NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Self-Assessment Report for Accreditation
of
B.E - Information Science & Engineering
(TIER-I)

NATIONAL BOARD OF ACCREDITATION

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Criterion - 8

First Year Academics

Information Science & Engineering

CRITERION 8	First Year Academics	50

8.1: First Year Student-Faculty Ratio (FYSFR, 5)

Data for first year courses to calculate the FYSFR:

Year	Number of Students (Approved intake strength)	**Number of Faculty Members (Considering fractional load)	FYSR	* Assessment = (5x20) / FYSFR (Limited to max. 5)
CAY (2022-23)	1140	79	14	5
CAYm1(2021-22)	1140	76	15	5
CAYm2 (2020-21)	1260	79	16	5
Average	**1180**	**78**	**15**	**5**

Table B.8.1.

** 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

Year	X (Number Of Regular Faculty with Ph.D)	Y (Number of Regular Faculty with Post graduate Qualification)	RF (Number of Faculty Members required as per SFR of 20:1)	* Assessment of Faculty qualification (5x+3y) / RF
CAY (2022-23)	21	40	57	3.00
CAYm1(2021-22)	20	32	57	3.00
CAYm2 (2020-21)	25	43	63	4.00
Average	**3.33**			

Table B.8.2.

8.3 First Year Academic Performance (10)

Academic Performance	Information Science & Engineering		
	CAYm1 (2021-22)	CAYm2 (2020-21)	CAYm3 (2019-20)
Mean of CGPA of all Successful students(x)	8.13	8.40	8.27
Total no. of successful students(y)	118	122	129
Total students appeared in the examination(Z)	128	136	139
API=x*(y/Z)	7.49	7.54	7.68
Average	7.57		

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)

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 8.4.1.a Tools used in measuring CO

CO Attainment	Weightage	Assessment Tools
Overall CO Attainment Direct Attainment	100%	Continuous Internal Evaluation CIE (50%)
		Semester End Examinations (SEE) (50%)

Table 8.4.1.b Calculation of CO attainment

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& Lab courses (Sample) is as given in table below.

Assessment Tool	Maximum Marks	Marks Scaled to	Weightage
Assignments	15	15	
Quizzes	10	10	50%
Internal Assessment Exam (Avg of 3 Exams)	25	25	
Semester End Examination - Theory	100	50	50%
Everyday Lab session (Each Expt. 10 marks)	10	10	50%
Lab Internal Exam	15	15	
Semester End Examination - Lab	50	25	50%

Table 8.4.1.1. Distribution of marks for theory & Lab courses evaluation.

The Process for Assessment and Attainment of COs is described in the flowchart as shown in Flow Chart
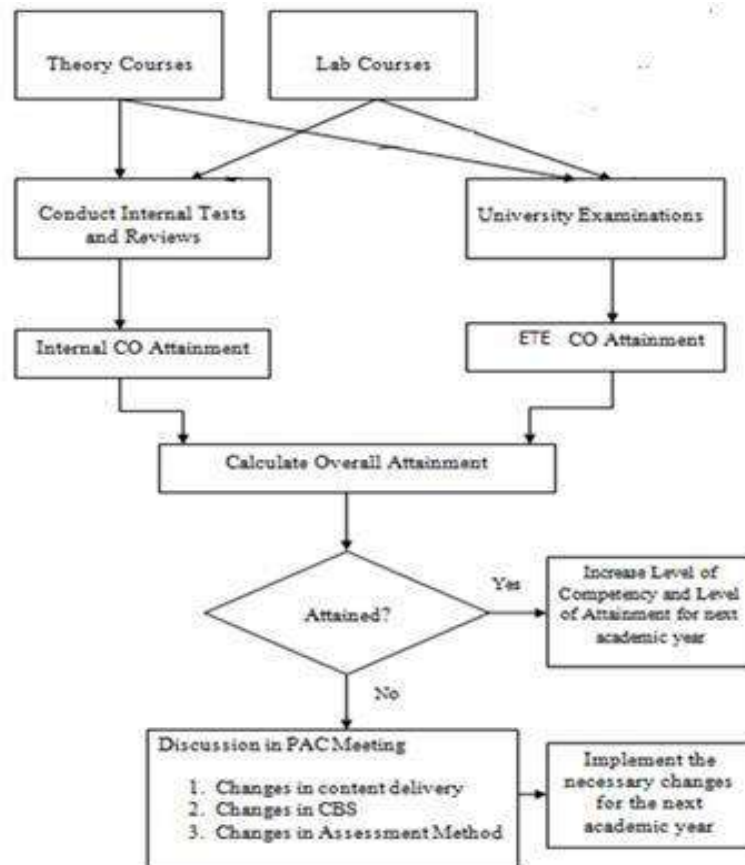

Fig 8.4.1. Process of assessment and attainment of CO

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)

Attainment Levels: Internal Assessment

Course	Attainment Level	CAYm2 (2017-18)	CAYm1 (2018-19)	CAY (2019-20)
Applied Mathematics I	0	less than 40% scored >=28	less than 45% scored >=28	less than 45% scored >=30
	1	40% to 49% scored >=28	45% to 54% scored >=28	45% to 54% scored >=30
	2	50% to 59% scored >=28	55% to 64% scored >=28	55% to 64% scored >=30
	3	60% and more scored >=28	65% and more scored >=28	65% and more scored >=30
Engineering Physics	0	less than 45% scored >=38	less than 45% scored >=28	less than 45% scored >=30
	1	45% to 54% scored >=38	45% to54% scored >=28	45% to 54% scored >=30
	2	55% to 64% scored >=38	55% to 64% scored >=28	55% to 64% scored >=30
	3	65% and more scored >=38	65% and more scored >=28	65% and more scored >=30
Elements of Civil Engineering	0	less than 42% scored>=25	less than 44% scored>=25	less than 45% scored >=30
	1	42% to 51% scored>=25	44% to 53% scored>=25	45% to 54% scored >=30
	2	52% to 61% scored>=25	54% to 63% scored>=25	55% to 64% scored >=30
	3	62% and more scored>=25	64% and more scored>=25	65% and more scored >=30
Elements of Mechanical Engineering	0	less than 40% scored >=36	less than 40% scored >=25	less than 40% scored >=28
	1	40% to49% scored >=36	40% to 49% scored >=25	40% to 49% scored >=28
	2	50% to 59% scored >=36	50% to 59% scored >=25	50% to 59% scored >=28
	3	60% and more scored >=36	60% and more scored >=25	60% and more scored >=28
Basic Electrical Engineering	0	less than 45% scored >=23	less than 50% scored >=25	less than 51% scored >=28
	1	45% to54% scored >=23	50% to 59% scored >=25	51% to 61% scored >=28
	2	55% to 64% scored >=23	60% to 69% scored >=25	62% to 71% scored >=28
	3	65% and more scored >=23	70% and more scored >=25	72% and more scored >=28
Engineering Physics Lab	0	Included with Theory as it is an integrated subject	less than 50% scored >=15	less than 50% scored >=18
	1		50% to59% scored >=15	50% to59% scored >=18
	2		60% to 69% scored >=15	60% to 69% scored >=18
	3		70% and more scored >=15	70% and more scored >=18

Subject				
Basic Electrical Engineering Lab	0	No Lab Course	less than 40% scored >=15	less than 45% scored >=18
	1		40% to49% scored >=15	45% to54% scored >=18
	2		50% to 59% scored >=15	55% to 64% scored >=18
	3		60% and more scored >=15	65% and more scored >=18
Applied Mathematics II	0	less than 40% scored >=28	less than 45% scored >=28	less than 45% scored >=30
	1	40% to 49% scored >=28	45% to 54% scored >=28	45% to 54% scored >=30
	2	50% to 59% scored >=28	55% to 64% scored >=28	55% to 64% scored >=30
	3	60% and more scored >=28	65% and more scored >=28	65% and more scored >=30
Engineering Chemistry	0	less than 45% scored >=38	less than 45% scored >=28	less than 50% scored >=28
	1	45% to54% scored >=38	45% to54% scored >=28	50% to59% scored >=28
	2	55% to 64% scored >=38	55% to 64% scored >=28	60% to 69% scored >=28
	3	65% and more scored >=38	65% and more scored >=28	70% and more scored >=28
Introduction to Programming with C	0	less than 40% scored >=38	less than 45% scored >=25	less than 40% scored >=25
	1	40% to49% scored >=38	45% to54% scored >=25	40% to 49% scored >=25
	2	50% to 59% scored >=38	55% to 64% scored >=25	50% to 59% scored >=25
	3	60% and more scored >=38	65% and more scored >=25	60% and more scored >=25
Computer Aided Engineering Drawing	0	less than 40% scored>=27	less than 40% scored>=28	less than 40% scored>=29
	1	40% to 49% scored>=27	40% to 49% scored>=28	40% to 49% scored>=29
	2	50% to 59% scored>=27	50% to 59% scored>=28	50% to 59% scored>=29
	3	60% and more scored>=27	60% and more scored>=28	60% and more scored>=29
Basic Electronics	0	less than 30% scored >=29	less than 30% scored >=30	less than 30% scored >=31
	1	30% to 39% scored >=29	30% to 39% scored >=30	30% to 39% scored >=31
	2	40% to 49% scored >=29	40% to 49% scored >=30	40% to 49% scored >=31
	3	50% and more scored >=29	50% and more scored >=30	50% and more scored >=31

Programming in C Lab	0	Included with Theory as it is an integrated subject	less than 45% scored >=13	less than 40% scored >=13	
	1		45% to54% scored >=13	40% to49% scored >=13	
	2		55% to 64% scored >=13	50% to 59% scored >=13	
	3		65% and more scored >=13	60% and more scored >=13	
Engineering Chemistry Lab	0	Included with Theory as it is an integrated subject	less than 50% scored >=15	less than 55% scored >=15	
	1		50% to59% scored >=15	55% to64% scored >=15	
	2		60% to 69% scored >=15	65% to 70% scored >=15	
	3		70% and more scored >=15	75% and more scored >=15	
Business / Professional communication	0	less than 32% scored >=13	less than 34% scored >=13	less than 35% scored >=14	
	1	32% to 41% scored >=13	34% to 43% scored >=13	35% to 44% scored >=14	
	2	42% to 51% scored >=13	44% to 53% scored >=13	45% to 54% scored >=14	
	3	52% and more scored >=13	54% and more scored >=13	55% and more scored >=14	
Environmental Science & Awareness	0	less than 44% scored>=30	Course removed and included in higher semester	Course removed and included in higher semester	
	1	45% to 54% scored>=30			
	2	55% to 64% scored>=30			
	3	65% and more scored>=30			

Attainment Levels: External Assessment

Course	Attainment Level	CAYm2 2017-18	CAYm1 2018-19	CAY 2019-20
Applied Mathematics I	0	less than 40% scored >=56	less than 45% scored >=56	less than 45% scored >=60
	1	40% to 49% scored >=56	45% to 54% scored >=56	45% to 54% scored >=60
	2	50% to 59% scored >=56	55% to 64% scored >=56	55% to 64% scored >=60
	3	60% and more scored >=56	65% and more scored >=56	65% and more scored >=60
Engineering Physics	0	less than 45% scored >=76	less than 45% scored >=56	less than 45% scored >=60
	1	45% to54% scored >=76	45% to54% scored >=56	45% to 54% scored >=60
	2	55% to 64% scored >=76	55% to 64% scored >=56	55% to 64% scored >=60
	3	65% and more scored >=76	65% and more scored >=56	65% and more scored >=60
Elements of Civil Engineering	0	less than 42% scored>=50	less than 44% scored>=50	less than 45% scored >=60
	1	42% to 51% scored>=50	44% to 53% scored>=50	45% to 54% scored >=60
	2	52% to 61% scored>=50	54% to 63% scored>=50	55% to 64% scored >=60
	3	62% and more scored>=50	64% and more scored>=50	65% and more scored >=60
Elements of Mechanical Engineering	0	less than 40% scored >=72	less than 40% scored >=50	less than 40% scored >=56
	1	40% to49% scored >=72	40% to 49% scored >=50	40% to 49% scored >=56
	2	50% to 59% scored >=72	50% to 59% scored >=50	50% to 59% scored >=56
	3	60% and more scored >=72	60% and more scored >=50	60% and more scored >=56
Basic Electrical Engineering	0	less than 45% scored >=46	less than 50% scored >=50	less than 51% scored >=56
	1	45% to54% scored >=46	50% to 59% scored >=50	51% to 61% scored >=56
	2	55% to 64% scored >=46	60% to 69% scored >=50	62% to 71% scored >=56
	3	65% and more scored >=46	70% and more scored >=50	72% and more scored >=56

Basic Electrical Engineering Lab	0	No Lab	less than 40% scored >=30	less than 45% scored >=36
	1		40% to49% scored >=30	45% to54% scored >=36
	2		50% to 59% scored >=30	55% to 64% scored >=36
	3		60% and more scored >=30	65% and more scored >=36
Engineering Physics Lab	0	Included with Theory as it is an integrated subject	less than 50% scored >=30	less than 50% scored >=36
	1		50% to59% scored >=30	50% to59% scored >=36
	2		60% to 69% scored >=30	60% to 69% scored >=36
	3		70% and more scored >=30	70% and more scored >=36
Applied Mathematics II	0	less than 40% scored >=56	less than 45% scored >=56	less than 45% scored >=60
	1	40% to 49% scored >=56	45% to 54% scored >=56	45% to 54% scored >=60
	2	50% to 59% scored >=56	55% to 64% scored >=56	55% to 64% scored >=60
	3	60% and more scored >=56	65% and more scored >=56	65% and more scored >=60
Engineering Chemistry	0	less than 45% scored >=76	less than 45% scored >=56	less than 50% scored >=56
	1	45% to54% scored >=76	45% to 54% scored >=56	50% to59% scored >=56
	2	55% to 64% scored >=76	55% to 64% scored >=56	60% to 69% scored >=56
	3	65% and more scored >=76	65% and more scored >=56	70% and more scored >=56
Introduction to Programming with C	0	less than 40% scored >=76	less than 45% scored >=50	less than 40% scored >=50
	1	40% to49% scored >=76	45% to54% scored >=50	40% to 49% scored >=50
	2	50% to 59% scored >=76	55% to 64% scored >=50	50% to 59% scored >=50
	3	60% and more scored >=76	65% and more scored >=50	60% and more scored >=50
Computer Aided Engineering Drawing	0	less than 40% scored>=54	less than 40% scored>=56	less than 40% scored>=58
	1	40% to 49% scored>=54	40% to 49% scored>=56	40% to 49% scored>=58
	2	50% to 59% scored>=54	50% to 59% scored>=56	50% to 59% scored>=58
	3	60% and more scored>=54	60% and more scored>=56	60% and more scored>=58

Basic Electronics	0	less than 30% scored >=58	less than 30% scored >=60	less than 30% scored >=62
	1	30% to 39% scored >=58	30% to 39% scored >=60	30% to 39% scored >=62
	2	40% to 49% scored >=58	40% to 49% scored >=60	40% to 49% scored >=62
	3	50% and more scored >=58	50% and more scored >=60	50% and more scored >=62
Programming in C & Data Structures lab	0		less than 45% scored >=26	less than 40% scored >=26
	1	Included with Theory as it is an integrated subject	45% to54% scored >=26	40% to49% scored >=26
	2		55% to 64% scored >=26	50% to 59% scored >=26
	3		65% and more scored >=26	60% and more scored >=26
Engineering Chemistry Lab	0		less than 50% scored >=30	less than 55% scored >=30
	1	Included with Theory as it is an integrated subject	50% to59% scored >=30	55% to64% scored >=30
	2		60% to 69% scored >=30	65% to 70% scored >=30
	3		70% and more scored >=30	75% and more scored >=30
Business / Professional communication	0	less than 32% scored >=26	less than 34% scored >=26	less than 35% scored >=28
	1	32% to 41% scored >=26	34% to 43% scored >=26	35% to 44% scored >=28
	2	42% to 51% scored >=26	44% to 53% scored >=26	45% to 54% scored >=28
	3	52% and more scored >=26	54% and more scored >=26	55% and more scored >=28
Environmental Science & Awareness	0	less than 44% scored>=60	Course removed and included in higher semester	Course removed and included in higher semester
	1	45% to 54% scored>=60		
	2	55% to 64% scored>=60		
	3	65% and more scored>=60		

Table 8.4.2.

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 2017-18

S. No.	Course Code	Course Name	Direct Attainment		Overall CO attainment
			C IE 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

Table 8.4.2.1a CO Attainment CAYm2 (2017-18)

CO Attainment 2018-19

S. No.	Course Code	Course Name	Direct Attainment		Overall CO attainment
			C IE 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
16	18HSS16/26	Professional Communication	3	3	3

Table 8.4.2.1b CO Attainment CAYm1 (2018-19)

CO Attainment 2019-20

S. No.	Course Code	Course Name	Direct Attainment		Overall CO attainment
			C IE Evaluations	Semester End Exam	

1	19MAT11	Applied Mathematics I	3	3	3
2	19PHY12/22	Engineering Physics	3	3	3
3	19MEE13/23	Elements of Mechanical Engineering	3	3	3
4	19CIV14/24	Elements of Civil Engineering	3	2.8	2.9
5	19EEE15/25	Basic Electrical Engineering	3	3	3
6	19PHL16/26	Engineering Physics Lab	3	3	3
8	19EEL17/27	Basic Electrical Engineering Lab	3	2.4	2.7
9	19MAT21	Applied Mathematics II	3	3	3
10	19CHE12/22	Engineering Chemistry	3	3	3
11	19CSE13/23	Introduction to Programming with C	3	2.7	2.9
12	19MEE14/24	Computer Aided Engineering Drawing	3	3	3
13	19ECE15/25	Basic Electronics	3	2.8	2.9
14	19CHL17/27	Engineering Chemistry Lab	3	3	3
15	19CSL18/28	Programming with C Lab	3	3	3
16	19HSS271	Professional Communication	3	3	3

Table 8.4.2.1c CO Attainment CAY (2019-20)

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.

	Assessment method	Assessment Tool	Frequency
POs/PSOs attainment	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 2017-18

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12
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
Avg.		**2.9**	**2.5**	**2.3**	**2.0**	**2.4**	**2.0**	**2.3**	**2.5**	**2.0**	**2.1**	**1.0**	**2.0**

Table 8.5.1.1a Programme Articulation Matrix 2017-18

Programme Articulation Matrix 2018-19

Course	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12
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
Avg.		**2.9**	**2.5**	**2.3**	**1.8**	**2.1**	**2.0**	**2.3**	**3.0**	**2.2**	**2.3**	**2.0**	**2.1**

Table 8.5.1.1b Programme Articulation Matrix 2018-19

Programme Articulation Matrix 2019-20

Course	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12
19MAT11	Applied Mathematics I	3	3	3	3	-	-	-	-	2	3	-	3
19PHY12/22	Engineering Physics	3	2	-	-	2	1	-	-	2	-	-	1
19MEE13/23	Elements of Mechanical Engineering	3	1	3	-	3	2	1	-	-	3	-	1
19CIV14/24	Elements of Civil Engineering	3	2	1	1	-	-	-	-	-	-	-	1
19EEE15/25	Basic Electrical Engineering	3	3	-	2	1	-	-	-	-	-	-	-
19PHL16/26	Engineering Physics Lab	3	2	2	-	2	1	-	-	2	-	-	1
19EEL17/27	Basic Electrical Engineering Lab	3	3	2	2	1	-	-	-	2	2	-	-
19MAT21	Applied Mathematics II	3	3	3	3	3	-	-	-	1	3	-	3
19CHE12/22	Engineering Chemistry	3	2	-	-	-	-	2	-	-	-	-	2
19CSE13/23	Introduction to Programming with C	3	3	3	1	3	-	-	-	3	1	-	1
19MEE14/24	Computer Aided Engineering Drawing	2	-	2	2	1	-	-	-	-	2	-	2
19ECE15/25	Basic Electronics	3	3	3	-	-	-	-	-	-	-	-	-
19CHL17/27	Engineering Chemistry Lab	3	-	-	-	-	-	-	-	-	-	-	3
19CSL18/28	Programming with C Lab	3	3	3	3	3	-	-	-	3	-	-	3
19HSS271	Professional Communication	-	-	-	-	-	-	-	3	3	3	-	3
Avg.		**2.93**	**2.50**	**2.50**	**2.13**	**2.11**	**1.33**	**1.50**	**3.00**	**2.25**	**2.43**	**-**	**2.00**

Table 8.5.1.1c Programme Articulation Matrix 2019-20

PO Attainment (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

Table 8.5.1.2a PO Attainment (2017-18)

PO Attainment (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

Table 8.5.1.2b PO Attainment (2018-19)

PO Attainment (2019-20)

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
19MAT11	3	3	3	3	-	-	-	-	3	3	-	3
19PHY12/22	3	3	-	-	3	3	-	-	3	-	-	3
19MEE13/23	3	3	3	-	3	3	3	-	-	3	-	3
19CIV14/24	3	3	3	3.0								3.0
19EEE15/25	3	3	-	3	3	-	-	-	-	-	-	-
19PHL16/26	3	3	3	-	3	3	-	-	3	-	-	3
19EEL17/27	2.8	2.8	2.8	2.8	2.8				2.84	2.84		
19MAT21	3	3	3	3	3	-	-	-	3	3	-	3
19CHE12/22	3	3	-	-	-	-	3	-	-	-	-	3
19CSE13/23	2.5	2.4	2.5	3.0	2.6	-	-	-	2.55			2.51
19MEE14/24	3.0	-	3.0	3.0	3	-	-	-	-	3	-	3
19ECE15/25	2.9	2.9	2.8	-	-	-	-	-	-	-	-	-
19CHL17/27	3	-	-	-	-	-	-	-	-	-	-	3
19CSL18/28	2.8	2.8	2.8	2.8	2.8				2.8			2.8
19HSS271	-	-	-	-	-	-	-	3	3	3	-	3
Direct Attainment	2.93	2.91	2.89	2.95	2.91	3	3	3	2.9	2.97	-	2.94

Table 8.5.1.2c PO Attainment (2019-20)

Target Attainment Level

Target Attainment Level	2017-18	2018-19	2019-20
	2.4	2.6	2.7

8.5.2. Actions taken based on the results of evaluation of relevant Pos (5):

<u>**PO Attainment Levels and Actions for improvement: 2017-18**</u>

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	2.4	2.96	**Target Achieved**
Tour of NHCE labs was organized to first year students			

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	2.4	2.96	**Target Achieved**
Organized Expert Lectures from leading R & D organizations such as Tata Institute of Fundamental Research (TIFR)Bangalore, International Researchers (USA), National Aerospace Laboratories (NAL) Bangalore, Raman Research institute (RRI) Bangalore			

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	2.4	2.91	**Target Achieved**
Students of the first year attended a "Lecture on PLC (Programmable Logic Controller) & SCADA			

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	2.4	2.94	**Target Achieved**
The significance of literature survey was outlined to students			

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	2.4	2.95	**Target Achieved**

Students of the first year attended a lecture "Demonstration of Cisco Lab and MATLAB"

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	2.4	3	**Target Achieved**

Engineers primary obligation is to protect the safety, health and welfare of the public. Engineers decision making is very important because the ultimate beneficiary is the general public or society at large. This was emphasized through the course Constitution of India and Professional Ethics. Three weeks induction program also outlined the contribution of engineers to the society

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	2.4	3	**Target Achieved**

Students of the first year attended "A talk and demonstration through videos on waste management"

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	2.4	2.95	**Target Achieved**

Ethics will guide the engineers to mould the personality trait of an individual which will play a key role in instilling discipline and facilitating students to become a responsible citizen of the nation.
This is also reemphasized through the course Constitution of India and Professional Ethics

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	2.4	2.97	**Target Achieved**
As part of the self-study evaluation, students were assigned the small projects in groups; working in the groups enabled them to understand the intricacies of team work and decision-making process			

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	2.4	2.96	**Target Achieved**
The "Center for Soft Skills and Life Long Learning" ensures the students are equipped with all possible communication tools			

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	2.4	2.92	**Target Achieved**
Students get hands on experience on managing small group tasks and associated finances by participating actively in the Curricular, Co-curricular and Technical clubs. Technically too students were assigned the small projects in groups as part of the self-study evaluation, which teaches the nuances of project management			

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	2.4	2.99	**Target Achieved**
The "Center for Soft Skills and Life Long Learning" conducts various activities			

Attainment Levels and Actions for improvement: 2018-19

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**
Emphasized the role of fundamental sciences in engineering domain by conducting the virtual tours of the Labs related to Engineering department			

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**
Organized Expert Lectures from leading R & D organizations such as Tata Institute of Fundamental Research (TIFR)Bangalore, International Researchers (USA), National Aerospace Laboratories (NAL) Bangalore, Raman Research institute (RRI) Bangalore.			

