura for Rural development	13/04/2018 - 16/04/2018	MBA Seminar Hall	MBA Seminar Hall
Dept. of MBA organised a visit to SWANTHANA, Care for mentally and physically challenged female children.	12/04/2018	MBA Seminar Hall	MBA Seminar Hall
1 st World Entrepreneurship Summit	02/02/2018	Falconry Seminar Hall	Falconry Seminar Hall
Entrepreneurship awareness program by Mr. Prakash Choudhary, co-founder entrepreneurship garage	06/02/2020	C-202, Department of Civil Engineering, NHCE	C-202, Department of Civil Engineering, NHCE
World Entrepreneurship Summit	02/02/2019	New Horizon Auditorium	New Horizon Auditorium
Global family business summit	12/06/2020	Webinar	Webinar


Figure 9.6.1: Entrepreneurship events

Table 9.6.6: Number of students opted for entrepreneurship (CV)

Entrepreneurship	2016 - 2017	2017 - 2018	2018 - 2019
	No. of Students	No. of Students	No. of Students
	7	13	5

Table 9.6.7: List of Entrepreneurs for academic year 2018-19 (CV)

Programs Name: B.E Civil Engineering. Assessment Year: 2018-19					
Sl. No.	USN	Name	Organisation Name	Type of Business	GST No.
1	1NH15CV097	Ranjith.K.B	SSV Constructions	Construction	29AATFA8724E1Z2
2	1NH15CV012	Akhilesh Shetkar	SSV Constructions	Construction	29AATFA8724E1Z2
3	1NH15CV140	Vinith V	Sree Chamundeswari Constructions	Construction	29ADAFS9483N1Z4
4	1NH15CV120	Shivaraja C	S R Constructions	Construction	29ADHFS1247D1Z4
5	1NH15CV021	Aravind Javali	S R Constructions	Construction	29ADHFS1247D1Z4

Table 9.6.8: List of Entrepreneurs for academic year 2016-17 (CV)

Programs Name: B.E Civil Engineering. Assessment Year: 2016-17					
Sl. No.	USN	Name	Organisation Name	Type of Business	GST No.
1	1NH13CV145	Praveen Vasudeavan	Balaji Bricks Industry	Construction Material	29AAQFB4134J1Z5
2	1NH13CV127	Suresh Patil	SRV Builders	Builders	29ABSFS5074P1ZZ
3	1NH14CV420	Shivaram Brahmand	SRV Builders	Builders	29ABSFS5074P1ZZ
4	1NH14CV422	Vinaya Kumar K. R	VV Builders and Contractors	Contractor	29ABSFV5471P1ZC
5	1NH14CV423	Vishwas G. R	VV Builders and Contractors	Contractor	29ABSFV5471P1ZC
6	1NH13CV105	Sajeed Ali	Shanavaz Building Material and Shattering	Construction Material	29BTTPS0066K1Z7
7	1NH13CV089	Raju Nellur	Aakriti Real-estate and Developers	Real Estate	29AHQPT4304D1Z5

Table 9.6.9: List of Entrepreneurs for academic year 2017-18 (CV)

Programs Name: B.E Civil Engineering. Assessment Year: 2017-18					
Sl. No.	USN	Name	Organisation Name	Type of Business	GST No.
1	1NH15CV412	Prashanth Kumar K	Imperial Constructions	Construction	29AABFI5167R1ZM
2	1NH15CV420	Suresh	Imperial Constructions	Construction	29AABFI5167R1ZM
3	1NH15CV409	Manoj R	Imperial Constructions	Construction	29AABFI5167R1ZM
4	1NH15CV416	Sharu Ahamed H A	Nava Karnataka Bricks Industries	Construction Materials	29AREPA0603N1Z0
5	1NH14CV072	Nawazullah N	Nava Karnataka Bricks Industries	Construction Materials	29AREPA0603N1Z0
6	1NH15CV406	Madhu Patel N V	Prime Builders	Builders	29AAQFP8692M1ZY
7	1NH15CV400	Adarsh Lokesh Reddy Dunnu	Prime Builders	Builders	29AAQFP8692M1ZY
8	1NH14CV062	Maruthi Reddy	Prime Builders	Builders	29AAQFP8692M1ZY
9	1NH14CV070	Narla Hari Prasad Reddy	Sri Vinayaka Pavours & Hollow Bricks Industry	Construction Material	29ADSFS3071J1ZE
10	1NH14CV098	Sai Somesh.V	Sri Vinayaka Pavours & Hollow Bricks Industry	Construction Material	29ADSFS3071J1ZE
11	1NH14CV055	Lakshman K	Phoenixrmc products	Construction Material	29AAVFP3402E1Z4
12	1NH14CV083	Prajwal P	Phoenixrmc products	Construction Material	29AAVFP3402E1Z5
13	1NH14CV106	Sharavana M	Velu Ceramics Traders	Construction Material	29CUPPS5542E1Z2

9.6(C) Data on Entrepreneurship Initiatives for ECE

Number of students got benefitted with ED cell activities. The below tables shows the data corresponding to 2018-19, 2017-18 and 2016 -17 academic years.

Table 9.6.10: List of Entrepreneurship Initiatives (EC)

Events	Date	Venue
Dept. of MBA Organized a visit to Cheemasandhra and to Nimbakaypura for Rural development	13/04/2018 16/04/2018	MBA Seminar Hall
Dept. of MBA organised a visit to SWANTHANA, Care for mentally and physically challenged female children.	12/04/2018	MBA Seminar Hall
1 st World Entrepreneurship Summit	02/02/2018	Falconry Seminar Hall
Open my Book	28/02/2019	Falconry Seminar Hall
E-Week	25/03/2019 & 30/03/2019	Falconry Seminar Hall
Orientation Program on EDC	24/08/2019	Falconry Seminar Hall
FDP	31/08/2019	Falconry Seminar Hall
COSMOS 'E'	23/10/2019 & 24/10/2019	Falconry Seminar Hall
Start-Up Pitch-Athon	04/12/2019	Falconry Seminar Hall



Figure 9.6: Entrepreneurship events (EC)

Table 9.6.11: List of Entrepreneurs for academic year 2018-19 (EC)

S.No	Enrollment no.	Name of the student	Name of the Company Incubated	Year
1	1NH15EC062	Nikhil Riyaz	3D Print Concrete	2018-19
2	1NH15EC727	Hari Raj	3D Print Concrete, Self-Propelled Jet, ECG/ICG T-Shirts	2018-19
3	1NH15EC004	Ankit Mishra	Urban Tribe	2018-19
4	1NH15EC011	Bhavana Savanth	Infinity Designs	2018-19
5	1NH15EC741	Sanjana Ranjan	Noveltech Corner	2018-19
6	1NH15EC748	T Venkatesh Shuvampal	GamaProto Solutions	2018-19
7	1NH15EC062	Nikhil Riyaz	Self-Propelled Jet	2018-19
8	1NH15EC019	Denzel Abraham George	ECG/ICG T-Shirts, Machine Vision Grading, Self-Propelled Jet	2018-19
9	1NH15EC703	Ashwin S	TSC Pvt Ltd	2018-19
10	1NH15EC727	Hari	Machine Vision Grading	2018-19

Table 9.6.12: List of Entrepreneurs for academic year 2017-18 (EC)

S.No.	Enrollment no.	Name of the student	Name of the Company Incubated	Year
1	1NH13EC112	Rohit Mulay	Own Your LMS, AgroFix, EasyLearn	2017-18
2	1NH13EC102	Goutham R	Own Your LMS, EnergyGuru, MedCall	2017-18
3	1NH14EC012	Sidharth P	Own Your LMS, EasyTech	2017-18
4	1NH13EC008	Amrithnath	Overnight Ventures	01-05-2017

Table 9.6.13: List of Entrepreneurs for academic year 2016-17 (EC)

S.No.	Enrollment no.	Name of the student	Name of the Company Incubated	Year
1	1NH13EC717	Chethan R	Aspire Ventures	22-12-2018

9.6(D) Data on Entrepreneurship Initiatives for ME

Following list provide the effectiveness of the EDC cell in developing the student skills to a level of Entrepreneur. List of Entrepreneurs is given below:

Table 9.6.14: List of Entrepreneurs in mechanical engineering for the duration 2017-19 (ME)

Academic Year	Sl. No.	Name of the entrepreneur	USN	Type of Business started	Type of product	Company name & Place
2017	1	Mazood Shafeeque	1NH13ME075	Automobile	Cars	Terazzo
	2	Nitesh Sharma	1NH13ME092	Football Academy	Sports	MAJAZ Football Club
2018	1	Amar Kumar Bhatt	1NH14ME017	Hydraulic Hose and Fittings	Hydraulic Hose and Fittings	New Bombay Hydraulic
	2	Yashash.K	1NH14ME147	Gifts Trading	Gifts wholesale dealer	Indian National
	3	Sanjaya Mahato	1NH14ME159	Food Chain	Foods and beverages	Tam Chibe café
	4	Vineet Nandiki	1NH15ME434	Interior Design	Interior Design	V Create Interiors
2019	1	Manjunath G	1NH15ME063	Products Consultant	Beauty care	Modicare
	2	Prajwal B R	1NH15ME086	Products Consultant	Beauty care	Modicare
	3	Deepak.S	1NH16ME404	Water Distillery	Water Purification	SLV Mineral Water treatment
	4	Saleel Hussain	1NH15ME744	HVAC Servicing	HVAC	Airtech Enterprise
	5	Srigi Reddy Dinesh Kumar Reddy	1NH15ME750	Batteries management	Batteries management	Sri Anantha Enterprise

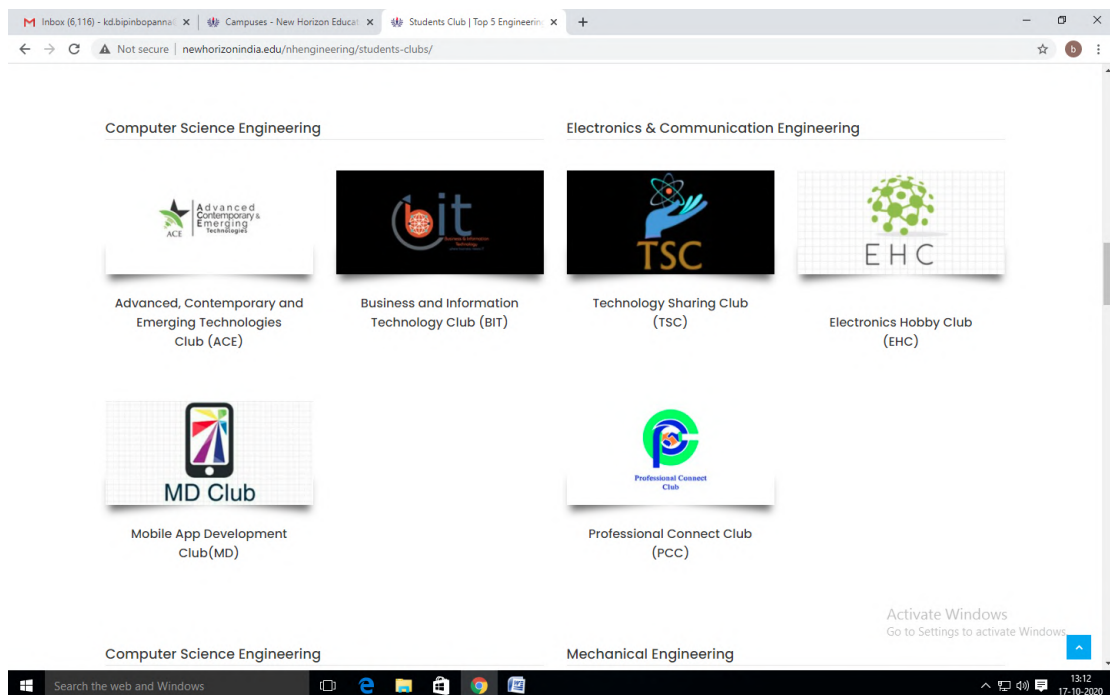
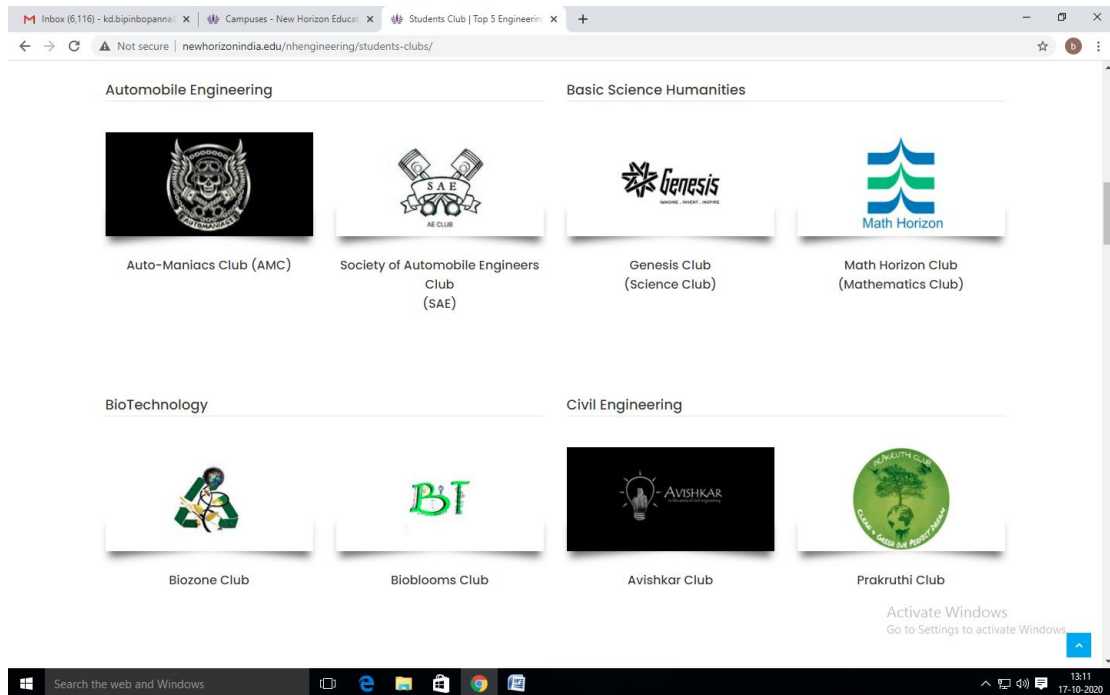


Figure No. 9.9: Incubation Collaboration(ME)



Figure No. 9.10: Faculty orientation on entrepreneurship skills(ME)

9.7. Co- Curricular and extra- curricular Activities (10)



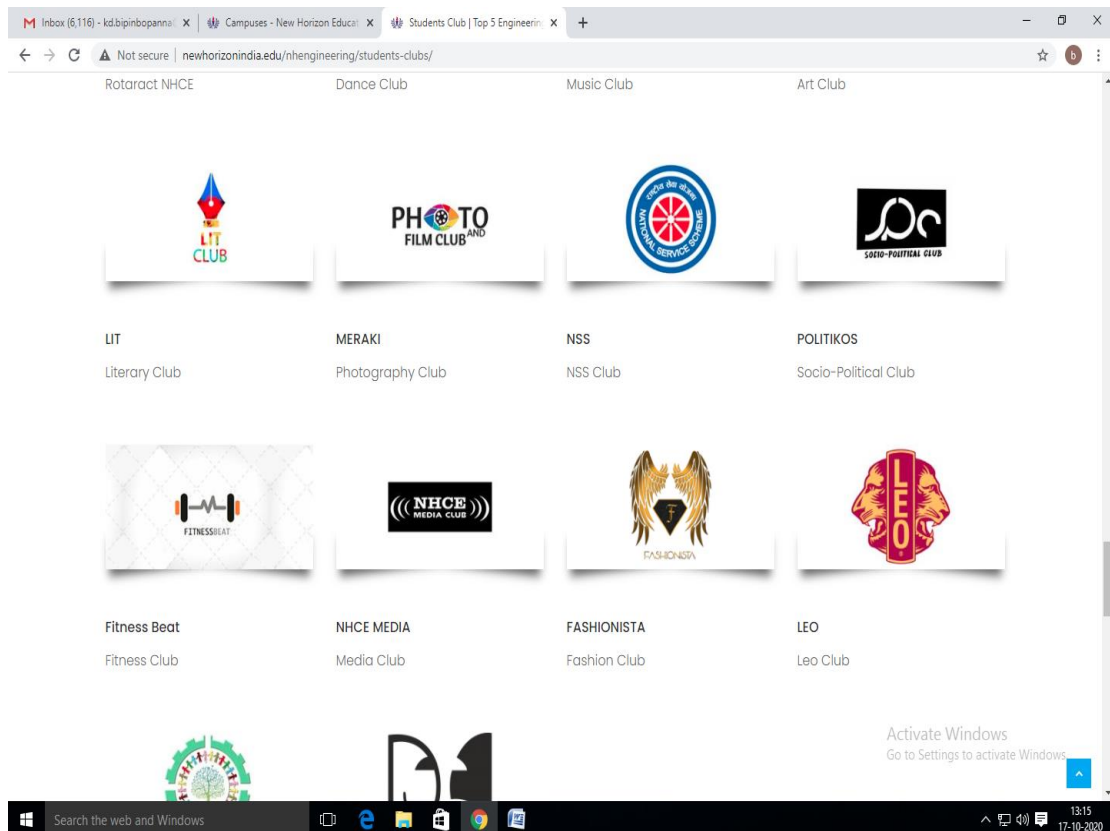
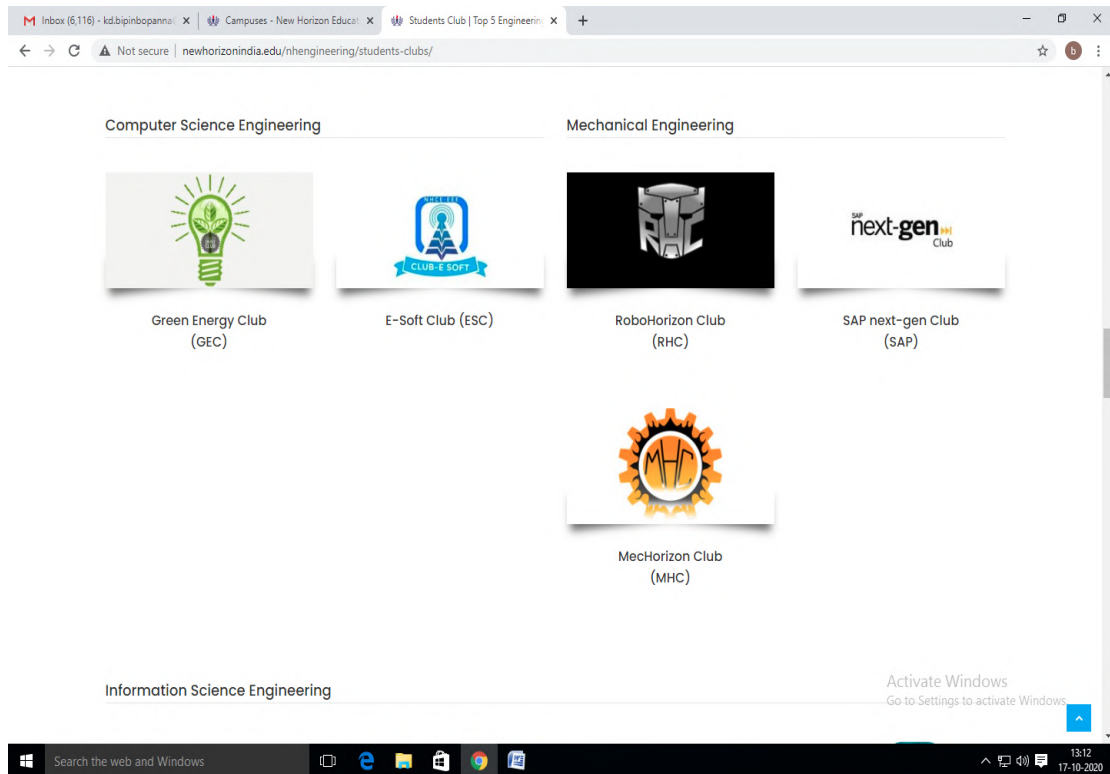


Figure No. 9.7.1: College Departmental clubs

Club activities (CSE)

Table 9.7.a: List of Club activities in CSE for duration 2017-18-19

Sl. No	Event	Name of Club	Date
Academic Year 2019-20			
1.	Event X	BIT	16-10-2019
2.	Tech talk on blockchain	BIT	28-08-2019
3.	PubApp (Workshop)	MD	27-09-2019
4.	Appathon	MD	30-08-2019
5.	Appatronics	MD	06-02-2020
6.	Code storm	ACE	07-02-2020
7.	Tech talk Advanced CSS	ACE	13-09-2019
8.	Hour of Code	ACE	23-08-2019
Academic Year 2018-19			
1.	BIT Volume-2 (coding, quiz)	BIT	31/10/2018
2.	Hackathon	BIT, ACE, MD	11-03-2019
3.	Current trends in data analytics (tech talk)	BIT	17/04/2019
4.	Workshop on android app development	MD	26-10-2018
5.	Battle of Apps	MD	26-10-2018
6.	Workshop on android app development	MD	11-04-2019
7.	Hackathon	BIT, ACE, MD	11-03-2019
8.	QuBytes	MD	22-03-2019
9.	Appathon	MD	23-03-2019
10.	Shark Tank	ACE	23-03-2019
11.	Entretien	ACE	05-10-2018
12.	Blank Coding	ACE	05-10-2018
Academic Year 2017-18			
1.	Volume-1 Quiz, Puzzle, Treasure hunt	BIT	28/03/2018
2.	Mobile app devp workshop	MD	07-03-2018
3.	Techquiz 2.0	ACE	04-04-2018
4.	Python Workshop 2.0	ACE	06-04-2018

Club activities (CIVIL)

AVISHKAR /PRAKRUTHI CLUB

Table 9.7.b: List of Club activities in CIVIL for duration 2017-18-19
DEPARTMENT OF CIVIL ENGINEERING

SL.NO	YEAR	EVENT CONDUCTED
AVISHKAR CLUB		
1	2018 (EVEN SEM)	Archibus Simpletm
2	2018-19 (ODD SEM)	Depiction and Technical Write Up
3	2018-19(EVEN SEM)	Ignite (Lab Wars, Brain Storming, Distance Hunter)
4	2019-20 (ODD SEM)	Cene _x Club
PRAKURTHI CLUB		
1	2019-20(ODD SEM)	Best from Waste
2	2018-19(ODD SEM)	International Day for Natural Disaster Reduction Through Scavenger
3	2018-19 (EVEN SEM)	World water day awareness by web

Club activities (ME)

Table 9.7.c: List of Club activities in ME for duration 2017-18

List of Professional Societies/Chapters and Organizing Engineering Events in CAY (2017-18)						
SL. NO	NAME OF PROFESSIONAL	ORGANIZED EVENT AND TITLE	RESOURCE PERSON ORGANIZED	HOURS / DATE	NO OF PARTICIPANTS / ATTENDEES	NO. OF DAYS
1	SAP next-gen	Hands-on Session on Machine Learning		04-04-2018		1
2	SAP next-gen	Training Programme on Machine Learning		30-3-2018		1
3	SAP next-gen	SAP-TCS Hackathon		14 th -15 th March 2018		2
4	SAP next-gen	Hackathon at SAP Labs, Whitefield		16 th -17 th Feb 2018		2
5	ROBOHORIZON	SpaceX – Guest lecture on Aerospace Science and Technology	Dr. Prashanta Kumar Panda, CSIR-NAL	24-2-2018	60	1
6	ROBOHORIZON	Robo-Tech Fair		04-06-2018		1
7	ROBOHORIZON	Yantrikchitr – CAD Workshop & Competition		28-10-2017		1
8	MECHORIZON	3D Pop Model Making		16-11-2017		1
9	MECHORIZON	Dassault Systems - Mobile Demo Center	EDS Technologies	27-9-2017		1

Table 9.7.d: List of Club activities in ME for duration 2018-19

List of Professional Societies/Chapters and Organizing Engineering Events in CAY (2018-19)						
SL. NO	NAME OF PROFESSIONAL SOCIETIES / CHAPTERS	ORGANIZED EVENT AND TITLE	RESOURCE PERSON ORGANIZED	HOURS / DATE	NO. OF participants	NO. OF DAYS
1	MECHORIZON / ROBOHORIZON	TCS Tech Bytes		29-2-2019	30	1
2	MECHORIZON / ROBOHORIZON	Future Mobility Show 2019		26 th – 28 th Feb 2019		3
3	MECHORIZON / SAP next-gen / ROBOHORIZON	National Productivity Council Poster Making Competition on "Circular Economy for Productivity		31-1-2019	25	1
4	MECHORIZON	Decathlon Innovation Challenge	Decathlon Team	11-02-2018	48	1
5	MECHORIZON	Shell Eco-Marathon Promotional Event		20-10-2018		1
6	MECHORIZON / ROBOHORIZON	"Laser World of photonics India" Industrial Visit – BIEC		26-9-2018	58	1
7	MECHORIZON/ ROBOHORIZON	International Design Competition	CADD Centre	25-9-2018	15	1
8	SAP next-gen	Hands-on Approach to Introduction to Machine Learning with Python	Mithun D J	17-4-2019		1
9	SAP next-gen	Bites Project Awards 2019		28-2-2019 to 22-6-2019		120
10	SAP next-gen	Introduction to Machine Learning with Python	Vidyadhar Sharma	11-05-2018		1
11	SAP next-gen	Workshop on SAP Cloud Platform	SAP Experts	08-09-2018		1
12	SAP next-gen	Workshop on SAP Cloud Foundry Day	SAP Experts	08-10-2018		1

Table 9.7.e: List of Club activities in ME for duration 2019-20

List of Professional Societies/Chapters and Organizing Engineering Events in CAY (2019-20)					
NAME OF PROFESSIONAL SOCIETIES /	ORGANIZED EVENT AND TITLE	RESOURCE PERSON ORGANIZED	HOURS / DATE	NO. OF PARTICIPANTS / ATTENDEES	NO. OF DAYS
1 ISHRAE	Webinar on Relationship Marketing	JVC Sreeram	2 Hrs / 9-5-2020	25	1
2 ISHRAE / ASHRAE	Webinar on Post Covid HVAC Strategies: Safety and Cost Reduction	Rohan Parikh	2 Hrs / 15-5-2020	25	1
MECHORIZON / ROBOHORIZON	Visit to IMTEX 2020		17-1-2020	21	1
MECHORIZON	Take-Off Rocket Making Competition	Vinod Kumar	26-10-2019	104	1
MECHORIZON	Hands on Workshop on Water Rocketry	Vinod Kumar	26-10-2019	104	1
SAP next-gen	Seminar on Road Map to Data Science	Vijoe Mathew Gokul	17-10-2019	30	1
ROBOHORIZON	"ROBOTRON" Visit to Anjanadri High School		23-10-2019	70	1
ROBOHORIZON	Tech Buzz		21-8-2019	52	1

9.7(A) Extra-Curricular Activities of CSE

Sports

Sports at the NHCE are played with much fervor and passion. There is emphasis on regular exercise and physical fitness. All games are supervised by professional coaches. Equal importance is extended by the department towards extracurricular and co-curricular activities. This can be envisaged by the number of students participating in such events. The department has students who are members of various college/university level teams like basketball, volleyball, football, throw ball, etc. Our students regularly participate in tournaments including those at the state level. Given below are the details of such participation in the different academic years.

Table 9.7.1: List of Sporting Events Participated in by Students of CSE

Event Name	Name & USN of Student	Semester of Student	Tournament	Event Date
Academic Year 2019 – 2020				
Basket Ball(M)	Anurag Rajshekar 1NH16CS701	VII/VIII	Court Wars	1/9/2019 to 8/9/2019
			RIT	9/9/2019 to 11/09/2019
			VTU(BCZ)	16/09/2019 to 17/09/2019
	Mohan Sai Krishna 1NH17CS082	V/VI	VTU(IZ)	25/09/2019 to 28/09/2019
			KreeDostava	1/10/2019 to 4/10/2019
			PESIT	14/10/2019 to 16/10/2019
	Nitish Naik 1NH19CS421	III/IV	Association Cup	3/11/2019 to 9/11/2019
			Malleshwaram Cup	25/1/2020 to 3/02/2020
			SPIEL	10/02/2020 to 15/02/2020
			RVCE	22/02/2020 to 24/02/2020
			Devadan Cup	28/02/2020 to 29/02/2020
Basket Ball (W)	Muskan Agrawal 1NH18CS117	III/IV	Court Wars	1/9/2019 to 8/9/2019
			RIT	9/9/2019 to 11/09/2019
			KreeDostava	1/10/2019 to 4/10/2019
			PESIT	14/10/2019 to 16/10/2019

Kabaddi (M)	Banu Prathap Reddy 1NH17CS022	V/VI	Spradha 2019	26/9/2019 to 28/9 /2019
			PESIT	14/10/2019 to 16/10/2019
			SJCC	24/2/2020 to 25/2/2020
Wrestling Judo	Banu Prathap Reddy 1NH17CS022	V/VI	VTU	5/9/2019 to 7/9/2019
	Purshotham 1NH17CS002	V/VI		
Hockey	Joydeep Singh (1NH18CS220)	III/IV	St. John's	25/9/2019 to 28/9/2019
Badminton(M)	Mushtaq Ahmed KS 1NH17CS086	V/VI	VTU	24/8/2019 to 25/8/2019
			Spradha 2019	26/9/2019 to 27/09/2019
			KreeDostava	1/10/2019 to 4/10/2019
Badminton(W)	Preksha 1NH17CS102	V/VI	VTU	24/8/2019 to 25/8/2019
	KN Sripriya 1NH17CS060	V/VI	Spradha 2019	26/9/2019 to 27/09/2019
			KreeDostava	1/10/2019 to 4/10/2019
Handball(M)	Ashwij Kumar 1NH18CS031	III/IV	CHRI-SPO	12/09/2019
	Devendra Desai 1NH18CS057	III/IV	Basavangudi	24/02/2020 to 25/02/2020
	Jayesh Naidu 1NH18CS080	IV	CUFEE	28/02/2020 to 29/02/2020
Football	Tanith T 1NH18CS194	III/IV	CHRI-SPO	14/09/2019 to 17/09/2019
			SPRADHA 2019	26/09/2019 to

				27/09/2019
			KREEDOSTAVA	1/10/2019 to 4/10/2019
			RVCE	22/02/2020 to 24/02/2020
			CUFE	27/02/2020 to 29/02/2020
Academic Year 2018-2019				
Volleyball(M)	Abhishek 1NH14CS001	VII/VIII	BTL	11/09/2018
			KREEDOSTAVA	22/09/2018 to 24/09/2018
			SPARDHA	3/10/2018 to 4/10/2018
			RVCE	9/2/2019 to 10/02/2019
			CUFE	28/02/2019 to 2/3/2019
			VTU(BCZ)	8/3/2019 to 9/3/2019
			FISA	28/03/2019
			AMC	29/3/2019 to 30/3/2019
			NEWHORIZON CUP	3/4/2019 to 5/4/2019
Volleyball(W)	Kavya A S 1NH16CS050	VI	VTU(IZ)	18/3/2019 to 19/3/2019
			VTU(BCZ)	15/3/2019 to 16/3/2019
			FISA	29/3/2019 to 30/3/2019
	Sameeksha P 1NH16CS100	VI	AMC	28/3/2019
			NEW HORIZON CUP	3/4/2019 to 5/4/2019

Athletics	Abhishek 1NH14CS001 Mailaresh S 1NH15CS072	VII VII	VTU	25/10/2018 to 29/10/2018
Basketball(M)	Mohan Sai Krishna 1NH17CS082	III/IV	St. Johns	5/9/2018 to 9/9/2018
			VTU(BCZ)	14/9/2018 to 15/9/2018
			VTU(IZ)	17/9/2018 to 18/9/2018
			KREEDOSTAVA	21/9/2018 to 24/9/2018
			MS RAMAIIH	22/9/2018 to 24/9/2018
			SPRADHA	3/10/2018 to 4/10/2018
			Malleshwaram	26/1/2019 to 3/2/2019
			RVCE	8/2/2019 to 10/2/2019
			Spiel	11/2/2019 to 15/2/2019
			New Horizon Cup	28/3/2019 to 5/4/2019
			CUFE	28/2/2019 to 2/3/2019
			CMP	25/3/2019
Basketball (W)	Madhuri Mandlem 1NH15CS067	VII/VIII	NHPS	1/8/2018 to 4/8/2018
			St. Johns	5/9/2018 to 9/9/2018
	Tulasi Somaiah 1NH16CS078	V/VI	MS RAMAIIH	22/9/2018 to 24/9/2018
			SPRADHA	3/10/2018 to

				4/10/2018
			Malleshwaram	26/1/2019 to 3/2/2019
			RVCE	8/2/2019 to 10/2/2019
			Spiel	11/2/2019 to 15/2/2019
			New Horizon Cup	28/3/2019 to 5/4/2019
			VTU(BCZ)	10/4/2019
			VTU(IZ)	11/4/2019 to 12/4/2019
Kabbadi(M)	Banu Prathap Reddy 1NH17CS022	III/IV	SPRADHA	3/10/2018 to 5/10/ 2018
			INFINI	10/10/18 to 13/10/ 18
			St. Joseph's	6/3/2019 to 7/3/2019
			REVA University	23/3/2019 to 25/3/2019
			New Horizon Cup	3/4/2019 to 5/4/2019
			RNSIT	10/4/2019 to 11/4/2019
Wrestling(M)	Banu Prathap Reddy 1NH17CS022	III/IV	VTU	15/10/2018 to 17/10/2018
			VTU(Nationals)	7/11/2018 to 20/11/2018
Wrestling (W)	Kavya AS 1NH16CS050	V	VTU (Silver Medal)	15/10/2018 to 17/10/2018
Table Tennis	Likhita Suresh 1NH15CS064	VII	VTU	3/9/2018 to 4/9/2018
Throw ball(W)	Nayana K	VII	VTU	9/10/2018

	1NH15CS081 Amrutha HR 1NH15CS016	VII		
Badminton	Mushtaq Ahmed 1NH17CS086 G Naveen Sai Kaanth 1NH15CS041 Preksha 1NH17CS177 KN Sripriya 1NH17CS060	III/IV VII/VIII III/IV III/IV	VTU RVCE	27/8/2018 to 28/8/2018 8/2/2019 to 10/2/2019
	Football	III/IV	St. John's	5/9/2018
			SPRADHA	3/10/2018 to 4/10/2018
		III/IV	CUFE	28/2/2019 to 2/3/2019
			NITTE	6/3/2019 to 8/3/2019
Softball	Thejus B 1NH16CS116	V		
	Naman Gupta 1NH17CS731	III		
	Akash Kumar 1NH17CS701	III	VTU	4/10/2018 to 5/10/2018
	MohithTeppola 1NH17CS084	III		
	M Gopinath 1NH17CS721	III		

Cricket	S Jagadeesh 1NH17CS125	III	PES	6/10/2018 to 13/10/2018
			MSRIT	29/10/2018 to 9/11/2018
Academic Year 2017 – 18				
Basketball(M)	Anurag Rajshekar 1NH16CS701	IV	VIE	25/1/ 2018 to 28/1/2018
			Malleshwaram	4/2/2018 to 11/2/2018
			SPIEL	19/2/2018 to 21/2/2018
			Devdan Cup	1/3/2018 to 3/3/2018
			KREEDOSTAVA	8/3/2018 to 10/3/2018
			AZURA 2018	14/3/2018 to 4/4/2018
			RV Momentum	17/2/2018 to 18/2/2018
Basketball(W)	Madhuri Mandlem 1NH15CS067	IV	VIE	25/1 / 2018 to 28/1/2018
			Malleshwaram	4/2/2018 to 11/2/2018
			SPIEL	19/2/2018 to 21/2/2018
			RV Momentum	17/2/2018 to 18/2/2018
			KREEDOSTAVA	8/3/2018 to 10/3/2018
			AZURA 2018	14/3/2018 to 4/4/2018
			Dr.AIT	12/4/2018 to 13/4/2018
			BLDEACET	14/4/2018 to

				16/4/2018
Kabaddi(M)	Arun Kumar 1NH15CS708	VI	BGS Cup	22/3/2018 to 23/3/2018
			Azura2018	2/4/2018 to 4/4/2018
			SAI LIO	17/4/2018 to 18/4/2018
Football	Tenzin Namdol 1NH14CS136	VIII	RVCE	17/2/2019 to 19/2/2018
			VTU	20/2/2018 to 21/2/2018
	Prajan Adhikary 1NH16CS138	IV	Devandan Cup	1/3/2018 to 3/3/2018
			AZURA 2018	2/4/2018 to 4/4/2018
Chess	Subin Pandey 1NH14CS159	VIII	RVCE	16/3/2018 to 17/3/2018
	Kaushik 1NH14CS743	VIII		
Badminton(M)	G Naveen Sai Kanth 1NH15CS041	VI	RVCE	17/2/2019 to 19/2/2018
	Bhavan A 1NH14CS021	VIII	AZURA 2018	2/4/2018 to 4/4/2018
Volleyball(W)	B L Shraadha 1NH14CS020	VIII	VTU	7/3/2018
	Amrutha H R 1NH15CS016	VI		
	Nayana K 1NH15CS081	VI	BMSCE	8/3/2018 to 10/3/2018

	Priyanka Dubey 1NH15CS735 Ashwini S 1NH15CS022	VI VI	AZURA 2018	2/4/2018 to 4/4/2018
Throwball (W)	B L Shraadha 1NH14CS020	VIII	VTU	7/3/2018
	Amrutha H R 1NH15CS016	VI	BMSCE	8/3/2018 to 10/3/2018
	Nayana K 1NH15CS081	VI		
	Aishwarya 1NH15CS700	VI	AZURA 2018	2/4/2018 to 4/4/2018
KHO KHO	Abhishek 1NH14CS011	VI	RVCE	17/2/2019 to 19/2/2018
			CIT	6/4/2018 to 7/4/2018
	Mailresh 1NH15CS072	VI	NHCE	13/3/2018
			AZURA 2018	2/4/2018 to 4/4/2018
Handball	Naveen Raj 1NH13CS732	VIII	Star Shooters	15/2/2018 to 16/2/2018
			Devdan Cup	1/3/2018 to 2/3/2018
			Star Shooters	6/3/2018 to 10/3/2018
			VTU(BCZ)	13/3/2018 to 14/3/2018
			VTU(IZ)	16/3/2018 to 17/3/2018

Participation in Inter College and Intra College Events

The students of the department of CSE have also participated in different inter-college fests and have also become winners in a few events. In addition, the students also participate in several activities/events organized by the college as well. Given below is the list of such participation in the various academic years

Table 9.7.2: List of Inter College and Intra College Events Participated

Sl No	Event	Name of Participating Student	Semester	Date
Academic Year 2019-2020				
1.	One Tree One Student	Akshaya P Nayak	7	29.08.2019
		Harshini K	7	
		Inducuri Sweetha	7	
		Ishitha Nilesch Joshi	7	
		Sandhya M N	7	
		Sowmya P B	7	
2.	Donation Camp for the Flood Victims of North Karnataka and Kerala	Nikita Upadhyay	7	10.08.2019
3.	Times Fresh Face by Times of India	Nikita Upadhyay	7	09.10.2019
4.	Bangalore Medical College Fest (Play Team)	Keerthana	5	16.10.2019
		Sreehari N R	5	
		Joel Chacko	3	
		Neeharika	3	
5.	St. John's Fest Autumn	Akshaya Suresh	3	27.09.2019
		Siri	5	
		SeeHari NR	5	
		Emmanuel Leo	3	

		Joel CC	3	
6.	Orphanage visit	Anshika Singh	3	26.10.19
7.	Spartan Race	Diwakar P	5	26.10.19
		Thanush	5	
		Ashwij	3	
		Jayesh Naidu	3	
		Rathod Akash Ashok	3	
		Stuti	3	
8.	Literary Club - NHMUN Event	Sivan Chakravarthy	7	25.10.19, 26.10.19
		Deeksha S	5	
		Deepthi S	5	
		Nikshitha Bollineni	3	
		Arohi Jain	3	
		Harshith Pant	3	
		Bhoomika	5	
		Jeshav	7	
		Anurag	7	
9.	Kannada Rajyotsava	Keerthana	5	04.11.2019
		Srihari NR	5	
		Joel CC	3	
		Kavya	7	
Academic Year 2018-2019				
1.	PES fest	Abhishek	7	11.08.2018
		Srivardhan Bandi	7	
		Huma Farheen	7	
		Nitin Shashi	7	
		Rahul Prem	7	

2.	Nagarjuna Fest	Srivardhan Bandi	7	28.08.2018
		Huma Farheen	7	
		Nitin Shashi	7	
		Rahul Prem	7	
		Salman M G	5	
3.	Jain Fest	Nitin Shashi	7	27.9.2018
		Rahul Prem	7	
4.	Kannada Rajyaotsava	Prathiksha	5	3.11.2018
		Sanjana Anand	7	
		Kurthana	5	
5.	MUN Event	Rahul Prem	7	6.11.2018
6.	Club Activities-Media club	Suhasendra	7	2.2.2019
		Sanket S Huddar	5	
7.	Rashtriya Ekta Diwas	Rohit Mullay	5	31.10.2018
		Sivan Chakraborty	5	
8.	PINK DAY	Sri Raksha G	5	23.6.2018
		Kuwa Saurya Keshav	5	
		Salman M G	5	
9.	MAAYA 2018	Akhil Ramachandran	5	30.7.2018
		Renuka P	5	
10.	Independence Day /Cultural Event	Suhasendra	5	15.8.2018
11.	Woman's day Celebrations	Keshav	6	8.3.2019
		Aditya RV	8	
		Suhasendra N B	6	
		Salman	6	
		Akhil	6	
		Sanjana Anand	8	

		Aditya RV	8	
12.	Birth Anniversary of Chhatrapati Shivaji	Keshav	6	19.2.2019
13.	Christ Univ Fest	Gopinath	4	6.3.2019
		Siri	4	
		Sreehari	4	
		Akshaya	2	
		Nithin S	8	
		Srinivas R	4	
		Likhith Suresh	8	
14.	NIFT Fest	Keshav	6	4.04.2019
		Gopinath	4	
15.	ICAT Fest	Keshav	6	26.3.2018
		Gopinath	4	
		Anurag G	6	
		Sivan Chakravarthy	6	
		Sujay Hazra	4	
16.	NMIT Fest	Rahul Prem	8	25.02.2019
		Huma Farheen	8	
		Swapnil	8	
		Mohan	4	
		Siri	4	
		Sreehari	4	
		Akshaya	2	
		Keerthan K Bhat	4	
		Likhith Suresh	8	
		Sanjana Ramesh	8	
17.	IIM-B Fest	Huma Farheen	8	26.08.2018
		Swapnil	8	

		Mohan	4	
		Sanketh	4	
18.	Presidency University Fest	Huma Farheen	8	30.03.2019
		Swapnil	8	
		Mohan	4	
19.	Ambedkar Institute of Technology	Huma Farheen	8	4.03.2019
		Swapnil	8	
		Mohan	4	
20.	Dayananda Sagar Fest	Huma Farheen	8	16.07.2018
		Mohan	4	
		Siri	4	
		Sreehari	4	
		Akshaya	2	
		Keerthan K Bhat	4	
21.	International School of Management	Huma Farheen	8	20.09.2018
		Mohan	4	
		Abhishek	8	
22.	SJBIT Fest	Huma Farheen	8	7.10.2018
		Swapnil	8	
		Mohan	4	
		Abhishek	8	
23.	Karunanidhi College Fest	Huma Farheen	8	21.10.2018
		Swapnil	8	
		Mohan	4	
24.	RVCE	Sreehari	4	12.11.2018
		Siri	4	
		Akshaya	2	
		Keerthan K Bhat	4	
25.	CMRIT College Fest	Suhasendra N B	6	15.03.2019
		Akhil	6	

		Renu	6	
26.	Ramaiah Institute of Technology	Keshav	6	25.04.2019
		Suhasendra N B	6	
		Salman	6	
		Akhil	6	

Co-Curricular Activities

To enhance the organizational and interpersonal skills of our students we conduct several activities under the aegis of various clubs in the department. These activities are the sole responsibility of the student organizers. The department has three clubs namely ACE, BIT & MAD. Several technical activities are conducted by these clubs and year wise consolidation of these are given in Table 9.7.3.

Table 9.7.3: List of Club Activities organized

Sl. No	Event	Name of Club	Date
Academic Year 2019-2020			
1.	Event X	BIT	16-10-2019
2.	Tech talk on blockchain	BIT	28-08-2019
3.	PubApp (Workshop)	MD	27-09-2019
4.	Appathon	MD	30-08-2019
5.	Appatronics	MD	06-02-2020
6.	Code storm	ACE	07-02-2020
7.	Tech talk Advanced CSS	ACE	13-09-2019
8.	Hour of Code	ACE	23-08-2019
Academic Year 2018-19			
1.	BIT Volume-2 (coding, quiz)	BIT	31/10/2018
2.	Hackathon	BIT, ACE, MD	11-03-2019
3.	Current trends in data analytics (tech talk)	BIT	17/04/2019
4.	Workshop on android app development	MD	26-10-2018
5.	Battle of Apps	MD	26-10-2018
6.	Workshop on android app development	MD	11-04-2019

7.	Hackathon	BIT, ACE, MD	11-03-2019
8.	QuBytes	MD	22-03-2019
9.	Appathon	MD	23-03-2019
10.	Shark Tank	ACE	23-03-2019
11.	Entretien	ACE	05-10-2018
12.	Blank Coding	ACE	05-10-2018
Academic Year 2017-18			
1.	Volume-1 Quiz, Puzzle, Treasure Hunt	BIT	28/03/2018
2.	Mobile app devp workshop	MD	07-03-2018
3.	Techquiz 2.0	ACE	04-04-2018
4.	Python Workshop 2.0	ACE	06-04-2018

Participation in Inter-College Technical Events

Students of the department are encouraged to participate in technical activities conducted by other colleges. Several of our students have won events as well. The details of such participation are listed below

Table 9.7.4: List of Inter-College Technical Events Participated

Sl. No	USN	Name of the Student	Event Date	Event Details	Institution/ Organization	Achievement
1	1NH17CS112	Ruman Ahmed Shaikh	3-20-2020 & 4-02-2020	IBM - Hacker verse Hackathon	Kristu Jayanti College, Bangalore	1st Prize
2	1NH17CS127	Sujay Hazra	3-02-2020 & 4-02-2020	IBM - Hacker verse Hackathon	Kristu Jayanti College, Bangalore	1st Prize
3	1NH18CS120	Gulsan Borbhiya	3-20-2020 & 4-02-2020	IBM - Hacker verse Hackathon	Kristu Jayanti College, Bangalore	1st Prize
4	1NH18CS706	Ankit Datta	14-02-2020 & 15-02-	Code Connect	Maharaja Institute of	Participation

			2020		Technology, Thandavapura	
5	1NH18CS006	Abhay Thoppal Shiva	14-02-2020 & 15-02- 2020	Code Connect	Maharaja Institute of Technology, Thandavapura	Participation
6	1NH18CS069	Goutham Shanbhag	14-02-2020 & 15-02- 2020	Code Connect	Maharaja Institute of Technology, Thandavapura	Participation
7	1NH18CS229	Shreyas B	14-02-2020 & 15-02- 2020	Code Connect	Maharaja Institute of Technology, Thandavapura	Participation
8	1NH18CS742	Sajjan Kumar	14-02-2020 & 15-02- 2020	Code Connect	Maharaja Institute of Technology, Thandavapura	Participation
9	1NH18CS057	Devendra Desai	14-02-2020 & 15-02- 2020	Code Connect	Maharaja Institute of Technology, Thandavapura	Participation
10	1NH18CS103,	Kundana R	29-02-2020	Open Day'2020 - Blind coding	HSC - Bangalore	1st Prize
11	1NH18CS108,	Madhura K	29-02-2020	Open Day'2020 - Blind coding	HSC - Bangalore	2nd prize
12	1NH18CS203	Yagna Vikas Parvatikar	29-02-2020	Open Day'2020 - Blind coding	HSC - Bangalore	3rd Prize
13	1NH18CS177	Ms Shreya Pradeep	18-10-2019	Sap Semicolon	SAP LABS Office,	Participation

				Hackathon	Whitefield, Bangalore	
14	1NH17CS127	Sujay Hazra	21-12-2019	CSI programming contest	CSI 2020 Convention, Bhubanewswar	Participated

Hackathon

Students of our department also participated in the Hackathon. The details are given below

Table: 9.7.5 Participation in Hackathon

Event	Team Name	Name	USN	Role	Remarks
SIH - 2019	Mind Benders	Gulsan Borbhuiya	1NH18CS720	Team Leader	Participated
		Manasa A	1NH18CS110	Team Member	Participated
		Harshit Pant	1NH18CS072	Team Member	Participated
		Muskan Agrawal	1NH18CS117	Team Member	Participated
		K Ashwin Athappan	1NH18CS085	Team Member	Participated
SIH - 2019	S-team	Sathish Kumar s	1NH17CS114	Team Leader	Participated
		Payel Pattanayak	1NH17CS147	Team Member	Participated
		Sushmitha G. S	1NH17CS131	Team Member	Participated
		Niveditha C B	1NH17CS094	Team Member	Participated
		Praveen C	1NH17CS100	Team Member	Participated
SIH - 2019	SMARTS	Madhumitha R	1NH16CS745	Team Leader	Participated
		Shubham Chaudhary	1NH16CS752	Team Member	Participated
		Ayush Bhardwaj	1NH16CS739	Team Member	Participated
		Rahul	1NH16CS085	Team Member	Participated
		Tosh Bir Singh	1NH16CS756	Team Member	Participated
		Suhas S Kamath	1NH16CS754	Team Member	Participated
SIH - 2019	Xite	N Kavya	1NH18CS118	Team Leader	Participated
		Kolisetty Krishna Himaja	1NH18CS096	Team Member	Participated
		P. Lakshmi Sumana	1NH18CS132	Team Member	Participated
		Priyadharshini. S	1NH18CS144	Team Member	Participated
		Ramya Shree S	1NH18CS156	Team Member	Participated

SIH - 2019	Code Breakers	Deepthi.s	1NH17CS035	Team Leader	Participated
		Harini.M	1NH17CS050	Team Member	Participated
		Deeksha.S	1NH17CS033	Team Member	Participated
		Chandana Menon	1NH17CS712	Team Member	Participated
SIH - 2019	Team 1-up	Gopinath M	1NH17CS721	Team Leader	Participated
		Santoshi	1NH17CS740	Team Member	Participated
		Nagarjun S	1NH17CS739	Team Member	Participated
		Sriram S	1NH17CS754	Team Member	Participated
		Harikrishnan G S	1NH17CS722	Team Member	Participated
		Srinivas R	1NH17CS753	Team Member	Participated

9.7(B) Co- Curricular and extra- curricular Activities of CV

The college encourages the students to take part in both co-curricular and extra-curricular activities. The students are allowed to take part in various sport activities also.