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**
Workshop on CAED was conducted to the students. Using the Industry Institute labs students were demonstrated the solution for engineering problems. As well the students were assigned the small projects as self study and the project exhibition was conducted at the end of the semester			

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**
The significance of literature survey was outlined to students			

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**

The product and design applications were demonstrated using CISCO Lab and MATLAB tool

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**

Engineers primary obligation is to protect the safety , health and welfare of the public. Engineers decision making is very important because the ultimate beneficiary are the general public or society at large. This was emphasized through the course Constitution of India and Professional Ethics. Three weeks induction program also outlined the contribution of engineers to the society

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**

The electronic waste management and its need in the current digital world impacting the ecological balance was demonstrated through Videos

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**

Ethics will guide the engineers to mould the personality trait of an individual which will play a key role in instilling discipline and facilitating students to become a responsible citizen of the nation.
This is also reemphasized through the course Constitution of India and Professional Ethics.

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**
As part of the self study evaluation, students were assigned the small projects in groups ;working in the groups enabled them to understand the intricacies of team work and decision making process			

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**
The "Center for Soft Skills and Life Long Learning" ensures the students are equipped with all possible communication tools			

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**
Students get hands on experience on managing small group tasks and associated finances by participating actively in the Curricular, Co-curricular and Technical clubs. Technically too students were assigned the small projects in groups as part of the self study evaluation, which teaches the nuances of project management			

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**
The "Center for Soft Skills and Life Long Learning" conducts various activities			

8.5.2 PO Attainment Levels and Actions for improvement: 2019-20

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	2.7	2.93	**Target Achieved**
An online virtual tour of the computer lab was conducted for first year students and a Lecture on Pseudo code-A method for designing Software was delivered			

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	2.7	2.91	**Target Achieved**
Experts from leading research organizations, industry and institutes of National importance delivered the guest talk for the students emphasizing on bridging the gap of fundamental science with applied science and to solve those problems with engineering tool			

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	2.7	2.89	**Target Achieved**
Students were delivered an online Lecture on "Why Python is Essential for Data Analysis" in connection with Industry Institute - Big Data and Data Analytics Lab: HP Vertica Lab			

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	2.7	2.95	**Target Achieved**
The significance of literature survey was outlined to students and students were invited to join the online webinars			

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	2.7	2.91	**Target Achieved**
Students of first year were given an online lecture on "Virtualization Essentials and the modern tool usage			

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	2.7	3	**Target Achieved**
The motivational talks by the industry experts emphasized the value system and the difference engineers could bring in the society.This was also emphasized through the course Constitution of India and Professional Ethics			

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	2.7	3	**Target Achieved**
An online awareness lecture on "Environmental Impacts of Computer Technology" for the students of first year was conducted			

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	2.7	3	**Target Achieved**
This is also reemphasized through the course Constitution of India and Professional Ethics.			

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	2.7	2.9	**Target Achieved**
In order to gain the activity points, students choose the tasks to be performed in groups ;working in the groups enabled them to understand the functioning of team and facilitated them to inculcate the team spirit.			

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	2.7	2.97	**Target Achieved**
At frequent intervals the the "Center for Soft Skills and Life Long Learning" will conduct various programmes to ensure the students are equipped with all possible communication tools			

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	-	-	**Target Achieved**
Students get hands on experience on managing small group tasks and associated finances by participating actively in the Curricular, Co-curricular and Technical clubs. Students activity points initiative will enable them hands on experience of managing finances			

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	2.7	2.94	**Target Achieved**
The "Center for Soft Skills and Life Long Learning" conducts various activities			

Electrical and Electronics Engineering

CRITERION 8	First Year Academics	50

8.1: First Year Student-Faculty Ratio (FYSFR, 5)

Data for first year courses to calculate the FYSFR:

Year	Number of Students (Approved intake strength)	**Number of Faculty Members (Considering fractional load)	FYSR	* Assessment = (5x20) / FYSFR (Limited to max. 5)
CAY (2022-23)	1140	79	15	5
CAYm1(2021-22)	1140	76	15	5
CAYm2 (2020-21)	1260	79	16	5
Average	1180	78	15	5

Table B.8.1.

** 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

Year	X (Number Of Regular Faculty with Ph.D)	Y (Number of Regular Faculty with Post graduate Qualification)	RF (Number of Faculty Members required as per SFR of 20:1)	* Assessment of Faculty qualification $(5x+3y) / RF$
CAY (2022-23)	21	40	57	3.00
CAYm1(2021-22)	20	32	57	3.00
CAYm2 (2020-21)	25	43	63	4.00
Average		3.33		

Table B.8.2.

8.3 First Year Academic Performance (10)

Academic Performance	Information Science & Engineering		
	CAYm1 (2021-22)	CAYm2 (2020-21)	CAYm3 (2019-20)
Mean of CGPA of all Successful students(x)	7.90	8.28	8.14
Total no. of successful students(y)	116	118	117
Total students appeared in the examination(Z)	126	123	125
API=x*(y/Z)	7.27	7.94	7.62
Average	7.61		

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)

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 8.4.1.a Tools used in measuring CO

CO Attainment	Weightage	Assessment Tools
Overall CO Attainment Direct Attainment	100%	Continuous Internal Evaluation CIE (50%)
		Semester End Examinations (SEE) (50%)

Table 8.4.1.b Calculation of CO attainment

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& Lab courses (Sample) is as given in table below.

Assessment Tool	Maximum Marks	Marks Scaled to	Weightage
Assignments	15	15	50%
Quizzes	10	10	
Internal Assessment Exam (Avg of 3 Exams)	25	25	
Semester End Examination - Theory	100	50	50%
Everyday Lab session (Each Expt. 10 marks)	10	10	50%
Lab Internal Exam	15	15	
Semester End Examination - Lab	50	25	50%

Table 8.4.1.1. Distribution of marks for theory & Lab courses evaluation.

The Process for Assessment and Attainment of COs is described in the flowchart as shown in Flow Chart

Fig 8.4.1. 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)

Attainment Levels: Internal Assessment

Course	Attainment Level	CAYm2 (2017-18)	CAYm1 (2018-19)	CAY (2019-20)
Applied Mathematics I	0	less than 40% scored >=28	less than 45% scored >=28	less than 45% scored >=30
	1	40% to 49% scored >=28	45% to 54% scored >=28	45% to 54% scored >=30
	2	50% to 59% scored >=28	55% to 64% scored >=28	55% to 64% scored >=30
	3	60% and more scored >=28	65% and more scored >=28	65% and more scored >=30
Engineering Physics	0	less than 45% scored >=38	less than 45% scored >=28	less than 45% scored >=30
	1	45% to 54% scored >=38	45% to54% scored >=28	45% to 54% scored >=30
	2	55% to 64% scored >=38	55% to 64% scored >=28	55% to 64% scored >=30
	3	65% and more scored >=38	65% and more scored >=28	65% and more scored >=30
Elements of Civil Engineering	0	less than 42% scored>=25	less than 44% scored>=25	less than 45% scored >=30
	1	42% to 51% scored>=25	44% to 53% scored>=25	45% to 54% scored >=30
	2	52% to 61% scored>=25	54% to 63% scored>=25	55% to 64% scored >=30
	3	62% and more scored>=25	64% and more scored>=25	65% and more scored >=30
Elements of Mechanical Engineering	0	less than 40% scored >=36	less than 40% scored >=25	less than 40% scored >=28
	1	40% to49% scored >=36	40% to 49% scored >=25	40% to 49% scored >=28
	2	50% to 59% scored >=36	50% to 59% scored >=25	50% to 59% scored >=28
	3	60% and more scored >=36	60% and more scored >=25	60% and more scored >=28
Basic Electrical Engineering	0	less than 45% scored >=23	less than 50% scored >=25	less than 51% scored >=28
	1	45% to54% scored >=23	50% to 59% scored >=25	51% to 61% scored >=28
	2	55% to 64% scored >=23	60% to 69% scored >=25	62% to 71% scored >=28
	3	65% and more scored >=23	70% and more scored >=25	72% and more scored >=28
Engineering Physics Lab	0	Included with Theory as it is an integrated subject	less than 50% scored >=15	less than 50% scored >=18
	1		50% to59% scored >=15	50% to59% scored >=18
	2		60% to 69% scored >=15	60% to 69% scored >=18
	3		70% and more scored >=15	70% and more scored >=18

Basic Electrical Engineering Lab	0	No Lab Course	less than 40% scored >=15	less than 45% scored >=18
	1		40% to49% scored >=15	45% to54% scored >=18
	2		50% to 59% scored >=15	55% to 64% scored >=18
	3		60% and more scored >=15	65% and more scored >=18
Applied Mathematics II	0	less than 40% scored >=28	less than 45% scored >=28	less than 45% scored >=30
	1	40% to 49% scored >=28	45% to 54% scored >=28	45% to 54% scored >=30
	2	50% to 59% scored >=28	55% to 64% scored >=28	55% to 64% scored >=30
	3	60% and more scored >=28	65% and more scored >=28	65% and more scored >=30
Engineering Chemistry	0	less than 45% scored >=38	less than 45% scored >=28	less than 50% scored >=28
	1	45% to54% scored >=38	45% to54% scored >=28	50% to59% scored >=28
	2	55% to 64% scored >=38	55% to 64% scored >=28	60% to 69% scored >=28
	3	65% and more scored >=38	65% and more scored >=28	70% and more scored >=28
Introduction to Programming with C	0	less than 40% scored >=38	less than 45% scored >=25	less than 40% scored >=25
	1	40% to49% scored >=38	45% to54% scored >=25	40% to 49% scored >=25
	2	50% to 59% scored >=38	55% to 64% scored >=25	50% to 59% scored >=25
	3	60% and more scored >=38	65% and more scored >=25	60% and more scored >=25
Computer Aided Engineering Drawing	0	less than 40% scored>=27	less than 40% scored>=28	less than 40% scored>=29
	1	40% to 49% scored>=27	40% to 49% scored>=28	40% to 49% scored>=29
	2	50% to 59% scored>=27	50% to 59% scored>=28	50% to 59% scored>=29
	3	60% and more scored>=27	60% and more scored>=28	60% and more scored>=29
Basic Electronics	0	less than 30% scored >=29	less than 30% scored >=30	less than 30% scored >=31
	1	30% to 39% scored >=29	30% to 39% scored >=30	30% to 39% scored >=31
	2	40% to 49% scored >=29	40% to 49% scored >=30	40% to 49% scored >=31
	3	50% and more scored >=29	50% and more scored >=30	50% and more scored >=31

Programming in C Lab	0	Included with Theory as it is an integrated subject	less than 45% scored >=13	less than 40% scored >=13
	1		45% to54% scored >=13	40% to49% scored >=13
	2		55% to 64% scored >=13	50% to 59% scored >=13
	3		65% and more scored >=13	60% and more scored >=13
Engineering Chemistry Lab	0	Included with Theory as it is an integrated subject	less than 50% scored >=15	less than 55% scored >=15
	1		50% to59% scored >=15	55% to64% scored >=15
	2		60% to 69% scored >=15	65% to 70% scored >=15
	3		70% and more scored >=15	75% and more scored >=15
Business / Professional communication	0	less than 32% scored >=13	less than 34% scored >=13	less than 35% scored >=14
	1	32% to 41% scored >=13	34% to 43% scored >=13	35% to 44% scored >=14
	2	42% to 51% scored >=13	44% to 53% scored >=13	45% to 54% scored >=14
	3	52% and more scored >=13	54% and more scored >=13	55% and more scored >=14
Environmental Science & Awareness	0	less than 44% scored>=30	Course removed and included in higher semester	Course removed and included in higher semester
	1	45% to 54% scored>=30		
	2	55% to 64% scored>=30		
	3	65% and more scored>=30		

Attainment Levels: External Assessment

Course	Attainment Level	CAYm2 2017-18	CAYm1 2018-19	CAY 2019-20
Applied Mathematics I	0	less than 40% scored >=56	less than 45% scored >=56	less than 45% scored >=60
	1	40% to 49% scored >=56	45% to 54% scored >=56	45% to 54% scored >=60
	2	50% to 59% scored >=56	55% to 64% scored >=56	55% to 64% scored >=60
	3	60% and more scored >=56	65% and more scored >=56	65% and more scored >=60
Engineering Physics	0	less than 45% scored >=76	less than 45% scored >=56	less than 45% scored >=60
	1	45% to54% scored >=76	45% to54% scored >=56	45% to 54% scored >=60
	2	55% to 64% scored >=76	55% to 64% scored >=56	55% to 64% scored >=60
	3	65% and more scored >=76	65% and more scored >=56	65% and more scored >=60
Elements of Civil Engineering	0	less than 42% scored>=50	less than 44% scored>=50	less than 45% scored >=60
	1	42% to 51% scored>=50	44% to 53% scored>=50	45% to 54% scored >=60
	2	52% to 61% scored>=50	54% to 63% scored>=50	55% to 64% scored >=60
	3	62% and more scored>=50	64% and more scored>=50	65% and more scored >=60
Elements of Mechanical Engineering	0	less than 40% scored >=72	less than 40% scored >=50	less than 40% scored >=56
	1	40% to49% scored >=72	40% to 49% scored >=50	40% to 49% scored >=56
	2	50% to 59% scored >=72	50% to 59% scored >=50	50% to 59% scored >=56
	3	60% and more scored >=72	60% and more scored >=50	60% and more scored >=56
Basic Electrical Engineering	0	less than 45% scored >=46	less than 50% scored >=50	less than 51% scored >=56
	1	45% to54% scored >=46	50% to 59% scored >=50	51% to 61% scored >=56
	2	55% to 64% scored >=46	60% to 69% scored >=50	62% to 71% scored >=56
	3	65% and more scored >=46	70% and more scored >=50	72% and more scored >=56

Basic Electrical Engineering Lab	0	No Lab	less than 40% scored >=30	less than 45% scored >=36
	1		40% to49% scored >=30	45% to54% scored >=36
	2		50% to 59% scored >=30	55% to 64% scored >=36
	3		60% and more scored >=30	65% and more scored >=36
Engineering Physics Lab	0	Included with Theory as it is an integrated subject	less than 50% scored >=30	less than 50% scored >=36
	1		50% to59% scored >=30	50% to59% scored >=36
	2		60% to 69% scored >=30	60% to 69% scored >=36
	3		70% and more scored >=30	70% and more scored >=36
Applied Mathematics II	0	less than 40% scored >=56	less than 45% scored >=56	less than 45% scored >=60
	1	40% to 49% scored >=56	45% to 54% scored >=56	45% to 54% scored >=60
	2	50% to 59% scored >=56	55% to 64% scored >=56	55% to 64% scored >=60
	3	60% and more scored >=56	65% and more scored >=56	65% and more scored >=60
Engineering Chemistry	0	less than 45% scored >=76	less than 45% scored >=56	less than 50% scored >=56
	1	45% to54% scored >=76	45% to 54% scored >=56	50% to59% scored >=56
	2	55% to 64% scored >=76	55% to 64% scored >=56	60% to 69% scored >=56
	3	65% and more scored >=76	65% and more scored >=56	70% and more scored >=56
Introduction to Programming with C	0	less than 40% scored >=76	less than 45% scored >=50	less than 40% scored >=50
	1	40% to49% scored >=76	45% to54% scored >=50	40% to 49% scored >=50
	2	50% to 59% scored >=76	55% to 64% scored >=50	50% to 59% scored >=50
	3	60% and more scored >=76	65% and more scored >=50	60% and more scored >=50
Computer Aided Engineering Drawing	0	less than 40% scored>=54	less than 40% scored>=56	less than 40% scored>=58
	1	40% to 49% scored>=54	40% to 49% scored>=56	40% to 49% scored>=58
	2	50% to 59% scored>=54	50% to 59% scored>=56	50% to 59% scored>=58
	3	60% and more scored>=54	60% and more scored>=56	60% and more scored>=58

Basic Electronics	0	less than 30% scored >=58	less than 30% scored >=60	less than 30% scored >=62
	1	30% to 39% scored >=58	30% to 39% scored >=60	30% to 39% scored >=62
	2	40% to 49% scored >=58	40% to 49% scored >=60	40% to 49% scored >=62
	3	50% and more scored >=58	50% and more scored >=60	50% and more scored >=62
Programming in C & Data Structures lab	0	Included with Theory as it is an integrated subject	less than 45% scored >=26	less than 40% scored >=26
	1		45% to54% scored >=26	40% to49% scored >=26
	2		55% to 64% scored >=26	50% to 59% scored >=26
	3		65% and more scored >=26	60% and more scored >=26
Engineering Chemistry Lab	0	Included with Theory as it is an integrated subject	less than 50% scored >=30	less than 55% scored >=30
	1		50% to59% scored >=30	55% to64% scored >=30
	2		60% to 69% scored >=30	65% to 70% scored >=30
	3		70% and more scored >=30	75% and more scored >=30
Business / Professional communication	0	less than 32% scored >=26	less than 34% scored >=26	less than 35% scored >=28
	1	32% to 41% scored >=26	34% to 43% scored >=26	35% to 44% scored >=28
	2	42% to 51% scored >=26	44% to 53% scored >=26	45% to 54% scored >=28
	3	52% and more scored >=26	54% and more scored >=26	55% and more scored >=28
Environmental Science & Awareness	0	less than 44% scored>=60	Course removed and included in higher semester	Course removed and included in higher semester
	1	45% to 54% scored>=60		
	2	55% to 64% scored>=60		
	3	65% and more scored>=60		

Table 8.4.2.

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 2017-18

S. No.	Course Code	Course Name	Direct Attainment		Overall CO attainment
			C IE 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

Table 8.4.2.1a CO Attainment CAYm2 (2017-18)

CO Attainment 2018-19

S. No.	Course Code	Course Name	Direct Attainment		Overall CO attainment
			C IE 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
16	18HSS16/26	Professional Communication	3	3	3

Table 8.4.2.1b CO Attainment CAYm1 (2018-19)

CO Attainment 2019-20

S. No.	Course Code	Course Name	Direct Attainment		Overall CO attainment
			C IE Evaluations	Semester End Exam	

1	19MAT11	Applied Mathematics I	3	3	3
2	19PHY12/22	Engineering Physics	3	3	3
3	19MEE13/23	Elements of Mechanical Engineering	3	3	3
4	19CIV14/24	Elements of Civil Engineering	3	2.8	2.9
5	19EEE15/25	Basic Electrical Engineering	3	3	3
6	19PHL16/26	Engineering Physics Lab	3	3	3
8	19EEL17/27	Basic Electrical Engineering Lab	3	2.4	2.7
9	19MAT21	Applied Mathematics II	3	3	3
10	19CHE12/22	Engineering Chemistry	3	3	3
11	19CSE13/23	Introduction to Programming with C	3	2.7	2.9
12	19MEE14/24	Computer Aided Engineering Drawing	3	3	3
13	19ECE15/25	Basic Electronics	3	2.8	2.9
14	19CHL17/27	Engineering Chemistry Lab	3	3	3
15	19CSL18/28	Programming with C Lab	3	3	3
16	19HSS271	Professional Communication	3	3	3

Table 8.4.2.1c CO Attainment CAY (2019-20)

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.

	Assessment method	Assessment Tool	Frequency
POs/PSOs attainment	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 2017-18

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12
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
Avg.		**2.9**	**2.5**	**2.3**	**2.0**	**2.4**	**2.0**	**2.3**	**2.5**	**2.0**	**2.1**	**1.0**	**2.0**

Table 8.5.1.1a Programme Articulation Matrix 2017-18

Programme Articulation Matrix 2018-19

Course	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12
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
Avg.		**2.9**	**2.5**	**2.3**	**1.8**	**2.1**	**2.0**	**2.3**	**3.0**	**2.2**	**2.3**	**2.0**	**2.1**

Table 8.5.1.1b Programme Articulation Matrix 2018-19

Programme Articulation Matrix 2019-20

Course	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12
19MAT11	Applied Mathematics I	3	3	3	3	-	-	-	-	2	3	-	3
19PHY12/22	Engineering Physics	3	2	-	-	2	1	-	-	2	-	-	1
19MEE13/23	Elements of Mechanical Engineering	3	1	3	-	3	2	1	-	-	3	-	1
19CIV14/24	Elements of Civil Engineering	3	2	1	1	-	-	-	-	-	-	-	1
19EEE15/25	Basic Electrical Engineering	3	3	-	2	1	-	-	-	-	-	-	-
19PHL16/26	Engineering Physics Lab	3	2	2	-	2	1	-	-	2	-	-	1
19EEL17/27	Basic Electrical Engineering Lab	3	3	2	2	1	-	-	-	2	2	-	-
19MAT21	Applied Mathematics II	3	3	3	3	3	-	-	-	1	3	-	3
19CHE12/22	Engineering Chemistry	3	2	-	-	-	-	2	-	-	-	-	2
19CSE13/23	Introduction to Programming with C	3	3	3	1	3	-	-	-	3	1	-	1
19MEE14/24	Computer Aided Engineering Drawing	2	-	2	2	1	-	-	-	-	2	-	2
19ECE15/25	Basic Electronics	3	3	3	-	-	-	-	-	-	-	-	-
19CHL17/27	Engineering Chemistry Lab	3	-	-	-	-	-	-	-	-	-	-	3
19CSL18/28	Programming with C Lab	3	3	3	3	3	-	-	-	3	-	-	3
19HSS271	Professional Communication	-	-	-	-	-	-	-	3	3	3	-	3
Avg.		**2.93**	**2.50**	**2.50**	**2.13**	**2.11**	**1.33**	**1.50**	**3.00**	**2.25**	**2.43**	**-**	**2.00**

Table 8.5.1.1c Programme Articulation Matrix 2019-20

PO Attainment (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

Table 8.5.1.2a PO Attainment (2017-18)

PO Attainment (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

Table 8.5.1.2b PO Attainment (2018-19)

PO Attainment (2019-20)

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
19MAT11	3	3	3	3	-	-	-	-	3	3	-	3
19PHY12/22	3	3	-	-	3	3	-	-	3	-	-	3
19MEE13/23	3	3	3	-	3	3	3	-	-	3	-	3
19CIV14/24	3	3	3	3.0								3.0
19EEE15/25	3	3	-	3	3	-	-	-	-	-	-	-
19PHL16/26	3	3	3	-	3	3	-	-	3	-	-	3
19EEL17/27	2.8	2.8	2.8	2.8	2.8				2.84	2.84		
19MAT21	3	3	3	3	3	-	-	-	3	3	-	3
19CHE12/22	3	3	-	-	-	-	3	-	-	-	-	3
19CSE13/23	2.5	2.4	2.5	3.0	2.6	-	-	-	2.55			2.51
19MEE14/24	3.0	-	3.0	3.0	3	-	-	-	-	3	-	3
19ECE15/25	2.9	2.9	2.8	-	-	-	-	-	-	-	-	-
19CHL17/27	3	-	-	-	-	-	-	-	-	-	-	3
19CSL18/28	2.8	2.8	2.8	2.8	2.8				2.8			2.8
19HSS271	-	-	-	-	-	-	-	3	3	3	-	3
Direct Attainment	2.93	2.91	2.89	2.95	2.91	3	3	3	2.9	2.97	-	2.94

Table 8.5.1.2c PO Attainment (2019-20)

Target Attainment Level

Target Attainment Level	2017-18	2018-19	2019-20
	2.4	2.6	2.7

8.5.2. Actions taken based on the results of evaluation of relevant Pos (5):

PO Attainment Levels and Actions for improvement: 2017-18

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	2.4	2.96	**Target Achieved**
Tour of NHCE labs was organized to first year students			
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	2.4	2.96	**Target Achieved**
Organized Expert Lectures from leading R & D organizations such as Tata Institute of Fundamental Research (TIFR)Bangalore, International Researchers (USA), National Aerospace Laboratories (NAL) Bangalore, Raman Research institute (RRI) Bangalore			
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	2.4	2.91	**Target Achieved**
Students of the first year attended a "Lecture on PLC (Programmable Logic Controller) & SCADA			
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	2.4	2.94	**Target Achieved**
The significance of literature survey was outlined to students			
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	2.4	2.95	**Target Achieved**

Students of the first year attended a lecture "Demonstration of Cisco Lab and MATLAB"

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	2.4	3	**Target Achieved**

Engineers primary obligation is to protect the safety, health and welfare of the public. Engineers decision making is very important because the ultimate beneficiary is the general public or society at large. This was emphasized through the course Constitution of India and Professional Ethics. Three weeks induction program also outlined the contribution of engineers to the society

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	2.4	3	**Target Achieved**

Students of the first year attended "A talk and demonstration through videos on waste management"

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	2.4	2.95	**Target Achieved**

Ethics will guide the engineers to mould the personality trait of an individual which will play a key role in instilling discipline and facilitating students to become a responsible citizen of the nation.
This is also reemphasized through the course Constitution of India and Professional Ethics

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	2.4	2.97	**Target Achieved**

As part of the self-study evaluation, students were assigned the small projects in groups; working in the groups enabled them to understand the intricacies of team work and decision-making process

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	2.4	2.96	**Target Achieved**

The "Center for Soft Skills and Life Long Learning" ensures the students are equipped with all possible communication tools

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	2.4	2.92	**Target Achieved**

Students get hands on experience on managing small group tasks and associated finances by participating actively in the Curricular, Co-curricular and Technical clubs. Technically too students were assigned the small projects in groups as part of the self-study evaluation, which teaches the nuances of project management

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	2.4	2.99	**Target Achieved**

The "Center for Soft Skills and Life Long Learning" conducts various activities

Attainment Levels and Actions for improvement: 2018-19

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**
Emphasized the role of fundamental sciences in engineering domain by conducting the virtual tours of the Labs related to Engineering department			

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**
Organized Expert Lectures from leading R & D organizations such as Tata Institute of Fundamental Research (TIFR)Bangalore, International Researchers (USA), National Aerospace Laboratories (NAL) Bangalore, Raman Research institute (RRI) Bangalore.			