Table 9.7.6: List of Co-Curricular Activities

Event Name	Event Date
Guest lecture on “An -Avenue for higher education for civil engineering in India & Abroad”	02.04.2018
Expert lecture on Hydraulics	10.04.2018
Expert lecture on analysis of determinate structures	10.04.2018
Expert lecture on water supply	15.03.2018
Expert lecture on design and drawing of RC structures	16.04.2018
Site visit to Geological Department BU	10.02.2018
Industrial visit to 42 Queen Square	24.03.2018
Industrial visit to Salapur Sattva divinity, Ganapati Nagar, Mysore road, Bangalore	29.06.2018
Seminar on BIM software	03.03.2018
A workshop on Reliability Concepts in Civil Engineering	30.01.2018
A workshop on Cype software	20.02.2018

A workshop on TEKLA software	15.03.2018
Industrial visit to Meteorological Centre, Palace Road, Bangalore	3.09.2018
A guest lecture on Smart Dynamic Concrete	22.09.2018
A quiz on International Design Competition	25.09.2018
One-day seminar on BETTER AGGREGATES FOR CONCRETE & ALTERNATIVES TO RIVER SAND	04.10.2018
A workshop on Green Technology – its significance and relevance	05.10.2018
Guest lecture on Construction Methodology for Earthquake resisting structures	15.03.2019

Table 9.7.7: List of Extra-Curricular Activities

Event Name	Event Date
A seminar on Archibus software	05.02.2018
A seminar on Social Values & Social Responsibilities	07.02.2018
A seminar on Financial Literacy program for SC/ST Students	21.02.2018
Faculty development program on Preparation development on Rubrics	08.01.2018
A workshop on Archi-Bus	22.03.2018 to 24.03.2018
A workshop on Students exchange program to France	06.04.2018
Alumni interaction - Career Development	30.08.2018
A workshop on Stakeholder Management	12.09.2018

Following are the Extra-Curricular activities organized by NHCE every year.

Table 9.7.8: List of Extra-Curricular activities organized every year.

Sl.No.	Name of the Event
1	Republic Day
2	Independence day
3	Teachers Day
4	Engineers Day
5	Kannada Rajyotsava
6	International Women's Day

7	Birthday of Subhas Chandra Bose
8	Birthday of Sir. M Visvesvaraya
9	Birthday of Sardar Vallabhai Patel
10	Birthday of Rani Channamma
11	Birthday of Jhansi Rani
12	Birthday of Chatrapathi Shivaji
13	Birthday of Shaheed Bhagat Singh
14	Birthday of Swami Vivekananda
15	Birthday of Shaheed Hemu Kalani
16	Birthday of Major Sandeep Unni Krishnan
17	Deepavali
18	Founders' Day
19	Induction Program
20	Graduation Day
21	Freshers' Day
22	Annual Day "SARGAM"

a) Availability of sports facilities:

Below table summarizes the list of indoor and outdoor games available in the campus of NHCE.

Table 9.7.9: List of indoor games available in the campus

Sl. No.	Name of the sport facility	Numbers available	Place of availability	Whether available beyond
1	Caroms	8	Students Recreation Centre	Yes
2	Chess	8		
3	Table tennis	3		
4	Madison ball	12		
5	Yoga mats	6		

Table 9.7.10: List of outdoor games available in the campus

Sl. No.	Name of the sport facility	Numbers available	Place of availability	Whether available beyond
1	Volley ball	12	Open ground	YES
2	Basket ball	24		
3	Throw ball	6		
4	Hand ball	10		
5	Kho-Kho	2		
6	Football/Cricket	12		
7	Shot put	2		
8	Badminton	10		

Table 9.7.11: List of students participated in sports-2015-16

Sl. No	Name	USN	Sem	Event	Date	Tournament	No. of Days	Achievements
1	Md. Muizur Rehman	1NH13CV058	V	Foot Ball	27 to 29 Aug 2015 12 to 14 Sept 2015 16 to 18 Oct 2015	ST. JOHN'S MC CHRIST UST RVCE	03 03 03	Participation Participation Participation
2	Prashanth	1NH14CV137	III	Foot Ball	27 to 29 Aug 2015 12 to 14 Sept 2015 16 to 18 Oct 2015	ST. JOHN'S MC CHRIST UST RVCE	03 03 03	Participation Participation Participation
3	Sahana R Reddy	1NH13CV104	V	Basket Ball (W) Swimming	27 to 29 Aug 2015 1 to 3 Oct 2015 4 to 6 Oct 2015 28 to 30 Oct 2015 23 rd Sept 2015	ST. JOHN'S MC BMSCE MSRIT PES U VTU IC	03 03 03 03 01	Participation Participation Second Runner Up Runner Up Participation

4	Nawazulla N	1NH14CV072	III	Volley Ball Cricket Volley Ball	27 to 29 Aug 2015 03 & 04 Sept 2015 28 to 30 Oct 2015 1 st to 3 rd Oct 2015 16 to 18 Oct 2015	ST. JOHN'S MC MSRIT PES U BMSCE RVCE	03 02 03 03 03	Participation Participation Participation Participation Participation
5	Rakesh S	1NH14CV693	III	Volley Ball	27 to 29 Aug 2015 1 st to 3 rd Oct 2015 16 to 18 Oct 2015	ST. JOHN'S MC BMSCE RVCE	03 03 03	Participation Participation Participation
6	Rajesh Kosuri	1NH13CV088	V	Chess	30 & 31 Aug 2015	VTU B'LORE ZONE	02	5 th Place
7	Rishabh Mahara	1NH13CV096	V	Cricket	03 & 04 Sept 2015	MSRIT	02	Participation
8	Sumith Kumar Dey	1NH13CV121	V	Badminton	23 & 24 Aug 2015 16 to 20 Aug 2015 1 to 3 Oct 2015	VTU B'LORE C Z STATE CHAMP BMSCE	02 04 03	Participation Participation Participation
8	Monish N Raj	1NH14CV068	III	Badminton	23 & 24 Aug 2015 1 to 3 Oct 2015	VTU B'LORE C Z BMSCE	02 03	Participation Participation
9	Abhishek Kukreti	1NH12CV001	V	Power Lift	29 to 31 Oct 2015	VTU IC	03	Participation

Table 9.7.12: List of students participated in sports -2017-18

Sl. No	Name	USN	Sem	Event	Date	Tournament	No. of Days	Achievements
1	Amr Nazeer Ahmed	17CV100	I	Wrestling & Judo	9 th &12 th Oct 2017	PESCE (VTU)	04	Bronze Medal
2	Newton Buragohain	1NH16CV077	IV	Basket Ball(M)	25 th to 28 th Jan 2018 4 th To 11 th Feb 2018 17 th &18 th Feb 2018 19 th to 21 st Feb 2018 1 st to 3 rd Mar 2018 8 th to 10 th Mar 2018 14 th Mar to 4 th Apr 2018	VIE MALLESH WARAM RV MOMENT UM SPIEL DEV DAN CUP KREEDOS TAVA AZURA 2018	04 07 02 03 03 22	Participation Participation Participation Participation Runners Runners
3	Nawazullah N	1NH14CV072	VIII	Volley Ball (M) Cricket	17 th to 19 th Feb 2018 28 th Feb to 1 st Mar-18 2 nd & 3 rd Mar 2018 4 th to 6 th Mar 2018 7 th & 8 th Mar 2018 2 nd to 4 th Apr 2018 17 th Apr 2018 18 th Apr 2018 11 th ,15 th , 20 th ,22 nd , 23 rd Feb 2018	RV MOMENT UM DEVADAN CUP VTU (BCZ) VTU(IZ) KREEDO STAV AZURA 2018 SAI LIO AMC RV MOMENT UM VTU PESIT	03 02 02 03 02 03 01 01 05 05 04	Participation Winners Winners Runners Winners Winners Winners Participation Participation Participation

					26 th Feb to 1 st , 3 rd , 5 th , 6 th Mar 2018 21 st , 24 th , to 26 th Mar 2018			
4	Rakesh Shetty	1NH14CV093	VIII	Volley Ball (M)	17 th to 19 th Feb 2018 28 th Feb to 1 st Mar-18 2 nd & 3 rd Mar 2018 4 th to 6 th Mar 2018 7 th & 8 th Mar 2018 2 nd to 4 th Apr 2018 17 th Apr 2018 18 th Apr 2018	RV MOMENT UM DEVADA N CUP VTU (BCZ) VTU(IZ) KREEDO STAV AZURA 2018 SAI LIO AMC	03 02 02 03 02 03 01 01	Participation Winners Winners Runners Winners Winners Winners
5	Rajesh Sah	1NH14CV138	VIII	Cricket	17 th to 20 th Mar 2018	SAMBHR AM	03	Participation
6	Abdul Husain	1NH14CV146	VI	Cricket	17 th to 20 th Mar 2018	SAMBHR AM	03	Participation
7	Prashant Thapa	1NH14CV137	VIII	Foot Ball	17 th to 19 th Feb 2018 20 th to 21 st Feb 2018 1 st to 3 rd Mar 2018 2 nd to 4 th Apr 2018	RVCE VTU DEVAND AN CUP AZURA 2018	03 02 03 03	Participation Participation Participation Runners
8	Tejas	1NH15CV130	VI	Foot Ball	1 st to 3 rd Mar 2018 2 nd to 4 th Apr 2018	DEVAND AN CUP AZURA 2018	03 03	Participation Runners

9	B Lathlamuana	1NH14CV013	VIII	Foot Ball	2 nd to 4 th Apr 2018	AZURA 2018	03	Runners
10	Lalremsiama	1NH14CV021	VIII	Foot Ball	2 nd to 4 th Apr 2018	AZURA 2018	03	Runners
11	Benjamin	1NH14CV016	VIII	Foot Ball	2 nd to 4 th Apr 2018	AZURA 2018	03	Participation
12	Anand S Kotnoor	1NH16CV013	IV	Table Tennis	8 th to 10 th Mar 2018	BMSCE	03	Participation
13	Monish Raj	1NH14CV068	VIII	Badminton (M)	17 th to 19 th Feb 2018 2 nd to 4 th Apr 2018	RVCE AZURA 2018	03	Participation Runners
14	Amal Thomas	1NH16CV011	IV	Badminton (M)	2 nd to 4 th Apr 2018	AZURA 2018	03	Runners
15	Kishore Kumar Nayak	1NH16CV403	VI	Kho Kho	17 th to 19 th Feb 2018 6 th & 7 th Apr 2018	RVCE CIT(VTU)	03 02	Participation Participation
16	Sanjay H R	1NH16CV096	IV	Hand Ball	15 th & 16 th Feb 2018 1 st & 2 nd Mar 2108 6 th to 10 th Mar 2018 13 th to 14 th Mar 2018 16 th & 17 th Mar 2018 2 nd to 4 th Apr 2018	STAR SHOOTER S DEV DAN CUP STAR SHOOTER S VTU (BCZ) VTU (IZ) AZURA 2018	02 02 05 02 02 03	Participation Participation Participation Winners Participation Participation
17	Sourav Das	1NH15CV126	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	Participation
18	Rohan Bopanna N M	1NH15CV100	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	Participation
19	Somanna N B	1NH15CV124	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	Participation
20	Sachin Patil	1NH15CV108	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	Participation

21	Udit Kumar	1NH15CV134	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	Participation
22	Vineeth A	1NH15CV139	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	Participation
23	Tejwanth S	1NH15CV150	VI	Hockey	14 th to 16 th Mar 2018	ST. JOHNS	03	Participation
24	Prasann Arjun Bajantri	1NH14CV084	VI	NHCE	2 nd to 4 th Apr 2018	AZURA 2018	03	Participation
25	Dharshan Raj	1NH14CV030	IV	NHCE	2 nd to 4 th Apr 2018	AZURA 2018	03	Participation

Table 9.7.13: List of students participated in sports -2018-19

Sl. No	Name	USN	Sem	Event	Date	Tournament	No. of Days	Achievements
1	Sanjay H R	1NH16CV096	V	Handball (M) Athletic	29 th & 30 th Aug 2018 25 th to 29 th Oct 2018	CHRISPO VTU	02 05	Participation Participation
2	Suraj R	1NH17CV117	III	Handball (M)	29 th & 30 th Aug 2018	CHRISPO	02	Participation
3	Anand S Kutnoor	1NH16CV013	V	Table Tennis	3 rd & 4 th Sep 2018 22 nd to 24 th Sep 2018 3 rd & 4 th Oct 2018	VTU KREEDO STAVA SPARDHA 2018	02 03 02	Participation Participation Participation
4	Amritansh	1NH17CV010	III	Table Tennis	3 rd & 4 th Sep 2018 22 nd to 24 th Sep 2018 3 rd & 4 th Oct 2018	VTU KREEDO STAVA SPARDH A 2018	02 03 02	Participation Participation Participation
5	Rohan Bopanna N	1NH15CV100	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation
6	Somanna N B	1NH15CV124	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation
7	Sachin Patil	1NH15CV108	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation

8	Sourav Das	1NH15CV126	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation
9	Udit Kumar	1NH15CV134	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation
10	Tejwanth S	1NH15CV150	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation
11	Vineeth A	1NH15CV139	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation
12	Nikhil H A	1NH17CV072	III	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation
13	George Joseph	1NH15CV036	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation
14	Raj Domadiya	1NH15CV094	VII	Hockey	5 th & 6 th Sep 2018	ST. JOHNS	02	Participation
15	Abdul Rehman Khan	1NH15CV001	VII	Power Lifting	27 th to 29 th Sep 2018	VTU	03	Participation
16	Amal Thomas	1NH16CV011	III	Badminton	27 th & 28 th Aug 2018	VTU	02	Participation
17	Poorvika S	1NH16CV076	V	Athletics	25 th to 29 th Oct 2018	VTU	05	Participation
18	Tejas K Suresh	1NH15CV130	VII	Foot Ball	1 st to 5 th Sep 2018	CHRISPO	05	Participation
19	Abdul Rehman Khan * (Played VTU Nationals)	1NH15CV001	VII	Wrestl. & Judo Wrestling	15 th to 17 th Oct 2018 7 th to 20 th Nov 2018	VTU VTU(NAT IONALS)	03 14	Gold Medal Participation
20	Amr Nazeer Ahmed	1NH17CV009	III	Wrestl. & Judo	15 th to 17 th Oct 2018	VTU	03	Participation
21	Sahas A S	1NH17CV099	III	Softball Cricket	4 th & 5 th Oct 2018 6 th to 13 th Oct 2018 29 th Oct to 9 th Nov 2018	VTU PES MSRIT	02 08 12	Participation Participation Participation

22	Dhiraj T	1NH15CV034	VII	Cricket	6 th to 13 th Oct 2018 29 th Oct to 9 th Nov 2018	PES MSRIT	08 12	Participation Participation
23	Kon Jarbin	1NH15EC078	VII	Weight Lifting	29 th to 31 st Oct 2018	VTU	03	Participation
24	Amr Nazeer Ahmed	1NH17CV036	III	Wrestl. & Judo	15 th to 17 th Oct 2018	VTU	03	Participation
25	Sanjay H R	1NH16CV096	VI	Handball	15 th & 16 th Feb 2019 28 th Feb to 2 nd Mar 2019 2 nd to 3 rd Apr 2019 8 th & 9 th Apr 2019	STAR SHOOTE RS CUFE VTU (BCZ) VTU (IZ)	2 3 2 2	Participated Participated Winners Participated
26	Newton Buragohain	1NH16CV072	IV	Basketba ll(M)	26 th Jan to 3 rd Feb 2019 8 th to 10 th Feb 2019 11 th to 15 th Feb 2019 28 th Feb to 2 nd Marc 2019 25 th Mar 2019 28 th Mar to 5th April 2019	MALLES HWARA M RVCE SPIEL/ JNC CUFE CMP NEW HORIZON CUP	9 3 5 3 1 9	Participated Participated Participated Participated Participated Runners
27	Amal Thomas	1NH16CV011	IV	Badminton	8 th to 10 th Feb 2019	RVCE	3	Participated
28	Manu K H	1NH18CV410	IV	Kho-Kho	1 st & 2 nd Mar 2019	VTU	2	Participated
29	Kishore Kumar	1NH16CV403	VIII	Kho-Kho	1 st & 2 nd Mar 2019	VTU	2	Participated

	Nayak							
30	Dhiraj T	1NH15CV034	VIII	Cricket	16 th to 23 rd Feb 2019 7 th , 11 th , 13 th & 14 th Mar 2019	CUF&E & RVCE VTU	6 4	Participated Participated
31	Sahas A S	1NH17CV099	IV	Cricket	16 th to 23 rd Feb 2019 7 th , 11 th , 13 th & 14 th Mar 2019	CUF&E & RVCE VTU	6 4	Participated Participated
32	Rohan Bopanna N M	1NH15CV100	VIII	Hockey	15 th to 17 th Mar 2019 15 th & 16 th Apr 2019 22 nd & 23 rd Apr 2019	IISC VTU (BCZ) VTU (IZ)	3 2 2	Participated Runners Participated
33	Somanna N B	1NH15CV124	VIII	Hockey	15 th to 17 th Mar 2019 15 th & 16 th Apr 2019 22 nd & 23 rd Apr 2019	IISC VTU (BCZ) VTU (IZ)	3 2 2	Participated Runners Participated
34	Sourav Das	1NH15CV126	VIII	Hockey	15 th to 17 th Mar 2019 15 th & 16 th Apr 2019 22 nd & 23 rd Apr 2019	IISC VTU (BCZ) VTU (IZ)	3 2 2	Participated Runners Participated
35	Udit Kumar	1NH15CV130	VIII	Hockey	15 th to 17 th Mar 2019 15 th & 16 th Apr 2019 22 nd & 23 rd Apr 2019	IISC VTU (BCZ) VTU (IZ)	3 2 2	Participated Runners Participated
36	Vineeth	1NH15CV139	VIII	Hockey	15 th to 17 th Mar 2019	IISC	3	Participated
37	Sachin Patil	1NH15CV108	VIII	Hockey	15 th to 17 th Mar 2019	IISC	3	Participated

38	Tejwanth S	1NH15CV150	VIII	Hockey	15 th to 17 th Mar 2019	IISC	3	Participated
39	Nikhil H A	1NH17CV072	IV	Volunteer	1 st to 5 th Apr 2019	NEW HORIZON CUP	5	Participated

Table 9.7.14: Avishkar /Prakruthi Club Activities

Sl. No.	Year	Event Conducted
AVISHKAR CLUB		
1.	2018 (EVEN SEM)	ARCHIBUS SIMPLETM
2.	2018-19 (ODD SEM)	DEPICTION AND TECHNICAL WRITE UP
3.	2018-19 (EVEN SEM)	IGNITE (LAB WARS, BRAIN STORMING, DISTANCE HUNTER)
4.	2019-20 (ODD SEM)	CENEx CLUB
PRAKURTHI CLUB		
1.	2019-20 (ODD SEM)	BEST FROM WASTE
2.	2018-19 (ODD SEM)	INTERNATIONAL DAY FOR NATURAL DISASTER REDUCTION THROUGH SCAVANGER

9.7(C) Co- Curricular and Extra- Curricular Activities of EC

The college encourages the students to take part in both co-curricular and extra-curricular activities. The students are allowed to take part in various sport activities also.

I) Co- Curricular (Club activities):

Department of ECE has 3 three clubs:

1. Electronics Hobby Club
2. Technology Sharing Club
3. Professional Connect Club

The activities conducted under each club are given in below tables from 9.7.6 to 9.7.8. The pictures of events are shown in figures from 9.7a to 9.7d.

Table 9.7.14: Electronics Hobby Club Activities

Event	Date	Description
Arduino Workshop	26 th Sept 2018	Basics of Arduino Types of Sensors & I/O Basic usage of discrete components
PCB Design and Fabrication Workshop Using Eagle Cad	24 th Oct 2018	Introduction to PCB Fabrication process Hands on Experience on Eagle CAD Software Design of 555 time A stable multi vibrator
Soldering Workshop	13 th March 2019	The process of Soldering Soldered the NE555 timer PCB
Sensors and Arduino	17 th April 2019	Presentation on Arduino and Sensors Hands-on experience on making a Hand Follower Robot
DIY Workshop part -I	31 st August 2019	EFY kits to have hands on experience in circuit building and soldering. Students learnt about various electronic devices and IC's used and also had the opportunity to explore their functionalities.
DIY Workshop part -II	26 th Oct 2019	Participants were given the kits from EFY which consisted of different circuits.
A & D Circuit Analysis	06-03-2020	Students worked on FM audio transmitter, EEPROM programmer, Band pass filters, buck-boost convertors, logic-gates using transistors

Table 9.7.15: Technology Sharing Club Activities

Event	Date	Description
Test 360	22-09-2018	General Aptitude Test Technical Aptitude Test Treasure Hunt
Tech Talk	27-10-2018	Technical Talk on Introduction to Python and Machine Learning
Tech Talk On Machine Learning	15-03-2019	Fundamentals Real time applications
Brain Games	05-04-2019	General Quiz Code Debugging Circuit Debugging
Block chain and IOT workshop	26-10-2019	Technical Talk on Block chain by Mr. Musaveer (Alumni) IOT hands-on session using NODEMCU-ESP8266 WIFI Module.
Paper Presentation on Emerging technologies	13-09-2019	Students presented innovative ideas on the latest trending technologies like Artificial Intelligence, IoT, Machine Learning, Block chain etc.
Brain Games 2.0	27-02-2020	Technical Quiz Debug and Decode Teknovation
TechZest	10-04-2020	Cancelled due to Covid 19

Table 9.7.16: Professional Connect Club Activities

Event	Date	Description
Idea Hunt	05-10-2018	The club aimed at bringing out ideas from students to solve the persisting problems in the society. Even if the problem was a drop in the bucket, students were encouraged to generate ideas, that could effectively and feasibly solve the problem.
Workshop on Underwater Vehicle	17-11-2018	The workshop gave us an insight to what an ROV is, the various fields in which ROVs are used, a briefing on other types of underwater robots, and the Ten main guidelines for designing and ROV.
Marine Exploration –Build your own ROV	16-04-2019	Fueling the objecting of the Professional Connect Club, the Remotely Operable Vehicles were demonstrated, enabling students to have hands-on experience on how to build their own ROVs.
Jalayantra 2019- Rov Competition	27-04-2019	In the Competition the participating groups taking part in the first round, which was a checkpoint race, where there were five bottles placed around the pool in strategic places, and the groups had to decide which route to take achieve the fastest time. This placed a huge focus on the speed and efficiency at which the ROVs moved. The structural integrity also came into the picture, as when the ROVs dove underwater, they had to be able to surface.
Electronics for Dummies	24-08-2019	The aim of the event was to make sure that each and every Electronics student knew the theory and also knew how to implement with their very own hands using smartphone.

Subjected Oriented Activity on Engineering Electromagnetic	14-11-2019	The Model exhibition, Paper presentation, Role play, Scientific Temper showed how the laws of electromagnetic can be explained using different methods.
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Figure 9.7a: Technical Talk event (Technology Sharing Club)



Figure 9.7b: Brain games 2.0 (Technology Sharing Club)



Figure 9.7c: ROV workshop (Professional Connect Club)

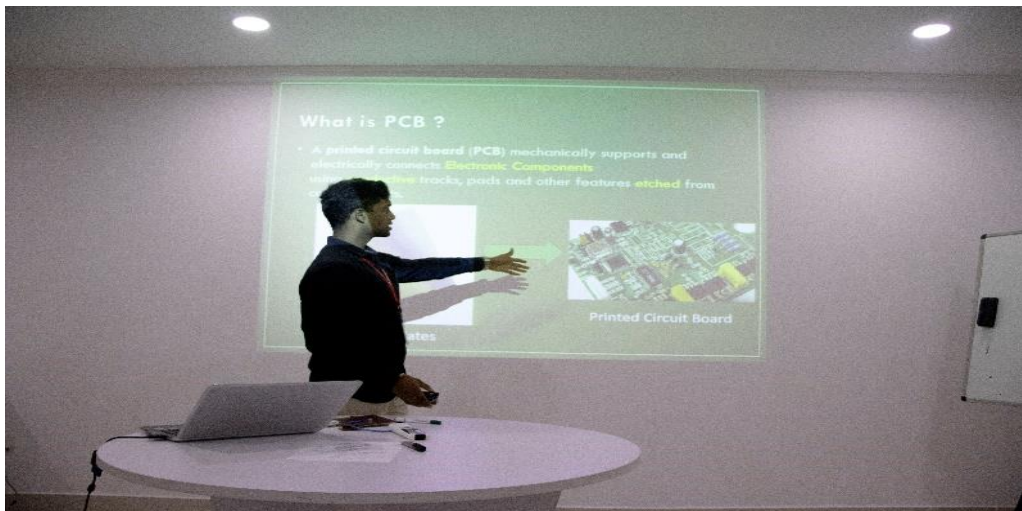


Figure 9.7d: PCB design and fabrication workshop using EAGLE CAD (Electronics Hobby Club)

II) Extra-Curricular activities:

Following are the Extra-Curricular activities organized by NHCE every year.

Table 9.7.17: List of Extra-Curricular activities organized every year

Sl. No.	Name of the Event	Sl. No.	Name of the Event
1	Republic Day	13	Birthday of Shaheed Bhagat Singh
2	Independence day	14	Birthday of Swami Vivekananda

3	Teachers Day	15	Birthday of Shaheed Hemu Kalani
4	Engineers Day	16	Birthday of Major Sandeep Unni Krishnan
5	Kannada Rajyotsava	17	Deepavali
6	International Women's Day	18	Founders' Day
7	Birthday of Subhas Chandra Bose	19	Induction Program
8	Birthday of Sir. M Visvesvaraya	20	Graduation Day
9	Birthday of Sardar Vallabhai Patel	21	Freshers' Day
10	Birthday of Rani Channamma	22	Annual Day "SARGAM"
11	Birthday of Jhansi Rani	23	Fresh Face
12	Birthday of Chatrapathi Shivaji	24	IT Quiz

a) Availability of sports facilities:

Table below summarizes the list of indoor and outdoor games available in the campus of NHCE.

Table 9.7.18: List of indoor games available in the campus

Sl. No.	Name of the sport facility	Numbers available	Place of availability	Whether available beyond regular timings
1	Caroms	08 boards	Students Recreation Centre	YES
2	Chess	08 boards		
3	Table tennis	03 boards		
4	Madison ball	12		
5	Yoga mats	06		

Table 9.7.19: List of outdoor games available in the campus

Sl. No.	Name of the sport facility	Available Kits	Place of availability	Whether available beyond regular timings
1	Volley ball	12 balls	Open ground	YES
2	Basket ball	24 balls		
3	Throw ball	06 balls		
4	Hand ball	10 balls		
5	Kho-Kho	2 poles		
6	Football/Cricket	12 balls		
7	Shot put	02		
8	Badminton	10 bats		

➤ **Achievements in sport activities**

Apart from academic achievement, we take pride in our students' achievement in sports activities.