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**
Workshop on CAED was conducted to the students. Using the Industry Institute labs students were demonstrated the solution for engineering problems. As well the students were assigned the small projects as self study and the project exhibition was conducted at the end of the semester			

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**
The significance of literature survey was outlined to students			

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**

The product and design applications were demonstrated using CISCO Lab and MATLAB tool

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**

Engineers primary obligation is to protect the safety , health and welfare of the public. Engineers decision making is very important because the ultimate beneficiary are the general public or society at large. This was emphasized through the course Constitution of India and Professional Ethics. Three weeks induction program also outlined the contribution of engineers to the society

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**

The electronic waste management and its need in the current digital world impacting the ecological balance was demonstrated through Videos

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**

Ethics will guide the engineers to mould the personality trait of an individual which will play a key role in instilling discipline and facilitating students to become a responsible citizen of the nation. This is also reemphasized through the course Constitution of India and Professional Ethics.

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**
As part of the self study evaluation, students were assigned the small projects in groups ;working in the groups enabled them to understand the intricacies of team work and decision making process			

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**
The "Center for Soft Skills and Life Long Learning" ensures the students are equipped with all possible communication tools			

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**
Students get hands on experience on managing small group tasks and associated finances by participating actively in the Curricular, Co-curricular and Technical clubs. Technically too students were assigned the small projects in groups as part of the self study evaluation, which teaches the nuances of project management			

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**
The "Center for Soft Skills and Life Long Learning" conducts various activities			

8.5.2 PO Attainment Levels and Actions for improvement: 2019-20

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	2.7	2.93	**Target Achieved**
An online virtual tour of the computer lab was conducted for first year students and a Lecture on Pseudo code-A method for designing Software was delivered			
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	2.7	2.91	**Target Achieved**
Experts from leading research organizations, industry and institutes of National importance delivered the guest talk for the students emphasizing on bridging the gap of fundamental science with applied science and to solve those problems with engineering tool			
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	2.7	2.89	**Target Achieved**
Students were delivered an online Lecture on "Why Python is Essential for Data Analysis" in connection with Industry Institute - Big Data and Data Analytics Lab: HP Vertica Lab			
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	2.7	2.95	**Target Achieved**
The significance of literature survey was outlined to students and students were invited to join the online webinars			
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	2.7	2.91	**Target Achieved**
Students of first year were given an online lecture on "Virtualization Essentials and the modern tool usage			
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	2.7	3	**Target Achieved**
The motivational talks by the industry experts emphasized the value system and the difference engineers could bring in the society.This was also emphasized through the course Constitution of India and Professional Ethics			

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	2.7	3	**Target Achieved**
An online awareness lecture on "Environmental Impacts of Computer Technology" for the students of first year was conducted			

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	2.7	3	**Target Achieved**
This is also reemphasized through the course Constitution of India and Professional Ethics.			

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	2.7	2.9	**Target Achieved**
In order to gain the activity points, students choose the tasks to be performed in groups ;working in the groups enabled them to understand the functioning of team and facilitated them to inculcate the team spirit.			

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	2.7	2.97	**Target Achieved**
At frequent intervals the the "Center for Soft Skills and Life Long Learning" will conduct various programmes to ensure the students are equipped with all possible communication tools			

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	-	-	**Target Achieved**
Students get hands on experience on managing small group tasks and associated finances by participating actively in the Curricular, Co-curricular and Technical clubs. Students activity points initiative will enable them hands on experience of managing finances			

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	2.7	2.94	**Target Achieved**
The "Center for Soft Skills and Life Long Learning" conducts various activities			

Criterion - 9

Student Support Systems

CRITERION 9	STUDENT SUPPORT SYSTEMS	50

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*)

1. Mentoring 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 un resolved cases can be brought to the attention of higher authorities'/ student counselors.

I.   Types of mentoring activities done towards students

- **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.

- **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.

- **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.

- **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.
- **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.

- **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.

II.   **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.A: Summary of Mentoring System for EEE

Parameter	Description
Types of mentoring activities	Academic growth / Professional guidance / career advancement / laboratory specific / All – round development / Student personality development
Number of faculty mentors	30
Number of students per mentor	14-16
Frequency of meeting	Once in a month
Types of mentoring activities	Academic growth / Professional guidance / career advancement / laboratory specific / All – round development / Student personality development

Table 9.1.1.B: Summary of Mentoring System for ISE

Parameter	Description
Types of mentoring activities	Academic growth / Professional guidance / career advancement / laboratory specific / All – round development / Student personality development
Number of faculty mentors	28
Number of students per mentor	20-25
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
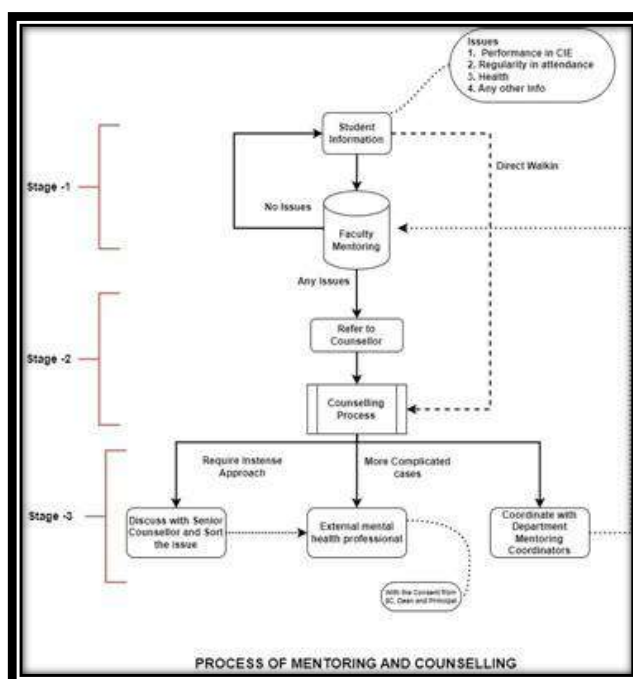
Figure 9.1.1: The structure of mentoring report

III. 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 counselling, 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	**Ms Rajina R**	**Student Counselor**
2	**Ms Manasa T J**	**Student Counselor**
3	**Ms Prachi Bhavsar**	**Student Counselor**
4	**Ms Pallavi**	**Student Counselor**
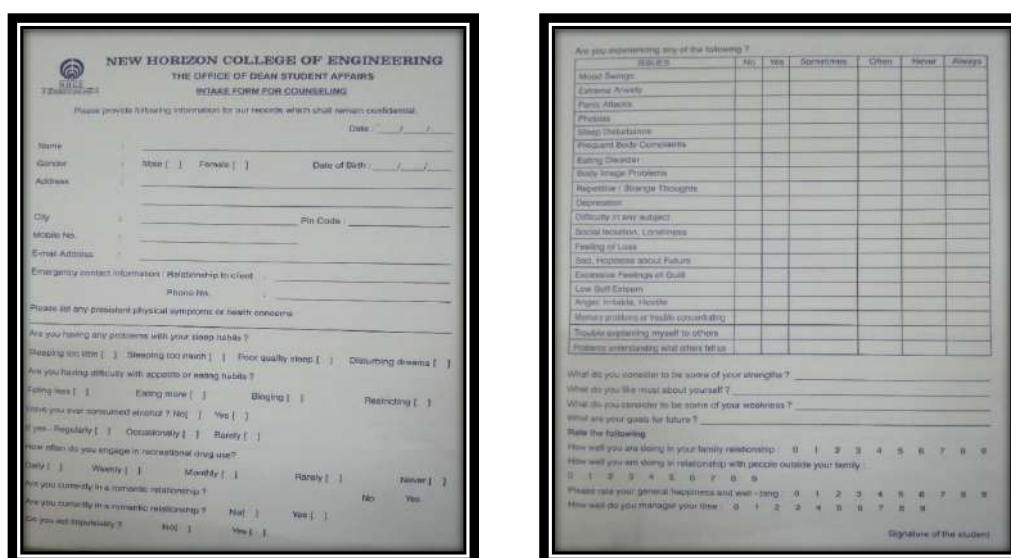
Figure 9.1.2: Format of the counseling form used by counselor

IV.   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 EEE
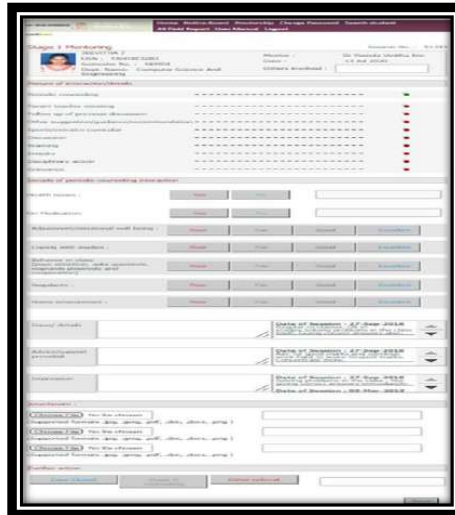
Figure 9.1.3: A snap shot of the mentoring system

Table 9.1.4: List of Courses offered for Life Long Learning

Semester	Course Codes	Subject Name New
I	21MA11	Engineering Mathematics I
I	21CH12	Engineering Chemistry
III	21EEE31A	Applied Mathematics -III
III	21HSS331A	Entrepreneurship Development-2
III	21EEE37A	DC Machines and Transformers
III	21HSS342A	Environmental Science
IV	21HSS421A	Life skills for Engineers
IV	21HSS441A	Constitution of India and Professional Ethics
IV	21EEE41A	Applied Mathematics – IV
IV	21EEE45A	Control Systems
IV	21EEE46A	Synchronous and Induction Machines
IV	21EEE47A	Microcontroller and Embedded Systems
V	EEE52	Control Systems
V	EEE53	Synchronous and Induction Machines
V	EEE54	Signals and Systems
V	EEE55	Industrial Automation
VI	EEE61	Power system Analysis
VI	EEE63	Power system Protection
VII	EEE71A	Special Electrical Machines
VII	EEE754A	Neural network and Fuzzy logic in Electrical Engineering
VII	EEL78A	Project Phase-I
VIII	EEE83A	Internship
VIII	EEE84A	Project Phase- II
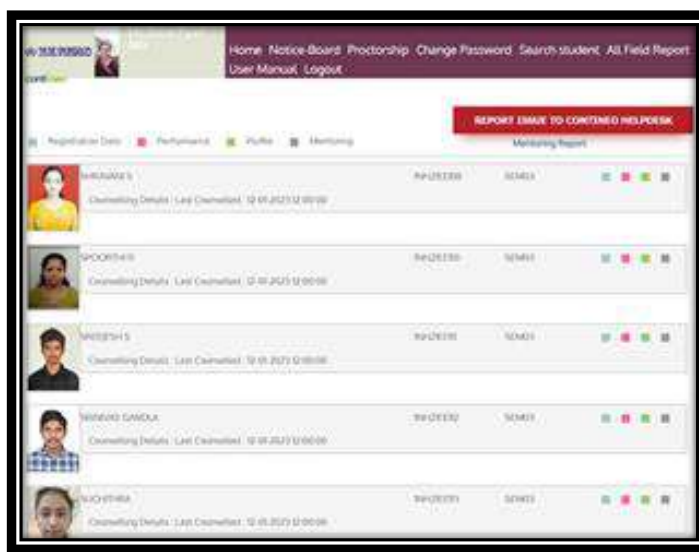
Figure 9.1.4: Sample Student mentoring in Contineo

Figure 9.1.5 Sample Student mentoring report
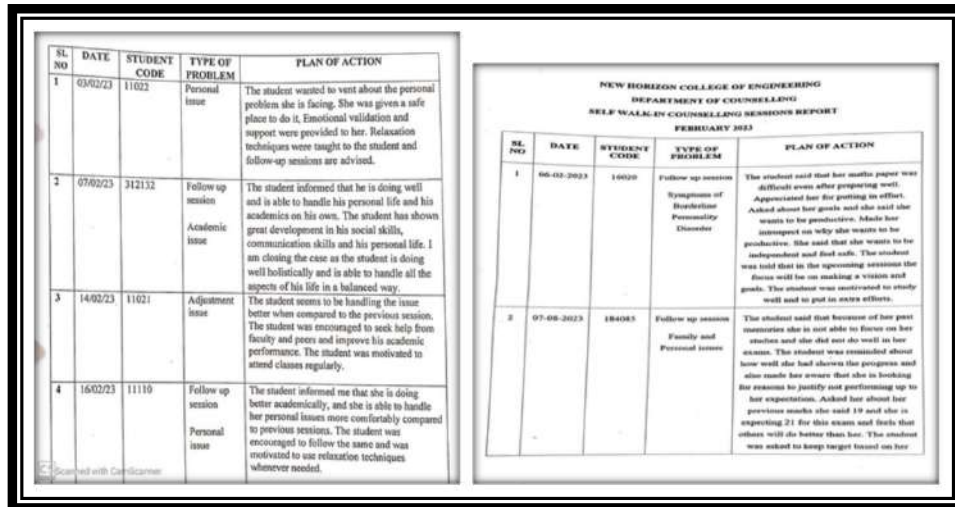
Figure 9.1.6: Sample Student Counselling Report -EEE

Table 9.1.5: Impact of efficacy of mentoring/counseling system

Type of Mentoring/ Counseling	2022-23		2021-22		2020-21	
	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	28	20	25	17	26	15

9.1 (B) Sample Format of Mentoring System for ISE
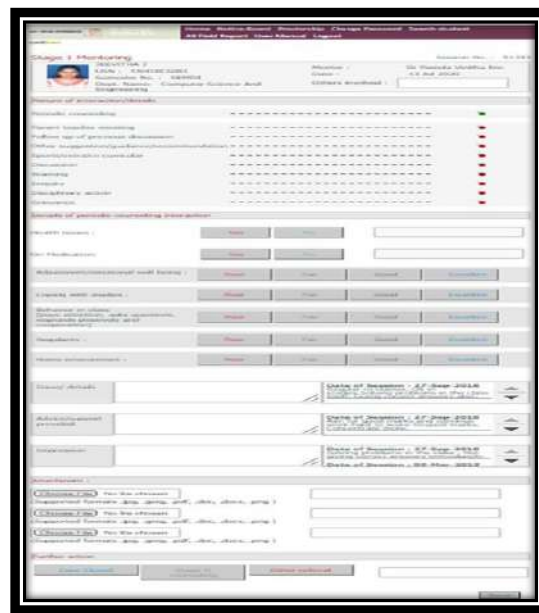
Figure 9.1.7: A snap shot of the mentoring system – ISE

Table 9.1.6 List of Courses offered for Life Long Learning -ISE

Semester	Course Code	Subject Name
Course Specific		
III	ISE36A	Operating System
III	ISE37A	Data Base Management Systems
IV	ISE45A	Data Structures with C
IV	ISE46A	Object Oriented Programming using Java
IV	ISE47A	Internet Of Things
V	ISE51A	Web Internet Programming
V	ISE52A	Design and Analysis of Algorithms
V	ISE54A	Software Engineering & Project Management
V	ISE53A	Data Science
VI	ISE61A	Mobile Application Development
VI	ISE62A	Advanced Java
VI	ISE651A	User Interface Design
VI	ISE653A	C# & .Net
VI	ISE654A	Computer Graphics using Open GL
VI	ISE655A	Soft Computing
VII	ISE71A	Software Testing & Automation
VII	ISE72A	Computer Networks
VII	ISE73A	Cryptography and Information Security
VII	ISE741A	Computer Forensics
VII	ISE742A	Cloud Computing
VII	ISE744A	Information Theory & Coding
VIII	ISE753A	DevOps
VIII	ISE755A	Deep Learning
Laboratory Specific		
III	ISL36A	Operating System Lab
III	ISL37A	Database Management Systems Lab
IV	ISL45A	Data Structures with C Lab
IV	ISL46A	Object Oriented Programming using Java
IV	ISL47A	Internet of things Lab

V	ISL57A	Design and Analysis of Algorithms Lab
V	ISL56A	Web Internet Programming Lab
V	ISL58A	Data Science Lab
VI	ISL67A	Advanced Java Lab
VI	ISL66A	Mobile Application Development
VI	ISL68A	Machine Learning Lab
VII	ISL76A	Software Testing &Automation Lab
VII	ISL77A	Computer Networks Lab
All-round Development		
III	HSS321	Life skills for Engineers
III	HSS331	Entrepreneurship Development
III	HSS341	Constitution of India and Professional Ethics
IV	HSS442	Environmental Science
Student personality development activity		
III	ISE38A	Mini Project in C
V	ISE59B	Mini Project in Web Internet Programming
VI	ISE69B	Mini Project in Java
VII	ISE78A	Project Phase -1
VIII	ISE82A	Internship
VIII	ISE83A	Project Phase-2
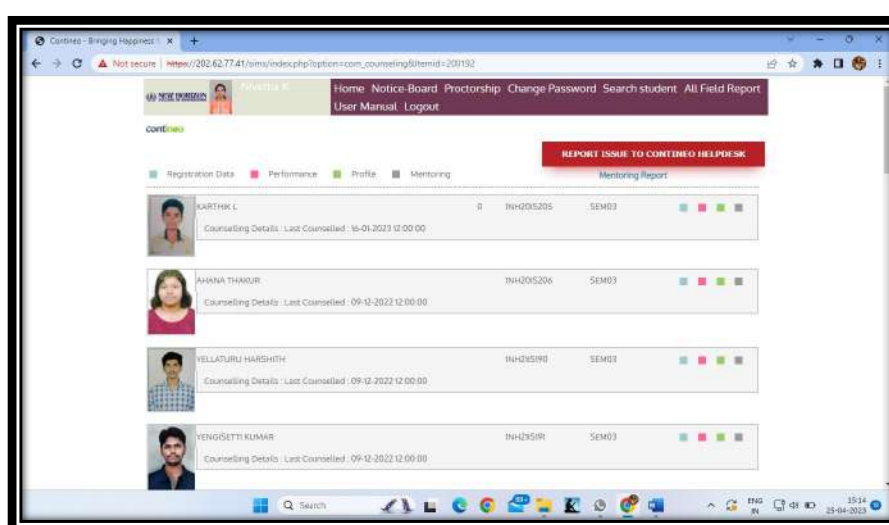
Figure 9.1.8: Sample Format of Mentoring System for ISE

Figure 9.1.9 : Sample Student Mentoring Report -ISE

Figure 9.1.9: Sample Counseling Report -ISE

Table 9.7: Impact of efficacy of mentoring/counseling system -ISE

Type of Mentoring/ Counseling	2019-20		2020-21		2021-22	
	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	19	15	52	42	30	16

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).

Feedback on Teaching-Learning by Students

The entire process is executed in following three stages

- Feedback collection
- Feedback analysis
- Reward / corrective measures

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 9.8

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

Feedback Analysis Process

Summary of the feedback reports pertaining to course, program and teaching- learning is prepared, usually on the scale of 1 to 5. The minimum expected feedback 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 in figure

---

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	2- Fair
4- Very Good	1- Poor
3- Good	

Figure 9.2.1: Format of student feedback on Teaching – Learning

Reward / corrective measures

Methodology being followed for corrective measures taken:

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.