Table 9.7.20: Summary of achievement in sports activities (2017 – 18)

Sl. No	Name	USN	Sem	Event	Date	Tournament	No. of Days	Achievements
1	J Ruth Sharon	17ECE086	I	Basket Ball (W)	20 th to 22 nd Sep 2017	M.S RAMAIAH	03	Runners
2	Vinay Bhandari	1NH14EC155	VIII	Volley ball (M)	17 th to 19 th Feb 2018 28 th Feb to 1 st Mar-18 2 nd & 3 rd Mar 2018 4 th to 6 th Mar 2018 7 th & 8 th Mar 2018 2 nd to 4 th Apr 2018 17 th Apr 2018 18 th Apr 2018	RV MOMENTUM DEVADAN CUP VTU(BCZ) VTU(IZ) KREEDOSTAV AZURA 2018 SAI LIO AMC	03 02 02 03 02 03 01 01	Participation Winners Winners Runners Winners Winners Winners

3	Chirag S	1NH16EC713	IV	Volley ball (M)	17 th to 19 th Feb 2018 28 th Feb to 1 st Mar-18 2 nd & 3 rd Mar 2018 4 th to 6 th Mar 2018 7 th & 8 th Mar 2018 2 nd to 4 th Apr 2018 17 th Apr 2018 18 th Apr 2018	RV MOMENTUM DEVADAN CUP VTU(BCZ) VTU(IZ) KREEDOSTAV AZURA 2018 SAI LIO AMC	03 02 02 03 02 03 01 01	Participation Winners Winners Runners Winners Winners Winners
4	Bhavana Savanth	1NH15EC011	VI	Basket ball (W)	25 th to 28 th Jan 2018 4 th to 11 th Feb 2018 17 th to 19 th Feb 2018 19 th to 21 st Feb 2018 8 th to 10 th Mar 2018 14 th Mar to 4 th Apr 2018 12 th & 13 th Apr 2018 14 th to 16 th Apr 2018	VIE MALLESHWA RAM RV MOMENTUM SPIEL KREEDOSTAV A AZURA 2018 Dr. AIT(VTU) BLDEACET(VTU)	04 07 03 03 03 22 03	Participation Runners Winners Participation Winners Winners Runners Runners
5	Bharath M	1NH14EC403	VIII	Kabadi (M)	22 nd & 23 rd Mar 2018 2 nd to 4 th Apr 2018 17 th & 18 Apr 2018	BGS CUP AZURA 2018 SAI LIO	02 03 02	II Runner Up Runners Participation

6	Achal	1NH15EC003	VI	Kabadi (M)	22 nd & 23 rd Mar 2018 2 nd to 4 th Apr 2018 17 th & 18 Apr 2018 17 th to 19 th Apr 2018	BGS CUP AZURA 2018 SAI LIO RVCE	02 03 02 03	II Runner Up Runners Participation Participation
7	Lingraj Jamkhandi	1NH16EC722	IV	Foot Ball	17 th to 19 th Feb 2018 20 th to 21 st Feb 2018 1 st to 3 rd Mar 2018 2 nd to 4 th Apr 2018	RVCE VTU DEVANDAN CUP AZURA 2018	03 02 03 03	Participation Participation Participation Runners

Table 9.7.21: Summary of achievement in sports activities (2018 – 19)

Sl. No	Name	USN	Sem	Event	Date	Tournament	No. of Days	Achievements
1	Chirag S	1NH16EC713	V	Volley Ball(M)	5 th To 9 th Sep 2018 11 th Sep 2018 22 nd To 24 th Sep 2018 3 rd & 4 th Oct 2018	ST. JOHN'S BTL KREEDOSTAVA SPARDHA	05 01 03 02	Participation Winners Participation Participation
2	Ritvik	1NH16EC725	V	Basket Ball(M)	5 th To 9 th Sep 2018 14 th & 15 th Sep 2018 17 th & 18 th Sep 2018 21 st to 24 th Sep 2018 22 nd to 24 th	ST. JOHN'S VTU(BCZ) VTU(IZ) KREEDOSTAVA MS RAMAIAH SPARDHA	05 02 02 04 03 02	Participation Runners Participation Participation Participation Participation

					Sep 2018 3 rd to 4 th Oct 2018			
3	Giridhar U	1NH17EC112	III	Kabaddi (M)	3 rd & 5 th Oct 2018 10 th to 13 th Oct 2018	SPARDHA INFINI	03 04	Winners Participation
4	J Ruth Sharon (Played VTU Nationals)	1NH17EC033	III	Basket ball(W)	1 st to 4 th Aug 2018 5 th to 9 th Sep 2018 21 st to 24 th Sep 2018 22 nd to 25 th Sep 2018 25 th Sep to 2 nd Oct 2018 3 rd & 4 th Oct 2018 22 nd to 28 th Oct 2018 29 th Oct to 9 th Nov 2018	NHPS CUP ST JOHN'S KREEDOSTAV MS RAMAIAH COURT WARS SPARDHA FIBA VTU(NATIONA LS)	04 05 04 04 08 02 07 12	Participation Participation Winners Winners Participation Winners Participation Participation
5	Giridhar V	1NH17EC112	IV	Kabaddi	6 th & 7 th Mar 2019 23 rd to 25 th Mar 2019 3 rd to 5 th Apr 2019 10 th to 11 th Apr 2019	ST. JOSEPH'S REVA UNIVERSITY NEW HORIZON CUP RNSIT	2 3 3 2	Participated Participated Winners Winners
6	Achal B	1NH15EC003	VIII	Kabaddi	6 th & 7 th Mar 2019 23 rd to 25 th Mar 2019 3 rd to 5 th Apr 2019 10 th to 11 th	ST. JOSEPH'S REVA UNIVERSITY NEW HORIZON CUP RNSIT	2 3 3 2	Participated Participated Winners Winners

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					11 th to 15 th Feb 2019 28 th Mar to 5 th April 2019 10 th April 2019 11 th &12 th Apr 2019	CUP VTU (BCZ) VTU (IZ)	2	Winners Winners
10	J Ruth Sharon	1NH17EC033	IV	Basketball (W)	26 th Jan to 3 rd Feb 2019 8 th to 10 th Feb 2019 11 th to 15 th Feb 2019 28 th Mar to 5 th April 2019 10 th April 2019 11 th &12 th Apr 2019	MALLESHWAR AM RVCE SPIEL NEW HORIZON CUP VTU (BCZ) VTU (IZ)	9 3 5 9 1 2	II Runners Up Winners Participated Winners Winners Winners
11	Ritvik Msvv	1NH16EC725	VI	Basketball (M)	26 th Jan to 3 rd Feb 2019 8 th to 10 th Feb 2019 11 th to 15 th Feb 2019 28 th Feb to 2 nd Mar 2019 25 th Mar 2019 28 th Mar to 5 th April 2019	MALLESHWAR AM RVCE SPIEL/JNC CUFE CMP NEW HORIZON CUP	9 3 5 3 1 9	Participated Participated Participated Participated Participated Runners
12	Akhilesh Varma	1NH16EC006	VI	Football	28 th Feb to 2 nd Mar	CUFE NITTE	3 3	Participated Participated

					2019 6 th to 8 th Mar 2019 21 st to 22 nd Mar 2019 3 rd to 5 th Apr 2019	VTU NEW HORIZON CUP	2 3	Participated Participated
13	Vinod K	1NH18EC421	IV	Football	28 th Feb to 2 nd Mar 2019 6 th to 8 th Mar 2019 21 st to 22 nd Mar 2019 3 rd to 5 th Apr 2019	CUF NITTE VTU NEW HORIZON CUP	3 3 2 3	Participated Participated Participated Participated
14	Radhika B	1NH15EC078	VIII	Volley Ball (W)	15 th & 16 th Mar 2019 18 th & 19 th Mar 2019 28 th Mar 2019 29 th to 30 th Mar 2019 3 rd to 5 th April 2019	VTU (BCZ) VTU (IZ) AMC FISA NEW HORIZON CUP	2 2 1 2 3	II Runners Up Participated Winners Winners Runners
15	Meghash ree R	1NH16EC055	VI	Volley Ball (W)	15 th & 16 th Mar 2019 18 th & 19 th Mar 2019 28 th Mar 2019 29 th to 30 th Mar 2019 3 rd to 5 th April 2019	VTU (BCZ) VTU (IZ) AMC FISA NEW HORIZON CUP	2 2 1 2 3	II Runners Up Participated Winners Winners Runners
16	Deepika S	1NH15EC017	VIII	Volley Ball (W)	15 th & 16 th Mar 2019 18 th & 19 th	VTU (BCZ) VTU (IZ) AMC	2 2 1	II Runners Up Participated

					Mar 2019	FISA	2	Winners
					28 th Mar	NEW HORIZON	3	Winners
					2019	CUP		Runners
					29 th to 30 th			
					Mar 2019			
					3 rd to 5 th			
					April 2019			
17	Mounika E	1NH16EC730	VI	Volley Ball (W)	15 th & 16 th			
					Mar 2019			
					18 th & 19 th	VTU (BCZ)	2	II Runners
					Mar 2019	VTU (IZ)	2	Up
					28 th Mar	AMC	1	Participated
					2019	FISA	2	Winners
					29 th to 30 th	NEW HORIZON	3	Winners
					Mar 2019	CUP		Runners
					3 rd to 5 th			
					April 2019			

Table 9.7.22: Summary of achievement in sports activities (2019 – 20)

Sl. No	Name	USN	Sem	Event	Date	Tournament	No. of Days	Achievements
1	Ritvik Msvv	1NH16EC725	VII	Basket Ball (M)	1 st to 8 th Sep 2019			
					9 th to 11 th Sep 2019			
					16 th & 17 th	COURT WARS	08	Participation
					Sep 2019	RIT	03	Runners
					25 th to 28 th	VTU (BCZ)	02	Runners
					Sep 2019	VTU (IZ)	04	Winners
					1 st to 4 th Oct 2019	KREEDOSTAV A	04	Participation
					14 th to 16 th	PESIT	03	Participation
					Oct 2019	CMP PRACTICE ASSOCIATION	03	Participation
					25 th , 30 th & 31 st Oct 2019	CUP	07	Participation
					3 rd to 9 th Nov 2019			

2	J Ruth Sharon	1NH17EC033	V	Basket Ball (W)	7 th & 8 th Aug 2019 1 st to 8 th Sep 2019 9 th to 11 th Sep 2019 16 th & 17 th Sep 2019 1 st to 4 th Oct 2019 14 th to 16 th Oct 2019 3 rd to 9 th Nov 2019	MAYUR'S CUP COURT WARS RIT VTU (BCZ) KREEDOSTAV A PESIT ASSOCIATION CUP	02 08 03 02 04 03 07	Participation Participation Winners Participation III Place Participation Participation
3	Chirag S	1NH16EC713	VII	Volley Ball (M)	26 th & 27 th Sep 2019 1 st to 4 th Oct 2019	SPARDHA 2019 KREEDOSTAV A	02 04	Participation III Place
4	Janardhana T	1NH17EC408	VII	Volley Ball (M) Cricket (M)	26 th & 27 th Sep 2019 1 st to 4 th Oct 2019 12 th to 16 th Oct 2019 11 th , 13 th & 14 th Nov 19	SPARDHA 2019 KREEDOSTAV A PESIT RIT	02 04 05 03	Participation III Place Participation Participation
7	Aditya Choudhary	1NH17EC003	V	Table Tennis	26 th & 27 th Sep 2019 1 st Oct 2019	SPARDHA 19 KREEDOSTAV A	02 01	Runners Participation
8	Souvik Das	1NH17EC096	V	Foot ball	14 th to 17 th Sep 2019 26 th & 27 th Sep 2019 1 st to 4 th Oct 2019	CHRI-SPO SPARDHA 19 KREEDOSTAV A	04 02 04	Participation Runners Participation
10	Milan Rao	1NH17EC051	V	Foot ball	14 th to 17 th Sep 2019 26 th & 27 th Sep 2019 1 st to 4 th Oct	CHRI-SPO SPARDHA 19 KREEDOSTAV A	04 02 04	Participation Runners Participation

					2019			
11	M Sachit	1NH16EC046	VII	Foot ball	14 th to 17 th Sep 2019 26 th & 27 th Sep 2019 1 st to 4 th Oct 2019	CHRI-SPO SPARDHA 19 KREEDOSTAV A	04 02 04	Participation Runners Participation
12	Akhilesh Varma	1NH16EC006	VII	Foot ball	14 th to 17 th Sep 2019 26 th & 27 th Sep 2019 1 st to 4 th Oct 2019	CHRI-SPO SPARDHA 19 KREEDOSTAV A	04 02 04	Participation Runners Participation
13	Rajeev Kumar	1NH18EC741	III	Foot ball	14 th to 17 th Sep 2019 26 th & 27 th Sep 2019 1 st to 4 th Oct 2019	CHRI-SPO SPARDHA 19 KREEDOSTAV A	04 02 04	Participation Runners Participation
14	Ritvik Msvv	1NH16EC725	VIII	Basket Ball (M)	25 th Jan to 3 rd Feb 2020 10 th to 15 th Feb 2020 22 nd to 24 th Feb 2020 28 th & 29 th Feb 2020	Malleshwaram Cup SPIEL RVCE DEVADAN CUP	10 06 03 02	Participation Participation Participation Winners
15	J Ruth Sharon	1NH17EC033	VI	Basket Ball (W)	25 th Jan to 3 rd Feb 2020 10 th to 15 th Feb 2020 22 nd to 24 th Feb 2020	Malleshwaram Cup SPIEL RVCE	10 06 03	3 rd PLACE RUNNERS WINNERS
16	Chirag S	1NH16EC713	VIII	Volley Ball (M)	1 st and 2 nd Feb 2020 23 rd and 24 th Feb 2020 28 th and 28 th Feb 2020 5 th and 6 th	UMANG RVCE CUFEE VTU (BCZ) VTU (IZ)	02 02 02 02 02	Runners Runners Participation Runners II Runners

					Mar 2020 9 th and 1 th Mar 2020			
17	Janardhana T	1NH17EC408	VIII	Volley Ball (M) Cricket	1 st and 2 nd Feb 2020 23 rd and 24 th Feb 2020 28 th and 28 th Feb 2020 5 th and 6 th Mar 2020 9 th and 1 th Mar 2020 14 th , 15 th 20 th 23 rd Feb 2020 16 th to 19 th Feb 2020 11 th to 20 th Mar 2020	UMANG RVCE CUFEE VTU (BCZ) VTU (IZ) CUFEE RVCE VTU	02 02 02 02 02 04 04 02	Runners Runners Participation Runners II Runners Participation Participation Participation
18	Tanmaya Sh	1NH18EC112	IV	Volley Ball (W)	13 th to 15 th Mar 2020	VTU(BCZ)	03	2 nd Runner Up
19	Meghashree R	1NH16EC055	VIII	Volley Ball (W)	13 th to 15 th Mar 2020	VTU(BCZ)	03	2 nd Runner Up
20	Sneha N S	1NH18EC106	IV	Volley Ball (W)	13 th to 15 th Mar 2020	VTU(BCZ)	03	2 nd Runner Up
21	Shivani Yadav	1NH18EC103	IV	Volley Ball (W)	13 th to 15 th Mar 2020	VTU(BCZ)	03	2 nd Runner Up

Participation in Inter College and Intra College Events

The students of each department have also participated in different inter-college fests and have also become winners in a few events. In addition, the students also participate in several activities/events organized by the college as well. Given below is the list of such participation in the various academic years

Table 9.7.23: List of Inter College and Intra College Events Participated

Sl No	Event	Name of Participating Student	Semester	Date
Academic Year 2019-2020				
1.	One Tree One Student	Madhunitha R	5	29.08.2019
		Monika K Reddy	5	
		Rishita S	5	
		Syale Rajkumar	5	
		Prajval T J	5	
2.	Donation Camp for the Flood Victims of North Karnataka and Kerala	Preshika J M	7	10.08.2019
		Prithipa A	7	
		Pavan Raj R	7	
3.	Times Fresh Face by Times of India	Naini Reddy	5	09.10.2019
4.	Bangalore Medical College Fest (Play Team)	Dhayana Sree Reddy	5	16.10.2019
		Shakthi A	5	
		Raksha Krishi	3	
5.	Spartan Race	Shakti A	5	26.10.2019
		Harsha E	7	
		Akhilesh	7	
		Joshua	1	
		Gridar	5	
		Kevin	1	
		Chirag Sharma	5	
		Janardhan	5	
		Deeksha S	5	
		Deepthi S	5	
		Nikshitha Bollineni	3	
		Arohi Jain	3	

		Harshith Pant	3	
		Bhoomika	5	
		Jeshav	7	
		Anurag	7	
		Rakshitha	7	
		Shakthi A	5	
		Syale Rajkumar	5	
6.	Kannada Rajyotsava	Rakshitha	7	04.11.2019
		A. Anil Bharat	5	
		Dhayana Sree Reddy	5	
		Madhunitha R	5	
		Monika K Reddy	5	
		Sowmiya A	5	
		Syale Rajkumar	5	
		Vignesh R	4	
		Manisha	3	
Academic Year 2018-2019				
1.	PES fest	Akshitha R	5	11.08.2018
		Sahib	7	
		Jitin Jain Mathew	7	
		Anju	7	
2.	Nagarjuna Fest	Jitin Jain Mathew	7	28.08.2018
		Anju	7	
3.	Jain Fest	Jitin Jain Mathew	7	27.9.2018
		Akshitha R	5	
4.	Kannada Rajyaotsava	Prathiksha	5	3.11.2018
		Sanjana Anand	7	
		Kurthana	5	
5.	MUN Event	Jitin Jain Mathew	7	6.11.2018
6.	Independence Day	Abhishekh VP	5	15.8.2018

	/Cultural Event	Ashwin	5	
		Megha	5	
		Achal	7	
		Bhavana Savant	7	
		Anju	7	
7.	Christ Univ Fest	Bhavana	8	6.3.2019
		Ashwin S	8	
		Soumya	4	
8.	NIFT Fest	Bhavana	8	4.04.2019
		Ashwin S	8	
		Anju	6	
		Kevine P Kumar	4	
9.	ICAT Fest	Bhavana	8	26.3.2018
		Ashwin S	8	
		Anju	6	
		Kevine P Kumar	4	
10.	NMIT Fest	Kushi Ponnamma	6	25.02.2019
		Soumya	4	
		Dhanyashree V Reddy	4	
11.	IIM-B Fest	Kushi Ponnamma	6	26.08.2018
12.	Presidency University Fest	Kushi Ponnamma	6	30.03.2019
13.	International School of Management	Kushi Ponnamma	6	20.09.2018
		Sahib Arora	4	
14.	SJBIT Fest	Kushi Ponnamma	6	7.10.2018
		Sahib Arora	4	
15.	Krupanidhi College Fest	Kushi Ponnamma	6	21.10.2018
		Sahib Arora	4	
16.	RVCE	Soumya	4	12.11.2018

		Dhanyashree V Reddy	4	
17.	CMRIT College Fest	Anju	6	15.03.2019
		Bhavana	8	
		Ashwin S	8	
18.	Ramaiah Institute of Technology	Anju	6	25.04.2019

Participation in Inter-College Technical Events

Students of the department are encouraged to participate in technical activities conducted by other colleges. Several of our students have won events as well. The details of such participation are listed below

Table 9.7.24: List of Inter-College Technical Events Participated

Sl. No	USN	Name of the Student	Event Date	Event Details	Institution/ Organization	Achievement
1	1NH16EC012	Athira Ajayakumar K (ECE) & Research team	06-02-2020	National Seminar on New Space: Small Satellites-Big Applications	Dr. Sivanthi Aditanar College of Engineering, Tiruchendur.	ICE Centenary Innovation Award as Young Research Team
2	1NH16EC012	Athira Ajayakumar K (ECE) & Research team	08-02-2020	International Cansat Workshop: Space Quest and launching of CanSata	Jeppiaar Institute of Technology Sriperumpudur, Chennai.	Young research engineer Award by National Design and research forum and UNISEC-India.
3	1NH17EC052	Mohammed Ghassan And Team	04-03-2020	Hackathon	Nitte Meenakshi Institute of Technology, P.B.No.6429, Yelahanka, Bangalore 560064.	First Prize- 1 lakh rupees for winning under the category 'Future Mobility'.

4	1NH16EC012	Athira Ajayakumar K	04 th to 06 th October 2019	CanSat/Rocketry International Competition	Serbia	First Prize (outside country event)
5	1NH16EC754	Tarun	04 th to 06 th October 2019	CanSat/Rocketry International Competition	Serbia	Second Prize (outside country event)
6	1NH16EC748	Shyam	04 th to 06 th October 2019	CanSat/Rocketry International Competition	Serbia	Third Prize (outside country event)
7	1NH15EC019	Denzel Abraham George	Sept to Dec 2018	Exchange program at ESIGELEC, Rouen, France.	Rouen, France	Participation in outside country event
8	1NH15EC019 1NH15EC062	Denzel Abraham George, Nikhil Riyaz	30 Nov - 05 Dec 2018	UNISEC-India at the 7th annual UNISEC- Global conference	Tokyo, Japan	Participation in outside country event
9	1NH16EC012	Athira Ajayakumar K	26 Oct to 03 Nov 2019	COSPAR Capacity Building Workshop on Small Satellites	Tel Aviv University, Israel	Participation in outside country event
10	1NH16EC036	K Girivardhan	05-09-2019	Indian Technology Congress 2019 - Human Digitalization: Future Intelligence(Seminar)	NIMHANS Convention Centre, Bengaluru	Participation
11	INH17EC092	Shoaib Ahmed	01-11-2019	India Innovation Challenge Design Contest	Texas Instruments – Online Event	Participation
12	INH17EC011	Bharath M	29-02-2020 & 01-03-2020	Technical Symposium	Indian Institute of Technology, Chennai, Tamil Nadu	Participation (Outside state event)
13	1NH16EC714 1NH16EC715 1NH16EC717 1NH16EC730	Gagana M R, Gouri Shneha Priya, Harshitha. P, Mounica E.	13-06-2020	National Conference on Advances in Engineering, Management and Sciences- 2020	Santhiram Engineering College, nandyal .	Outside State Participation (Outside state event)
14	1NH15EC062 1NH15EC727 1NH15EC019	Nikhil Riyaz, Hariraj R, Denzel	17 th to 29 th June 2019	The International Summer Space School: Future Space	Samara National Research	Presented the Seminar on 6U CubeSat for

		Abraham George.		Technologies and Experiments in Space	University, Samara, Russia	studying CME from the sun's corona Participation of students outside country
15	INH15EC019	Denzel Abraham George	06 th & 07 th Oct 2018	AI4GOOD Hackathon by IBM at Amsterdam	IBM Open POWER Europe Summit and Hackathon, Amsterdam	Runner-up position for lung cancer malignancy detection model (outside country event)

Hackathon

Students of our department also participated in the Hackathon. The details are given below

Table: 9.7.25: Participation in Hackathon

Event	Name	USN	Conducted	Remarks
Ideathon	Shashank B	INH16EC095	CISCO	Winner
	T E Habishek	INH16EC106	CISCO	Winner
	Roshini M	INH16EC085	CISCO	Winner
	ParithoshVema	INH16EC072	CISCO	Winner

III. Annual Student Activities:

The list of Annual activities conducted in the College/Department of Electronics and Communication Engineering are tabulated in Table 9.7.9. The pictures of annual events are shown in figures.

Table 9.7.26. List of Annual activities

Sl. No.	Event	Facilities	Participants	Month of conduction
1	College Annual day (SARGAM)	Seminar hall, LCD, PCs, Accommodation	Students from Engineering colleges	2018-19 (Sept) 2017-18 (Sept) 2016-17 (Sept)
2	Sports Day ECE	Recreation center, Indoor and outdoor	Students from various Engineering disciplines	2018-19 (Sept) 2017-18 (Sept) 2016-17 (Sept)

		accommodation		
3	ALUMNI meet	Seminar hall, LCD, PCs, OHP, Accommodation	ALUMNI Students from NHCE	2018-19 (Aug) 2017-18 (Aug) 2016-17 (Aug)



Figure 9.7e: Sargam 2019



Figure 9.7f: Sargam 2019



Figure 9.7g: Alumni meet 2019

9.7(D) Co- Curricular and extra- curricular Activities of ME

The several values learn from Co-curricular activities like:

- Cultural Values
- Development of Social Values
- Psychological Values
- Recreational Values
- Physical Development Values
- Educational value

Co-curricular activities play an important role in the development of vision, thought even though this is not part of core curriculum. The university has designed and developed an environment in which students participate in Co-Curricular activities while maintaining the academic standards. It will play a vital role for growth of students in different walks of life.

The role of Co- Curricular activities in student's life are important and listed as:

1. Overall Personality
2. Strengthened Self-confidence
3. Developed specialized skills

4. Improved Academic performance
5. Greater Opportunities
6. Sense of Responsibilities
7. Exposure to new activities

III) Co-curricular Activities

Under co-curricular activities NHCE celebrates Engineers day, Mathematics day, Education day, and Teachers day, professional society activities under SAE, ISTE and annual day. Along with the above mentioned events various co-curricular activities like debate and discussion, Quiz, paper presentations, seminars and group discussion sessions are conducted.