9.2 Sample Feedback analysis

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 blackboard writing

Figure 9.2.2: Sample Students feedback on Teaching -Learning

Rewards/Corrective Measures

Based on the consolidated feedback reports and faculty self-appraisal reports, the faculty members are apprised about their performance.
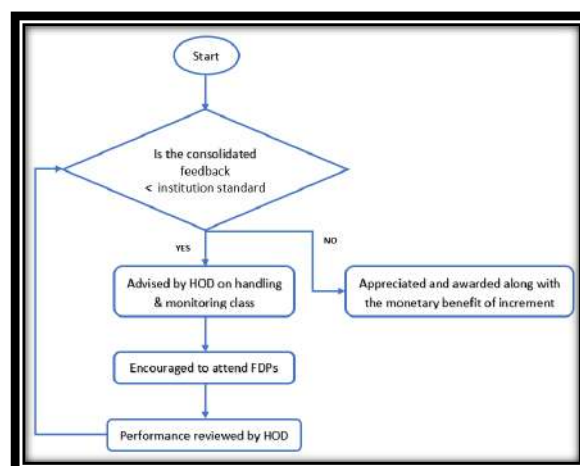

Figure 9.2.3: Sample Corrective Measure on teaching-learning

9.2 (A) Sample Feedback analysis for EEE

New Horizon College of Engineering																							
Department of EEE																							
SR. No.	Name of the faculty	CLASS	No of Students	Subjects	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Avg.
1	Mr.Satishkumar.D	EE SEM III SEC A	14	21EEL35A	4.64	4.57	4.86	4.64	4.79	4.86	4.79	4.93	4.77	4.71	4.86	4.79	4.71	4.71	4.8	4.79	4.86	4.71	4.77
		EE SEM III SEC A	13	21EEL35A	4.15	4.08	4.08	4.31	4.38	4.15	4.38	4.31	4.23	4.31	4.23	4.15	4.08	4.15	4.3	4.33	4.25	4.15	4.22
		EE SEM III SEC A	11	21EEL35A	3.73	3.64	3.73	3.55	3.82	3.73	3.64	3.73	3.64	3.55	3.64	3.73	3.73	3.64	3.5	3.36	3.55	3.55	3.63
		Overall avg			4.17	4.1	4.22	4.17	4.33	4.25	4.27	4.32	4.21	4.19	4.24	4.22	4.17	4.17	4.2	4.16	4.22	4.14	4.21

Figure 9.2.4: Sample Students feedback on Teaching –Learning – EEE

A consolidation of feedback analysis on teaching -learning department wise is given in table 9.2.4

Table 9.2.1.A : Feedback Analysis -EEE

NEW HORIZON COLLEGE OF ENGINEERING			
DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING			
Faculty feedback analysis - 2022-23 - EVEN SEM			
Sl.No	**Feedback Range**	**Faculty Name**	**Score**
1	4.5-5	Dr. K.Vinoth Kumar	4.67
2		Mrs. A. Anitha	4.61
3		Ms. Sangeetha C N	4.6
4		Dr. S. Sujitha	4.58
5		Prof. Anand K	4.58
6		Dr. N.Prabhakaran	4.58
7		Ms. Soumya K V	4.52
8		R MOHAN DAS	4.51
9		Mr. SUNIL	4.51
10		Mr. Joshua Daniel Raj	4.5
11		Ms. Manochitra G	4.49
12		Ms. Pooja Jose	4.45
13	4-4.5	Mr. Kodandapani D	4.44
14		Dr.Revathi R P	4.44
15		Mrs. Kavitha Chenna Reddy Chenna Reddy	4.38
16		Ms.Geetha Varma	4.38
17		Mr. Kartheek Vankadara	4.36
18		Dr.V.Agalya	4.36
19		Mr.Satishkumar.D	4.21
20		Ms.Surat Pyari Atti	4.14

Table 9.2.2 : Faculty Feedback Analysis for EVEN Semester 2023

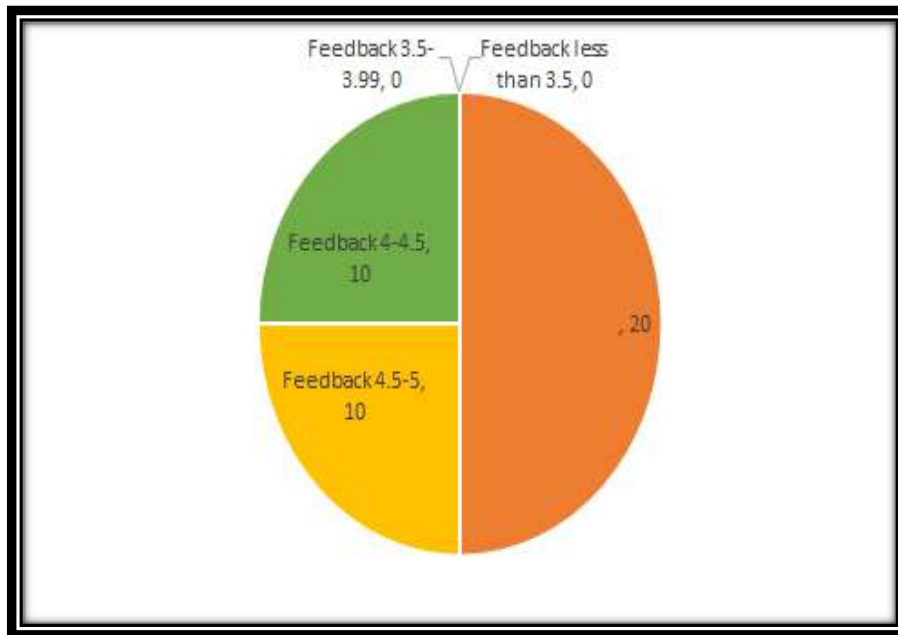| **Total number of Faculties**		**EEE**
		20
Feedback	**4.5-5**	**10**
Feedback	**4-4.5**	**10**
Feedback	**3.5-3.99**	**0**
Feedback	**less than 3.5**	**0**

Figure 9.2.5: Sample Feedback Analysis on Teaching- Learning

- List of faculties with student feedback <3.5   Nil

- Activity followed for faculty having student feedback <3.5   Nil

- FDP attended by faculty having student feedback<3.5   Nil

- NPTEL courses attended by faculties having student feedback <3.5   Nil

9.2 (B) Sample Feedback analysis for ISE

Figure 9.2.6: Sample students feedback on teaching-learning - ISE

A consolidation of feedback analysis on teaching -learning department wise is given in table 9.2.3

Table 9.2.3: Sample feedback analysis on Teaching –Learning -ISE

	NEW HORIZON COLLEGE OF ENGINEERING		
	DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING		
	Faculty feedback analysis - 2022-23 - EVEN SEM		
Sl.no.	Feedback range	Name of the faculty	Score
1		Ms. Vijaya	4.71
2		Ms. Suma T	4.83
3		Dr. Saravanan K	4.82
4		Sabarinath S.	4.78
5		Dr Mohan H S	4.65
6		Ankita Jeewankar	4.61
7		Suneetha V	4.77
8		Jaydeep Amin Prabhakar	4.78
9		Arvind Kapse	4.57
10		Dr Sivaramkrishnan S	4.66
11		Kiran Kumar B	4.58
12		Prof. Anand K	4.63
13	4.5 – 5	DevRanjan Chatterjee	4.64
14		Saranya Batta	4.58
15		Nivetha K	4.64
16		SWATHI B	4.85
17		VANDANA C P	4.78
18		Srinivasan L	4.84
19		Suvika K V	4.82
20		Dr Rajlakshmi Ghatkamble	4.64
21		Karthiyayini J	4.74
22		Priya N	4.57
23		DIVYA KV	4.72
24		Sony M Kuriakose	4.71
25		Bibiana Jeniffer	4.69
26		Dr Anandhi R J	4.57
27		Latha S S	4.51
28		Rama Dan	4.52
29		Anitha R	4.52
30		Mrs. M S Shoba Nhce	4.49
31		Prabhu James	4.48
32		Kalaivani D	4.39
33	4-4.5	Neha Jadhav	4.32
34		Karthick Myilvahanan Jothivel	4.36
35		Shruthi G R	4.42
36		Chitti T N	4.39
37		Krishnaveni A	4.49
38		Shalini A	4.2

Table 9.2.2 : Faculty Feedback Analysis for Even Sem 2022-23

Total number of Faculties		38
Feedback	4.5-5	29
Feedback	4-4.5	09
Feedback	3.5-3.99	0
Feedback	less than 3.5	0
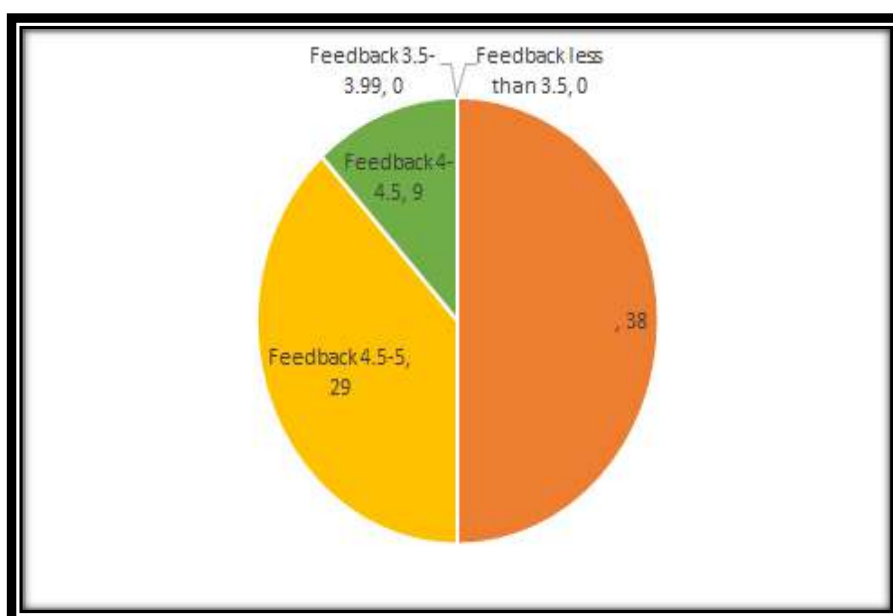
Figure 9.2.7: Sample feedback analysis on Teaching- Learning - ISE

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

A common format of faculty feedback and corrective measure analysis on teaching - learning is given in figure 9.2.8

NEW HORIZON COLLEGE OF ENGINEERING, BANGALURU

DEPARTMENT OF _____

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 9.2.8: 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:

1) Feedback collection
2) Feedback analysis
3) Corrective measures

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 &bandwidth
- 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 details of feedback collection process on facilities are summarized in Table 9.10

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.

Format of student feedback on Facility

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 institution 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.

Figure 9.3.1: Table Tennis room

Figure 9.3.2: Gymnasium

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?

Figure 9.23: Sample Student feedback on facilities

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.

Corrective Measures
Some of the corrective actions taken are
- Recreation center
- Dance room and music room in boys' hostel
- Gymnasium
- Table Tennis room
- Enhancement of food court

NEW HORIZON COLLEGE OF ENGINEERING, BANGALURU

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(A) Feedback analysis for EEE

SR. No.	Question	Avg. Rating
	New Horizon College of Engineering	
	Feedback on Facilities of the Institute	
1	Library facilities.	4.44
2	Canteen facilities.	4.33
3	Placement support provided.	4.39
4	Lab facilities.	4.31
5	Cyber Lab facility.	4.28
6	Classroom Infrastructure.	4.24
7	Extra-curricular activities at College.	4.34
8	Responsiveness of college admin office.	4.2
9	Responsiveness of Exam office.	4.29
10	Responsiveness of Accounts office.	4.14
11	Transport facilities of the College.	4.28
12	Toilet facilities and maintenance.	4.2
13	Hostel Facility.	4.15
14	Sports Facility.	4.23
Total Average		4.27
No. of Student		2735

Figure 9.3.5 A: Sample Student feedback on facilities – EEE
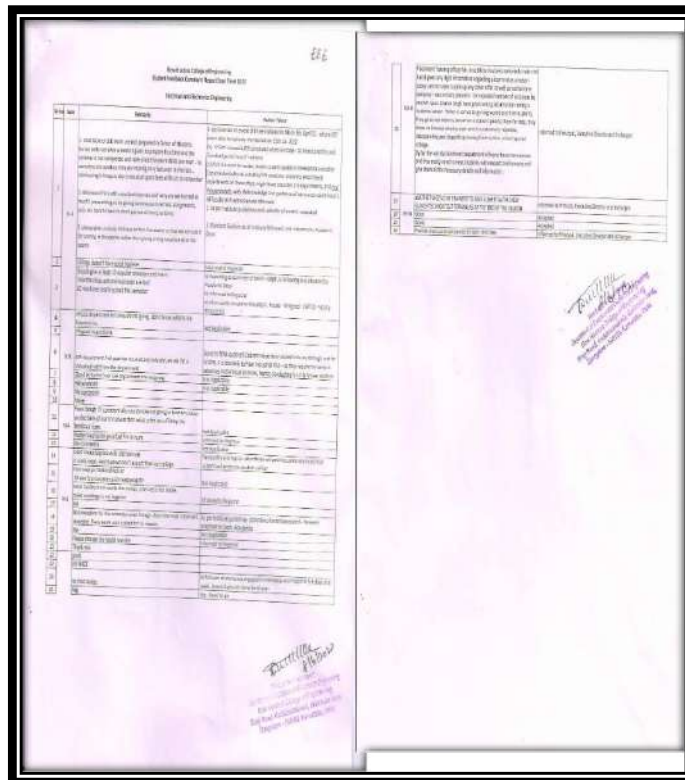
Figure 9.3.6. A: Feedback and Corrective Action - EEE

9.3(B) Feedback analysis for ISE

	New Horizon College of Engineering		
	Feedback on Facilities of the Institute		
SR. No.	Question	Avg. Rating	
1	Library facilities.	4.44	
2	Canteen facilities.	4.33	
3	Placement support provided.	4.39	
4	Lab facilities.	4.31	
5	Cyber Lab facility.	4.28	
6	Classroom Infrastructure.	4.24	
7	Extra-curricular activities at College.	4.34	
8	Responsiveness of college admin office.	4.2	
9	Responsiveness of Exam office.	4.29	
10	Responsiveness of Accounts office.	4.14	
11	Transport facilities of the College.	4.28	
12	Toilet facilities and maintenance.	4.2	
13	Hostel Facility.	4.15	
14	Sports Facility.	4.23	
Total Average		4.27	
No. of Student		2735	

Figure 9.3.5 B: Sample Student feedback on facilities - ISE

Figure 9.3.6. B: Feedback and Corrective Action - ISE

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*)

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.

Scope of Self-learning

- 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

Table 9.4.1: 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 Covid 19 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

Following are the various modes of self-learning and facilities created in the institution.

Table 9.4.2: Self Learning Facilities

Web based learning	• 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	• 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 The Digital Library offers, • NPTEL videos. • Sufficient systems with multimedia facilities. • Institutional membership of DELNET, a library networking database. • Internet facility.
Project Based Learning	• 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	Students are actively engaged in figuring out the principles by abstracting from the examples. This develops their skills in: • Problem solving • Analytical tools, quantitative and/or qualitative, depending on the case • Decision making in complex situations • Coping with ambiguities
Professional Bodies	• Joining a professional association will be one of the most important activities in a student's career. • 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	• 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	• 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.

The Source and Tools of Self Learning

The sources and tools of self-learning used are as shown in Table 9.13

Table 9.4.3: Sample Sources and tools of self-learning

Sl. No.	Self-Learning Sources	Tools	ICT Support
1.	E Courses/Learning	NPTEL Course Era Swayam Udemy	Computer System Internet Connection
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

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

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/NPTEL other ICT tool	Students register and take up the examination and obtain certificates.

9.4(A) Scope of Self-learning for EEE

A.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 9.4.10.

Table9.4.10.A:MOOC Courses Registered and Completed by Students

Sl. No	Year/ Sem	NPTEL Course Name	Course Duration	Total No. of Students Registered
		Academic Year 2019-2020		
1	3rd/6 Sem	Energy Economics And Policy - Online	8 Weeks	80
2	3rd/6 Sem	Programming In Java - Online	8 Weeks	1
3	4th/7 Sem	Google Cloud Computing Foundation Course	4 Weeks	1
		Academic Year 2020-2021		
1	3rd/6 Sem	Energy Economics And Policy – Online	8 Weeks	6
2	3rd /5th Sem	Cloud computing	8 Weeks	1
3	3rd/6 Sem	Programming in C++	8 Weeks	2
4	3rd/6 Sem	Introduction to Smart Grid	8 Weeks	7
5	4th/7 Sem	Design of photovoltaic systems	12 Weeks	1
		Academic Year 2021 – 2022		
1	3rd/6 Sem	Neural Science for Engineers	12 Weeks	1
2	3rd/6 Sem	Introduction to Industry 4.0 and Industrial Internet of Things	12 Weeks	1
		Academic Year 2022 – 2023		
1	3rd/6 Sem	C Programming and Assembly language	4 Weeks	94
2	3rd/6 Sem	Programming, Data Structures and Algorithms Using Python	8 Weeks	2
3	3rd/6 Sem	Basic Environmental Engineering and Pollution Abatement	12 Weeks	1

Table 9.4.10 .A : MOOC Courses Registered and Completed by Faculty

Sl. No	Faculty	NPTEL Course Name	Course Duration	Total No. of faculties Registered
		Academic Year 2021-2022		
1	Faculty	Programming in Java	12 weeks	1
		Academic Year 2020-21		
1	Faculty	Accreditation and Outcome Based Learning	4 weeks	1
2	Faculty	Introduction to Smart Grid	4 weeks	3
3	Faculty	Advances in UHV Transmission and Distribution	4 weeks	1
4	Faculty	Introduction to Research	4 weeks	1
5	Faculty	NBA Accreditation and Teaching - Learning in Engineering(NATE)	4 weeks	1
6	Faculty	Effective Engineering Teaching and Practice	4 weeks	1

A.1 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 9.4.11, 9.4.12 shows the papers published by the students of Electrical and Electronics Engineering in various journals / conferences

Table 9.4.11: Paper Publication by Student - 2022-23

Sl No	USN	Student Name	Paper Title	Conference Name	Date of Publication
1	INH18EE031	Mohammed Omer Ali	A Review on Self Stabilizing Platform in Scope of Merchant Navy Applications	2022 First International Conference on Artificial Intelligence Trends and Pattern Recognition (ICAITPR)	03-08-2022
	INH18EE057	Siddhartha Sunil Singh			
	INH18EE066	Tahoora Imtiyaz			
	INH18EE036	Nayrah M A			
2	INH18EE031	Mohammed Omer Ali	PID Controller Based Self Stabilizing for Inertia Platform using Electrical Parallel Technology	2022 IEEE 2nd Mysore Sub Section International Conference (MysuruCon)	13-12-2022
	INH18EE057	Siddhartha Sunil Singh			
	INH18EE066	Tahoora Imtiyaz			
	INH18EE036	Nayrah M A			
3	INH18EE055	Shiva R V	ANFIS based Vibration Monitoring System for Agriculture Pumping System with Fuzzy Logic Inference	2022 3rd International Conference on Smart Electronics and Communication (ICOSEC)	22-11-2022
	INH18EE049	Sagar Kulkarni			
	INH18EE040	Lavin Ponnappa M M			
4	INH18EE017	Greeshma Chennareddy	Modelling and Design of Solar-Powered DC Refrigerator for Vaccines Transportation in Remote Areas	2022 3rd International Conference on Smart Electronics and Communication (ICOSEC)	22-11-2022
	INH18EE010	Chitra S			
	INH18EE013	Kavipriya E			
	INH18EE050	Sahana B			
5	INH18EE758	Vishwanath Patil	An Accident Identification and Alerting System by Using Raspberry Pi	2022 IEEE 2nd Mysore Sub Section International Conference (MysuruCon)	13-12-2022
	INH18EE733	P.Md.Muthahir Khan			
	INH18EE707	Bharatesh Shiradoni			

Sl.No	ID	Name	Paper Title	Conference	Date
6	INH18EE754	Venkan Gouda	Implementation of Smart Vehicle Accident Detection using Raspberry PI in Smart Cities	2022 4th International Conference on Inventive Research in Computing Applications (ICIRCA)	29-12-2022
	INH18EE758	Vishwanath Patil			
	INH18EE733	P.Md.Muthahir Khan			
	INH18EE707	Bharatesh Shiradoni			
	INH18EE754	Venkan Gouda			
7	INH18EE067	Sayanth PV	Analysis of Performance Enhancement for DC Distribution for Residential Distribution Network using hybrid AC DC Distribution Network	2022 International Conference on Edge Computing and Applications (ICECAA)	08-11-2022
	INH18EE756	Vishal Suresh			
	INH18EE701	Adithya Hegde			
	INH18EE739	Nahush S			
8	INH18EE710	C Bhavana Singh	Data Analytics for Parameter Estimation of an Electric Bicycle using IoT	2022 7th International Conference on Communication and Electronics Systems	29-07-2022
	INH18EE708	Bhavana YC			
	INH18EE709	Bindhu V			
9	INH19EE003	Abhishek	A review of remote health monitoring system for patients sing IoT	International Conferene on Automation, Computing and Renewable Systems (ICACRS-2022)	07-02-2023
	INH19EE013	Anil Hegde H			
	INH19EE032	Dhruva S Srinivas			
	INH19EE038	Krishna Chaitanya			
10	INH19EE008	Aishwarya P	A Review of Theft Diagnosis from Smart Energy Meter Using IoT	2022 6th International Conference on Electronics, Communication and Aerospace Technology	16-01-2023
	INH19EE023	Charishma A			
	INH19EE042	Gautammee KK			
	INH19EE055	Kesamreddy Deepthi			
11	INH19EE066	M Rohith Kumar Reddy	Design and fabrication of Quad Bike for physically Challenged person	International Conference on Smart Generation Computing, Communication	06-04-2023
	INH19EE046	Harshitha R			
12	INH19EE018	Anoopkumar H S	Herbs Ailment Diagnosis using AI Techniques for Sustainable Innovation in Agriculture	2023 4th International Conference on Innovative Trends in Information Technology (ICITIIT)	20-03-2023
	INH19EE024	Chethan D R			
	INH19EE028	Deekshith More B			
	INH19EE062	Kushal A Y			

13	1NH19EE027	Dechamma V S	Study of Interfacing PLC With HMI for Industrial Applications	2023 Second International Conference on Electronics and Renewable Systems (ICEARS)	05-04-2023
	1NH19EE047	J Likitha			
	1NH19EE050	Jayanth R			
	1NH20EE407	Prajwal R M			
14	1NH18EE014	Faraz Ahmed Mullah	A Review on Autopilot using Neuro Evaluation of Augmenting Topologies	2023 International Conference on Intelligent Data Communication Technologies and Internet of Things (IDCIoT)	01-03-2023
	1NH19EE037	Hemanth G N			
	1NH19EE048	J Prajwal			
	1NH19EE065	M Gopal			
15	1NH20EE408	Shiva Shankara M	A Review of Sequential Control & Monitoring of Distribution Lines in Substations	2022 International Conference on Automation, Computing and Renewable Systems (ICACRS)	07-02-2023
	1NH20EE401	Binay Kumar Yadav			
	1NH19EE083	P. Sindhu			
	1NH18EE407	Yashvantha P			
16	1NH19EE085	Ravi Nandan	Artificial Intelligence based Self-Driving Car using Robotic Model	2023 Third International Conference on Artificial Intelligence and Smart Energy (ICAIS)	27-03-2023
	1NH19EE127	Roopeshwar Reddy			
	1NH19EE123	Vinod Kumar R			
	1NH19EE125	W Y Jhansipriya			
17	1NH19EE069	Manoj Kumar H V	AI and IoT based detection of pesticide in organic fruits and vegetables	2023 International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics (IITCEE)	10-04-2023
	1NH19EE070	Manoj Kumar P			
	1NH19EE080	Naveen R N			
	1NH19EE095	Sandeep Naik R			
18	1NH19EE071	Maruthi B	A review of dynamic wireless transfer system technology used in solar wireless electric vehicle charging station	2022 International Conference on Automation, Computing and Renewable Systems (ICACRS)	07-02-2023
	1NH19EE092	Rahul			
	1NH19EE098	Santhosh Melvin D			
	1NH19EE101	Sathish			
19	1NH19EE072	Meghana N T	Solar Powered Multi-functional agricultural robot		17-03-2023

Sl No	Roll No	Name	Project Title	Conference	Date
	INH19EE121	Vandana R		International Conference on Knowledge Engineering and Communication Systems	
	INH19EE122	Vidya G R			
20	INH19EE091	Rachna Palli	Study of Stepper motor control using programmabke logic controller (PLS) based on Industry 4.0	2022 International Conference on Smart Generation Computing, Communication and Networking (SMART GENCON)	06-04-2023
	INH19EE107	Sowmya Shree			
	INH18EE021	Jeshwanth V			
	INH18EE060	Vernon Victor			
21	INH19EE008	Aishwarya P	IoT detection based energy meter integrated with smart devices	2023 Second International Conference on Electronics and Renewable Systems (ICEARS)	05-04-2023
	INH19EE023	Charishma A			
	INH19EE042	Gautammee KK			
	INH19EE055	Kesamreddy Deepthi			
22	INH19EE010	Aisiri M Urs	Electric Quad Bike with hybrid charging mode for physically challenged	2023 7th International Conference on Computing Methodologies and Communication (ICCMC)	04-04-2023
	INH19EE046	Harshitha R			
	INH19EE066	M Rohith Kumar Reddy			
	INH20EE403	Koushik P			
23	INH19EE072	Meghana N T	Solar Powered Autonomous Multipurpose Agricultural Robot Using Bluetooth	2023 Second International Conference on Electronics and Renewable Systems (ICEARS)	05-04-2023
	INH19EE121	Vandana R			
	INH19EE122	Vidya G R			
24	INH19EE004	Abhishek Bedant	Non-Invasive Method of Detecting Anemia using AI & IoT	2023 International Conference on Innovative Data Communication Technologies and Application (ICIDCA)	20-04-2023
	INH19EE061	Kumar Abhishek			
	INH19EE067	Madhav Reddy C			
	INH19EE060	Kota Vikramaadhitya			
25	INH19EE068	Manish	Wild Animals Intrusion Detection for Safe Commuting in Forest Corridors using AI Techniques	2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)	10-05-2023
	INH19EE100	Sarthak Ghorai			
	INH19EE105	Shariq Ahmed			
	INH19EE109	Subhajit Das			
26	INH19EE073	Meghana S	A Novel EV Charging Using Stationary Bike		10-05-2023