The details of various categories of activities are listed below:

i. Annual activities:

Table 9.7.27: List of Annual activities

Sl. No.	Event	Facilities	Participants	Month of conduction
1	College Annual day (SARGAM)	Seminar hall, LCD, PCs, Accommodation	Students from Engineering colleges	(Sept-2017) (Sept-2018) (Sept-2019)
2	National level Project Expo “TechHorizon”	Seminar hall, LCD, PCs, OHP, Accommodation	Students from Engineering Institutions	(May 2017) (May 2018) (May 2019)
3	National level paper presentation “MechHorizon”	Seminar hall, LCD, PCs Accommodation	Students from Engineering Institutions	(May 2017) (May 2018) (May 2019)
4	Sports competition “Kreedayantrik”	Recreation Centre, indoor & outdoor accommodation	Students from various Engineering disciplines	(Oct 2019)



Figure No 9.7.1: Glimpses of “Sargam”

TechHorizon 2019



New Horizon College of Engineering organized National Level Project exhibition **TechHorizon 2019** on 27-04-2019. Dr. K R Venugopal, Vice Chancellor, Bangalore University was Guest of Honour and Mr. O P Khanna, chairman, Needy Heart Foundation was Chief Guest. Around 600+ final engineering projects were exhibited. The theme for this year was "**smart India**". Good number of institutes from state as well as outside Karnataka were part of this mega event. Jury members were from the reputed organization and NHCE alumni association.



Figure No 9.7.2: Glimpses of “TechHorizon”



Figure No 9.7.3: Glimpses of “Kreedayantrik”

SL NO	NAME OF THE STUDENT	USN	DEPT	SEM	EVENT AND REASON	DATE	TIME
1	Pavan Kumar Reddy	1NH14ME091	ME	7th	Club Meeting	14.08.2019	3.50 Pm to 4.50 Pm
					Krishna Janmastami	24.08.2019	Full Day
					One Tree One Student	29.08.2019	Full Day
					KANNADA RAYOTSAVA	04/11/2019, 05.11.19	10.00am onwards
2	Vishala	1NH14ME142	ME	7th	Krishna Janmastami	24.08.2019	Full Day
3	Manoj Gowda T C	1NH16ME055	ME	7th	Donation Camp for the Flood Victims of North Karnataka and Kerala	10.08.2019	Full Day
					Club Meeting	14.08.2019	3.50 Pm to 4.50 Pm
4	Sammed Patil	1NH16ME094	ME	7	Donation Camp for the Flood Victims of North Karnataka and Kerala	10.08.2019	Full Day
					KANNADA RAYOTSAVA	22/10/2019, 23.10.19	2:50 TO 4:50
						04/11/2019, 05.11.19	10.00am onwards
5	Vaijmath	1NH16ME120	ME	7th	Krishna Janmastami	24.08.2019	Full Day
6	Varun Uday Chebbi	1NH16ME121	ME	7th	Donation Camp for the Flood Victims of North Karnataka and Kerala	10.08.2019	Full Day
					Club Meeting	14.08.2019	3.50 Pm to 4.50 Pm
7	Karan S Kumar	1NH17ME040	ME		Club Meeting	14.08.2019	3.50 Pm to 4.50 Pm
8	Prashant N Prasad	1NH17ME072	ME	5th	Club Meeting	14.08.2019	3.50 Pm to 4.50 Pm
9	Zaid Huq	1NH17ME109	ME	5th	Club Meeting	14.08.2019	3.50 Pm to 4.50 Pm
10	Akash B G	1NH17ME402	ME	7th	Krishna Janmastami	24.08.2019	Full Day
11	Arjun Kumar	1NH17ME407	ME	7th	Krishna Janmastami	24.08.2019	Full Day
					One Tree One Student	29.08.2019	Full Day
12	Hariprasad P	1NH17ME414	ME	7th	Krishna Janmastami	24.08.2019	Full Day
13	Nareesh R	1NH17ME424	ME	7th	Krishna Janmastami	24.08.2019	Full Day
14	Sachin M D	1NH17ME427	ME	5th	Club Meeting	14.08.2019	3.50 Pm to 4.50 Pm
15	Shivu Kumar	1NH17ME428	ME	7th	Krishna Janmastami	24.08.2019	Full Day
					Club Meeting	14.08.2019	3.50 Pm to 4.50 Pm

Figure No 9.7.4: Student participation at sports events

ii. Achievements in Co-curricular activities:

Table 9.7.28: Summary of achievements in Co-curricular activities

Sl. No.	Name of the activity	No. of students participated		
		2016-17	2017-18	2018-19
1	Project Expo / Paper presentation	67	100	100
2	Technical workshops	03	03	03
3	Industrial Visit	5	07	07



Figure No 9.7.5: Industrial visit



Figure No 9.7.6: Technical Workshop

IV) Extra-Curricular activities

b) Availability of sports facilities:

Table 9.7.29: List of Extra-Curricular activities organized every year

Sl. No.	Name of the Event	Sl. No.	Name of the Event
1	Republic Day	14	Birthday of Shaheed Bhagat Singh
2	Independence day	15	Birthday of Swami Vivekananda
3	Teachers Day	16	Birthday of Shaheed Hemu Kalani
4	Engineers Day	17	Birthday of Major Sandeep Unni Krishnan
5	Kannada Rajyotsava	18	Deepavali
6	International Women’s Day	19	Founders’ Day
7	Birthday of Subhas Chandra Bose	20	Induction Program
8	Birthday of Sir. M Visvesvaraya	21	Graduation Day
9	Birthday of Sardar Vallabhai Patel	22	Freshers’ Day

10	Birthday of Rani Channamma
11	Birthday of Jhansi Rani
12	Birthday of Chatrapathi Shivaji
13	Birthday of Dr. APJ Abdul Kalam

23	Annual Day “SARGAM”
24	Fresh Face
25	IT Quiz



Figure No 9.7.7: Kannada Rajyotsava



Figure No 9.7.8: Birthday of Dr. APJ Abdul Kalam

Table 9.7.30: List of indoor games available in the campus

Sl. No.	Name of the Sport Facility	Numbers Available	Place of Availability	Whether Available beyond Regular Timings
1	Caroms	08 boards	Students Recreation Centre	YES
2	Chess	08 boards		
3	Table Tennis	03 boards		
4	Madison Ball	12		
5	Yoga Mats	06		

Table 9.7.31: List of outdoor games available in the campus

Sl. No.	Name of the Sport Facility	Available Kits	Place of Availability	Whether Available beyond Regular Timings
1	Volley ball	12 balls	Open ground	YES
2	Basket ball	24 balls		
3	Throw ball	06 balls		
4	Hand ball	10 balls		
5	Kho-Kho	2 poles		
6	Football/Cricket	12 balls		
7	Shot put	02		
8	Badminton	10 bats		

Achievements in sport activities

Table 9.7.32: Summary of achievements in sport activities

Sl. No.	Name of the sport	No. of students		
		2016-17	2017-18	2018-19
1	Volley ball	4	2	2
2	Basket ball	2	2	2
3	Football	3	4	3
4	Hand ball	-	2	2
5	Kabaddi	3	2	2
6	Wrestling & Judo	2	-	-
7	Weight Lifting	1	-	-

c) National Service Scheme (NSS):

NSS is a voluntary association of young people in Colleges, Universities. The cardinal principal of the NSS program is that it is organized through participation in community service; gets a sense of involvement in the task of nation building.

List of NSS Events:

Table 9.7.33: summary of NSS events conducted in the academic years of 2016-19

Sl. No.	Event Name	No. of students participated
1	Blood donation camp (Lions club)	210
2	Women Empowerment	70
3	Orphanage Visit	25
4	Blood donation camp (Nimhans& Kidwai)	143
5	Blood donation camp (Nimhans)	203
6	Blood donation camp (Grace Blood Bank)	127
7	Blood donation camp (Lions club)	91



Figure 9.7.9: Blood donation camp



DEPARTMENT OF CIVIL ENGINEERING

CRITERION 10

GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES

CRITERION 10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120
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10.1 Organisation, Governance and Transparency (55)

10.1.1. State the Vision and Mission of the Institute (5)

(Vision statement typically indicates aspirations and mission statement states the broad approach to achieve aspirations)

VISION OF THE INSTITUTE

To emerge as an Institute of eminence in the fields of engineering, technology and management in serving the industry and the nation by empowering students with a high degree of technical, managerial and practical competence.

MISSION OF THE INSTITUTE

To strengthen the theoretical, practical and ethical dimensions of the learning process by fostering a culture of research and innovative among faculty members and students.

To encourage long-term interaction between the academia and industry through their involvement in the design of curriculum and its hands-on implementation.

To strengthen and mould students in professional, ethical, social and environment dimensions by encouraging participation in co-curricular and extracurricular activities.

10.1.2 Availability of the Institutional Strategic Plan and its effective implementation and Monitoring (25)

Institutional strategic plan has been made by performing deep analysis of Strength, weakness, Opportunity and Threat of the institute. Several meetings and interactions with Management, Director, Dean Academic, Dean Research, Registrar, all HoD's, Faculty members, Supporting staff, Students, Parents and Alumni were held for the same. The strategic plan is given below:

Following key points about institute were discussed to carry out the analysis

- Infrastructure Strategic plan
- Teaching Learning(Curriculum) Strategic plan
- Student Centric Strategic plan
- Faculty Strategic plan
- Research and Development Strategy plan
- Co-curricular Activity Strategy plan
- Extra-curricular Activity Strategy plan

After several brainstorming session by keeping above key points in mind, following strategy plans and its implementation & monitoring have been set up that transform New Horizon College of Engineering into globally recognize technical institute.

The Quantification for all the above Strategic plans are mentioned in the following table:

(i) Strategic plan

Table:10.1.2a Infrastructure Strategic plan

Strategic Plan						
Infrastructure						
Academic Year		2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
S.No	Key Progress Area (KPA)	Progressive Enhancement Targets (PET)-Year wise				
1	Class rooms with Smart Boards	3 per Department	6 per Department	All Class Rooms	All Class Rooms	All Class Rooms
2	Modernization of Lab	25%	30%	50%	New	New
3	Industry Institute Intraction cell & ED cell	Existing and Coordinating with all the department & Outside world				
4	Centre of Excellence (CoE)	Existing and Coordinating with all the department & Outside world				
5	CMS &LMS	Institute is Presently using				
6	Library ebooks	100% Existing				
7	Seminar Hall	3 in Institute	+1	+2	+3	+4
8	Introduction of UG and PG courses	7UG & 3 PG	+2UG	+2UG	+2UG	+2UG
9	e Governance	Existing				

Table: 10.1.2b Teaching Learning(Curriculum) Strategic plan

Strategic Plan						
Teaching Learning(Curriculum)						
Academic Year		2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
S. No	Key Progress Area (KPA)	Progressive Enhancement Targets (PET)-Year wise				
1	NIRF ranking	106	114	110	105	100
2	ATAL Ranking	TOP 06-25	Top 5	Top 3	Top 2	Top 1
3	Professional Society tie up	12	15	20	25	30
4	Branding (Marketing)	PAN INDIA & Social Media	PAN INDIA, Print & Social Media	PAN INDIA, Print & Social Media	PAN INDIA + Asian	PAN INDIA+Asian and Europe
5	Innovative teaching & Learning	1 Online Course per Department	1 Online Course per Department	2 Online Course per Department	2 Online Course per Department	3 Online Course per Department
6	Outcome based education (OBE Implementation)	Implementation	Enhance & Improve	Enhance & Improve	Enhance & Improve	Enhance & Improve
7	NBA	All Programs	6 Years 4 Program Tier 1	6 Years 3 Program Tier 1	-	-
8	NAAC	All Programs	All Programs	All Programs	All Programs	All Programs
9	Industrial Collaborated Courses	10 Courses	15 Courses	20 Courses	25 Courses	30 Courses
10	Leadership courses in curricula	2 Courses	4 Courses	6 Courses	8 Courses	10 Courses

Table: 10.1.2 c Student Centric Strategic plan

Strategic Plan						
Student Centric						
Academic Year		2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
S.No	Key Progress Area (KPA)	Progressive Enhancement Targets (PET)-Year wise				
1	Admission-UG	Top 8000	Top 6000	Top 5000	Top 3000	Top 2000
2	Admission-PG	GATE Top 2000	GATE Top 1000	GATE Top 800	GATE Top 600	GATE Top 500
3	Lateral Entry Admission	Top 5000	Top 4000	Top 3000	Top 2000	Top 1000
4	Placement-UG	75% Avg 4 Lakhs	80% Avg 5 Lakhs	82% Avg 5.5 Lakhs	85% Avg 6 Lakhs	87% Avg 6.5 Lakhs
5	Fee Concession	10%	12%	15%	17%	20%
6	Best Student - Awards	Existing				
7	Top academic Students Scholarship (Class-Wise)	Existing				

Table: 10.1.2 d Faculty Strategic plan

Strategic Plan						
Faculty						
Academic Year		2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
S.No	Key Progress Area (KPA)	Progressive Enhancement Targets (PET)-Year wise				
1	Pass % (UG)	90% and above	90% and above	90% and above	90% and above	90% and above
2	Pass % (PG)	100% and above	100% and above	100% and above	100% and above	100% and above

3	Faculty Average Experience	8 Years	10 Years	12 Years	14 Years	16 Years
4	Publication per Dept	10 Publications	15 Publications	20 Publications	25 Publications	30 Publications
5	Ph.D per Department in Percentage wise	30	32	35	40	50
8	Industrial training	2 per Department	3 per Department	5 per Department	7 per Department	10 per Department
9	Faculty from industry	5 Nos.	7 Nos.	9 Nos.	12 Nos.	15 Nos.

Table: 10.1.2 e Research and Development Strategy plan

Strategic Plan						
Research and Development						
Academic Year		2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
S.No	Key Progress Area (KPA)	Progressive Enhancement Targets (PET)-Year wise				
1	Research FDP/workshop	10 Nos.	14 Nos.	20 Nos.	24 Nos.	30 Nos.
2	Ph.D registration in Percentage	30	40	50	60	70
3	Ph.D completion in Percentage	30	40	50	60	70
4	Ph.D Guidance in Percentage	20	30	40	50	60
5	Funded project applied per Department	10	20	30	40	50

6	Funded seminar/workshop conducted	10	20	30	40	50
7	International conference	1	2	3	4	5
8	Sponsored project	1 Crore	2 Crores	3 Crores	4 Crores	5 Crores
9	Consultancy	1 Crores	1.25 Crores	1.5 Crores	2 Crores	2.5 Crores
10	MoU with industry	10	15	20	25	30
11	MoU with Iisc, IIT, NIT and premier institutions	2	3	4	5	6
12	Patent provisionally filed	209 Nos.	100 Nos.	125 Nos.	150 Nos.	200 Nos.
13	Patent published	40 Nos.	50 Nos.	75 Nos.	100 Nos.	125 Nos.
14	Research Centre	11 Nos.	+2 Nos.	+2 Nos.	+2 Nos.	+3 Nos.
15	Technology incubator	10 Nos.	20 Nos.	30 Nos.	40 Nos.	50 Nos.

Table: 10.1.2 f Co-curricular Activity Strategy plan

Strategic Plan						
Co-curricular Activity(Students)						
Academic Year		2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
S.No	Key Progress Area (KPA)	Progressive Enhancement Targets (PET)-Year-wise				
1	Industrial visit	4	6	8	10	12
2	Exchange programme	2%	4%	6%	8%	10%
3	Value added courses	4	6	8	10	12
4	MOOC courses	1	2	3	4	5

Table: 10.1.2 g Extra-curricular Activity Strategy plan

Strategic Plan	
Department of Civil Engineering NHCE	

Extra-curricular Activity (Students)						
Academic Year		2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
S.No	Key Progress Area (KPA)	Progressive Enhancement Targets (PET)-Year-wise				
1	Sports & Games	10	12	14	15	20
2	Tournaments @ level	5	6	7	8	10
3	Alumni association	100%	100%	100%	100%	100%
4	NSS	Existing				
5	Satellite Club	2%	4%	6%	8%	10%
6	Rocketry Club	2%	4%	6%	8%	10%

(ii) Monitoring

Sl No	Strategic Plan	Monitoring
1	Infrastructure	Registrar
2	Teaching learning	Dean – Academics
3	Student	Dean – Students Affairs
4	Faculty	HOD's
5	Research & Development	Dean – Research & Development
6	Co-curricular	Dean – Academics
7	Extra-curricular	Library

10.1.3 Governing body, administrative setup, functions of various bodies, service rules, Procedure, recruitment and promotional policies (10)

List the governing, senate and all other academic and administrative bodies; their memberships, functions and responsibilities; frequency of the meetings and attendance therein, in a tabular form. A few sample minutes of the meetings and action-taken reports should be annexed.

The published rules including service rules, policies and procedures; year of publication shall be listed. Also state the extent of awareness among the employees/students.

- To ensure observance and compliance of instructions issued by AICTE, Government of Karnataka and affiliating University.
- To ensure that the building, land, furniture and facilities are not being used for any other purpose (such as holding political meetings, communal meetings), except for running AICTE approved courses in the institute.
- To submit reports and returns from time to time to AICTE, Government of Karnataka and affiliating University.
- Create peaceful and favourable atmosphere for study free from ragging.

Powers and Functions of Chairperson of Governing Council

- The Chairperson shall intimate the date of the Governing Council meeting to the Principal-cum-Member Secretary for arrangement of Governing Council meeting. In case the Principal-cum-Member Secretary fails or ignores to arrange Governing Council meeting, the Chairperson can call for Governing Council meeting.
- In the event of taking vote on any decision and if a tie occurs, then decision of Chairperson shall be final.
- The Chairperson shall ensure that the decisions taken in Governing Council meeting are implemented by Member Secretary.
- The Chairperson shall ensure that the Governing Council is functioning properly to meet the mission of the Institute.

Powers and Functions of Member Secretary of Governing Council

- Member Secretary of Governing Council of the Institute shall be the Principal, who executes the decisions taken in the Governing Council on behalf of the Governing Council.
- By the order of the Chairperson, Member Secretary shall arrange the Governing Council meeting. In case of unfavouring situations, he/she will intimate the cancellation of the meeting the Chairperson and other members of the Governing Council.
- He would take correspondence on behalf of the Governing Council meeting in relation with the decisions taken in it and get it confirmed by the Chairperson and members present. With confirmation, the proceedings would be forwarded to AICTE, Government of Karnataka and affiliating University.
- The Member Secretary would maintain the properties of the institution and remain in-charge of it, the title deeds and papers related to the need of the institution.
- He will exercise powers and functions as maybe imposed and assigned by the Governing Council from time to time.
- The Member Secretary would issue appointment letters to the staffs selected by the Recruitment Committee after the approval from the sponsoring trust and the Governing Council of the institute.
- To ensure observance and compliance of instructions issued by AICTE, Government of Karnataka and affiliating University.
- To ensure that the building, land, furniture and facilities are not being used for any other purpose (such as holding political meetings, communal meetings), except for running AICTE approved courses in the institute.
- To submit reports and returns from time to time to AICTE, Government of Karnataka and affiliating University.
- Create peaceful and favourable atmosphere for study free from ragging.

Powers and Functions of Chairperson of Governing Council

- The Chairperson shall intimate the date of the Governing Council meeting to the Principal-cum-Member Secretary for arrangement of Governing Council

meeting. In case the Principal-cum-Member Secretary fails or ignores to arrange Governing Council meeting, the Chairperson can call for Governing Council meeting.

- In the event of taking vote on any decision and if a tie occurs, then decision of Chairperson shall be final.
- The Chairperson shall ensure that the decisions taken in Governing Council meeting are implemented by Member Secretary.
- The Chairperson shall ensure that the Governing Council is functioning properly to meet the mission of the Institute.

Governing Council

The composition of Governing Council as follows;

Table 10.1.3.1 Governing Council

Sl No.	Member	Address	Designation	Position
1	Dr. Mohan Manghnani	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Chairman, NHEI	Chairperson
2	Mr. H N Surya Prakash	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Registrar	Member
3	Dr. R Bodhisatvan	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Principal-NHC(M)	Member

4	Dr. M. S. Ganesha Prasad	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Dean & Head – Department of Mechanical Engineering	Member
5	Dr. Prashanth C S R	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Dean-Academics	Member
6	Dr. Vijilius H Raj	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Controller of Examination	Member
7	Prof. Gurucharan Singh	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Executive Director – Training & Placements	Member
8	Dr. B.V. Ravishankar	Principal BMS & EC Member VTU	Educationist	Member
9	Prof. H Devraj UGC Nominee	New No. 23/2 III Main Road, Gandhi Nagar, Adyar Chennai – 600 020	Commission (UGC) Nominee	Member
10	AICTE Nominee	Director, AICTE, Palace Road, Bangalore- 560001	Council (AICTE) Nominee	Member
11	DTE Nominee	Directorate of Technical Education, Bangalore – 560001	State Government Nominee	Member

12	Sri. Sagar Nidavani	Executive Council Member VTU	University (VTU) Nominee	Member
13	Prof. T G Sitharam	Professor – Department of Civil Engineering	Professor	Member
14	Dr. Manjunatha	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Principal	Ex Officio Member Secretary

Academic Council

Structure/Constitution	Functions/Responsibilities	Frequency of Meetings
<p>Academic Council constituted with</p> <ul style="list-style-type: none"> •Institution's distinguished Principal as Council Chairman •Dean- Academic affairs as Member Secretary •All Heads of the Departments as Council Members •1-Professor, 1-Associate Professor or 1- Assistant Professor(as per seniority in institution) from each department as representing council members(for a period of 2-years) •4(Min.)-External experts from engineering education or Industry as council members nominated by Board of Governors(B.O.G) •1-External expert for each major engineering discipline nominated 	<ul style="list-style-type: none"> •Recommend and approve faculty boards, academic regulations, curriculum-scheme and syllabi, teaching & learning practices •Frame regulations regarding students admission into programmes and to conduct of examinations •Suggest and recommend proposed teaching methods/techniques(LCD projector, Smart Board, Online etc..) and student performance evaluation metrics to enhance quality education 	Twice in a Year

by vice chancellor, VTU, Belgaum as council member •Institution's controller of examination(COE) as council member	<ul style="list-style-type: none"> •Approve students for conferment of degrees, diplomas or certificates by the University. •Recommend to the B.O.G for about 1. Institute new programmes of study 2. Student scholarships, fellowships, medal, prizes with the guideline of relevance •Promote and verify research activities of the institution 	
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Table 10.1.3.2 Academic Council

Sl No.	Category	Sl No.	Name
I	Principal of the College – Chairman	1	Dr. Manjunatha
II	All Heads of the Dept. – Members	1	Dr. M S Ganesh Prasad
		2	Dr. Niranjan P S
		3	Dr. B Rajalakshmi
		4	Dr. Sanjeev Sharma
		5	Dr. Ram Kumar S
		6	Dr. R.J. Anandhi
		7	Dr. Shridhar Kurse
		8	Dr. Ananda Vardhan
		9	Dr. Revathi V
		10	Dr. Anusuya Devi V S

		11	Dr. Asha V
		12	Dr. Sheelan Misra
		13	Dr. Srinivasa G
		14	Dr. Sowmya Narayanan
III	Controller of Examination	1	Dr. Vijilius H Raj
IV	Teachers of the College representing different level of teaching staff	1	Dr. Mohan Kumar
		2	Prof. Aravinda
		3	Dr. Adhikari
		4	Dr. A R Sainath
V	Experts from outside the college representing areas such as industry, R&D, Tech. Edn	1	Dr. Krishnan – PESIT
		2	Mr. Ashish – Skyfi lab
		3	S K L N Prasanna, Guhring Industries, TT – Head, Bangalore
		4	Dr. Sanjay Gupta, Director Innovation Council, Dell Services
		5	Ajit Kumar Padhi, Director Operation, NASSCOM
VI	Nominees of University (VTU)	1	Dr. Shadashive gowda, Principal- Vidya Vardhaka College of Engineering, Mysuru
		2	Dr. Shivyoginath, Prof., Dept. of Civil Engineering, Basaveswara Engineering College, Bagalkot

		3	Dr. Mary Cherian, Prof., Dept. of CSE, Dr. A.I.T. Bangalore
VII	Dean Academics – Member Secretary	1	Dr. Prashanth C S R

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	21-09-2019	21	3
	29-06-2019	24	-
CAY m1(2018-19)	05-10-2018	18	8
	23-06-2018	22	4
	22-01-2018	21	2
CAY m2(2017-18)	03-08-2017	20	2
	28-01-2017	20	-
CAY m3(2016-17)	23-07-2016	22	3
	22-01-2016	20	1
CAY m4(2015-16)	16-12-2015	22	2
	09-11-2015	20	1
	18-09-2015	19	1
	31-07-2015	20	-
	06-06-2015	17	3

Statutory Committees

A number of committees are present in the college that are formed taking into the considerations of the students and faculties. There is diversification that ensures that the committees address any issues faced by the stake holders and also aims for the improvements under the purview of the respective committees. The various committees and their in-charges are as follows:

Table 10.1.3.3 Statutory Committees

Sl No	Committees	In-Charge	Designation
1	Accreditation Committee	Dr. M. S. Ganesha Prasad	Dean & Head – Department of Mechanical Engineering
2	Admission Committee	Mr. H N Suryaprakash Ms. Aruna	Registrar Head- Admissions
3	Alumni Committee	Dr. M. S. Ganesha Prasad	Dean & Head – Department of Mechanical Engineering
4	Anti- Ragging Committee	Mr. H N Suryaprakash	Registrar
5	Anti- Sexual Harassment Committee	Dr. R.J. Anandhi	Professor & Head – ISE
6	Co- Curricular Committee	Dr. Anitha S. Rai	Head- Library & Information Center
7	Community Development Center (Public Welfare Committee)	Mr. H N Suryaprakash Ms. Deepa Ganesh	Registrar HOD- Marketing & Branding
8	Counselling Committee	Dr. Reena Jain	Head-Counselling
9	Cultural Committee	Dr. Anitha S. Rai	Head- Library & Information Center
10	Curriculum Development Committee	Dr. C S R Prashanth	Dean- Academics
11	Disciplinary Committee	Mr. H N Suryaprakash	Registrar
12	Energy Conversion Audit Committee	Dr. Ram Kumar S Mr. Karthik	HOD-EEE Estate Manager
13	Examination Committee	Dr. Vijilius Helena Raj	Controller Of Examinations

14	Finance Committee	Mrs. Malathi Madhusudan	Senior Executive Director – Accounts & Finance
15	Hostel (Boys) Development & Welfare Committee	Mr. H N Suryaprakash	Registrar
16	Girls Hostel Development & Welfare Committee	Ms. Aruna	Head- Admissions
17	Infrastructure Development Committee	Dr. P S Niranjan Mr. Rao	Head- GPE Program & HOD- Civil Engg. Project Manager
18	In-Plant Training/ Industrial/ Career Guidance/ Placement Committee	Prof. Gurucharan Singh	Executive Director- Training & Placements
19	Instrumentation Cell	Dr. Sanjeev Sharma	HOD- ECE
20	Internal Quality Assessment & Assurance Cell	Dr. Gopal Krishna Mr. Anil Kumar Hangal	Dean – R&D Head – Quality Assurance
21	Library Committee	Dr. Anitha S. Rai	Head- Library & Information Center
22	NCC Committee	Dr. M. S. Ganesha Prasad Mr. H N Suryaprakash	Dean & Head – Department of Mechanical Engineering Registrar
23	NSS Committee	Dr. Anitha S. Rai	Head- Library & Information Center
24	News Letter Committee	Dr. S. Mohan Kumar	Associate Professor, Department of ISE
25	Physical Education & Sports Committee	Dr. Ganesh Prasad Mr. Vinay	Dean & Head – Department of Mechanical Engineering Physical Education Director

26	Professional Societies	Dr. K. Gopala Krishnan	Dean- R & D
27	Public Relations & Marketing Committee	Mr. Adarsh J Navale	HOD- Marketing & Branding
28	Purchase Committee	Mrs. Malathi Madhusudan Mr. H N Suryaprakash	Senior Executive Director – Accounts & Finance Registrar
29	Recruitment Cell	Ms. Manjula V.	Head- HR
30	Research & Development Committee	Dr. K. Gopala Krishnan	Dean- R & D
31	SC/ST Welfare Cell	Mr. H N Suryaprakash	Registrar
32	Software / Hardware Training Committee	Dr. C S R Prashanth	Dean- Academics
33	College Internal Complaints Committee (CICC)	Ms. Manjula V.	Head- HR
34	Staff Welfare Committee	Ms. Manjula V.	Head- HR
35	Value Added Programs Committee	Dr. M. S. Ganesha Prasad	Dean & Head – Department of Mechanical Engineering
36	Women Empowerment Committee	Dr. R.J. Anandhi	Professor & Head – ISE
37	Student Mentoring Committee	Dr. Anusuya	Professor & Head- Chemistry
38	Student Grievances Redressal	Mr. Suryaprakash	Registrar
39	Universal Human Values Committee	Dr. Anusuya	Professor & Head- Chemistry

Accreditation Committee

As an upcoming engineering college in Bangalore as well as in Karnataka, the college which is already recognised by accreditation councils has formed this committee to look into the requirements for upcoming state and national level accreditations.

Table 10.1.3.3.1 Accreditation Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member
3	Dr. C S R Prashanth	Dean- Academics	Member
4	Dr. K. Gopala Krishnan	Dean – Research	Member
5	Dr. Sheelan Misra	HoD- MBA	Member
6	Dr. Anitha S Rai	HoD – Library & Information Center	Member
7	Dr. Ganesh Prasad	Dean-Mechanical Engineering	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	14-07-2020	All	Nil
	18-06-2020		
	10-06-2020		
	05-06-2020		
	01-06-2020	All	Nil
	27-05-2020	All	Nil
	22-01-2020		
	20-07-2019		
CAY ml(2018-19)	18-01-2019	All	Nil

	06-09-2018	All	Nil
CAY m2(2017-18)	08.08.2017	5	2
	12.06.2017	All	Nil
CAY m3(2016-17)	10.02.2017	All	Nil
	19.08.2016	All	Nil
	05.07.2016	All	Nil
CAY m4(2015-16)	25.02.2016	6	1
	19.08.2015	All	NIL
CAY m5(2014-15)	11.05.2015	All	Nil
	17.10.2014	All	Nil

Admission Committee:

This is an integral committee of the institute that deals with the admission of the students into the various undergraduate and postgraduate programs. Based on the students' qualifications and rankings in entrance exams, this committee provides admissions to the students to pursue their course of choice.

Table 10.1.3.3.2 Admission Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member
3	Mrs. Malathi Madhusudan	Senior Executive Director – Accounts & Finance	Member
4	Ms. Manjula V.	Head- HR	Member
5	Ms. Aruna	Head- Admissions	Member-Secretary
6	Dr. Manjunatha	Principal	Chairman

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	24.04.2020	All	Nil
CAY m1(2018-19)	12.04.2019	All	Nil
CAY m2(2017-18)	09.04.2018	All	Nil
CAY m3(2016-17)	04.04.2017	All	Nil
CAY m4(2015-16)	20.04.2016	All	Nil
CAY m5(2014-15)	13.04.2015	All	Nil

Alumni Committee

Alumina of an educational institute contributes a lot to the growth of the organization. Besides being a major stakeholder of the institute, they give guidance and feedback to their juniors with respect to their career opportunities. This committee was constituted to keep constant rapport with the alumni.

Table 10.1.3.3.3 Alumni Committee

Sl. No	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. C S R Prasanth	Dean – Academics	Member
3	Dr. Niranjana	HoD – Civil	Member
4	Dr. Ram Kumar S	HOD- EEE	Member
5	Dr. R.J. Anandhi	HOD- ISE	Member
6	Dr. Sheelan Misra	HOD – MBA	Member
7	Dr. Asha V	HOD – MCA	Member
8	Dr. Revathi V	HoD – BSH (Physics Cycle)	Member
9	Dr. M S Ganesha Prasad	Dean, Professor & HoD – ME	Member-Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	20-02-2020	All	Nil
	29-07-2019	All	Nil
CAY m1(2018-19)	19-03-2019	8	1
	20-11-2018	All	Nil
CAY m2(2017-18)	04.08.2017	7	2
	05.07.2017	5	4
CAY m3(2016-17)	11.01.2017	8	1
	14.12.2016	9	Nil
	10.08.2016	8	1
CAY m4(2015-16)	12.05.2016	19	2
	19.11.2015	18	3
CAY m5(2014-15)	09.04.2015	20	1
	15.10.2014	20	1

Anti-Ragging Committee

Ragging is a very common problem faced by students in the campus during and after college hours. The consequences of the students who faced ragging are very serious and shocking. Thus, this committee was constituted to control ragging and provide relief to students who come under this shadow. The committee has the powers to take stringent action on students involving in such activities. The Committee comprise of the following members.

Table 10.1.3.3.4 Anti-Ragging Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member Secretary
3	Dr. C S R Prashanth	Dean – Academics	Member

4	Dr. M S Ganesha Prasad	Dean & Head – Department of Mechanical Engineering	Member
5	Ms. Aruna	Director – Admissions	Member
6	Dr. Revathi V	HOD – Physics	Member
7	Inspector- Marathalli Police Station	Inspector	Members
8	Ms. Sreeja	Parent	Member
9	Mr. Karthik	Parent	Member
10	Mr. Nanjundiah	BEO (Retd.)	Member
11	Ms. Shanti P	Girls Hostel Warden	Member
12	Mr. Devraj R.	Boys Hostel Warden	Member
13	Ms.Sunitha Prabhakar	Student Counselor	Member
14	Mr. Adharsh Madhusudan	Student	Member
15	Ms. Sharon Ann Gomes	Student	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	17.01.2020 22.07.2019	All	Nil
CAY m1(2018-19)	17.01.2019 20.07.2018	All	Nil
CAY m2(2017-18)	22.01.2018 20.07.2017	14 13	01 02
CAY m3(2016-17)	11.01.2017 23.07.2016	14 13	01 02
CAY m4(2015-16)	21.01.2016 22.07.2015	14 13	01 02
CAY m5(2014-15)	20.01.2015 16.07.2014	14 All	01 Nil

Anti-Sexual Harassment Committee

Sexual Harassment is a very sensitive issue and the students facing such problems will not be in a mind-set to address these issues. Thus this committee was constituted to tackle such problems and help the students. Powers are vested in the hands of the committee to take stringent action on students involving in such activities. The committee is constituted as follows.

Table 10.1.3.3.5 Anti-Sexual Harassment Committee

Sl. No.	Name	Designation	Position
1.	Dr.Manjunatha	Principal	Chairman
2.	Ms.Manjula	Head-HR	Member
3.	Ms.Aruna	HOD-Admissions	Member
4.	Dr. Revathi V	HOD-Physics	Member
5.	Ms.Cynthia	Student Counselor	Member
6.	Ms.Shanthi	Girls Hostel Warden	Member
7.	Ms.Vijaya	Advocate	Member
8.	Mr.Sadiq Pasha	Police-Inspector-HAL	Member
9.	Ms.Shanmathi K	Student Representative	Member
10.	Dr.R J Anandhi	HOD-ISE	Member-Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	13.01.2020	All	Nil
CAY m1(2018-19)	24.10.2018	All	Nil
CAY m2(2017-18)	01.01.2018 20.09.2017	All 09	Nil 01
CAY m3(2016-17)	17.09.2016	All	Nil

	10.08.2016	09	01
	06.08.2016	09	01
CAY m4(2015-16)	22.09.2015	07	03
CAY m5(2014-15)	16.02.2015	09	01
	25.09.2014	All	Nil

Co-curricular Committee

The committee of the college is constituted to look into the likes of the students, besides academics. Aimed at ensuring an overall development of the young ester, the committee promotes various activities by forming clubs involving students, helping them excel in competitions.

Table 10.1.3.3.6 Co-curricular Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Prof. Sreeja	Associate Professor – MCA	Member
3	Prof. Manjesh C	Asst. Prof.– ME	Member
4	Prof. Aravinda	Sr. Asst. Professor – ECE	Member
5	Keshav	VIII Sem-CSE	Student Member
6	Chandan Kumar V T	VI Sem-Automobile	Student Member
7	Santhosh Kadali	VI Sem- MCA	Student Member
8	Dr. Anitha S Rai	Head-Library	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	20.01.2020	All	Nil
	24.07.2019	All	Nil
CAY m1(2018-19)	13.01.2019	All	Nil

	16.07.2018	08	01
CAY m2(2017-18)	17.01.2018	All	Nil
	14.08.2017	08	01
CAY m3(2016-17)	19.01.2017	08	01
	19.12.2016	08	01
	11.10.2016	All	Nil
CAY m4(2015-16)	18.07.2016	All	NIL
	08.12.2015	All	NIL
	21.07.2015	07	02
CAY m5(2014-15)	15.12.2014	All	Nil
	04.07.2014	All	Nil

Community Development Centre (Public Welfare Committee)

This committee looks into the interest and development of the faculties and students of the college issues pertaining to campus facilities addressed to this committee who resolve it.

Table 10.1.3.3.7 Public Welfare Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member
3	Mrs. Malathi Madhusudan	Senior Executive Director – Accounts & Finance	Member
4	Ms. Manjula V.	Head- HR	Member
5	Mr. Adarsh J Navale	Head- Marketing & Branding	Member-Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	06.01.2020	All	Nil
CAY m1(2018-19)	28.01.2019	All	Nil
CAY m2(2017-18)	24.01.2018	All	Nil
CAY m3(2016-17)	23.01.2017	All	Nil
CAY m4(2015-16)	11.01.2016	All	Nil
CAY m5(2014-15)	12.01.2015	All	Nil

Counselling Committee

An essential committee in the college addressing issues of students. This committee was constituted to help distracted, diverted and students who lack concentration in studies to get back to studying. The committee includes the counselors who assist and guide the students to get back to the curriculum.

Table 10.1.3.3.8 Counselling Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Ms. Deepa	Student Counselor	Member
3	Ms. Revathi Srinivasan	Student Counselor	Member
4	Dr. Sudha Thomas	Student Counselor	Member
5	Ms. Cynthia M. War	Student Counselor	Member
6	Ms. Rakhi N. Gopan	Student Counselor	Member
7	Ms. Sunitha Prabhakar	Student Counselor	Member
8	Dr. Reena Jain	Head-Counselor	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	04.02.2020 07.08.2019	All	Nil
CAY m1(2018-19)	07.02.2019 10.08.2018	All	Nil
CAY m2(2017-18)	05.02.2018 08.11.2017 02.08.2017	07 07 06	01 01 02
CAY m3(2016-17)	23.01.2017 26.10.2016 15.09.2016 03.08.2016	05 08 07 07	03 Nil 01 01
CAY m4(2015-16)	10.05.2016 18.10.2015	07 06	01 02
CAY m5(2014-15)	23.04.2015 16.10.2014	07 All	01 Nil

Cultural Committee

Based on the lines of the co-curricular committee, the cultural committee helps the students to distinguish themselves apart from their curriculum. Students are encouraged to take part in various cultural events in college and other colleges and showcase their talents.

Table 10.1.3.3.9 Cultural Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. Revathi V	HOD-Physics	Member
3	Dr. Asha V.	Prof.-MCA	Member
4	Prof. Kavitha	Asst. Professor – ISE	Member

Department of Civil Engineering NHCE

5	Dr. Nisha	Associate Professor – ECE	Member
6	Mr. Keshav	Student member	Member
7	Ms. Varshini	Student member	Member
8	Dr. Anitha S. Rai	Head- Library & Information Center	Member- Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	22.01.2020	All	Nil
	05.08.2019	All	Nil
CAY m1(2018-19)	10.01.2019	All	Nil
	11.07.2018	All	Nil
CAY m2(2017-18)	05.02.2018	08	01
CAY m3(2016-17)	01.08.2017	All	Nil
CAY m4(2015-16)	11.08.2016	08	01
	07.10.2015	08	01
CAY m5(2014-15)	21.08.2015	All	Nil
	17.11.2014	08	01

Curriculum Development Committee

The committee is essential with respect to the framing of the academic syllabus for undergraduate and postgraduate courses across all departments. The committee involving the Heads of all the Departments aims at framing a curriculum that brings out syllabus that meets the outside/industry requirements and at the same time ensures teaching is done in a very effective way.

Table 10.1.3.3.10 Curriculum Development Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr.Prashanth C.S.R	Dean – Academics	Member Secretary
3	Dr. Shridhar Kurse	HoD – AU	Member
4	Dr. Anand Vardhan H	HoD – BT	Member
5	Dr. Nirajan	HoD – Civil	Member
6	Dr. Rajalakshmi	HoD – CSE	Member
7	Dr. Sanjeev Sharma	HoD – ECE	Member
8	Dr. Ram Kumar S	HoD – EEE	Member
9	Dr. R J Anandhi	HoD – ISE	Member
10	Dr. M.S. Ganesha Prasad	HoD – ME	Member
11	Dr. Asha V	HoD – MCA	Member
12	Dr. Sheelan Mishra	HoD – MBA	Member
13	Dr. Revathi V	HoD – BSH (Physics Cycle)	Member
14	Dr. V S Anusuya Devi	HoD – BSH(Chemistry Cycle)	Member
15	Dr. Srinivasa K.G	HOD – Mathematics	Member
16	Dr. Sowmya G.R.N	HOD – Lifeskills	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	23.07.2020	All	Nil
CAY m1(2018-19)	28.06.2019	All	Nil

	22.06.2018	All	Nil
CAY m2(2017-18)	08.02.2018	All	Nil
CAY m3(2016-17)	16.10.2017	All	Nil
CAY m4(2015-16)	20.01.2016	All	Nil
	10.06.2015	All	Nil
CAY m5(2014-15)	02.02.2015	All	Nil
	27.10.2014	All	Nil

Disciplinary Committee

Indiscipline is a serious aspect of concern amongst students owing to peer pressure and other kinds of distractions around them. Their behavior changes and they react differently to various situations. This committee monitors the students and ensures that no indiscipline happens. Also, in the event of any indiscipline activities, action is taken by the committee.

Table 10.1.3.3.11 Disciplinary Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H. N. Suryaprakash	Registrar	Member
3	HoD of the Concerned Department	HoD	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	13.02.2020	All	Nil
	16.08.2019		
CAY m1(2018-19)	12.02.2019	All	Nil
	26.08.2018		

CAY m2(2017-18)	02.02.2018	12	01
	16.08.2017	All	Nil
CAY m3(2016-17)	09.05.2017	All	Nil
CAY m4(2015-16)	07.04.2016	11	02
	10.09.2015	All	Nil
CAY m5(2014-15)	13.05.2015	All	Nil
	04.09.2014	All	Nil

Energy Conservation Audit Committee

This committee constituted by the Electrical department, is responsible of an eco-friendly campus. They are responsible for conservation of electricity in the college campus buildings and ensure that there is no wastage for power, thus saving it for the future.

Table 10.1.3.3.12 Energy Conversation Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. RamKumar.S	HoD-EEE	Member Secretary
3	Dr.Ganesh.C	Prof-EEE	Coordinator
4	Ms. Karthika.M	Sr. Asst.Prof-EEE	Member
5	Mr.Inbasakaran.S	Sr. Asst.Prof-EEE	Member
6	Mr.Vinod Kumar.S	Sr. Asst.Prof-EEE	Member
7	Mr.Lithesh.J	Asst.Prof-EEE	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	06.02.2020	All	Nil
CAY m1(2018-19)	03.01.2019	All	Nil
CAY m2(2017-18)	24.08.2017	All	Nil
CAY m3(2016-17)	31.03.2017	All	Nil
	13.02.2017	All	Nil
	13.10.2016	All	Nil
CAY m4(2015-16)	02.02.2016	07	01
	06.01.2016	All	Nil
	03.08.2015	All	Nil
CAY m5(2014-15)	16.02.2015	06	02
	10.09.2014	07	01

Examination Committee

The committee monitors the autonomous examinations conducted in the college. Starting from the notification of the exam till the declaration of the results, the committee manages all the activities in coordination with the heads of the departments ensuring smooth running of the entire process.

Table 10.1.3.3.13 Examination Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. Vijilius Helena Raj	Controller of Examination	Member- Secretary
3	Mr. Aravinda	Sr. Asst. Prof	Member
4	Dr. Revathi V	Professor & Head	Member
5	Mr. Anil Kumar Hangal	Head Quality Assurance	Member

Note: All HoDs of various Departments are Ex-officio Members of Examination Committee

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	05.02.2020 03.01.2020 15.11.2019 10.10.2019	All	Nil
CAY m1(2018-19)	04.05.2019 11.02.2019 20.11.2019 29.10.2018	All	Nil
CAY m2(2017-18)	23.02.2018 26.09.2017	All All	Nil Nil
CAY m3(2016-17)	13.02.2017 01.09.2016	All All	Nil Nil
CAY m4(2015-16)	27.01.2016 08.09.2015	All All	Nil Nil
CAY m5(2014-15)	NA		

Finance Committee

The committee is responsible for all the monetary activities in the institution.

Students' fee collection, funds for procurement of equipment, dispatching salaries and remuneration are under the purview of this committee.

Table 10.1.3.3.14 Finance Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member
3	Dr. M. S. Ganesha Prasad	Dean & Head – Department of Mechanical Engineering	Member
4	Dr. C S R Prashanth	Dean- Academics	Member
5	Dr. K. Gopala Krishnan	Dean- R & D	Member
6	Dr. Sheelan Misra	HOD – MBA	Member
7	Ms. Geetha	Senior Accounts Executive	Member
8	Mrs. Malathi Madhusudan	Senior Executive Director – Accounts & Finance	Member-Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	14.03.2020 17.09.2019	All	Nil
CAY m1(2018-19)	19.03.2019 19.09.2018	All	Nil
CAY m2(2017-18)	10.03.2018 20.09.2017	All All	Nil Nil
CAY m3(2016-17)	14.03.2017 19.09.2016	All All	Nil Nil
CAY m4(2015-16)	18.03.2016 15.09.2015	All All	Nil Nil
CAY m5(2014-15)	19.03.2015 08.09.2014	All All	Nil Nil

Hostel(Boys) Development & Welfare Committee

The committee looks into the requirement of the students(boys) staying on the campus, in the hostel. The committee monitor with regard to hostel food, accommodation, Maintenance, and discipline in the Hostel.

Table 10.1.3.3.15 Hostel (Boys) Development & Welfare Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. Sambashiva Rao	Warden	Member
3	Mr. Sreenivas H S	Warden	Member
4	Mr. Pankajaksan	Warden	Member
5	Mr. Devaraj. R	Sr. Warden	Member
6	Mr. Suryaprakash	Registrar	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	22.01.2020 23.07.2019	All	Nil
CAY m1(2018-19)	23.01.2019 25.07.2018	All	Nil
CAY m2(2017-18)	29.01.2018 25.07.2017	All All	Nil Nil
CAY m3(2016-17)	20.01.2017 06.10.2016	06 All	01 Nil
CAY m4(2015-16)	25.02.2016 28.07.2015	All 06	Nil 01
CAY m5(2014-15)	30.01.2015 23.07.2014	All All	Nil Nil

Hostel(Girls) Development & Welfare Committee

The committee looks into the requirement of the students(girls) staying on the campus, in the hostel. The committee monitor with regard to hostel food, accommodation, Maintenance , and discipline in the Hostel.

Table 10.1.3.3.16 Hostel (Girls) Development & Welfare Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. Suryaprakash	Registrar	Member
3	Ms. Shanthi	Warden	Member
4	Ms. Yogitha	Warden	Member
5	Ms. Aruna M	Director-Admission	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	22.01.2020 23.07.2019	All	Nil
CAY m1(2018-19)	23.01.2019 25.07.2018	All	Nil
CAY m2(2017-18)	30.01.2018 24.07.2017	05 All	01 Nil
CAY m3(2016-17)	23.01.2017 06.10.2016	All 05	Nil 01
CAY m4(2015-16)	27.01.2016 27.07.2015	All All	Nil Nil
CAY m5(2014-15)	13.02.2015 24.07.2014	05 All	01 Nil

Infrastructure Development Committee

All hardware infrastructure requirements of the college are taken care by this committee. Furniture and furnishings, lights & fans, other essential infrastructure in the buildings and on the campus are provided by this committee.

Table 10.1.3.3.17 Infrastructure Development Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. Rao	Project Manager	Member
3	Ms. Shailee	Quantity Surveyor	Member
4	Dr. P S Niranjana	HOD – Civil Engg.	Member – Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	08.01.2020 09.05.2019	All	Nil
CAY m1(2018-19)	18.01.2019 16.05.2018	All	Nil
CAY m2(2017-18)	04.10.2017 05.06.2017	All All	Nil Nil
CAY m3(2016-17)	05.04.2017 10.02.2017 02.12.2016 10.08.2016	All All All All	Nil Nil Nil Nil
CAY m4(2015-16)	06.05.2016 01.02.2016 05.10.2015	All All All	Nil Nil Nil
CAY m5(2014-15)	25.02.2015 20.08.2014	All All	Nil Nil

In-Plant training/Industrial/Career Guidance/placement committee

This committee is very essential for the graduating undergraduate and postgraduate students, aspiring to get placed in companies as well as to start companies of their own. In plant Training and career guidance are given to the students in their pre-final year and pre-final semester respectively, preparing them for the forthcoming campus interviews.

Table 10.1.3.3.18 In-Plant Traing/Industrial/Career Guidance/Placement Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Ms. Ankita Srivastava	EEE	Member
3	Dr. Mohan Naik	ECE	Member
4	Mr. Girish Tilak	AU	Member
5	Mr. Govinda Raj	MCA	Member
6	Mr. Sudharshan	Mechanical	Member
7	Mr. Bopanna K D	Mechanical	Member
8	Dr. Anand	BT	Member
9	Mr. Sivabalan	CSE	Member
10	Ms. Vandana	ISE	Member
11	Ms. P Suma	Civil	Member
12	Dr. Sheelan	MBA	Member
13	Dr. Sainath	MBA	Member
14	Mr. Binod Kumar Singh	TPO	Member
15	Mr. Mahesh	TPO	Member
16	Mr. Rajendra	TPO	Member
17	Mr. Pavan Kumar M	Executive – HR (Corporate Relations)	Member

18	Mr. Rajendra	TPO	Member
19	Ms. Manisha Joshi	Sr. Executive – HR (Corporate Relations)	Member
20	Mr. Anis Mirza	HR Manager – Corporate Relations	Member
21	Mr. Binod Kumar Singh	HR Manager – Corporate Relations	Member
22	Mr. Gopalakrishna	Asst. HR Manager – Corporate Relations	Member
23	Mr. Ravi Shankar	HR Manager – Corporate Relations	Member
24	Mr. Viswas – 1NH14CS165 (CSE)	Student Member	Member
25	Mr. Rajith Bose M – 1NH14IS087 (ISE)	Student Member	Member
26	Mr. Yashas Bharadwaj – 1NH14ME759 (MECH)	Student Member	Member
27	Mr. Jai Kumar – 1NH14AU021 (AUTO)	Student Member	Member
28	Prof. Gurucharan Singh	Executive Director – Dept of HRD (CR T&P)	Member- Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	06.07.2020 02.05.2020	All	Nil
CAY m1(2018-19)	30.04.2019 22.01.2019	All	Nil
CAY m2(2017-18)	02.02.2018 10.11.2017	25 All	02 Nil
CAY m3(2016-17)	04.02.2017	26	01

	07.11.2016	All	Nil
	18.07.2016	All	Nil
CAY m4(2015-16)	06.02.2016	All	Nil
	07.11.2015	All	Nil
	18.07.2015	All	Nil
CAY m5(2014-15)	07.11.2014	All	Nil
	17.07.2014	All	Nil

Instrumentation Cell

This body constituted in the college plays a very important role with respect to the laboratory equipment's. Timely calibrations and preventive maintenance ensures that the machines (electrical) do not come for repairs or come in less numbers. Thus, this cell is responsible for keeping a check on the machines and certifying the same.