	1NH19EE099	Santhosh Kummi	2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)	
	1NH19EE110	Suraj Raju Jadhav		
	1NH19EE120	U Mohammed Arshad		
27	1NH19EE097	Sanskriti Agarwalla	2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)	10-05-2023
	1NH19EE106	Sharmi Kanaujia	Silent Surveillance Autonomous Drone For Disaster Management And Military Security Using Artificial Intelligence	
	1NH19EE103	Sheikh Sameer		
	1NH19EE114	Tabasum Manzoor		
28	1NH19EE102	Shaif Alam	2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)	10-05-2023
	1NH19EE113	Swastik Shukla	Study of Battery Management System using Watchdog Software	
	1NH19EE129	Zahra Goher Sultana		
29	1NH19EE001	Abdul Samedh	2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)	10-05-2023
	1NH19EE030	Darshan R	Automated Tumbler Cleaner	
	1NH19EE034	Faiz Ur Rahman		
30	1NH19EE009	Aishwarya V H	2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)	10-05-2023
	1NH19EE011	Akshatha Shree	Implementation of Accident Detection and Reporting System Using IOT	
	1NH19EE019	Anusha S		
	1NH19EE057	Khushi J Vibhuthi		
31	1NH19EE090	R. Varun	2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)	10-05-2023
	1NH19EE093	Ritika Kapoor	Analysis Of Electrical Parameters For Formula Style Electric Vehicle	
	1NH19EE116	Tejas V		
	1NH19EE104	Shambhavi Bhagat		
32	1NH19EE005	Abrar Altaf Dar	2023 IEEE 3rd International Conference on Technology, Engineering, Management for Societal impact using Marketing, Entrepreneurship and Talent (TEMSMET)	16-06-2023
	1NH19EE016	Ankit Kumar	Solar Fed Flood Alert System Using Arduino	
	1NH19EE033	Ezra D Cunha		
	1NH19EE040	Gaurav P Kumar		

Table 9.4.12: Paper Publication by Student - 2021-22

SI No	USN	Student Name	Paper Title	Conference Name	Date of Publication
			Academic Year 2021-22		
1	1NH18EE039	Nischal Dinesh	A review of solar powered electric Bi-hybrid vehicle compared with IC Engine Vehicles using graph analytics with AI	2022 4th International Conference on Smart Systems and Inventive Technology (ICSSIT)	25-Feb-22
	1NH18EE042	Prajwal			
	1NH18EE053	Sarthak Das			
	1NH18EE005	Ashu Anand			
2	1NH18EE039	Nischal Dinesh	Artificial Intelligence Based Solar Powered Electric Bi- hybrid Vehicle Compared with IC Engine Vehicles Using Graph Analytics	2022 International Conference for Advancement in Technology (ICONAT)	10-Mar-22
	1NH18EE042	Prajwal			
	1NH18EE053	Sarthak Das			
	1NH18EE005	Ashu Anand			
3	1NH18EE011	Darshini Machamma M S	IoT Based Parameters Calculation of Electric Bicycle using OpenModelica Simulation Tool with Data Analytics Technology	2022 IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE)	13-Jun-22
	1NH18EE004	Appaji			
	1NH18EE032	Mohammed Tauqeer Ali			
4	1NH18EE011	Darshini Machamma M S	An IoT based Data Analytics for Electric Bicycle using OpenModelica Simulation Tool	2022 International Conference for Advancement in Technology (ICONAT)	10-Mar-22
	1NH18EE004	Appaji			
	1NH18EE032	Mohammed Tauqeer Ali			
5	1NH18EE031	Mohammed Omer Ali	A Review on Triboelectric Nanogenerators (TENGs) using Internet of Things	2021 International Conference on Forensics, Analytics, Big Data, Security (FABS)	09-Feb-22
	1NH18EE057	Siddhartha Sunil Singh			
	1NH18EE066	Tahoora Imtiyaz			
	1NH18EE036	Nayrah M A			
6	1NH18EE055	Shiva R V	An implementation of soft computing approach of smart control for induction motor using ANFIS	2022 4th International Conference on Smart Systems and Inventive Technology (ICSSIT)	25-Feb-22
	1NH18EE049	Sagar Kulkarni			
	1NH18EE040	Lavin Ponnappa M M			
7	1NH18EE017	Greeshma Chennareddy	Renewable energy based efficient portable DC refrigerator for rural electrification and convenience - An Overview	2022 Second International Conference on Artificial Intelligence and Smart Energy (ICAIS)	30-Mar-22
	1NH18EE010	Chitra S			
	1NH18EE013	Kavipriya E			

	ID	Student Names	Title	Conference	Date
8	1NH18EE050	Sahana B	A review of Arduinobased hand gesture controlled robot using IoT	2022 Second International Conference on Artificial Intelligence and Smart Energy (ICAIS)	30-Mar-22
	1NH18EE022	Jibran Zaidi			
	1NH18EE061	Vikram			
	1NH18EE027	Nirupa Vardhan			
	1NH18EE020	Jaffer			
9	1NH18EE735	Pranav R Naik	A Review on Optimization Techniques of Charging the Battery in EV	2022 Second International Conference on Artificial Intelligence and Smart Energy (ICAIS)	30-Mar-22
	1NH18EE738	Rahul Vijay Lingadhal			
	1NH18EE736	R Puneeth Venkat Sai Varma			
	1NH18EE737	R Supraja			
10	1NH18EE735	Pranav R Naik	A review on optimization techniques of battery charging in electric vehicles	2022 2nd International Conference on Artificial Intelligence and Signal Processing (AISP)	25-Apr-22
	1NH18EE738	Rahul Vijay Lingadhal			
	1NH18EE736	R Puneeth Venkat Sai Varma			
	1NH18EE737	R Supraja			
11	1NH18EE710	C Bhavana Singh	Analysis of Parameter Estimation of an Electric Bicycle Using IoT with Data Analytics Technique	2022 4th International Conference on Smart Systems and Inventive Technology (ICSSIT)	25-Feb-22
	1NH18EE708	Bhavana YC			
	1NH18EE709	Bindhu V			
12	1NH18EE718	Joanna Alicia D	A Survey on Detection of Power theft in Transmission and Distribution	2022 International Conference on Computer Communication and Informatics (ICCCI)	31-Mar-22
	1NH18EE715	Deepthi D			
	1NH18EE740	Shawin Krishna			
	1NH18EE706	Bellam Sreekanth Reddy			
13	1NH18EE025	Karthik N	A survey on Smart Traffic Control System for Emerging vehicles	2022 International Conference on Computer Communication and Informatics (ICCCI)	31-Mar-22
	1NH18EE009	Lakshmipathi C			
	1NH18EE003	Anirudh			

Scope of Self-learning for EEE

Web based learning			
	NEW HORIZON COLLEGE OF ENGINEERING		
	Department of Electrical and Electronics Engineering		
	Mentors for V semester NPTEL Courses		
	ODD Sem 2020-21		
	S.No	**Name of the course**	**Mentor**
	1	Energy Economics And Policy – Online	Mr Sunil K
	2	Cloud computing	Dr. Joshua Daniel Raj
	3	Programming in C++	Dr. Joshua Daniel Raj
	4	Introduction to Smart Grid	Mr Vinod Kumar K
	5	Design of photovoltaic systems	Mrs Karthika Ganesh

Library/Digital Library

- 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

LIST OF JOURNALS

Sl No.	Title	No of Issues	Publisher
1	IETE Journal of Research	6	Taylor & Francis
2	Electronics (Switzerland)	8	MDPI
3	TELKOMNIKA (Telecommunication Computing Electronics and Control)	6	UAD
4	Energies	24	MDPI
5	Biomedical Signal Processing and Control	10	Science Direct

Project Based Learning

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.

4 Mini Projects including Extensive survey and Final year projects are carried out based on Project Based Learning

Case study

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.

Joining a professional body opens up a vast network of knowledge and expertise that is much wider than your immediate university

Professional Bodies	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. IEEES PELS, IES, PES Students Chapter is in existence.
Club Activities	**Green energy club** To bring out the enthusiasm and ability of the students towards communication and create awareness. To acquire knowledge on various topics. **U-Create club** To stimulate lateral thinking, inculcate creative and innovative thoughts among the young budding engineers for the enhancement of society **E-Soft Club** To create a center for promoting research-oriented, industrially relevant, socially beneficial, and cost-effective solutions using the latest technologies
Assignments	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.
Industrial visit	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
Internships	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.
Conference/Seminar/Workshop	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 students in, Broadening their knowledge Cross pollinating their ideas Developing their Network Advancing their careers Re igniting their enthusiasm or passion.

Table 9.4.13: 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	Signals and Systems 20EE54, Lecture no.54	https://docs.google.com/forms/d/e/1FAIpQLSebOu9Nk87Yl9qHR4zL7vFovFOKoTRHOk_H9lRqKvFFM9yyXQ/viewform	17-04-2020	110	90%	Yes
2	Presentation	Journal and articles	A review of remote health monitoring system for patients sing IoT	Abhishek Anil Hegde H Dhruva S Srinivas Krishna Chaitanya	07-02-2023	50	70%	Yes
3	Assignment on problem solving	Course and lecture Materials	Power Electronics – lecture materials on Concrete mix design	https://classroom.google.com/c/NDgzNDE0MjExMzkx	21-06-2022	41	100%	Yes
4	Viva	SWAYAM "C Programming and Assembly language	https://onlinecourses.nptel.ac.in/noc19_cs44 /preview (https://onlinecourses.nptel.ac.in /noc19_cs44/preview)	Dr Joshua Daniel Raj	29-07-2022	94	60%	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 companies

A. 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(B) Scope of Self-learning for ISE

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 2021-2022**
1	2rd/4th Sem	The Joy of computing using python	12 Weeks	204
2	3rd/5th Sem	Introduction to Machine learning	12 Weeks	234
3	3rd/5th Sem	Design and analysis of algorithms	8 Weeks	235
**Academic Year 2020-2021**
1	2rd/4 Sem	Programming in JAVA	12 Weeks	235
2	3rd/6th Sem	Machine Learning ML	8Weeks	149
3	4th/7 Sem	Object oriented analysis and Design	8 Weeks	143
4	3rd/5 Sem	Design and analysis of algorithms	8 Weeks	149
5	2rd/3 Sem	The Joy of computing using python	12 Weeks	221
**Academic Year 2019 – 2020**
1	2nd/ 4th Sem	Programming in Java	12 Weeks	149
2	3rd/ 6th Sem	Joy of Computing with Python	12 Weeks	120
3	3rd/ 6th Sem	Modern Application Development	8 Weeks	22
4	2nd/ 3rd Sem	Joy of Computing with Python	12 Weeks	120
5	3rd/ 5th Sem	Data Science for Engineers	8 Weeks	76
6	3rd/ 5th Sem	Cloud Computing	8 Weeks	70

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 9.16 shows the papers published by the students of Computer Science and Engineering in various journals/conferences

Table 9.4.6: Paper Publication by Students AY 2021-2022

S.No	Student Name	USN	Title of Paper	Journal/ Conference Details
1	Silpa S	1NH18IS106	Survey on IoT based PotHole Detection	IEEE control System Letters
	Sonali PreethaNandagopalan	1NH18IS109		
	Shripriya J	1NH18IS133		
2	Stebin Sebastian	1NH18IS140	Review on IoT-Mobile App based on Rural Development in Terms of Agriculture	International Journal of Innovative Technology and Exploring Engineering (IJITEE)
	Tadepalli Balaji Sai Swapnil	1NH18IS116		
	Nikhil Ch	1NH18IS071		
	Nidhish Vemula Prabhakar	1NH18IS070		
3	Keerthana H	1NH18IS138	Raspberry Based robotic Device for women Safety	International Journal of Mechanical Engineering
	Mala H R	1NH18IS057		
	Mohammed Faizan	1NH18IS062		
	Mohammed Ismail	1NH18IS063		
4	Vismaye M	1NH18IS126	Soft Support: Specially Abled Communication	International Conference on Advanced Computing Technologies and Applications
	Keerthishree V	1NH18IS135		
	Harshitha R	1NH18IS039		
	Pradeepthi K	1NH18IS050		
5	Abhishek V Rai	1NH18IS003	Secured Eye Pay: An E-payment a Application for visually impaired people	International Mobile and Embedded Technology Conference (MECON)
	R Likhith	1NH18IS053		
	R Abhiram	1NH18IS002		
	Amogh V Pai	1NH18IS007		
6	Ritom Tamuli	1NH18IS086	Android Based Fall Detection and	Second International Conference on Artificial

Sl.No	Name	ID	Title	Conference
	Ayush Sinha	1NH18IS019	Tracking App for Aged People	Intelligence and Smart Energy (ICAIS)
	Srutibanta Samantara	1NH18IS112		
7	Arpita Chowdary Vantipalli	1NH18IS016	IOT based AquaSwach	2nd International Conference on Artificial Intelligence and Signal Processing (AISP)
	Darshana Sailu Tanti	1NH18IS028		
	K Malvika Ravi	1NH18IS058		
	Krtin Kannan	1NH18IS044		
8	Yashmitha R	1NH18IS128	IoT based Divyang Assistant Technology: Your Hearing Support	International Conference on Electronics and Renewable Systems (ICEARS)
	Tejal Lalji Rangani	1NH18IS118		
	Anushka Sen	1NH18IS129		
9	B Mounica	1NH18IS065	A Survey of Real-time Health Care Tracking System for Post Covid Patients	Second International Conference on Artificial Intelligence and Smart Energy (ICAIS)
	M Akshatha	1NH18IS006		
	Anupam Kumar	1NH18IS013		
10	Vinay Hegde	1NH18IS124	Securo Point for the Application of Malware Detection in android Apps	International Conference on Software Engineering and Computer Science
	Prajwal P	1NH16IS079		
	Chrisel Fernandes	1NH18IS026		
11	Sanjana Hombal	1NH18IS134	Health Monitoring System Using IoT	International Conference on Emerging Trends in Engineering and Technology - Signal and Information Processing
	Sanchitha BS	1NH18IS095		
	Shreya L	1NH18IS139		
	Sharanya G	1NH18IS035		
12	Pooja T	1NH18IS076	Survey on IoT based Farm Freshness Mobile Application	International Conference on Advanced Computing Technologies and Applications (ICACTA)
	Punith Kumar S	1NH18IS079		
	Shankar Y	1NH18IS136		
	Gowtham V	1NH18IS037		
13	Samrudh G R	1NH18IS094	Developing an Intelligent Model to Detect Micro Facial Expression	2022 International Conference on Advanced Computing Technologies and Applications (ICACTA)
	Gautam	1NH18IS037		
	Tejasvi Patil	1NH18IS120		
	Sagar Shankar	1NH18IS090		
	R Karthik	1NH18IS131		
	A Sanjana	1NH18IS097		
14	Sangeetha D	1NH18IS096	Survey on IoT based E-Farming	2022 International Conference on Sustainable

	Name	USN	Title	Publication
	K L Suchala	1NH18IS099	Technology Enabled Farming	Computing and Data Communication Systems
	R H Shravya	1NH18IS081		
	B S Soundhaaryha	1NH18IS110		
15	Manan Agarwal	1NH18IS059	A Survey on Various Aproaches to e-waste management	2022 International Conference on Computer Communication and Informatics
	Shubhodeep Sarkar	1NH18IS104		
	Md Asif Kamal Quadri	1NH18IS061		
	Dhruv Gulati	1NH18IS031		
16	G. Pranay Deepak Reddy	1NH18IS036	IoT Based Low-Cost Robotic Agent Design for Covid-19 affected people	2022 International Conference on Electronics and Renewable Systems
	Bs Sai Pramath	1NH18IS074		
	J.A. Trivedh	1NH18IS043		
17	Jnana P J	1NH18IS041	Smart Glove for Blind	2022 IEEE Delhi Section Conference
	Monisha C	1NH18IS064		
	Pallavi V	1NH18IS073		
	Saloni K	1NH18IS093		
18	Karthik R	1NH18IS047	Blockchain-based IoT Device Security	2nd International Conference on Artificial Intelligence and Signal Processing, AISP
	Sanjana A	1NH18IS097		
19	G Sai Mani Kumar	1NH18IS034	Review Paper on E-Traffic Police IoT Based Auto-Detection of Traffic Rule Violation	International Journal of Innovative Technology and Exploring Engineering (IJITEE)
	B Aravind Kumar	1NH18IS022		
	M Vinay Kumar Reddy	1NH18IS054		
	B Sree Harsha	1NH18IS020		

Table 9.4.7: Paper Publication by Students AY 2020-2021

S.No	Student Name	USN	Title of Paper	Journal/ Conference Details
1	Swasti Choudhary	1NH17IS115	An Approach to Credit Card Fraud Detection	International Journal of Research in Engineering and Science (IJRES)
	Thakur Kiran Singh	1NH17IS119		
	Narendra Kumar Reddy	1NH17IS141		
	Vishal S Balan	1NH17IS146		
2	Yashaswini S	1NH17IS132	IoT Based Hygiene Monitor for Senior Citizens and Mentally Challenged	International Journal of Scientific Research in Computer Science, Engineering and Information Technology IJSRCSEIT
	Charitha V	1NH17IS148		
	Varsha Gowda S J	1NH17IS127		
	Judy Kennedy	1NH17IS142		
3	Nithya B S	1NH17IS137	Traffic Analysis Using Artificial Neural Network	International Journal of Scientific Research in Science and Technology
	Rakshitha N	1NH17IS080		
	Sirisha M	1NH17IS102		
4	Sneha M	1NH17IS104	Smart Band for Monitoring Vitals for Elderly People in Quarantine	International Journal for Research in Applied Science & Engineering Technology
	Meghana	1NH17IS135		
	Bhanupriya	1NH17IS046		
	Joicy Castilino	1NH17IS045		
5	Harshitha Sundarvelu	1NH17IS139	Cost effective social distance maintenance in primary schools	International Journal of Advance Research Ideas and Innovations in Technology
	Helen Hephzibah	1NH17IS042		
	Simran Fathima	1NH17IS0101		
	Purab Shreeniwas A	1NH17IS073		
6	Shijo Yohannan	1NH17IS098	VR simulation of chemistry lab using blender and unity	International Research Journal of Engineering and Technology (IRJET)
	Shailesh P.M	1NH17IS094		
	Syed Sahil Abbas	1NH17IS149		
	A Sassank Gopal Reddy, RS	1NH17IS007		
7	Sathvik Reddy	1NH17IS076	Land Use Case and Utilization Classification using CNN	International Journal of Research in Engineering and Science (IJRES)
	T Praneeth	1NH17IS116		
	Vardhini V	1NH17IS125		
8	Hamsa p o	1NH17IS039	Remote Monitoring And Control Unit Of	International Journal of Research in Engineering and

Sl. No	Name	Code	Title	Journal
	Anusha k Girish R Prajwal	1NH17IS015 1NH17IS038 1NH17IS069	Solar Photo Voltaic Plant Using IoT	Science (IJRES)
9	Sneha B K Sahana K M Tejaswini S M Patil	1NH17IS103 1NH17IS088 1NH17IS144	Face and Hand Gesture Recognition System for Controlling VLC Media Player	International Journal of Scientific Research in Science and Technology
10	Raahul Narayana Reddy K Prasanna Bhat Apurba Bhattacharjee Srinivas M	1NH17IS077 1NH17IS071 1NH17IS016 1NH17IS107	Statistical Analysis and Visualization of Covid-19	International Research Journal of Engineering and Technology (IRJET)
11	Vibhav Giri Tarun Sharma Sushant Chaudhary Kshitij Raj	1NH17IS129 1NH17IS117 1NH17IS113 1NH17IS049	A communication aid application for the physically handicapped	International Research Journal of Engineering and Technology (IRJET)
12	Akhila S Vaishnavi R Varna Murali	1NH17IS008 1NH17IS124 1NH17IS126	Automatic Social Distancing System Using Thermal Scanners In Huge Auditorium Or Conference Hall Entrances	International Research Journal of Engineering and Technology (IRJET)
13	G.S Nithyashree Ashwin Venkatakrishnan S. Karthik Aneesh Mohan Kumar	1NH17IS134 1NH17IS140 1NH17IS084 1NH17IS012	Acoustic Echo Cancellation For E-Learning Platform	International Research Journal of Engineering and Technology (IRJET)
14	Abhinav Anand Chinmaya Kumar Nayak Ayush Anand Deepak Kumar	1NH17IS002 1NH17IS027 1NH17IS017 1NH17IS029	Designing a prototype for Mentally Challenged and Alzheimer Patients	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
15	Uma Maheshwari Sahana N Reddy Sanjana Sivakumar	1NH17IS085 1NH17IS089 1NH17IS091	Mask Detection Application	International Journal for Research in Applied Science & Engineering Technology (IJRASET)
16	Nethan Shaik Pavel Anup Kirti Devi	1NH17IS059 1NH17IS011 1NH17IS048	An Enhanced Surveillance Bot for Identification of Mask Defaulters	International Research Journal of Engineering and Technology (IRJET)

	Student Name	USN	Title of Paper	Journal/ Conference Details
	Stevenson Jacob	1NH17IS152		
17	Shami K	1NH17IS096	Feature Learning and Analysis of Pre Existing Conditions Prone to Covid Virus During Second Wave	International Journal of Innovative Research in Technology
	Sharmistha C	1NH17IS097		
	Sowjanya V	1NH17IS106		
	Aneja P	1NH18IS400		
18	Anitha B	1NH17IS013	Automatic Detection of Crimes Captured in CCTV Images for Safety of Senior Citizens	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Disha Singh	1NH17IS034		
	Divya Shree M	1NH17IS035		
	Kushala R	1NH17IS050		
19	Akshay S Prathap	1NH17IS009	Implementation of Voice based Touchless Lift System	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Aiswarya V Kumar	1NH17IS005		
	Raviteja Kaki	1NH17IS047		
	Ranjitha R	1NH17IS075		

Table 9.4.8: Paper Publication by Students AY 2019-2020

S.No	Student Name	USN	Title of Paper	Journal/ Conference Details
1	Abhishek Ranjan	1NH16IS003	Deforestation Control and Forest Monitoring using Internet of Trees	International Journal of Scientific Research in Compuer Science, Engineering and Information Technology
	Gagan Prasad	1NH16IS033		
	Harshitha Shankar	1NH16IS038		
2	Shravani V	1NH15IS104	House Price Prediction Analysis using Machine Learning	International Journal for Research in Applied Science & Engineering Technology
3	Harish E	1NH16IS037	Hand Gesture Recognition and Voice Conversion for Hearing and Speech Aided Communit	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Nikhil Jain D	1NH16IS067		
	Nirdesh Reddy	1NH16IS069		
4	Lakshmi K	1NH16IS020	Voice for the Paralytic Victims	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Amithesh K	1NH16IS011		

	Name	ID	Project Title	Journal
5	Vishak J	1NH16IS123	Covid-19 Visualizer	International Journal for Research in Applied Science & Engineering Technology (IJRASET)
	P Nymisha	1NH16IS070		
	Shanmathi Kailasam	1NH16IS100		
	Bhawik Tanna	1NH16IS024		
6	Vijay Hegde S	1NH16IS121	Crop Yield Prediction using Machine Learning Algorithm	International Research Journal of Engineering and Technology (IRJET)
	Yashvanth C V	1NH16IS126		
	S Chandra Kiran	1NH16IS129		
7	Prashanth Paul	1NH16IS083	A review on data science approach towards decision-making	International Journal of Scientific Research in Computer Science, Engineering and Information Technology © 2019 IJSRCSEIT
8	Prashanth Paul	1NH16IS081	A Machine Learning Perspective towards Detecting Fake News	International Journal for Research in Applied Science and Engineering Technology
	Prashanth V	1NH16IS084		
	Prem Kumar	1NH16IS086		
9	Muhammad Shahbaz	1NH16IS063	Smart Vision System for Visually Impaired People	International Research Journal of Engineering and Technology (IRJET)
	Sunil K A	1NH16IS112		
	Pramod Sencha	1NH16IS080		
10	Akhilendu	1NH16IS008	Fake Indian Currency Note Recognition	International Research Journal of Engineering and Technology (IRJET)
	Anakha A S	1NH16IS012		
	Meghashree K	1NH16IS059		
	Faris	1NH15IS034		
11	Vachan B D	1NH16IS123	Landmine Detection Using Wireless Robot	International Research Journal of Engineering and Technology (IRJET)
	B S Deepthi	1NH16IS021		
	Geetha B	1NH16IS016		
12	Janav S	1NH16IS049	Solar based Automatic Speed Control of Vehicles in Sensitive Zones	International Journal of Engineering Research & Technology (IJERT)
	Monisha S M	1NH16IS063		
	Pavan Kumar M G	1NH16IS118		
13	Prapul Kumar A	1NH16IS082		
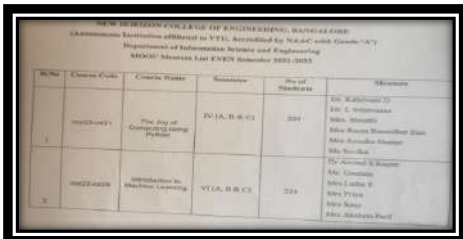
14	Pawan jewan	1NH16IS075	Food and Nutrition Evaluation for the Visually Impaired	International Journal for Research in Applied Science & Engineering Technology (IJRASET)
	Pavan Kumar	1NH16IS072		
	N swetha	1NH16IS064	Charging station for E-Vehicles using solar with IOT	International Journal for Research in Applied Science & Engineering Technology (IJRASET)
	Malika G			
	Pavithra S	1NH16IS073		
15	Anuj prakash	1NH16IS014	Drone Assisted Effective Pesticide Sprayer	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Arnab bhowal	1NH16IS016		
	Monisha taj D	1NH16IS062		
16	Anusha D Singh	1NH16IS015	Human Detection using Unmanned ground vehicle	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Bharani Prabhakaran	1NH16IS022		
	Joshua Linton J	1NH16IS043		
17	Asha K	1NH17IS400	A Review on Bluetooth embedded robot for agriculture applications	International Research Journal of Engineering and Technology (IRJET)
	Sakthi Sridevi	1NH17IS401		
	Manisha Samal	1NH16IS056		
18	Sudarshan C	1NH16IS111	Breast Cancer Prediction Using ML Techniques	INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY
	Pranav Pandhi	1NH16IS081		
	Somya Singh	1NH16IS109		
	Ashwini Holla	1NH16IS018		
19	Sathya N	1NH16IS099	Traffic Surveillance Using Smart Drone	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Likitha R	1NH16IS052		
	Meghana C A	1NH16IS058		
	Amina Anwar	1NH16IS140		
20	Ramakanth A	1NH16IS089	Traffic Density Management using Movable DIvider and RFID	International Research Journal of Engineering and Technology (IRJET)
	Samya Mannuru	1NH16IS096		
	Thakur Surya Kumar	1NH14IS117		
21	Koushalya R	1NH16IS050		