Table 10.1.3.3.19 Instrument Cell Committee

Sl. No.	Name	Designation	Position
1.	Dr. Manjunatha	Principal	Chairman
2.	Dr. Ganesh Prasad	Dean – Mechanical Engg	Member
3.	Dr. Ramkumar	Prof. & HOD-EEE	Member
4.	Dr. Rajalakshmi	Prof. & HOD-CSE	Member
5.	Dr. Sanjeev Sharma	Prof. & HOD-ECE	Member Secretary
6.	Prof. Aravinda K	Sr. Asst Professor	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	24.08.2019	All	Nil
CAY m1(2018-19)	16.08.2018	All	Nil
CAY m2(2017-18)	02.02.2018	25	02
	10.11.2017	All	Nil
CAY m3(2016-17)	04.02.2017	26	01
	07.11.2016	All	Nil
	18.07.2016	All	Nil
CAY m4(2015-16)	06.02.2016	All	Nil
	07.11.2015	All	Nil
	18.07.2015	All	Nil
CAY m5(2014-15)	07.11.2014	All	Nil
	17.07.2014	All	Nil

Internal Quality Assessment and Assurance Cell

The committee was constituted to ensure that all the standards with regard to curriculum are met. Any discrepancies with respect to internal valuation, methods of teaching-learning are addressed by this committee. The Principal is the Chairman of the committee and it is constituted as follows.

Table 10.1.3.3.20 Internal Quality Assessment & Assurance Cell Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. Girija Srinivasalu	Director-NHQASDC	Member
3	Dr. Gopal Krishna	Dean – R&D	Member

4	Dr. M.S. Ganesha Prasad	Dean – ME	Member
5	Dr. Anitha Rai	HOD-Library	Member
6	Mr. Anil Kumar Hangal	HoD – QA	Member Secretary
7	Dr. Prashanth CSR	Dean Academics	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	06.01.2020	All	Nil
CAY m1(2018-19)	21.05.2019 26.09.2018	All	Nil
CAY m2(2017-18)	09.08.2017	All	Nil
CAY m3(2016-17)	10.05.2017 22.03.2017 25.01.2017 06.09.2016	All	Nil
CAY m4(2015-16)	07.07.2016 05.05.2016 28.03.2016 16.01.2016	All	Nil
CAY m5(2014-15)	09.07.2015 17.04.2015 26.02.2015 10.12.2014 15.10.2014	All	Nil

Library Committee

Books and other e-learning media are very essential for gaining knowledge as learning is a continuous process. Faculties and students require resources to attain knowledge of the day-to-day requirements. The Library Advisory committee headed by the Principal ensures all these requirements are fulfilled through the member secretary and the inputs from the other members. Procuring books, technical journals, technical magazines, applying for access to e-journals, providing food reference books and adequate reading spaces are provided by this committee, which comprises the following members.

Table 10.1.3.3.21 Library Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member
3	Dr. M. S. Ganesha Prasad	Dean & Head – Department of Mechanical Engineering	Member
4	Dr. C S R Prashanth	Dean- Academics	Member
5	Dr. Sanjeev Sharma	HOD-ECE	Member
6	Dr. Revathi V	HOD-Physics	Member
7	Dr. Sheelan Mishra	HOD-MBA	Member
8	Dr. Siddamalliah	Principal Librarian (Retd.), NIMHANS	External Member
9	Ms. Vanditha	ECE Branch	Student Member
10	Mr. Keshav	CSE Branch	Student Member
11	Dr. Anitha S Rai	Head – Library & Information Center	Member-Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	14.07.2020 08.04.2019	All	Nil
CAY m1(2018-19)	12.12.2018 04.04.2018	All	Nil
CAY m2(2017-18)	15.12.2017	All	Nil
CAY m3(2016-17)	13.05.2017	All	Nil
CAY m4(2015-16)	13.12.2016 03.05.2016 14.12.2015	All	Nil
CAY m5(2014-15)	05.05.2015 13.12.2014	09 All	02 Nil

NCC Committee

The committee in the college is constituted to look into the students' interests inclined towards National Cadet Corps(NCC) . NCC is the Indian military cadet corps, which is open to school and college students on voluntary basis. National Cadet corps is a Tri-services organization, comprising the Army, Navy and Air Force, engaged in grooming the youth of the country into disciplined and patriotic citizens. The National Cadet Corps in India is a voluntary organization which recruits cadets from high schools, colleges and universities all over India. The committee in college has the same motto.

Table 10.1.3.3.22 NCC Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Shri. H N Suryaprakash	Registrar	Member

3	Mr. Vinay J T	Physical Education Director	Member
4	Mr. Pavan Prabhakar	Asst. Prof. – Mechancial Department	Member
5	Dr. M. S. Ganesha Prasad	Dean, Professor & HoD – ME	Member- Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	12.02.2020 04.10.2019	All	Nil
CAY m1(2018-19)	14.03.2019 24.09.2018	All	Nil
CAY m2(2017-18)	02.02.2018	All	Nil
CAY m3(2016-17)	25.01.2017	All	Nil
CAY m4(2015-16)	19.04.2016 21.09.2015	All	Nil
CAY m5(2014-15)	12.05.2015 16.10.2014	All	Nil

NSS Committee

The National Service Scheme is an Indian government-sponsored public service program conducted by the Department of Youth Affairs and Sports of the Government of India. Popularly known as NSS, the scheme was launched in 1969. Aimed at developing student's personality through community service, NSS is a voluntary association of young people in Colleges, Universities and at +2 level working for a campus-community linkage. The committee in college aims at moulding interested students on the same lines.

Table 10.1.3.3.23 NSS Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member
3	Dr. M. S. Ganesha Prasad	Dean & Head – Department of Mechanical Engineering	Member
4	Prof. Puneeth	Sr. Asst. Professor	Member
5	Dr. Mohan	Associate Professor	Member
6	Ms. Pratiksha	Student Member	Member
7	Mr. Mohan	Student member	Member
8	Dr. Anitha S Rai	Head-Library & Information Center	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	18.01.2020 20.08.2019	All	Nil
CAY m1(2018-19)	20.01.2019 08.07.2018	All	Nil
CAY m2(2017-18)	19.01.2018	All	Nil
CAY m3(2016-17)	08.07.2017 09.01.2017	All	Nil
CAY m4(2015-16)	04.01.2016 07.07.2015	All	Nil
CAY m5(2014-15)	01.01.2015 04.07.2015	All	Nil

News Letter Committee

Events and other happenings on the campus and off the campus with regard to the students and college is brought out in the college newsletter. The committee constituted helps to achieve this.

Besides getting articles and covering the relevant issues; compiling, editing, printing and publishing of the newsletter is taken care by this committee.

Table 10.1.3.3.24 News Letter Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member
3	Mr. Adarsh J Navale	HOD- Marketing & Branding	Member
4	Dr. S. Mohan Kumar	Associate Professor, Department of ISE	Member Secretary
5	Mr. Md Yasin	Student Representative	Member
6	Mr. Sumukh	Student Representative	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	11.06.2020	All	Nil
CAY m1(2018-19)	15.05.2019	All	Nil

CAY m2(2017-18)	02-02-2018 07-08-2017	All 05	Nil 01
CAY m3(2016-17)	03-01-2017	All	Nil
CAY m4(2015-16)	03-05-2016 02-01-2016 14-12-2015	05 All All	01 Nil Nil
CAY m5(2014-15)	05-05-2015 13-12-2014	All All	Nil Nil

Physical Education and Sports Committee

Parallel to studies, in order to give motivation and an opportunity to excel in sports to interested students, this committee looks into the needs of budding sports persons. The college campus has facilities and equipment for a number of sports, for which there is good participation & boys and girls, pursuing undergraduates and postgraduates programs. Students participate in the sports, helping them to perform well in college event at state and national levels.

Table 10.1.3.3.25 Physical Education and Sports Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. Shridhar Kurse	HoD – AU	Member
3	Dr. Anand Vardhan H	HoD – BT	Member
4	Dr. Niranjana	HoD – Civil	Member
5	Dr. Rajalakshmi	HoD – CSE	Member
6	Dr. Sanjeev Sharma	HoD – ECE	Member
7	Dr. Ram Kumar S	HoD – EEE	Member

8	Dr. R J Anandhi	HoD – ISE	Member
9	Dr. Sheelan Mishra	HoD – MBA	Member
10	Dr. Asha V	HoD – MCA	Member
11	Dr. Revathi V	HoD – BSH (Physics Cycle)	Member
12	Dr. V S Anusuya Devi	HoD – BSH(Chemistry)	Member
13	Dr. M.S. Ganesha Prasad	Dean, Professor & HoD – ME	Member Secretary
14	Mr. Vinay J T	Physical Education Director	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	17-02-2020 15-10-2019	All	Nil
CAY m1(2018-19)	04-04-2019 01-12-2018	All	Nil
CAY m2(2017-18)	17.01.2018 27.06.2017	All	Nil
CAY m3(2016-17)	16.01.2017 20.06.2016	All	Nil
CAY m4(2015-16)	20.01.2016 10.06.2015	All	Nil
CAY m5(2014-15)	02.02.2015 27.10.2014	All	Nil

Professional Societies Committee

Membership in professional societies is very essential to an individual as well as an institute as a whole. Amongst the various state, national and international professional societies, the same is reflected, where faculties as well as students and student groups are members. The committee encourages and promotes in obtaining memberships for faculties and students.

Table 10.1.3.3.26 Professional Societies Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Prof. Kamalashish Deb	Professor	Member
3	Dr. Clara Kanmani. A	Professor	Member
4	Prof. Surendra B V	Professor	Member
5	Mr. Arunkumar.M	Asst Professor	Member
6	Mrs. Swathi B	Asst Professor	Member
7	Dr. Nisha K C R	Professor	Member
8	Dr. Sujin Jose	Professor	Member
9	Dr. Smita Harwani	Professor	Member
10	Dr. A.P. Nirmala,	Professor	Member
11	Dr. J Kavitha	Professor	Member
12	Dr. Prakash Krishnaiah	Professor	Member
13	Mr. Ramachandra Naik	Asst. Professor	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	12.03.2020 29.01.2020 24.10.2019	All	Nil
CAY m1(2018-19)	03.07.2019 04.04.2019 02.02.2019	All	Nil
CAY m2(2017-18)	17.10.2017 09.08.2017	All	Nil
CAY m3(2016-17)	10.04.2017	All	Nil
CAY m4(2015-16)	05.05.2016 08.03.2016 20.10.2015	All	Nil
CAY m5(2014-15)	10.05.2015 06.04.2015 16.09.2014	All	Nil

Public Relation Committee

An essential committee in the running of the organization, this committee is a preface for the admission committee. This committee is required to have a constant rapport with the public and must ensure that people know about the institution so as to help students who want to pursue undergraduate and post graduate programs to get admission to the college.

Table 10.1.3.3.27 Public Relation Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member
3	Dr. M. S. Ganesha Prasad	Dean & Head – Department of Mechanical Engineering	Member
4	Ms. Manjula	Director – HR	Member
5	Mr. Deepak Kumar	Web Developer	Member
6	Mr. Adarsh J Navale	Head- Marketing & Branding	Member- Secretary

Department of Civil Engineering NHCE

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	20.01.2020	All	Nil
CAY m1(2018-19)	26.02.2019	All	Nil
CAY m2(2017-18)	26.03.2018 12.08.2017	All	Nil
CAY m3(2016-17)	28.02.2017	All	Nil
CAY m4(2015-16)	03.05.2016 14.12.2015	All	Nil
CAY m5(2014-15)	05.05.2015 13.12.2014	All	Nil

Purchase Committee

This committee of the college is constituted to meet all the hardware requirements for the smooth running of the institute. Requisitions given by all the departments for its running are provided by this committee.

Table 10.1.3.3.28 Purchase Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Shri.H. N. Suryaprakash	Registrar	Member
3	Dr Prashanth CSR	Dean Academics	Member
4	Ms. Manjula V	Director-HR	Member
5	Ms. Malathi Madhusudan	Sr. Executive Director, Accounts & Finance	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	16.03.2020	All	Nil
CAY m1(2018-19)	18.04.2019	All	Nil
CAY m2(2017-18)	10.04.2018	All	Nil
CAY m3(2016-17)	05.04.2017	All	Nil
CAY m4(2015-16)	18.04.2016	All	Nil
CAY m5(2014-15)	15.04.2015	All	Nil

Recruitment committee

This committee of the college is responsible for the recruitment of staff for the college, which includes the non-teaching faculty also. The preliminary interview takes place at the department level under the HoD. The final round and selection comes under the purview of this committee.

Table 10.1.3.3.29 Recruitment Committee

Sl. No.	Name	Designation	Position
1	Dr. Mohan Manghnani	Chairman-NHEI	Chairman
2	Dr. Manjunatha	Principal	Member
3	Dr. C S Ra Prashanth	Dean-Academics	Member
4	Respective Dept Heads	HoD	Member
5	Subject Experts 1	Subject Expert	Member
6	Subject Expert 2	Subject Expert	Member
7	Ms. Manjula	Director-HR	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	03.02.2020 06.01.2020	All	Nil
CAY m1(2018-19)	08.03.2019 04.02.2019 14.12.2018 11.10.2018 03.09.2018	All	Nil
CAY m2(2017-18)	22.02.2018 12.02.2018 18.10.2017 10.10.2017 21.08.2017	All	Nil
CAY m3(2016-17)	26.07.2017 17.04.2017 20.02.2017 12.12.2016 22.08.2016	All	Nil
CAY m4(2015-16)	14.01.2016	All	Nil
CAY m5(2014-15)	14.01.2015	All	Nil

Research and Development Committee

Research and development plays a major role in the development of any organization, which also includes educational institutions. The research committee headed by the Principal was constituted for the same reason. The committee encourages faculties and students to publish technical papers and articles, write textbooks, apply for support for project work, get grants for research, apply for patents, etc.,. The committee co-ordinator oversees all the activities. The members of this committee are as follows.

Table 10.1.3.3.30 Research & Development Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Prof. Kamalashish Deb	Professor	Member
3	Dr. Clara Kanmani. A	Professor	Member
4	Prof. Surendra B V	Professor	Member
5	Mr. Arunkumar.M	Asst Professor	Member
6	Mrs. Swathi B	Asst Professor	Member
7	Dr. Nisha K C R	Professor	Member
8	Dr. Sujin Jose	Professor	Member
9	Dr. Smita Harwani	Professor	Member
10	Dr. A.P. Nirmala,	Professor	Member
11	Dr. J Kavitha	Professor	Member
12	Dr. Prakash Krishnaiah	Professor	Member
13	Mr. Ramachandra Naik	Asst. Professor	Member
14	Mr. Ramanjenya	Library Officer	Member
15	Dr. Gopalkrishnan	Dean-R & D	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	12.03.2020 29.01.2020 25.10.2019	All	Nil
CAY m1(2018-19)	03.07.2019 04.04.2019 02.02.2019	All	Nil
CAY m2(2017-18)	09.02.2018 01.12.2017 17.10.2017	All	Nil

	17.08.2017		
CAY m3(2016-17)	19.04.2017 27.03.2017 09.02.2017 28.10.2016	All	Nil
CAY m4(2015-16)	03.06.2016 18.05.2016 27.04.2016 31.03.2016 16.02.2016 29.02.2016 13.01.2016 09.11.2015 13.10.2015 04.09.2015	All	Nil
CAY m5(2014-15)	06.05.2015 13.04.2015 06.03.2015 31.10.2014 02.09.2014	All	Nil

SC/ST Welfare Cell

This committee in the college is set up to look into the welfare of the SC/ST students admitted for the various courses. Besides this, the committee allocates monetary assistance to the students in the form of scholarship so as to help them pursue their education.

Table 10.1.3.3.31 SC/ST Welfare Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. Vishwanath Y	Sr. Asst Prof – ISE	Member
3	Mr. Ravi Kumar M.	Asso. Prof.- ME	Member
4	Mr. Madhusudhan	Asst. Prof. – ME	Member
5	Mr. H N Suryaprakash	Registrar	Member- Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	10.02.2020 06.08.2019	All	Nil
CAY m1(2018-19)	04.02.2019 02.08.2018	All	Nil
CAY m2(2017-18)	26.02.2018 01.09.2017	All	Nil
CAY m3(2016-17)	20.02.2017 17.08.2016	All	Nil
CAY m4(2015-16)	10.02.2016 35.08.2015	All	Nil
CAY m5(2014-15)	24.02.2015 08.09.2014	All	Nil

Software/Hardware Training Committee

This committee is responsible for given training to the staff (technical) who have been newly recruited on using the laboratory equipment in the respective departments. Besides, training is also given to them on operating any newly procured machines, so as to facilitate the smooth running of the laboratory sessions.

Table 10.1.3.3.32 Software/Hardware Training Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr.Prashanth C.S.R	Dean – Academics	Member Secretary
3	Dr. Rajalakshmi	HoD – CSE	Member
4	Dr. Sanjeev Sharma	HoD – ECE	Member
5	Dr. R J Anandhi	HoD – ISE	Member
6	Dr. Asha V	HoD – MCA	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	24.08.2020 10.01.2020	All	Nil
CAY m1(2018-19)	09.04.2019 09.08.2018	All	Nil
CAY m2(2017-18)	08-03-2018 11-12-2017	All All	Nil Nil
CAY m3(2016-17)	13-04-2017 13-12-2016	All All	Nil Nil
CAY m4(2015-16)	05-03-2016 14-12-2016	05 All	01 Nil
CAY m5(2014-15)	05-05-2015 13-12-2014	All All	Nil Nil

College Internal Complaints Committee (CICC)

This committee in the college was formed to address all the internal issues of the faculties, so that they get solutions to the various problems. Suggestions and remedies are given by the members so that the problems are tackled by the faculties.

Table 10.1.3.3.33 College Internal Complaints Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Shri. H. N. Suryaprakash	Registrar	Member
3	Dr. Prashanth C.S.R	Professor & Dean – Academics	Member
4	Dr. Girija N Srinivasalu	Director – NHQASDC	Member
5	Ms. V. Manjula	Head – Human Resources	Convener

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	10.08.2019	All	Nil
CAY m1(2018-19)	08.07.2018	All	Nil
CAY m2(2017-18)	22-06-2017	All	Nil
CAY m3(2016-17)	07-03-2017	All	Nil
	06-02-2017	All	Nil
CAY m4(2015-16)	16-04-2016	All	Nil
	22-03-2016	All	Nil
	01-03-2016	All	Nil
	27-01-2016	All	Nil
	22-12-2015	All	Nil

Staff Welfare Committee

This committee constituted on the similar lines of the Staff Grievances Redressal Committee looks into providing welfare schemes to all the staff of the college. The committee addresses the requirements of the staff and takes necessary steps of action.

Table 10.1.3.3.34 Staff Welfare Committee

Sl. No.	Name	Designation	Position
1	Dr. Mohan Manghnani	Chairman	Chairman
2	Dr. Manjunatha	Principal	Member
3	Ms. Malathi Madhusudan	Sr. Executive Director – Accounts & Finance	Member
4	Shri. H. N. Suryaprakash	Registrar	Member
5	Ms. V. Manjula	Head – Human Resources	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	25.08.2020 27.04.2020	All	Nil
CAY m1(2018-19)	22.04.2019	All	Nil
CAY m2(2017-18)	01 .12.2018	All	Nil
CAY m3(2016-17)	27-03-2017	All	Nil
	08-03-2017	All	Nil
	23-01-2017	All	Nil
CAY m4(2015-16)	02-04-2016	All	Nil
	13-10-2015	All	Nil
	11-08-2015	All	Nil
	09-06-2015	All	Nil
CAY m5(2014-15)	09-12-2014	All	Nil
	11-11-2014	All	Nil

Value Added Programs Committee

The college has a number of streams of study-Global, Professional & executive. The streams are distinct and provide exclusive training to help in the overall development of the students. Organizing industrial trips at International and National levels, providing industry enriched training are some of the responsibilities of this committee.

Table 10.1.3.3.35 Value Added Programs Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr.Prashanth C.S.R	Dean – Academics	Member
3	Dr. Shridhar Kurse	HoD – AU	Member
4	Dr. Anand Vardhan H	HoD – BT	Member
5	Dr. Niranjan	HoD – Civil	Member
6	Dr. Rajalakshmi	HoD – CSE	Member
7	Dr. Sanjeev Sharma	HoD – ECE	Member
8	Dr. Ram Kumar S	HoD – EEE	Member
9	Dr. R J Anandhi	HoD – ISE	Member
10	Dr. Sheelan Mishra	HoD – MBA	Member
11	Dr. Asha V	HoD – MCA	Member
12	Dr. Revathi V	HoD – BSH (Physics Cycle)	Member
13	Dr. V S Anusuya Devi	HoD – BSH(Chemistry Cycle)	Member
14	Ms. Malathi Madhusudhan	Senior Executive Director – Accounts & Finance	Member
15	Dr. M.S. Ganesha Prasad	Dean, Professor & HoD – ME	Member Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	10-01-2020	All	Nil
	18-07-2019		
CAY m1(2018-19)	28-03-2019	All	Nil
	12-10-2018		
CAY m2(2017-18)	05.10.2017	All	Nil
CAY m3(2016-17)	08.05.2017	10	01
	05.10.2016	All	Nil
CAY m4(2015-16)	05.05.2016	10	01
	05.10.2015	All	Nil
CAY m5(2014-15)	02.05.2015	10	01
	10.02.2015	All	Nil
	26.10.2014	All	Nil

Women Empowerment Committee

This committee of the college addresses issues regarding to the empowerment of the women staff on the campus. The committees role is in ensuring that the powers are also vested in the hands of the women.

Table 10.1.3.3.36 Women Empowerment Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. Sheelan Mishra	HOD-MBA	Member
3	Dr. V. S. Anusuya	HOD-Chemistry	Member
4	Ms. Dharmambal	Sr. Asst. Professor	Member
5	Ms. Rajeswari	Sr. Asst. Professor	Member
6	Ms. Cynthia	Student Counselor	Member
7	Ms. Shanthi	Girls Hostel Warden	Member
8	Ms. Shanmathi K	Student Representative	Member
9	Dr. R.J. Anandhi	Professor & Head – ISE	Member- Secretary

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	10.08.2019	All	Nil
CAY m1(2018-19)	12.10.2018	All	Nil
CAY m2(2017-18)	12.02.2018	All	Nil
	11.10.2017	09	01
	12.08.2017	08	02
CAY m3(2016-17)	15.10.2016	All	Nil
CAY m4(2015-16)	31.03.2016	09	01
	11.09.2015	08	02
CAY m5(2014-15)	27.03.2015	All	Nil
	22.09.2014	09	01

Student Mentoring Committee

This committee of the college is responsible for keeping a constant track of the students' performance at the department level. The heads of the department along with the class teachers allocate a group of students to a mentee (faculty) who keeps track of the academic performance of the student. Extreme cases are dealt in the presence of the parents; some are referred to the Counsellors by the committee to resolve the issue.

Table 10.1.3.3.37 Student Mentoring Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. C S R Prashanth	Dean- Academics	Member
3	Dr. P S Niranjana	Head- GPE Program & HOD- Civil Engg.	Member
4	Dr. R.J. Anandhi	HOD- ISE	Member
5	Dr. Sheelan Mishra	HOD-MBA	Member
6	Dr. Asha V	HOD- MCA	Member

Department of Civil Engineering NHCE

7	Dr. Revathi V	HOD- Physics	Member
8	Dr.V.S.Anusuya Devi	HOD- Chemistry	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	20.05.2020 25.10.2019	All	Nil
CAY m1(2018-19)	02-04-2019 22-10-2018	All	Nil
CAY m2(2017-18)	17-01-2018 01-08-2017	07 08	03 02
CAY m3(2016-17)	09-01-2017	067	03
CAY m4(2015-16)	12-04-2016 20-10-2015	All All	Nil Nil
CAY m5(2014-15)	30-04-2015 14-10-2014	All All	Nil Nil

Student Grievances Redressal Committee

Adolescence students who come from various backgrounds to study face a lot of problems. Besides a number of distractions are available to take them off their path of learning. Thus to address the numerous problems of the diverse students from varied backgrounds, the students grievance redressal cell was formed to resolve the issues of the students. The committee is as follows.

Table 10.1.3.3.38 Student Grievances Redressal Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. H N Suryaprakash	Registrar	Member
3	HoD of the Concerned Department	HoD	Member

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	26-09-2019	All	Nil
CAY m1(2018-19)	01-04-2019 30-08-2018	All	Nil
CAY m2(2017-18)	01-02-2018 29-08-2017	17 16	01 02
CAY m3(2016-17)	17-01-2017 27-10-2016	All 16	Nil 02
CAY m4(2015-16)	01-03-2016 04-11-2015	All All	Nil Nil
CAY m5(2014-15)	02-04-2015 07-11-2014	All 12	Nil 01

Universal Human Values committee

The objective of this committee is to build a strong connection between faculty and students to create holistic awareness about Universal Human Values and create holistic awareness about Universal Human Values. It will help students in the right development of their world-view, mindset, perspective and values.

Table 10.1.3.3.39 Universal Human Values Committee

Sl. No.	Name	Designation	Position
1.	Dr Manjunatha	Principal	Chairman
2.	Dr. Sowmya Narayanan	HoD- Life skills & Lifelong learning	Member
3.	Mr.Aravinda. K	Sr. Assistant Professor	Member
4.	Dr. Anitha S. Rai	Head- Library & Information Center	Member
5.	Ms Vijaya	Advocate	Member

6.	Dr. Anusuya Devi V S	HoD & Professor– Chemistry	Member Secretary
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Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2019-20)	09.01.2020 07.08.2019	All	Nil
CAY m1(2018-19)	11.01.2019 08.08.2018	All	Nil
CAY m2(2017-18)	NA		
CAY m3(2016-17)	NA		
CAY m4(2015-16)	NA		
CAY m5(2014-15)	NA		

10.1.4. Decentralization in working and grievance redressal mechanism (5)

List the names of the faculty members who have been delegated powers for taking administrative decisions. Mention details in respect of decentralization in working. Specify the mechanism and composition of grievance redressal cell including Anti Ragging Committee & Sexual Harassment Committee.