	Vishal Roshan J	1NH16IS124	Color Blindness Algorithm Comparison for Developing an Android Application	International Research Journal of Engineering and Technology (IRJET)
22	Gowtham M N	1NH16IS035		
	A.Amir Sohail Baig	1NH16IS010	Heart arrhythmia Detection using Deep Learning	International Research Journal of Engineering and Technology (IRJET)
	Amal Singh Bhadauria	1NH16IS009		
	Hemanth Kumar	1NH16IS039		
23	Vrinda Raveendran	1NH16IS125	Machine Learning approaches on Diabetic Retinopathy Prediction	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Sri Vidya B M	1NH17IS403		
	Tejavati Hedge	1NH16IS115		
24	Aashika M suresh	1NH16IS001	Solar Energy Equipped IoT Based Vacuum Cleaner	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Nikita nanju K	1NH16IS068		
	Sanjana V	1NH16IS097		
25	Abhishek Kumar	1NH16IS002	Implementation of Improved Billing System	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Ishu Kumar	1NH16IS040		
	Vathsavi Venkat	1NH16IS143		
26	Siddharth Indoria	1NH16IS105	A literature review on sentiment analysis	International Journal of Scientific Research in Computer Science, Engineering and Information Technology
	Sinchana Bhaskar	1NH16IS107		
	Sharan Gouda	1NH16IS101		

Scope of Self-learning for ISE

Web based learning	Compulsory NPTEL courses:
Library/Digital Library	 • 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
Project Based Learning	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. 4 Mini Projects including Extensive survey and Final year projects are carried out based on Project Based Learning
Case study	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.
Professional Bodies	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. ICI Students Chapter is in existence
Club Activities	To identify major environmental problems and to find the best possible remedies. To create an awareness on the need for d environment preservations for a better tomorrow. To provide insight into existing and evolving technologies. To familiarize with real life problems and the ideas to tackle them.
Assignments	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.
Industrial visit	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
Internships	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.
Conference/Seminar/Workshop	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 students in, Broadening their knowledge Cross pollinating their ideas Developing their Network Advancing their careers Re igniting their enthusiasm or passion.

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	2019-20	2020-21	2021-22
Faculty	21	47	14
Students	125	137	183

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.

A. 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

- Amazon
- Capgemini Industry 4.0 Lab
- VMWare Lab
- SAP Lab
- CISCO Lab
- Schneider Electric Lab
- IBM OpenPower Lab
- Robotic Process Automation
- Capgemini PLM Lab
- Oracle Academy Lab
- Capgemini VLSI Lab
- Altair AI, ML and Data Analytics Lab
- 5G Communication Lab
- HP Vertica Lab
- FANUC ROBOTICS
- Quest Global IIOT Centre of Excellence

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
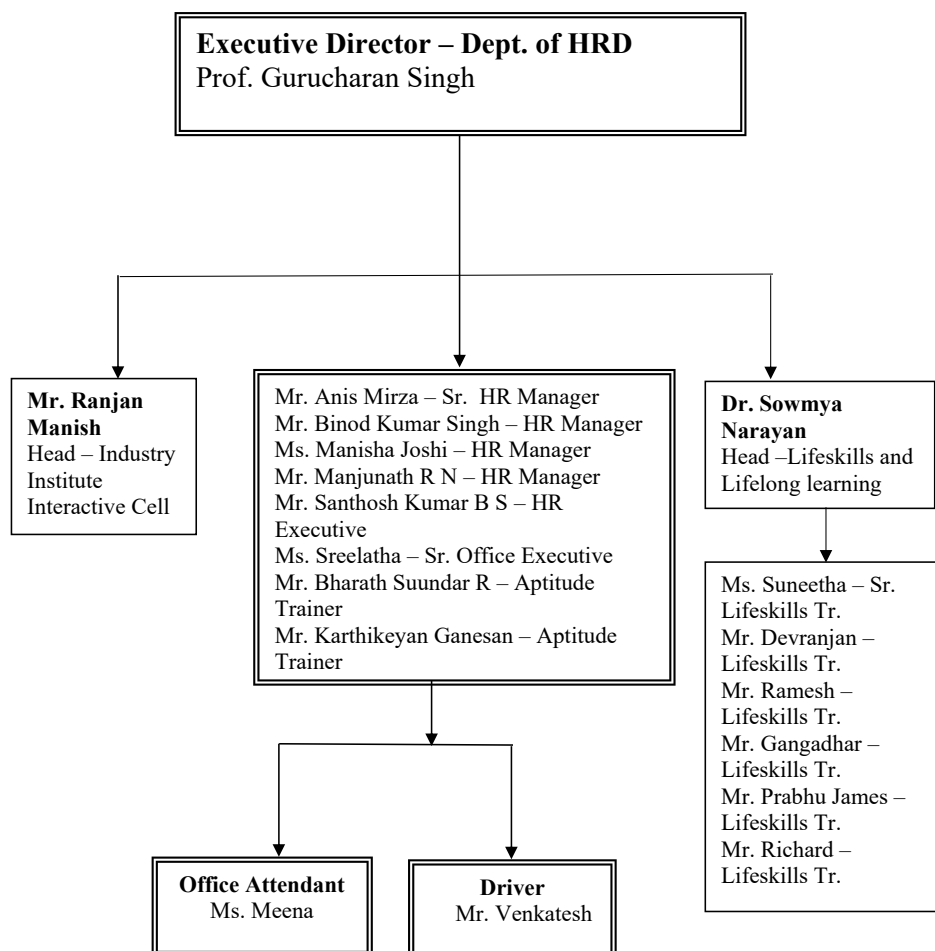
Figure No. 9.27: Structure of department of HRD

B. Pre-Placement Training:

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.

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.

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
Career guidance and motivational lectures by Alumni, External guests and faculty are organized frequently.

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.

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

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.

Table 9.5.4. A : No. of students opted for Higher Education - EEE

Higher Education M.Tech/MS/Ph.D	2018-22 No. of Students	2017 – 2021 No. of Students	2016-2020 No. of Students
M.Tech/MS	6	7	5

Table 9.5.4.B : No. of students opted for Higher Education – ISE

Higher Education M.Tech/MS/Ph.D	2018-22 No.of. Students	2017 – 2021 No. of Students	2016-2020 No. of Students
M.Tech/MS	3	7	3

9.5.B Career Guidance and Placement support

The placement data for the last three academic years and the maximum & average pay package offered to the students of EEE & ISE departments are given.

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**	

Figure No. 9.5.4: Total number of hours allotted for training

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 Monaday	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.Subran
B3-ECE-1(Tech-Mr. Gangadhar(ISE), Apti-Mr. Madhu Mohan Raju(Math))B7-EEE(Tech-Mr. Vishwanath(MCA), Ap

Figure No. 9.5.5: Placement training schedule sample for 2018 batch

9.5.C Placement Committee (PC):

The members of the Placement Committee are as below:

Table 9.5.5.A: Members of the Placement Committee - EEE

Name of the Faculty	Designation	Department
Prof. Gurucharan Singh	Executive Director	Dept. of HRD
Mr. Binod Kumar Singh	HR Manager	Dept. of HRD
Dr. Sujitha S	HoD-EEE	Dept. of. EEE
Mr. Sunil Kumar K	Sr. Asst. Professor	Dept. of. EEE
Mr. Kartheek Vankadara	Asst. Professor	Dept. of. EEE

Table 9.5.5.B: Members of the Placement Committee - ISE

Name of the Faculty	Designation	Department
Prof. Gurucharan Singh	Executive Director	Dept. of HRD
Mr. Binod Kumar Singh	HR Manager	Dept. of HRD
Mrs. Shruthi	Asst. Professor	Dept. of. ISE
Mrs. Latha	Asst. Professor	Dept. of. ISE
Mr. Karthik M	Asst. Professor	Dept. of. ISE

Achievements:

(i)   EEE Department

Table 9.5.6.A: Placement Details

Sl. No.	Name of the company	Number of students placed
	Academic Year 2022-23	
1	Cognizant	13
2	Capgemini	22
3	Computacenter (India) Pvt. Ltd.	2
4	DXC Technology	1
5	Happiest Minds Technologies Pvt. Ltd	2
6	Musigma	3
7	EXL Service	3
8	SAP Labs India	1
9	Steer Engineering	3
10	Ernst & Young	3
11	Mindtree	4
12	Transcaal Power Division India Pvt Ltd	6

13	KPIT	3
14	Dell Technologies	1
15	EPSILON	3
16	Allstate Solutions Pvt Limited	2
17	Visionet System Inc	1
18	TCS	1
	Total Placed	**89**
	Academic Year 2021-22	
1	Automation Anywhere	7
2	Cognizant	7
3	Capgemini	23
4	DXC Technology	11
5	Ernst & Young	3
6	CGI	9
7	Accenture	5
8	Wipro Ltd	4
9	Musigma	4
10	Galaxe Solutions	2
11	Happiest Minds Technologies Pvt. Ltd	5
12	Kishu Giken Kogyo	1
13	TheMathCompany	1
14	IBM	1
15	CERNER CORPORATION	1
16	Tudip Technologies Pvt Ltd	3
17	L&T Technology Services	4
18	EXL Service	5
19	Sky Point	1
20	Wipro Ltd	4
21	Anora Semiconductor Labs Private Limited	2
22	MyCaptain	1
23	IQVIA	1
24	Tudip Technologies Pvt Ltd	3
25	Comviva	5
26	TCS	1
27	Hashedin By Deloitte	1
28	Skyhigh Security	1
	Total Placed	99

Table 9.5.6.B: Pay Package offered to students - EEE

	Maximum Salary	750000
2022-23	**Average Salary**	598939.3
	Maximum Salary	900000
2021-22	**Average Salary**	549117.6

(ii)   ISE Department

Table 9.5.7.A: Placement details - Academic Year 2018-22 Batch

Name of Company	No. of students Placed
Cognizant	6
Comviva	4
Byjus	2
Capgemini	46
INCADEA	1
EXL Service	5
ESKO	2
CGI	2
Brillio	1
HUGHES SYSTIQUE CORPORATION (HSC)	3
DXC Technology	11
Ernst & Young	5
Wipro Ltd	4
Musigma	2
Galaxe Solutions	1
LOWE"S India	5
Publicis Sapient	1
MyCaptain	1
Accenture	3
TCS	2
Wissen Infotech	1
LTI (Larsen & Toubro Infotech)	2
Starland Company Ltd (Japan)	1
IQVIA	1
Hiver	2
CERNER CORPORATION	3
Legato Health Technologies, Accenture	3
I Exceed technology solutions	1
Tudip Technologies Pvt Ltd	1
Automation Anywhere	1

Zensar	1
Cognisure	1
ArisGlobal Ltd	1
Dell Technologies	1
Happiest Minds Technologies Pvt. Ltd	2
Digit General Insurance	1
Visionet System Inc	1
IBM	3
EPSILON	2
Total	135

Table 9.5.7.B: Pay Package offered to students 2018- 2022

1	**Maximum Salary**	19,34,000
2	**Average Salary**	5,92,282

Table 9.5.7.C Academic Year 2017-21 batch

Name of Company	No. of students Placed
Capgemini	25
CERNER CORPORATION	5
Cognizant	8
ESKO	3
EXL Service	7
Infogain	10
INFOSYS	7
INTEL	1
L&T Technology Services	10
LOWE"S India	10
LTI (Larsen & Toubro Infotech)	4
Mindtree	12
Mobisy Technologies Ltd	1
National Payment Corporation of India	1
PhonePe	1

Service Line Solutions Pvt Ltd	2
Surya Software	1
TCS	1
Tudip Technologies Pvt Ltd	10
Total	119

Table 9.5.7.D Pay Package offered to students 2017- 2021

1	**Maximum Salary**	**19,14,000**
2	**Average Salary**	**5,61,512**

Table 9.5.7.E Academic Year 2016-2020 batch

Name of Company	No. of students Placed
Altran	1
Accenture	1
Capegemini	15
Catnip	2
Cerner	10
CGI	3
Covance	2
Epsilon	1
Eurofins	2
Extramarks	1
HP	1
Hughes Systems	1
IBM	7
IBS	2
Infosys Ltd	6
ITC infotech	8
L&T	4
LOWES	3
Microgenesis	1
Musigma	1
NTTData	6

Nineleaps	6
Neoway	1
Perfios	1
Simeio Solution	2
Speridian	1
Temairazu Inc	1
Tech Mahindra	1
Surya-soft	1
Visionet	1
Vmware	1
Udan	1
Wipro Limited	17
Total number of students placed	**112**

Table 9.5.7.F Pay Package offered to students 2016- 2020

1	**Maximum Salary**	**22,00,000**
2	**Average Salary**	**5,17,261**

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.

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.

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

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. Kodandapani Depa	EEE	Assistant Professor
7	Dr Piruthiviraj P	ECE	Associate Professor
8	Mr. Ranganathan	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.A: List of Events (EEE)

Event	Date	Venue
Talk on "Entrepreneurship Development Talk"	08/02/2019	C504
Entrepreneurship Development Talk on "Idea, Oppurtunity and Business Plan"	31/08/2019	Conference Hall
Study abroad with ease	19-09-2020	Virtual platform
Create a winning business plan	11-12-2020	Virtual platform
You can become an Entrepreneur	24-12-2020	Virtual platform
Are you ready for your startup	17-5-2021	Virtual platform
Start-ups during the Pandemic	13-11-2021	Virtual platform
My story- Motivational session by successful Entrepreneur	18-11-2022	Virtual platform

Table 9.6.3.A: List of Events (EEE & ISE)

Event	Date	Venue
Talk on "Entrepreneurship Development Talk"	08/02/2019	C504
Entrepreneurship Development Talk on "Idea, Oppurtunity and Business Plan"	31/08/2019	Conference Hall
Study abroad with ease	19-09-2020	Virtual platform
Create a winning business plan	11-12-2020	Virtual platform
You can become an Entrepreneur	24-12-2020	Virtual platform
Are you ready for your startup	17-5-2021	Virtual platform
Start-ups during the Pandemic	13-11-2021	Virtual platform
My story- Motivational session by successful Entrepreneur	18-11-2022	Virtual platform

9.7. Co- Curricular and extra- curricular Activities (10)

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.

9.7.1.A Extra-Curricular Activities of EEE

i) 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, throwball,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 EEE

Event Name	Name & USN of Student	Semester of Student	Tournament	Event Date
Academic Year 2022-23				
	RAKSHAN L 1NH21EE093	III	VTU(NHCE)	28th & 29th NOV 2022
	SIMRAN 1NH20EE110		VTU SELECTIONS	3rd DEC 2022
			SPARDHA	14th TO 17th DEC 2022
BASKETBALL			VTU(Dr.AIT)	5th & 6th DEC 2022
			VTU(ATME)	7th TO 9th DEC 2022
		V	SPARDHA	14th TO 17th DEC 2022

Sport	Name & USN	Year	Event/College	Date
KABADDI (M)	HEMANTH B N 1NH20EE041	V	VOLUENTEER	29th NOV 2022
			INFINI	19th TO 21st OCT 2022
			VTU(VIT)	26/9/2019 to 28/9/2019 4th & 5th NOV 2022
			VTU SELECTIONS	9th & 10th NOV 2022
Wrestling Judo	DARSHAN SURESH SHETTY 1NH20EE028	V	VTU(GAT)	28th & 29th OCT 2022
Hockey	PRAMOD G 1NH20EE081	V	VTU(CMRIT)	9th & 10th NOV 2022
WEIFHT LIFTING	DARSHAN SURESH SHETTY 1NH20EE028	V	VTU(GAT)	28th & 29th OCT 2022
	M ROHITH KUMAR REDDY 1NH19EE066	VII	VTU(GAT)	28th & 29th OCT 2022
	DECHMMA VS 1NH19EE027	VII	VTU(GAT)	28th & 29th OCT 2022
VOLLEYBALL	HEMANTH B N 1NH20EE041	V	VTU(ATRIA)	17th & 18th NOV 2022
CRICKET	YASHWANTHA P 1NH18EE407 SHRINIK 1NH20EE026	VII V	PES	19th TO 22nd NOV 2022
BEST PHYSIQUE	DEEPAK KUMAR SAH 1NH19EE029	VII	VTU(GAT)	28th & 29th OCT 2022
	ANEELKUMAR N M 1NH21EE015	III		
CHESS	YESHWANTH S 1NH20EE127	V	VTU(VIT)	1ST & 2ND DEC 2022
			VTU(NMAMIT)	5th TO 7th DEC 2022
Academic Year 2021-22				
Volleyball(M)	PRANAV R NAIK 1NH18EE735	VII	NMIT	13th AND 14th MAY 2022
	KUSHAL NAIK K 1NH20EE056	III	RVCE	2nd &3rd JUNE 2022
			CIT	24th JUNE 2022
			IISC	25th TO 26th JUNE 2022

Sport	Name / USN	Semester	Event	Date
BASKETBALL(M)			CHRI-SPO	19th TO 22nd APRIL 2022
			ATHLOS	26th TO 29th APRIL 2022
			DEVADAN CUP	28th TO 30th APRIL 2022
	DHANUSH L 1NH18EE716	VIII	ATHLOS	26th TO 29th APRIL 2022
	SIMRAN KANWAR 1NH20EE110	IV	DEVADAN CUP	28th TO 30th APRIL 2022
			NMIT	10th &11th MAY 2022
			MOMENTUM 22	1st & 2nd JUNE 2022
			ATHLOS	26th TO 29th APRIL 2022
			MOMENTUM 22	1st & 2nd JUNE 2022
KABADDI	MANOJ KUMAR P 1NH19EE070	VI	ATHLOS	26th TO 29th APRIL 2022
	HEMANTH B N 1NH20EE041	IV	NMIT	13th &14th MAY 2022
			ABHIYANTAN 22	26th MAY 2022
FOOTBALL	R PUNEETH 1NH18EE736	VIII	ATHLOS	26th TO 29th APRIL 2022
			DEVADAN CUP	28th TO 30th APRIL 2022
			MOMENTUM 22	1st & 2nd JUNE 2022
CRICKET	PONNAPPA MM 1NH18EE040		DEVADAN CUP	18th TO 25th APRIL
	CHANDAN N 1NH18EE711	VIII	ATHLOS	26th TO 29th APRIL 2022
			MOMENTUM 22	26th TO 30th MAY 2022
			SEACET	17th TO 20th JUNE 2022
KABBADI(M)	MANOJKUMAR P 1NH19EE070	VI	ATHLOS	26th TO 29th APRIL 2022
			NMIT	13th &14th MAY 2022
			ABHIYANTAN 22	26th MAY 2022

ii) Participation in Inter College and Intra College 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: 9.7.1.B Participation in Electrathon

Event	Team members	USN	Role	Remarks
Infinity- Techno-Cultural Fest	DHEERESH VIJAY DEVADIGA	1NH21EE402	Team Leader	Participated
	DONY SNEHIT P	1NH20EE035	Team Member	Participated
	TEJASHREE T	1NH20EE118	Team Member	Participated
	TANTAPUREDDI HARITHA	1NH20EE117	Team Member	Participated

9.7.1.B Extra-Curricular Activities of ISE

(i) Sports

9.7.1.C List of students participation in Sports

Sl.No	Name	Usn	Sem	Event	Date	Tournament	Achievements
1.	DHANUSH BILIGIRI N H	1NH18IS030	III	BASKETBALL (M)	1st TO 8th SEP 2019	COURT WARS	PARTICIPATION
					9th TO 11th SEP 2019	RIT	RUNNERS
					16th & 17th SEP 2019	VTU (BCZ)	RUNNERS
					25th TO 28th SEP 2019	VTU (IZ)	WINNERS
					1st TO 4th OCT 2019	KREEDOSTAVA	PARTICIPATION
					14th TO 16th OCT 2019	PESIT	PARTICIPATION
					25th ,30th & 31st OCT 2019	CMP PRACTICE ASSOCIATION CUP	PARTICIPATION
					3rd TO 9th NOV 2019	VTU	PARTICIPATION
				TAEKWONDO	17th & 18th OCT 2019		GOLD MEDAL
2.	VIGNESH K S	1NH18IS123	III	BADMINTON (M)	24th & 25th AUG 2019	VTU SPARDHA 2019	III PLACE
					26th & 27th SEP 2019		WINNERS
					1st TO 4th OCT 2019	REEDOSTAVA	PARTICIPATION
3.	SUSHANT CHAUDHARY	1NH17IS113	V	CRICKET (M)	12th TO 16th OCT 2019	PESIT	PARTICIPATION
					11th ,13th & 14th NOV 19	RIT	PARTICIPATION
4.	DHRUV GULATI	1NH18IS031	III	CRICKET (M)	12th TO 16th OCT 2019	PESIT	PARTICIPATION
					11th ,13th & 14th NOV 19	RIT	PARTICIPATION
5.	AKASH K R	1NH17IS006	V	HOCKEY	25th TO 28th SEP 2019	ST JOHNS	PARTICIPATIN
6.	GOUTHAM S	1NH17IS147	V	HOCKEY	25th TO 28th SEP 2019	ST JOHNS	PARTICIPATIN
7.	DHANUSH BILIGIRI (Played Nationals)	1NH18IS030	IV	BASKETBALL (M)	25th JAN TO 3rd FEB 2020	Malleshwaram Cup	PARTICIPATION
					10th TO 15th FEB 2020	SPIEL	PARTICIPATION
					22nd TO 24th FEB 2020	RVCE	PARTICIPATION
					28th & 29th FEB 2020	DEVADAN CUP	WINNERS
				TAEKWONDO	11th TO 20th MAR 2020	AIIUT	PARTICIPATION
8.	RAJEEV	1NH18EC741	IV	FOOTBALL	22nd TO 24th FEB 2020	RVCE	PARTICIPATION
					27th TO 29th FEB 2020	CUFE	PARTICIPATION

No.	Name	USN	Sem	Sport	Date	Organized by	Result
9.	SUSHANT CHAUDHARY	1NH17IS113	VIII	CRICKET	14th, 15th 20th 23rd FEB 2020 / 16th TO19th FEB 2020 / 11th TO 20th MAR 2020	CUFEE / RVCE / VTU	PARTICIPATION / PARTICIPATION / PARTICIPATION
10.	DHRUV GULATI	1NH18IS031	IV	CRICKET	14th, 15th 20th 23rd FEB 2020 / 16th TO19th FEB 2020 / 11th TO 20th MAR 2020	CUFEE / RVCE / VTU	PARTICIPATION / PARTICIPATION / PARTICIPATION
11.	BHAVANA SHREE* (Played VTU Nationals)	1NH19IS027	V	BAKETBALL(WOMEN)	22nd TO 25th NOV 2021 / 5th TO 7th DEC 2021 / 16th TO 18th DEC 2021 / 22nd TO 31st DEC 2021	BMSCE / PES / VTU,BCZ & IZ / VTU Nationals	PARTICIPATION / PARTICIPATION / SECOND RUNNER UP / PARTICIPATION
12.	NISTHA SRIVASTAVA	1NH20IS098	III	BAKETBALL(WOMEN)	22nd TO 25th NOV 2021 / 5th TO 7th DEC 2021 / 16th TO 18th DEC 2021	BMSCE / PES / VTU,BCZ & IZ	PARTICIPATION / PARTICIPATION / SECOND RUNNER UP
13.	RITIKA PATIL	1NH20IS133	III	BAKETBALL(WOMEN)	22nd TO 25th NOV 2021 / 5th TO 7th DEC 2021 / 16th TO 18th DEC 2021	BMSCE / PES / VTU,BCZ & IZ	PARTICIPATION / PARTICIPATION / SECOND RUNNER UP
14.	DHANUSH BILIGIRI N H	1NH18IS030	VII	BAKETBALL(MEN)	22nd TO 25th NOV 2021 / 5th TO 7th DEC 2021 / 15th TO 16th DEC 2021	BMSCE / PES / VTU,BCZ	PARTICIPATION / PARTICIPATION / PARTICIPATION
15.	TUSHAR RAJ	1NH19IS175	V	BAKETBALL(MEN)	22nd TO 25th NOV 2021 / 5th TO 7th DEC 2021 / 15th TO 16th DEC 2021	BMSCE / PES / VTU,BCZ	PARTICIPATION / PARTICIPATION / PARTICIPATION
16.	P JAYAVEER	1NH20IS102	III	BAKETBALL(MEN)	22nd TO 25th NOV 2021 / 5th TO 7th DEC 2021 / 15th TO 16th DEC 2021	BMSCE / PES / VTU,BCZ	PARTICIPATION / PARTICIPATION / PARTICIPATION
17.	RAHUL G	1NH20IS127	III	BAKETBALL(MEN)	22nd TO 25th NOV 2021 / 5th TO 7th DEC 2021 / 15th TO 16th DEC 2021	BMSCE / PES / VTU,BCZ	PARTICIPATION / PARTICIPATION / PARTICIPATION
18.	HARSHITA MAHRPATRA	1NH20IS057	III	BADMINTON(W)	15TH AND 16TH NOV 2021	VTU(BCZ)	PARTICIPATION
19.	VIGNESH K S	1NH18IS123	VII	BADMINTON(M)	15TH AND 16TH NOV 2021	VTU(BCZ)	PARTICIPATION

Sl. No	Name	USN	Sem	Sport	Date	Venue	Result
20.	ANAMIKA BHATTACHARYA	1NH18IS008	VII	TABLE TENNIS	24th & 25th NOV 2021 27th & 28th NOV 2021	VTU(BCZ) VTU(IZ)	RUNNERS RUNNERS
21.	T PRANAY	1NH20IS176	III	HOCKEY	17th AND 18th DEC 2021 20th & 21st DEC 2021	VTU(BCZ) VTU(IZ)	RUNNERS PARTICIPATION
22.	DHRUV GULATI	1NH18IS031	VII	CRICKET	4th TO 7th DEC 2021	PES	PARTICIPATION
23.	HARSH ANKIT	1NH18IS143	VII	FOOTBALL	24th AND 25th NOV 2021 5th TO 7th DEC 2021 28th & 29th DEC 2021	BMSCE PESU VTU	PARTICIPATION PARTICIPATION PARTICIPATION
24.	LALITH ADITYA	1NH19IS203	V	FOOTBALL	24th AND 25th NOV 2021 5th TO 7th DEC 2021 28th & 29th DEC 2021	BMSCE PESU VTU	PARTICIPATION PARTICIPATION PARTICIPATION
25.	A NAVEEN	1NH20IS001	III	FOOTBALL	28th & 29th DEC 2021	VTU	PARTICIPATION
	SAI NADH	1NH21EE077	III	CRICKET	19th TO 22nd NOV 2022	PES	PARTICIPATION
	P JAYAVEER	1NH20IS102	V	BASKETBALL(M)	28th & 29th NOV 2022 14th TO 17th DEC 2022	VTU(NHCE) SPARDHA	PARTICIPATION PARTICIPATION
	RITAKA PATIL	1NH20IS133	V	BASKETBALL(W)	29th NOV 2022 5th & 6th DEC 2022 7th TO 9th DEC 2022 14th TO 17th DEC 2022	VOLUENTEER VTU(Dr.AIT) VTU(ATME) SPARDHA	PARTICIPATION 4th PLACE PARTICIPATION PARTICIPATION
	NISTHA SRIVASTAVA	1NH20IS098	V	BASKETBALL(W)	14th TO 17th DEC 2022	SPARDHA	PARTICIPATION
	LOCHAN KUMAR D S	1NH21EC083	III	VOLLEYBALL	17th & 18th NOV 2022 21st & 22nd NOV 2022 14th TO 17th DEC 2022 6th JAN 2023	VTU(ATRIA) VTU(IZ AIT) SPARDHA ARTIYA IT	RUNNERS PARTICIPATION PARTICIPATION PARTICIPATION
26.	D LALITH ADITHYA RAJ	1NH19IS203	VII	FOOTBALL	25TH & 26TH NOV 2022 07TH TO 9TH DEC 2022	VTU(MSRIT) VTU (GNDCE)	RUNNERS PARTICIPATION
27.	TUSHAR RAJ	1NH19IS175	VII	BASKETBALL(M)	28th & 29th NOV 2022	VTU(NHCE)	PARTICIPATION
28.	BHAVANA SHREE	1NH19IS027	VII	BASKETBALL(W)	29th NOV 2022 5th & 6th DEC 2022 7th TO 9th DEC 2022	VOLUENTEER VTU(Dr.AIT) VTU(ATME)	PARTICIPATION 4th PLACE PARTICIPATION

(ii) Participation in Inter College and Intra College 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: 9.7.1.D Participation in Inter College and Intra College Events

CAY(2021-22)		
Number of Students Participated in Inter-Institute Events	Number of Students Within State	Number of Students Outside the State
22	21	1
CAYm1(2020-21)		
Number of Students Participated in Inter Institute Events	Number of Students Within State	Number of Students Outside the State
26	21	5
CAYm2(2019-20)		
Number of Students Participated in Inter-Institute Events	Number of Students Within State	Number of Students Outside the State
30	20	10

9.7.2 Co-Curricular Activities

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.

a) Co- Curricular (Club activities) - EEE

Department of EEE has 3 three clubs:

- Green Energy Club
- E-soft Club
- U Create Club

The activities conducted under each club is given in below tables and the pictures of events are shown in figures.

Figure 9.7.2.1 : Codopia (E-SoftClub)

Figure 9.7.1.2: Guest lecture on Eco Building (Green Club)

Table 9.7.2.A: List of Club Activities organized - EEE

Sl. No	Event	Name of Club	Date
Academic Year 2022-23			
1.	Train Excel to the school teachers	ECT	5th Jan 2023
2.	Simulate with us	ECT	17th Nov 2022
3.	War of Words	Green Club	11th Nov 2022
Academic Year 2021-22			
1.	Codopia "A Future Prospective"	ECT	25th May 2022
2.	Shock with Circuits	ECT	1st Jan 2022
Academic Year 2020-21			
1.	Workshop on Industrial Automation	ECT	8th Feb 2020
2.	Guest lecture on ECO-BUILDING	Green Club	6th Nov 2019
3.	HULT PRIZE	UCT	16th Dec 2020

Table 9.7.2.B: List of Co-Curricular Activities -EEE

Event Name	Event Date
Expert Lecture in modern trends in power system protection	03.07.2021
Guest lecture on Simulation model for prediction of optimum fuel economy	06.07.2021
Technical Event on "PRAUDYOGEEK"	09.07.2021 to 10.07.2021
Guest lecture on Evolving Technologies and Progressive Markets in Power systems	05-08-2021
Distinguished Lecture on "Model predictive control in power electronics: a critical review and recent industrial products"	29.09.2021
Competitive event "Simulate It".	12.10.2021
Event Name	Event Date
IEEE PELS Distinguished Lecture (Virtual) on "Wide BandGap	23/10/2021

(WBG) Power Electronics Systems for Heavy-Duty Vehicles"	
Synchrophasor Technology (Expert Lecture)	17-01-2022
Industry Expert lecture on"MOTORS FOR INDUSTRIAL APPLICATIONS"	18-01-2022
Alumni talk on " The journey from college to corporate	11-01-2022
Mega Industrial Visit	09-11-2022 to 12/11/22
Industrial Visit	28.05.2022
Guest lecture on 'Phasor estimation algorithms and applications in protective relaying' organised.	17.04.2023
Distinguished Lecture Program on "Wide Bandgap (WBG) Power Electronics Systems for Heavy-Duty Vehicles"	28.10.2021

Table 9.7.2.C: List of Extra-Curricular Activities -EEE

Event Name	Event Date
Seminar on "Intellectual Property Rights (IPR): Protect Your Creativity With Patent'	25.05.2022
Seminar on "ECOSTRUXURE TRANSFORMER"	12-10-2022
Five-Day Workshop On Recent Trends In Energy Storage And Electric Vehicle Technology	25.03.2023 to 29.03.2023
National Workshop on "New paradigm in Renewable Energy – Microgrids, EV and Hydrogen"	18.03.2023
Smart Grid Integration & Energy Storage Systems	14.02.2023
National Workshop on Specific Orientation cum Q&A Session ON Patent Drafting and Filing procedures	18.03.2023
Expert Lecture on VLSI Design flow using Xilinx Vivado	02.01.2023
Guest Talk on "VTU Regulations on BE Honours Degree"	21.10.2023
Distinguished Lecture Program on "Model predictive control in power electronics: a critical review and recent industrial products"	30.09.2021

b) Co- Curricular (Club activities) - ISE

Department of ISE has 5 clubs:
   i) i-SWET
   ii) i-SCRUM
   iii) VITA
   iv) NOTE
   v) i-CSEH

Table 9.7.2.D: List of Extra-Curricular Activities -ISE

SI.NO	Event	Name of Club	Date
Academic Year 2022-2023			
1.	PRAVAH	-SWET	18/10/2022
2.	.JWALAN	-SWET	16/11/2022
3.	DINEROTE-K	-SCRUM	13/10/22
4.	ENIGMA	i-SCRUM	22/11/22
5.	TECH CHARADES	i-CSEH	19/10/22
6.	Tech-Verse	i-CSEH	23/12/22
7.	Xenium	VITA	20/10/22
8.	Excelsior	VITA	28/11/22
9.	REWIND 2.0	NOTE	18/11/22
10.	THE BIG 4	NOTE	17/10/22
Academic Year 2021-22			
1.	Udhbhava	i-SWET	26/11/21
2.	Spectra	i-SWET	09/06/22
3.	TECH UMANG	i-SCRUM	16/11/21
4.	Infromatics	i-SCRUM	29/12/21
5.	Seminar on Data and deployment	i-SCRUM	05/05/22
6.	Wordsville	i-SCRUM	07/06/22
7.	Seminar on Analytics	i-SCRUM	03/06/22
8.	Code-O-Fiesta	i-CSEH	17/11/21
9.	Omini-tech	i-CSEH	18/01/22
10.	Techwiz	i-CSEH	29/04/22
11.	Eyris	VITA	09/05/22
12.	ZYPHER	VITA	26/11/21
13.	Avishkar	VITA	24/12/21
14.	Techkriti	VITA	09/06/22
15.	Incident Brainstorm	NOTE	19/11/21
16.	HackX	NOTE	06/01/22
17.	Blunder Workshop	NOTE	06/05/22
18.	Rewind	NOTE	13/05/22
Academic Year 2020-21			
1.	Coding Contest	i-SWET	09/06/21
2.	Seminar on IoT	i-SWET	01/04/21
3.	Workshop on ethical Hacking	iScrum	12/04/21
4.	Workshop on cyber security	i-CSEH	23/03/22
5.	Online workshop on-HANA	iScrum	17/12/20
6.	QuBytes 2021-TECHVRISHTI	iScrum	23/09/20-25/09/20
7.	TECHNOWIZZ	VITA	25/09/20
8.	VZARDS	VITA	10/11/20
9.	GEEK INVASION	VITA	08/06/21
10.	UTKRANTI	VITA	22/04/21
11.	Code crash	NOTE	12/04/21

12.	Cybernated conflicts and Design overflow	NOTE	8/11/20
13.	Know BE4	i-CSEH	19/10/20
	Academic Year 2019-20		
1.	Data Science with Python	i-SWET	28/08/19
2.	Technical Talk on Artificial Intelligence	i-SWET	26/09/19
3.	Technical Event "T-ZEST"	Scrum	11/09/19
4.	Workshop on "Global Education Awareness Programme and Workshop"	iScrum	24/09/20
5.	Workshop on "Vedic Maths"	iScrum	12/02/20
6.	Cryptoathon	i-CSEH	28/08/19
7.	crytptowar	i-CSEH	24/10/19
8.	SecureLinks	i-CSEH	08/02/20
9.	TECHNOMANCE	VITA	28/08/19
10.	VMWARE IT FORUM	VITA	14/09/19
11.	Artificial Intelligence and its applications	i-SWET	26/08/19
12.	Workshop on Python	NOTE	31/08/19
13.	Technical contest KODERS	NOTE	21/10/19
14.	Workshop Vector design	NOTE	09/02/19

The activities conducted under each club is given in below tables and the pictures of events are shown in figures.

Figure 9.7.1.3: Glimpse of the event "Enigma" conducted by i-SCRUM club of

Figure 9.7.1.4 Glimpse of the event "TECH VERSE" conducted
by i-CSEH club of Department of Information Science and Engineering

9.7.3 Events at Institution Level

Following are the Extra-Curricular activities organized by NHCE every year.

Table 9.7.3.1: 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"

Apart from that, a series of events are organized every year in the institution as a part of extracurricular activities.

Table 9.7.3.2: LIST OF EVENTS CONDUCTED FOR THE YEAR 2019-20

Sl. NO	EVENTS	DATE	ORGANISED BY
1	Kargil Vijay Diwas	26.07.19	Rotaract Club
2	Blood Donation camp	08.08.19	Leo Club
3	Flood relief camp	10.08.19	Rotaract Club
4	Independence Day	15.08.19	NSS club
5	Sargam 2019 – Unveiling the banner	16.08.19	All clubs
6	Sadbhavana Day	20.08.19	NSS Club
7	Leo Club Induction and Installation ceremony	23.08.19	Leo Club
8	Service at Isckon on the occasion of Sri Krishna Janmashtami	24.08.19	NSS Club/Rotract Club
9	Chai Pe Charcha	28.08.19	Socio Political Club, Literary club, Media club
10	One student one Tree	29.08.19	NSS club, Leo Club
11	Fit India Movement	29.08.19	Fitness Club
12	Investiture Ceremony	06.09.19	All Clubs
13	Fresh Face	12.09.19	Fashion Club
14	DKMS-BMST (Stem Cell registry India)	13.09.19	Leo Club
15	Onam celebration	13.09.19	All clubs
16	Sargam 2019 – State Level Inter collegiate fest	20.09.19 21.09.19	All Clubs
17	A visit to Little Lads residency	29.09.19	Leo Club
18	Freeze It 2.0	03.10.19	Photography club
19	Lake Clean up & plantation Drive	05.10.19	Green Warriors club
20	NHMUN	25 & 26.10.19	Literary Club, Socio political club, Media club
21	Spartan Race – Fitness event	25 & 26.10.19	Fitness Club
22	Art competition for Orphanage kids	26.10.19	Art Club, Green Warriors club
23	Deepvali celebration with orphanage Kids (Game stalls)	27.10.19	Rotaract Club
24	Show Off (Indian Classical)	31.10.19	Music Club
25	Birthday of Sardar Vallabhabai Patel	31.10.19	NSS Club
26	Blood Donation Camp	04.11.19	Leo Club
27	Kannada Rajyotsava	05.11.19	NSS Club
28	Republic Day	26.01.20	NHCE
29	International Women's Day	08.03.20	NHCE

Table 9.7.3.3: List of activities conducted for the academic year 2020-21

SL NO	EVENTS	DATE	ORGANISED BY
1.	NHMUN 4.0	01.08.2020	Literary Club
2.	Level Up 2.0	05.08.2020	Dance Club
3.	Independence Day	15.08.2020	Extra curricular clubs
4.	Quiz Competition	15.08.2020	Media Club, Fashion Club, Literary Club
5.	Essay Writing competition	15.08.2020	Media Club, Fashion Club, Literary Club
6.	Sadhbavana Day	20.08.2020	NHCE
7.	Inter-Dept Singing competition	01.09.2020 to 07.09.2020	Music Club
8.	Inter-Dept Extempore competition	08.09.2020 To 14.09.2020	Literary Club
9.	Inter-Dept Debate competition	15.09.2020 To 21.09.2020	Media Club
10.	Inter-Dept Talent show competition	22.09.2020 To 26.09.2020	Fashion Club
11.	Lights, Camera, Login Inter-college competition	19.09.2020	Drama Club
12.	The Yadalam NanjaiahSetty -31st Annual Inter Collegiate Debate Competition 2020-21	27.09.2020	Participated by NHCE Four students
13.	Inter-Dept Singing competition - Final	01.10.2020	Extra Curricular Clubs
14.	Inter-Dept Extempore competition-Final	01.10.2020	Extra Curricular Clubs
15.	Inter-Dept Debate competition-Final	02.10.2020	Extra Curricular Clubs
16.	Inter-Dept Talent show competition-Final	02.10.2020	Extra Curricular Clubs
17.	Jan Andolan Campaign	12.10.2020	NHCE
18.	Anime Quiz	19.11.2020	Literary Club
19.	Friends Quiz	20.11.2020	Literary Club
20.	Marvel Quiz	21.11.2020	Literary Club
21.	Kannada Rajyotsava	28.11.2020	Extra curricular clubs
22.	Painting & Sketching competition Theme: YIN-YANG 2020-The Good and the Bad	28.11.2020	Art Club
23.	Metanoia- Deleting spam and unwanted	15.11.2020	Green warriors club

	mails in order to reduce carbon emission		
24.	Quizito – Quiz on Environment	05.12.2020	Green Warrior Club
25.	Jaya Hey – Vijay Diwas	16.12.2020	Extra curricular clubs
26.	Samardhan:As a part of Social Service, Club members undertook the responsibility of cleaning a garden and planted sapling.	17.01.2021	Green Warriors Club in association with NGO JalaPoshan
27.	Republic Day	26.01.2021	NSS club, Dance Club
28.	Cleanliness Drive_Jakkur Lake, JakkurAgrahara, Bangalore	04.03.2021	Green Warriors club
29.	Oh, Crop – Digital poster making	29.04.2021	Media Club
30.	Digital Poster Making	05.05.2021	Green Warriors Club
31.	Debate competition	05.05.2021 & 06.05.2021	Green Warriors Club
32.	Art competition	06.05.2021	Green Warriors Club
33.	Mock IPL Auction	15.05.2021 &16.05.2021	Literary Club
34.	Shuffle: It was an online event where participants sent in videos of them showcasing their unique sense of fashion through three kinds of outfits - ethnic, formal and western. Participants were judged on creativity, outfits and confidence.	24.05.2021 to 26.05.2021	Fashion Club
35.	Air Crash Scavenger Hunt	05.06.2021	Green Warrior Club
36.	Speculate Rapid Fire	06.06.2021	Green Warrior Club
37.	Yoga(108 Surya Namaskar)	21.06.2021	Green Warrior Club
38.	Oratoria : 1.Talk Till You Drop 2.Shark Tank	25.06.2021	Literary club and Media Club

39.	Oratoria : 1.Middle ground 2.Air Crash	26.06.2021	Literary club and Media Club
40.	Oratoria : 1.Plot Twist 2.Personality 3.Raise the stakes	27.06.2021	Literary club and Media Club
41.	Jun-oon 21	29.06.2021	Dance Club
42.	Vaccinatio Drive	28.06.2021 29.06.2021 30.06.2021	NSS Club
43.	Ethnic Day	28.07.2021	Extra Curricular Clubs
44.	Musica'21 -Turn the Lockdown into a Live Set	15.07.2021	Music club
45.	Webinar on Fitoholic	10.07.2021	Fitness Club
46.	VERGE – Fun filled event	06.07.2021	Dram Club
47.	QUIZICALS'21 Musical Quiz competition	05.07.2021	Music club
48.	Independence Day	15.08.21	NHCE
49.	Experience New Horizon with a Twist	21.08.2021	NHCE

Table 9.7.3.4 : List of Extra Curricular Clubs Activities for the year 2021-22

Sl No	Date	Event	Organized by
1.	15.08.2021	Independence Day	Extracurricular clubs
2.	21.08.2021	Experience New Horizon with a twist	Extracurricular clubs
3.	28.08.2021	Online photography competition	Extracurricular clubs
4.	11.10.2021	Investiture Ceremony for Extracurricular clubs	Extracurricular clubs
5.	12.10.2021	World Mental Health Day	Drama Club
6.	21.10.2021 & 22.10.2021	NHMUN 21	Literary club & Media club
7.	23.10.2021	Reel Making, Short Movie Making, and Poster Design Competition for students	Extracurricular clubs
8.	25.10.2021	Amrutha Mahotsava-75 Clean India: Step towards reducing plastic footprint	NSS club
9.	27.10.2021	Diwali Celebration 2021	Extracurricular clubs
10.	09.11.2021	Quadroccia Event – Face painting & Ramp walk competition	Art Club & Fashion Club
11.	10.11.2021	Blood Donation Camp	Rotary Bangalore Lakeside Club
12.	17.11.2021	Photography Work Shop - A Camera	Photo & Film Club

		friendly workshop for all camera enthusiasts	
13.	18.11.2021	NIDHI BETE (Treasure Hunt)	NSS Club
14.	18.11.2021	Rangitaranga (Paining Competition)	NSS Club & Art Club
15.	18.11.2021	66th Kannada Rajyotsava	NHCE
16.	18.11.2021	Photography Competition	Photo & Film Club & NSS Club
17.	19.11.2021	Communal Harmony Campaign Week – "SLIDE SHARE" PPT presentation on Communal Harmony (In shaping the future of Children)	Socio-political Club
18.	25.11.2021	Communal Harmony Campaign Week – Debate Competition "LET'S DEBATE"	Socio-political Club
19.	27.11.2021	Alumni Meet 2021	Alumni Association
20.	08.12.2021	Spartan Race 2.0	Fitness Club
21.	16.12.2021	Vijay Diwas	Rotaract Club
22.	20.12.2021	Clean Campus Campaign	Extra Curricular Clubs
23.	22.12.2021	Chai PeCharcha	Literary & Socio-Political Club
24.	27.12.2021	Three Muskeeters	Drama Club
25.	10.01.2022 to 13.01.2022	Tribal Community Donation Camp	NSS & Rotaract Club
26.	15.01.2022	Drug Awareness Session	Leo Club
27.	26.2.2022	Inauguration of Dance Studio	NHCE
28.	12.03.2022	Dance Club Auditions	Dance Club
29.	12.03.2022	Fashion Team Auditions	Fashion Club
30.	18.03.2022	Drama Club Auditions	Drama Club
31.	19.03.2022	Digital Poster Making Competition	Media Club
32.	20.03.2022	Art Club Auditions	Art Club
33.	24.03.2022 & 25.03.2022	BOOTCAMP on Professional Ethics	NSS Club
34.	24.03.2022	Stem Cell Registry Camp	Leo Club
35.	26.03.2022 & 27.03.2022	INFINITE	Photography Club
36.	05.04.2022 06.04.2022 07.04.2022	QUIZDOM 2.0 Sitcom Quiz OTT Quiz Harry Potter Quiz	Literary Club
37.	22.04.2022	POD (Photography, Painting, Open-Mic & Debate) Competition	Rotaract Club
38.	06.05.2022	"SHARK TANK"	Green Warriors Club
39.	01.06.2022	"FREEZE IT 3.0" – Photography Competition	Photo and Film Club
40.	01.06.2022	"Fashion Audition" – for Designers and Brands (Revelation'22)	Fashion Club
41.	10.06.2022	"Initium 2022" – Inter-Collegiate Literature and Music Festival	Literary, Media & Music Clubs
42.	11.06.2022	Revelations'22	Extra-Curricular Clubs
43.	25.06.2022	Ethnic Day	Extra-Curricular clubs
44.	07.07.2022	Founder's Day	Extra-Curricular Clubs