Table 10.1.4.1: Delegation of Powers

Sl No	Department	Delegation of Power To	Common Responsibility	Exclusive Responsibility
1	Mechanical Engineering	Dean & Professor	Administrative work	Sports Activities Alumni
2	Civil Engineering	HoD & Professor	Administrative work	Global Trips, GPE Program

3	Electronics & Communication	HoD & Professor	Administrative work	Professional body Activities(IEEE)
4	Computer Science & Engineering	HoD & Professor	Administrative work	IT infrastructure
5	Electrical & Electronics Engineering	HoD & Professor	Administrative work	Energy Management
6	Information Science & Engineering	HoD & Professor	Administrative work	Professional body activities(CSI) Anti Sexual harassment committee(ICCC)
7	Automobile Engineering	HoD & Professor	Administrative work	Ek Bharath Shresta Bharath
8	Basic Science & Humanities	HoD & Professor	Administrative work	
9	Library and Information Centre	Head	Administrative work in the Library	Student Extra curricular Club activities Cultural Coordinator Students Feedback

10.1.5 Delegation of financial powers (5)

Institution should explicitly mention financial powers delegated to the Principal, Heads of Departments and relevant in-charges. Demonstrate the utilization of financial powers for each year of the assessment years.

Budgets for running the department are very essential. These are prepared by every department before the commencement of the academic year. In this regard, Heads of the Departments, with senior faculties give the requisition to the Principal with regard to stationery, lab requirements, etc, for which budget allocations are approved by the Principal in discussion with the Management.

On the same lines, proposals are sent to the Principal for procuring new equipment for the labs, interactive technologies in the classrooms, conduction of workshops/ conferences/ seminars by the Heads of Departments for which fund allocations are made.

Table 10.1.5.1: Financial Powers

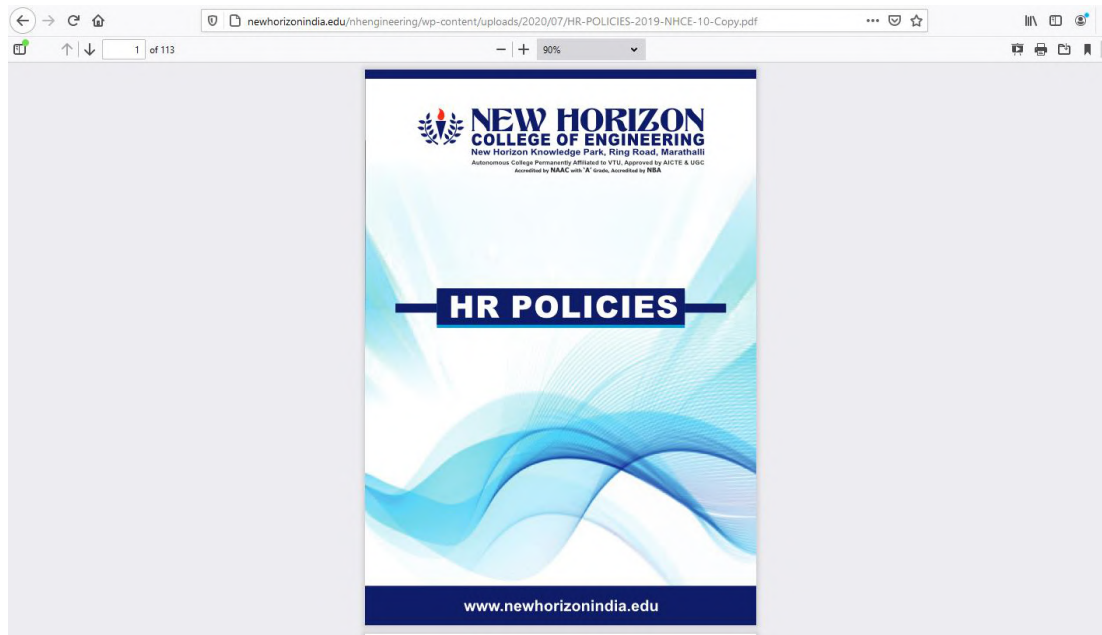
Sl No	Designation	Financial Power (Rs.)
1	Principal	50,000/-
2	Registrar	10,000/-
3	HoDs of Engineering Departments	10,000/-
4	HoDs of Basic Sciences	10,000/-
5	HoDs of PG Programs	10,000
6	Head-Library and Informaiton Centre	10,000
7	Dean- R & D	50,000
8	Executive Director- Accounts & Finance	5,00,000

- The Finance Committee has the power to approve bills worth Rs. 10,00,000/- (Rupees Ten Lakh only)
- Further, bills worth more than Rs. 10,00,000/- (Rupees Ten Lakhs) will be approved by the **NEW HORIZON EDUCATIONAL & CULTURAL TRUST (NHCET)**

10.1.6. Transparency and availability of correct/unambiguous information in public Domain (5)

The information is made available in the following link

HR Policies :



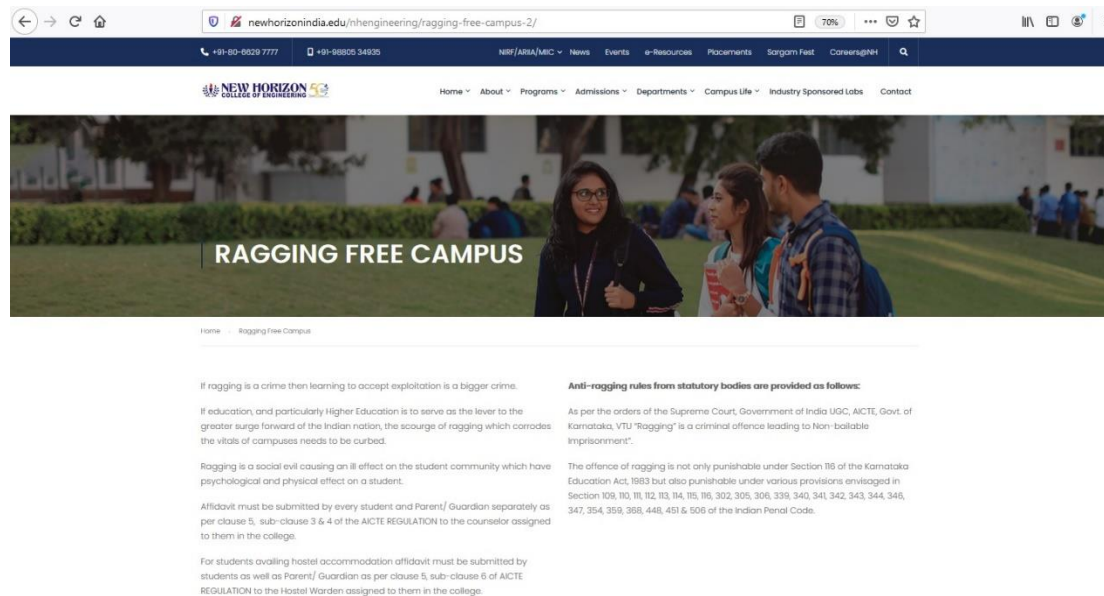
<http://newhorizonindia.edu/nhengineering/wp-content/uploads/2020/07/HR-POLICIES-2019-NHCE-10-Copy.pdf>

Students :



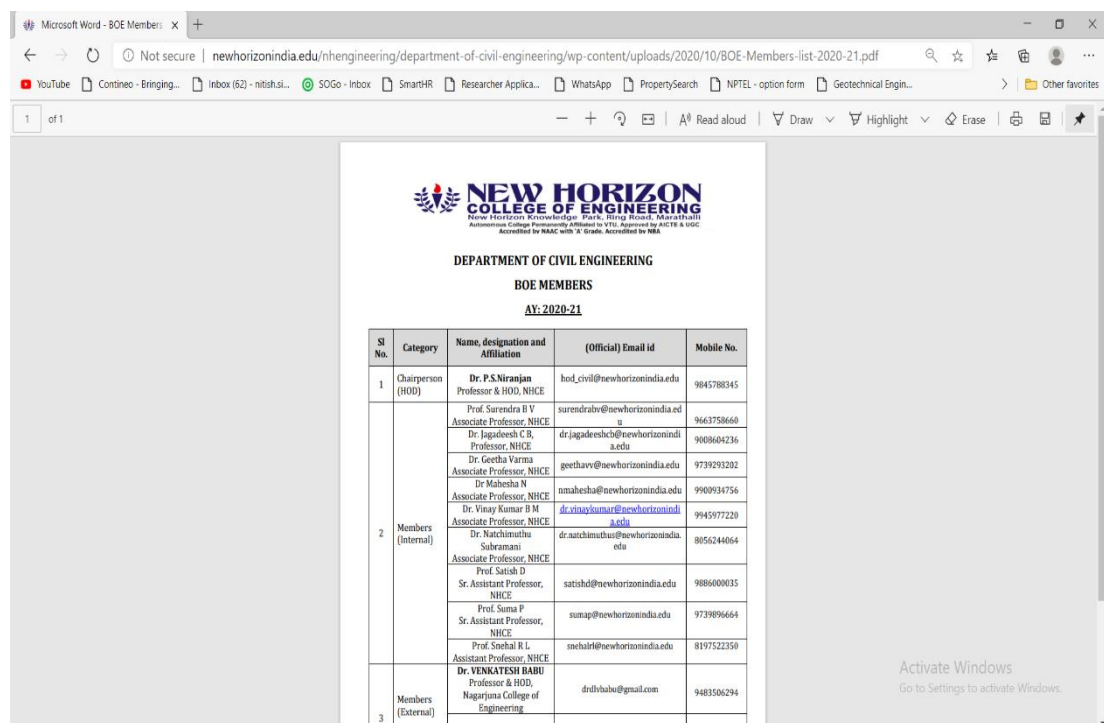
<http://newhorizonindia.edu/nhengineering/academic-guidelines/>

Antiragging rules :



<http://newhorizonindia.edu/nhengineering/ragging-free-campus-2/>

Departmental BOS/BOE Procedures:



<http://newhorizonindia.edu/nhengineering/department-of-civil-engineering/wp-content/uploads/2020/07/BOS-members-2020-21-1.pdf>

10.2. Budget Allocation, Utilization, and Public Accounting at Institute level (15)

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 10.2a:Institute Income and Expenditure for CFY 2019-20

Total Income				Actual Expenditure (till 31/03/20)			Total No. of Students: 5369
Fee	Govt.	Grant (S)	Other Sources (Placement Training, Bus Fees, etc.,)	Recurring Including Salaries	Non-recurring	Special Projects (Land, Building, WIP)	Expenditure per student
707599674	0	5741147	127604280	536995761	41753603	4177391	108573

Table 10.2a1:Institute Income and Expenditure for CFYm1 2018-19

Total Income				Actual Expenditure (till 31/03/19)			Total No. of Students: 5510
Fee	Govt.	Grant (S)	Other Sources (Placement Training, Bus Fees, etc.,)	Recurring Including Salaries	Non-recurring	Special Projects (Land, Building, WIP)	Expenditure per student
666506475	0	1511600	136876932	561993276	38268285	0	108940

Table 10.2a2: Institute Income and Expenditure for CFYm2 2017-18

Total Income				Actual Expenditure (till 31/03/18)			Total No. of Students: 5785
Fee	Govt.	Grant (S)	Other Sources (Placement Training, Bus Fees, etc.,)	Recurring Including Salaries	Non-recurring	Special Projects (Land, Building, WIP)	Expenditure per student
633628870	0	6012514	102783721	531735851	73098860	0	104552

Table 10.2a3: Institute Income and Expenditure for CFYm3 2016-17

Total Income				Actual Expenditure (till 31/03/17)			Total No. of Students: 5810
Fee	Govt.	Grant (S)	Other Sources (Placement Training, Bus Fees, etc.,)	Recurring Including Salaries	Non-recurring	Special Projects (Land, Building, WIP)	Expenditure per student
603117585	0	204500	73194407	469888719	44404088	0	88519

Table 10.2b: Institute Budget and Expenditure for assessment years 2019-20, 2018-19, 2017 18, 2016-17

Items	Budgeted in CFY	Actual expenses in CFY (31/03/20)	Budgeted in CFYm1	Actual Expenses in CFYm1 (31/03/19)	Budgeted in CFYm2	Actual Expenses in CFYm2 (31/03/18)	Budgeted in CFYm3	Actual Expenses in CFYm3 (31/03/17)
Infrastructure Built-up	15330000	6748473	14000000	6663271	31240000	23742664	26900000	26737805
Library	892500	2491663	850000	1983781	660000	3904459	600000	3815241
Laboratory Equipment	13650000	21705381	13600000	23413881	17930000	28801047	16300000	12904526
Laboratory Consumables	2500000	6319236	2200000	6255668	2000000	6737831	1850000	6139286
Teaching & Non Teaching Staff Salary	409860000	378318050	372600000	387350116	324000000	350480991	270000000	2921220180
Maintenance and Spares	52625000	38441733	50300000	41254680	54800000	39996490	48150000	47235609
Research & Development	1500000	4708075	1200000	5086789	1000000	1315784	950000	231922
Training & Travel	8925000	18577870	8500000	21678725	9350000	10977807	8500000	20802921
Others (Global & Professional Training)	15000000	13629581	13500000	13435190	11500000	10977807	12500000	20688631
Misc	102257000	91986693	98405000	93139460	82555000	127899831	76100000	83616686
Total	622539500	582926755	575155000	600261561	535035000	604834711	461850000	514292807

10.2.1. Adequacy of budget allocation (5)

(The institution needs to justify that the budget allocated during assessment years was adequate)

Table 10.2.1: Institute planned budget and expenditure

Sl No.	Assessment Year	Budget Allocated in Rs.	Actual Expenditure in Rs.	Adequate/ Non Adequate
1	CFY	622539500	582926755	Adequate
2	CFYm1	575155000	600261561	Adequate
3	CFYm2	535035000	604834711	Adequate
4	CFYm3	461850000	514292807	Adequate

10.2.2.: Utilisation of allocated funds (5)

(The institution needs to state how the budget was utilised during assessment years)

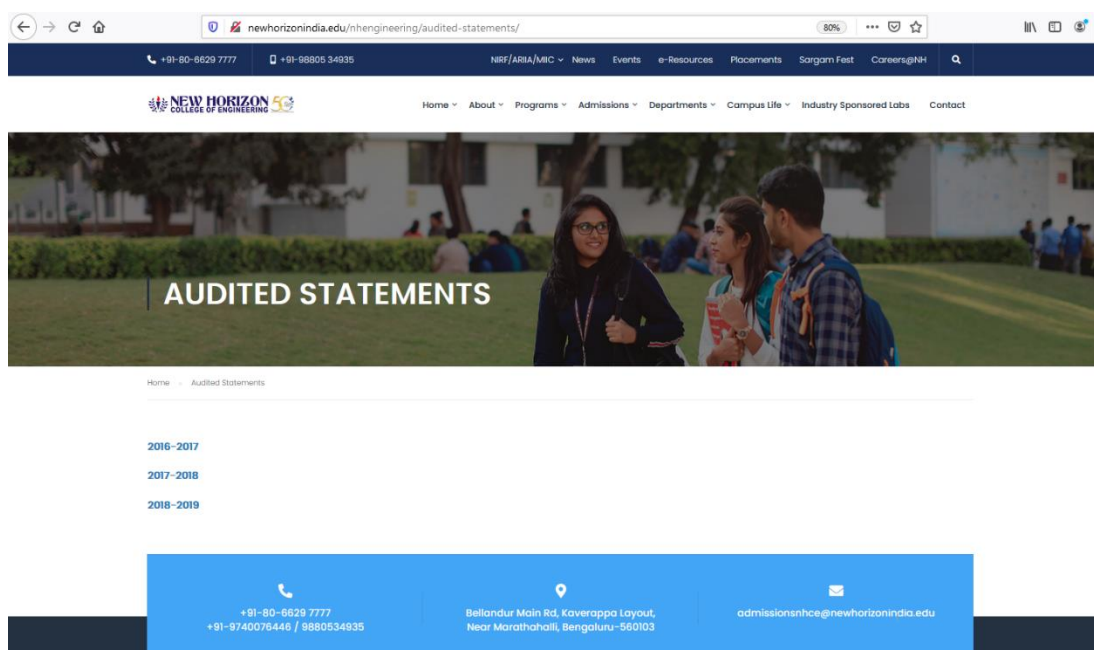
Table 10.2.2.: Utilisation of funds

Sl No.	Assessment Year	Budget Allocated in Rs.	Actual Expenditure in Rs.	Percentage of Utilisation
1	CFY	622539500	582926755	93.64%
2	CFYm1	575155000	600261561	104%
3	CFYm2	535035000	604834711	113%
4	CFYm3	461850000	514292807	111%

10.2.3.: Availability of the audited statements on the institute's website (5)

(The institution needs to make audited statements available on its website)

The audited statements is available on the institution website



<http://newhorizonindia.edu/nhengineering/audited-statements/>

10.3: Program Specific Budget Allocation, Utilisation (30)

Total Budget at program 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 10.3a: Program specific budget allocation for CFY 2019-20

Total Budget: 87500000		Adequate Expenditure (till 31.03.2020):85881243		Total No of Students:791
Non-Recurring	Recurring	Non-Recurring	Recurring	Expenditure per Student
14000000	73500000	13740999	72140244	108573

Table 10.3a1: Program specific budget allocation for CFY 2018-19

Total Budget: 90000000		Adequate Expenditure (till 31.03.19): 88459280		Total No of Students:812
Non-Recurring	Recurring	Non-Recurring	Recurring	Expenditure per Student
14400000	75600000	14153485	74305795	108940

Table 10.3a2: Program specific budget allocation for CFY 2017-18

Total Budget:85000000		Adequate Expenditure (till 31.03.18) : 83118840		Total No of Students:795
Non-Recurring	Recurring	Non-Recurring	Recurring	Expenditure per Student
13600000	71400000	13299014	69819826	104552

Table 10.3a3: Program specific budget allocation for CFY 2016-17

Total Budget:68000000		Adequate Expenditure (till 31.03.17):67097402		Total No of Students:758
Non-Recurring	Recurring	Non-Recurring	Recurring	Expenditure per Student
10880000	57120000	10735584	56361818	88519

Table 10.3b: Program specific budget and expenses for assessment years 2019-20, 2018-19, 2017-18, 2016-17

Items	Budgeted in CFY	Actual expenses in CFY (31/03/20)	Budgeted in CFYm1	Actual expenses in CFYm1 (31/03/19)	Budgeted in CFYm2	Actual expenses in CFYm2 (31/03/18)	Budgeted in CFYm3	Actual expenses in CFYm3 (31/03/17)
Laboratory Equipment	921600	906801.696	1296000	1300656	528900	487797.8	530450	514968.1
Software	614400	604534.464	864000	864722.1	350550	325198.5	355350	341612.5
Laboratory Consumables	883200	843829.356	7200000	778964.6	553500	493820	360500	321217.7
Maintenance & spares	4780800	4552900.182	6710400	6596186	4446450	4323936	3110600	3094908
R & D	1100800	1083124.248	1440000	1450732	1445250	1439305	1066050	1070726
Training & Travel	2201600	1952142.54	1339200	1272071	1107000	1011729	885800	989146.7
Miscellaneous (Items to be mentioned)	53497600	53029008	53150400	59201308	53068350	52140166	45191250	44654366
Total	64000000	62972340	72000000	71464640	61500000	60221952	51500000	50986945

10.3.1.: Adequacy of Budget allocation (10)

(Program needs to justify that the budget allocated over the assessment years was adequate for the program)

10.3.1.: Program budget and expenditure

Sl No	Assessment Year	Budget Allocated in Rs.	Actual Expenditure in Rs.	Percentage of Utilisation
1	CFY	64000000	62972340	Adequate
2	CFYm1	72000000	71464640	Adequate
3	CFYm2	61500000	60221952	Adequate
4	CFYm3	51500000	50986944	Adequate

10.3.2.: Utilisation of allocated funds (20)

(Program needs to state how the budget was utilised during the last three assessment years)

10.3.2.: Utilisation of allocated funds

Sl No	Assessment Year	Budget Allocated in Rs.	Actual Expenditure in Rs.	Percentage of Utilisation
1	CFY	64000000	62972340	98%
2	CFYm1	72000000	71464640	99%
3	CFYm2	61500000	60221952	98%
4	CFYm3	51500000	50986944	99%

10.4. Library and Internet (20)

10.4.1. Quality of Learning resources (hard/soft) (10)

- Relevance of available learning resources including e-resources
- Accessibility to students
- Support to students for self-learning activities

Digital Library Services	Yes
Availability of Digital Library Contents	Yes
Number of Courses	10
Number of eBooks	25589
Availability of Exclusive Server	Yes
Availability of Intranet /Internet	Yes
Availability of Exclusive Space/Room	Yes
Number of users per day	250
Digital Library is provided in the Central Library where students can access all kinds of e-journals	<p>E-Journals Links</p> <p>Elsevier - https://www.sciencedirect.com/</p> <p>Taylor & Francis - http://www.tandfonline.com/</p> <p>Springer Nature - http://link.springer.com/</p> <p>Institution of Civil Engineers - https://www.ice.org.uk/</p> <p>Emerald - https://www.emeraldinsight.com/</p> <p>ASME - https://asmedigitalcollection.asme.org/journals</p> <p>E-Books Links</p>

	Elsevier - https://www.sciencedirect.com/ McGraw Hill Education - http://mcgrawhilleducation.pdn.ipublishcentral.com/ Taylor & Francis - http://www.crcnetbase.com/ Springer Nature - http://link.springer.com/ New Age Publishers- https://digital.elib4u.com/ Packt - https://prod.packtpub.com/in
Video Course online	NPTEL NDLI GIAN National Knowledge Network Sarvajanika Granthalaya

Students can access eBooks/journals using internet in the Library.

Ground Floor section of the Library is open 24 hours a day for utilization. They are spacious, well ventilated, having power sockets, lights & fans and Wi-Fi connectivity. The Digital Library, Video Conference Room, Reading Rooms are all located here. Lower level contains the Main Books Stock, Reference Section, Library Office and Photocopier Room.

Library has resources for Undergraduate, Postgraduate and PhD students.

Textbooks, Journals, Bound Volumes, Conference Proceedings, General Reference Material, Technical Magazines, Newspapers and CDs-DVDs are available for reference.

Library Services	Yes
Carpet Area of library (in m2)	4055 m2
Reading Space (in m2)	6703 m2
Number of seats Reading Space	450

Number users issue book per day	220
Number of users visits per day	600
Timings : Ground Floor Lower Level	24/7, 365 days 8.00am – 6.30pm
Number of Library Staff	10
Number of Library staff with degree in Library	08
Management computerization for search, Indexing, Issue return record, Bar-coded	Yes
Library Additional Services	Institutional Repository Electronic Resources E-Portals Online Course(E-shikshana) Remote Access of e-resources Library App

10.4. 2 Internet (10)

- Name of the Internet provider :
- Available bandwidth:
- Wi-Fi availability:
- Internet access in labs, classrooms, library and offices of all Departments:
- Security arrangements:

1. Name of the Internet provider : BSNL and Jio Communication

2. Available bandwidth : 300 Mbps

3. Wi-Fi availability : Yes

- Campus is Wi-Fi enabled
- About 40 access points are available in the campus

4. Internet access in labs, classrooms, library and offices of all Departments

: Yes

- Internet can be accessed in labs through Wi-Fi. Few systems provided with internet connection.
- Wi-Fi at the corridors gives access to internet in the classrooms.
- Library has a designated browsing centre with about 50 systems having internet connection. Wi-Fi accessibility also available
- Departments have designated systems with internet connection. Wi-Fi accessibility as well as Ethernet available.

5. Security Arrangements: Yes

- Kaspersky internet security and Antivirus Protection is available across the institution.

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 in force as on date and the institutes shall 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 will be initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, post visit and subsequent to grant of accreditation.



Head of the Institute

Name : Dr Manjunatha

Designation: Principal

Principal

New Horizon College of Engineering,
Outer Ring Road, Bellandur Post,
Bangalore 560 103.

Place: Bengaluru

Date: 01.10.2020

Annexure I

Program Outcomes (POs) & Program Specific Outcomes (PSOs)

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 civil engineering problems.
- 2. Problem analysis:** Identity, formulate, research literature and analyze complex civil engineering problems reaching substantiated conclusion using first principles of mathematics and engineering sciences.
- 3. Design/development of solutions:** The ability to analyse complexities of various civil engineering elements and design similar such elements.
- 4. Investigation of problem:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information related to civil engineering problems to provide valid conclusions.
- 5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex civil engineering activities with an understanding of the limitations.
- 6. The engineer and society:** Apply reasoning based on the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the civil engineering professional practice.
- 7. Environment and sustainability:** Understand the impact of the civil engineering solutions in societal and environmental contexts and demonstrate the knowledge of need for sustainable development.
- 8. Ethics:** Apply ethical principles, commit to professional ethics, own up responsibilities and abide by the norms of the civil engineering practice.
- 9. Individual and team work:** As a civil engineer function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. Communication:** Communicate effectively on complex civil 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 civil engineering and management principles and apply these to one's work, as a member and leader in a team, to manage projects and in multidisciplinary environments as a civil engineer.

12. Life-long learning: Recognize the need for, willingness to prepare for and to exhibit pro-activeness to engage in independent and lifelong learning in the broadest context of technological change with respect to civil engineering field.

Program Specific Outcomes (PSOs)

PSO1	Enhancing the employability skills by making the students find innovative solutions for challenges and problems in various domains of Civil Engineering.
PSO2	Inculcating in students' tech suaveness to deal with practical aspects of Civil Engineering.



NEW HORIZON
EDUCATIONAL INSTITUTION



www.newhorizonindia.edu

NEW HORIZON PUBLIC SCHOOL (SSLC - Established 1970)

(Formerly known as New Horizon English School)

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Tel: +91-80-2526 1735

NEW HORIZON PUBLIC SCHOOL (ICSE - Established 1982)

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NEW HORIZON COLLEGE OF EDUCATION (Established 1980)

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Tel: +91-80-2526 1735

NEW HORIZON PRE UNIVERSITY COLLEGE (Established 1982)

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NEW HORIZON COLLEGE (Established 1998)

Email: principalnhcm@newhorizonindia.edu

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NEW HORIZON COLLEGE OF ENGINEERING (Established 2001)

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NEW HORIZON PRE PRIMARY TEACHERS TRAINING ACADEMY

(Established 2012)

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