Table 9.7.3.5 : List of Extra Curricular Clubs Activities for the year 2022-23

Sl. No.	Date	Event	Organized by
1.	10.08.2022 To 12.08.2022	Flood Relief Camp	Rotaract Club
2.	15.08.2022	75th Independence Celebration	NHCE
3.	27.08.2022	Experience New Horizon with a Twist	NHCE
4.	01.09.2022	Sri Ganesh Chaturthi Pooja and Homa	NHCE
5.	26.09.2022	Cancer Screening Camp (Breast Cancer, Cervical Cancer, & Oral Cancer)	Rotaract Club
6.	14.10.2022	Sargam Banner Unveiling	Extra Curricular Clubs
7.	21.10.2022	Deepotsav	NHCE
8.	27.10.2022	Q&A Session with Payal Ninjiani	Literary Club
9.	31.10.2022	Investiture Ceremony	Extra Curricular Clubs
10.	03.11.2022	Script It Out	Reel India Productions & Drama Club
11.	04.11.2022	LIGHT. CAMERA. ACTION.	Reel India Productions & Drama Club
12.	07.11.2022	Blood Donation Drive	NSS Club
13.	11.11.2022	ART ATTACK (Art Competition)	Art Club
14.	15.11.2022	CLASH OF THE MINDS	Socio-Political Club
15.	16.11.2022	Stand Up Comedy	NSS Club
16.	17.11.2022	Slow Cycling	Leo Club & Fitness Club
17.	18.11.2022	TUG OF WAR	Fitness Club
18.	18.11.2022	Movie Night	Sargam Core Team, NHCE
19.	25.11.2022 & 26.11.2022	SARGAM 2022 - A State Level Inter Collegiate Cultural Fest	All Extra Curricular Clubs
20.	30.11.2022	67th Kannada Rajyotsava	NHCE
21.	01.12.2022	Closet for a Cause, Clothes donation drive	Leo Club & Make A Better Place (MABP, NGO)
22.	21.12.2022	Cover It Up	Media Club
23.	21.12.2022	Study Abroad Options for Engineering Student	NHCE and Imperial Overseas Education Consultants
24.	22.12.2022	Battle of Wits	Literary Club
25.	23.12.2022	MUSICA22	Music Club
26.	23.12.2022	SCAVENGER HUNT	Green Warriors Club
27.	28.12.2022	WAR OF RHETORICANS	Socio-Political Club
28.	04.01.2023	SEPIA CAMINAR	Fashion Club
29.	13.01.2023	PHOTOCRAFT	Photo and Film Club
30.	19.01.2023	QUIZICAL23	Music Club
31.	20.01.2023	A Tribute to Amar Shaheed Hemu	Media Club, Art

32.	23.01.2023	Kalani	Club & Drama Club
32.	23.01.2023	Parakram Diwas (Birth Anniversary of Nethaji Subhash Chandra Bose)	Green Warriors Club
33.	25.01.2023	"VIBE" (Photography, Videography & Editing Competition)	Photo and Film Club
34.	11.02.2023	Experience New Horizon with a Twist	NHCE
35.	20.03.2023	Parliamentary Debate	Socio-Political Club
36.	20.03.2023	Roots & Shoots (Planting in the Waste Bottles?)	Green Warriors Club
37.	20.03.2023	Personality Trait (Rotaract Recruits)	Rotaract Club
38.	21.03.2023	Innovate & Elevate	NSS Club
39.	23.03.2023	Birth Centenary Year of the Legendary Amar Shaheed Hemu Kalani	NHCE & NHCM

9.7.4 Availability of sports facilities:

Table below summarizes the list of indoor and outdoor games available in the campus of NHCE.

Table 9.7.4.1: 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 9.7.4.2: 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		

9.7.5 National Service Scheme (NSS):

Table 9.7.5.1 Student participation under National Service Scheme (NSS)

Sl.No	Year	Date	Event Name	No. of Students Participated
1.	2022-23	07.11.2022	Blood Donation Drive	157
2.	2022-23	04.11.2022	Community Service Camp at Bandipur	25
3.	2021-22	16.07.2022	Webinar on POCSO Act 2012 and Gender equality	112

4.	2021-22	26.04.2022	Community Service Camp at Bandipur and kabini forest areas	20
5.	2021-22	28.03.22 & 29.03.2022	Community Service Camp at Bandipur	25
6.	2021-22	24.03.2022 & 25.03.2022	BOOTCAMP on Professional Ethics	76
7.	2021-22	10.01.2022 to 13.01.2022	Tribal Community Donation Camp	30
8.	2021-22	20.12.2021	Clean Campus Campaign	165
9.	2021-22	25.10.2021	Amrutha Mahotsava-75 (Clean India: Step towards reducing plastic footprint	75
10.	2020-21	28.06.2021 to 30.06.2021	Vaccination Drive	10
11.	2019-20	29.08.2019	One student one tree (Planted 150 saplings under the initiative of the central government)	102
12.	2019-20	24.08.2019	Service at ISKCON on the occasion of Sri Krishna Janmashtami	35
13.	2019-20	20.08.2019	Sadbhavana Day	5000

Table 9.7.5.2 : List of Major NSS Activities Conducted Details

SL.NO	YEAR	NAME OF EVENT	NUMBER OF PARTICIPANTS
1.	2022	Participated in N.S.S. 73rd Republic Day Parade camp on 26th January 2022 held at Rajpath New Delhi.	1
2.	2021	Participated in South Zone Pre-Republic Day Parade Selection Camp-2021 held at University of Agricultural Sciences, GKVK, Bangalore, organized by Regional Director of NSS Bangalore.	1
3.	2021	Participated in NSS University Level Trials at VTU.	2
4.	04/11/2022	COMMUNITY SERVICE CAMP - Tribal village at H D KOTE.	20
5.	16-07-2022	POSCO ACT 2012 and Gender Equality in association with 'The Rakshin Project By Sakshi'.	30
6.	28/03/2022 TO 29/03/2022	COMMUNITY SERVICE CAMP – Kanakuppeadi Tribal village HUNSUR.	20
7.	26/04/2022	COMMUNITY SERVICE CAMP-Varthihalli Tribal village , Priyapatna taluk	21
8.	25 /10/2021	Amrutha Mahotsava-75 Clean India	20

Table 9.7.5.3: Details of NSS Parade

Year	Name of the award/ medal	Team / Individual	Inter-university / state / National/ International	Name of the event	Name of the student
2022	Participated in N.S.S. 73rd Republic Day Parade camp on 26th January 2022 held at Rajpath New Delhi	Individual	National	Participated in N.S.S.Republic Day Parade camp on 26th January 2022 held at Rajpath New Delhi	Mr.Abhishek SM (1NH20AU001)
2021	Participated in South Zone Pre-Republic Day Parade Selection Camp-2021 held at University of Agricultural Sciences,GKVK, Bangalore, organized by Regional Director of NSS Bangalore	Individual	State level	Participated in South Zone Pre-Republic Day Parade Selection Camp-2021 held at University of Agricultural Sciences,GKVK, Bangalore, organized by Regional Director of NSS Bangalore	Mr.Abhishek S M (1NH20AU001)
2021	Participated in NSS University Level Trials at VTU	Team	University	NSS University Level Trials held at VTU	Mr.AbhishekS M (1NH20AU001) and Lakshminarasimha (1NH20ME059)

Criterion - 10

Governance, Institutional Support and Financial Resources

CRITERION 10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	(120)

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 the 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 HoDs, Faculties, Supporting staff, Students, Parents and Alumni were held for the same.

Following key points about institute were discussed to carry out the analysis

- Infrastructure/Laboratory/Equipment/Workshop
- Research/Consultancy

- Placement Cell
- Industry interaction
- Workshop/Training Programme for Faculty/Staff/Students
- Mentorship Programme for the students
- Active & Innovative Learning Process
- Outcome based Curriculum
- Admission policies/Fee Structure
- MoU with Reputed Institutes/Industries
- E-Learning/Library
- Skill Development Programme
- Unnat Bharat Abhiyan
- Sports/clubs/Activities/social Service
- Awards/Scholarships
- IT Infrastructure/ digital technology
- Security
- Woman grievance & redressal

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 recognized technical institute.

Sl No	Strategic Plan	Implementation	Monitoring
1	To improve teaching learning environment	•Set up of new Smart Class Rooms •Adoption of Moodle •Use Moocs/NPTEL for e -learning •Arrange Expert Talks •Interaction with industry person •Provide Career Guidance to students •Use service of Adjunct faculty •Successful implementation of OBE	Dean academic of the institute, Deans, and HoDs visit the class rooms, labs daily in order to make healthy academic environment and make sure successful implementation of outcome based education in the campus. In additions to the regular classes, expert talks on emerging areas also arrange weekly in the institute. Daily attendance, assignment, quizzes are uploaded on software and noticed by Dean-Academics and HoDs
2	To improve laboratory/ library	• To setup new labs on emerging areas. • To setup modern Lab for research	Meeting of HODs , Dean academic, Dean research arrange once in each semester for setting up new labs or purchasing of new

		• Rich library resources such as reputed journals/ new books	equipment. In-charge library regularly ask for new books/e-journal from faculties & students and arrange them in the library.
3	To enhance research culture	Funds/Workshop/Training have been arranged for the faculty/students in order to attract funded research project/consultancy	Every month Dean research arrange the meeting with Principal of the institute and encourage the faculty to create the research culture in the institute, arrange the workshop/training/expert talk on emerging areas
4	To enhance interaction with reputed institute	MoU with reputed institute/company has been set up to joint research & exchange of human resources	MoU with reputed institute / industry is decided in the meeting of BOG/ACM
5	To provide mentorship to students	Proper assistance is provided by Mentors to the needy students in all areas such as study, financé, career, etc	Meeting between Mentors & students takes place daily and resolve various problems of students
6	To start new programs in emerging areas	For enhancement of research culture of the institute	Principal of the institute arrange the meeting every month with Dean Academic, Dean Research and HODs and try to find the emerging areas for with new courses can be launched
7	To obtain accreditation for various courses	NAAC and Applied for NBA accreditation and prepared for that	Coordinator of NBA arrange the meeting once in a fortnight of Head of the departments to be accredited with Principal, Dean-Academics, and assess the status of preparation of accreditation
8	To improve quality of campus	Various steps have been taken to provide world class infrastructure in the institute such as digital technology used in every section/ high speed wi-fi/ lush green campus/ smart	In-charge of various section such as building section, hostel warden, computer maintenance , security officer, electrical maintenance etc continuously supervise the concern section and keep the campus up-to-date for easy and better life

		class rooms/ central library/ computer centre/ hygenic hostels/ playgrounds/ indoor stadium/ auditorium /security/electrical maintenance	
9	To improve students placement	Communication has been setup with various MNCs both National and International for campus drives at the institute	Placement team continuously interact with HR of various MNCs for campus recruitment, arrange various career oriented programme at Institute
10	To increase Sports activity/social services	National level sports and cultural & technical activities have been organized. Institute participates and organize various national and international level activities	Sports officer interact regularly with students and arrange facilities of sports, encourage the students for participation at national level competitions. Coordinators of each clubs meet weekly and decide activities to be performed at institute level.
11	Trained students under Skill Development Program	More students have been trained under various schemes of central and state government.	Coordinator interact regularly and assess the performance of trainee, and arrange better environment to improve themselves.
12	To improve the quality of rural areas under the "Unnat Bharat Abhiyan"	Institute is participating in full sprit under "Unnat Bharat Abhiyan" for the development and betterment of rural area	Coordinator of Unnat Bharat Abhiyan takes the meeting of concern faculty & students and make the plan weekly for the betterment of rural areas

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. R.J. Anandhi	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Dean-Academics	Member
5	Dr. Vijilius H Raj	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Controller of Examination	Member
6	Prof. Gurucharan Singh	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Executive Director – Training & Placements	Member
7	Dr Sanjeev Sharma	New Horizon College of Engineering, Marathalli, Outer Ring Road, Kadubisanahalli, Bangalore- 560 103	Dean-QASDC	Member

8	Dr. K N. Subramanya	R V College of Engineering, R V Vidyanikethan Post, Mysuru Road Bengaluru – 560 059	Principal & Professor, R V College of Engineering, Bengaluru	Member
9	Dr. K Swaminathan	Dept. of Civil Engineering, National Institute of Technology Surathkal	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	House 269, 4th cross, 14th Main, Gokula 1st stage, Mathikere, Bangalore- 560054	University (VTU) Nominee & Executive Council Member VTU	Member
13	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
Academic Council constituted with •Institution's distinguished Principal as Council Chairman •Dean- Academic affairs as Member Secretary •All Heads of the Departments as Council Members	•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	

		Twice in a Year
•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)	•Suggest and recommend proposed teaching methods/techniques(LCD projector, Smart Board, Online etc..) and student performance evaluation metrics to enhance quality education	
•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 by vice chancellor, VTU, Belgaum as council member	•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	
•Institution's controller of examination(COE) as council member	•Promote and verify research activities of the institution	

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. Sanjeev Sharma
		2	Dr. Sainath
		3	Dr. Anitha Rai
		4	Dr. Niranjan P S
		5	Dr. B Rajalakshmi
		6	Dr. Mohan H S
		7	Dr. Aravinda K
		8	Dr. Shridhar Kurse
		9	Dr. Uma Reddy N V
		10	Dr. S P Manikandan
		11	Dr. Revathi V

		12	Dr. Anusuya Devi V S
		13	Dr. Srinivasa G
		14	Dr. Asha V
		15	Dr. Sujitha S
		16	Dr. Sowmya Narayanan
		17	Dr.Jaysheelan
III	Controller of Examination	1	Dr. Vijilius H Raj
IV	Teachers of the College representing different level of teaching staff	1	Dr. Nagendra.J, Associate Professor
		2	Dr. Srinath M K , Associate Professor
		3	Dr. Prashanth K S, Associate Professor
		4	Ms. Asha Rani Borah, Sr Assistant Professor
		5	Dr. Swathi B, Sr. Assistant Professor
		6	Dr. Vandana C P, Sr. Assistant Professor
		7	Mr. Surendra B V, Associate Professor
		8	Dr. A R Sainath, Professor
		9	Dr. B Meenakshi Sundaram, Professor
V	Experts from outside the college representing areas such as industry, R&D, Tech. Edn	1	Mr. Sandeep Jain, Founder & CEO, GeeksforGeeks
		2	Mr. Ananthamani, Vice President – PLM & Mech/Elec Capgemini Engineering
		3	Dr. K N Subramanya, Principal, R V College of Engineering
VI	Nominees of University (VTU)	1	Dr. Shadashive Gowda, Principal-Vidya Vardhaka College of Engineering, Mysuru
		2	Dr. Shivyogimath, Prof., Dept. of Civil Engineering, Basaveswara Engineering College, Bagalkot
VII	Dean Academics – Member Secretary	1	Dr. R. J.Anandhi

Meetings:

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY(2022-23)	07-12-2022	24	
	27-08-2022	36	
	17-06-2022	30	
CAY m1(2021-22)	25-02-2022	30	
	15-02-2021	34	
CAY m2(2020-21)	05-11-2020	34	
	24-07-2020	29	
CAY m2(2020-21)	21-09-2019	21	3
	29-06-2019	24	

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. Sanjeev Sharma	Dean -QASDC
2.	Admission Committee	Ms. Aruna Machani	Executive Director - Admissions
3.	Alumni Committee	Dr. Anitha S. Rai	Director – Library & Alumin Relations
4.	Anti- Ragging Committee	Mr. Tarun Batra	Chief Operating Officer
5.	College Internal Complaints Committee (CICC)	Dr. R.J. Anandhi	Dean Academics
6.	Co- Curricular Committee	Dr. Piruthviraj	Associate Professor,Electronics & Communication Engineering

7.	College Internal Grievance Redressal Committee	Ms. Manjula V.	Executive Director- Human Resources
8.	Community Development Center (Public Welfare Committee)	Ms. Aruna Machani	Executive Director – Admissions
9.	Counselling Committee	Dr. Sanjeev Sharma	Dean QASDC
10.	Cultural Committee	Dr. Anitha S. Rai	Director-Library & Alumni Relations
11.	Disciplinary Committee	Mr. Tarun Batra	Chief Operating Officer
12.	Energy Conversion Audit Committee	Dr. Sujitha S	Associate Professor & HoD - Electrical & Electronics Engineering
		Mr. Karthik	Chief Electrical Manager
13.	Equal Opportunities Cell	Dr. Anusuya Devi V S	Professor & Head Department of Chemistry
14.	Examination Committee	Dr. Vijilius Helena Raj	Controller of Examinations
15.	Finance Committee	Mrs. Malathi Madhusudan	Sr. Executive Director- Accounts & Finance
16.	Girls Hostel Development & Welfare Committee	Ms. Aruna Machani	Executive Director – Admissions
17.	Hostel (Boys) Development & Welfare Committee	Mr. H N Suryaprakash	Registrar
18.	Infrastructure Development Committee	Dr. P S Niranjan	Professor & Head- Civil Engineering
		Mr. L N Rao	Director of Program Management- Construction
19.	In-Plant Training/ Industrial/ Career Guidance/ Placement Committee	Prof. Gurucharan Singh	Sr. Executive Director
20.	Instrumentation Cell	Dr. Aravinda K	Professor & Head Electronics & Communication Engineering
21.	Internal Quality Assessment &	Dr. Sanjeev Sharma	Dean QASDC

	Assurance Cell		
22.	Library Committee	Dr. Anitha S. Rai	Director-Library & Alumni Relations
23.	NCC Committee	Mr. Ravi Kumar. M	Sr. Assistant Professor-Mechanical Engineering
24.	News Letter Committee	Dr. K G Madhwaraj	Professor, Department of MCA
25.	NSS Committee	Dr. Anitha S. Rai	Director-Library & Alumni Relations
		Mr. Hanamantha Y	Sr. Assistant Professor, Mechanical Engineering
26.	Physical Education & Sports Committee	Hari Kumar K C	HOD-Physical Education and Sports
27.	Public Relations & Marketing Committee	Ms. Aruna Machani	Executive Director-Admissions
28.	Purchase Committee	Mrs. Malathi Madhusudan	Senior Executive Director – Accounts & Finance
29.	Recruitment Cell	Ms. Manjula V.	Executive Director-Human Resources
30.	Research & Development Committee	Dr. Sanjeev Sharma	Dean QASDC
31.	SC/ST Welfare Cell	Mr. H N Suryaprakash	Registrar
32.	Software / Hardware Training Committee	Dr. B. Rajalakshmi	Professor & Head
33.	Staff Welfare Committee	Ms. Manjula V.	Executive Director-Human Resources
34.	Student Mentoring Committee	Dr. Sanjeev Sharma	Dean QASDC
34.	Student Mentoring Committee	Dr. Piruthviraj	Associate Professor, Electronics & Communication Engineering
35.	Students Grievances Redressal Committee	Mr. H N Suryaprakash	Registrar
36.	Universal Human Values Committee	Dr. Anusuya Devi V S	Professor & Head
36.	Universal Human Values Committee	Dr. Anusuya Devi V S	Department of Chemistry
37.	Value Added Programs Committee	Dr. R.J. Anandhi	Dean-Academics
37.	Value Added Programs Committee	Dr. Niranjan P S	Professor & HoD- Civil Engineering

38.	Women Empowerment Committee	Dr. R.J. Anandhi	Dean-Academics

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.B. Rajalakshmi	HoD-CSE	Member
4	Dr.Sainath	HOD– MBA	Member
5	Dr. R.J.Anandhi	Dean-Academics	Member
6	Dr. Sanjeev Sharma	Dean QASDC	Member Secretary

Frequency of Meetings : Twice in a Year

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	Dr.B. Rajalakshmi	HoD-CSE	Member
4	Dr.Sainath	HOD– MBA	Member
5	Dr. R.J.Anandhi	Dean-Academics	Member
6	Dr. Sanjeev Sharma	Dean QASDC	Member Secretary

Frequency of Meetings : Once in a Year

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	Mr. CHETHAN R , 1NH13EC717	Software Engineer	President
2	Mr. ASAD SHARIFF, 1NH12ME732	Entrepreneur	Vice President
3	Mr. B ACHAL , 1NH15EC003	Software Engineer	Secretary
4	Mr. D N PRADEEP 1NH15EE712	Software Engineer	Treasurer
5	Mr. KUWAR KESHAV 1NH16CS053	Software Engineer	Board Member
6	Mr. KUSHAGRA SHETTY 1NH15AU025	IT Sales	Board Member
7	Mr. HEMANTH KUMAR RP 1NH17MCA43	Software Engineer	Board Member
8	Mr. ABHISHEK N 1NH14EC400	Software Developer	Board Member
9	Dr. MANJUNATHA	Principal-NHCE	Member
10	Mr. GURUCHARAN SINGH	Sr. Executive Director-HRD	Member
11	Mr. SURYAPRAKASH	Registrar	Member
12	Prof. MANJESH B C, 1NH03ME023	Sr. Asst. Professor & Alumni Officer and Alumni	Member
13	Dr. ANITHA S RAI	Director-Library & Alumni Relations	Member `Secretary

Frequency of Meetings : Twice in a Year

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	Ms. Aruna Machani	Executive Director - Admissions	Member
3	Shri. H.N.Suryaprakash,	Registrar	Member
4	Dr. R.J. Anandhi,	Prof & Dean – Academics	Member
5	Dr. Sanjeev Sharma	Prof & Dean QASDC	Member
6	Dr. Revathi Shankar,	HOD – Applied Science - Physics	Member
7	Police Inspector	Marathalli	Member
8	Ms. Karthik	Parent	Member
9	Mr. Nanjundaiah	Retired BEO	Member
10	Ms. Shanthy P	Girls Hostel Warden	Member
11	Mr. Ramesh Babu	Boys Hostel Warden	Member
12	Mr. Basi Reddy Chandra Mouliswar Reddy	(1NH19CV021) – Student	Member
13	Ms. Shaik Anju Minayar	(1NH19IS143) – Student	Member
14	Mr. Tarun Batra,	Chief Operating Officer	Member Secretary

Frequency of Meetings : Twice in a Year

College Internal Complaints Committee (CICC)

Complaints against sensitive issues like sexual harassment 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	Role
1	Dr. Manjunatha	Principal NHCE	Chairman
2	Ms. Manjula V	Executive Director- Human Resources	Member
3	Ms. Aruna	Executive Director - Admissions	Member
4	Dr Revathi	HOD – Applied Science - Physics	Member
5	Ms. Sowmya H K	Ph.D Scholar	Member
6	Ms. Nihal Baba	PG Student	Member
7	Ms Ayesha Siddiqua A	Student Representative	Member
8	Dr. Ashok	General Surgery & Laparoscopic Surgeon	Member from NGO
9	Dr R J Anandhi	Dean – Academics	Member Secretary

Frequency of Meetings : Twice in a Year

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	Dr. Rajalakshmi	HoD-CSE	Member
3	Dr. Niranjan	HoD- Civil	Member
4	Dr. Anitha S Rai	Director-Library & Alumni Relations	Member

5	Mr.Kushal Kulandaivelu	Student Member – 1NH20AI051	Member
6	Mr.Bharatdeep Hazarika	Student Member – 1NH19EC129	Member
7	Dr. Piruthiviraj P	Associate Professor – ECE Dept	Member Secretary

Frequency of Meetings : Twice in a Year

College Internal Grievance Redressal Committee (CIGRC)

Table 10.1.3.3.7 College Internal Grievance Redressal Committee

S.No	Name & Designation	Committee Members
1	Dr. Manjunatha – Principal	Chairman
2	Shri. H. N. Suryaprakash – Registrar	Member
3	Dr. Anandhi R J – Professor & Dean Academics	Member
4	Dr. Sanjeev Sharma – Dean – QASDC	Member
5	Ms. V. Manjula – Executive Director- Human Resources	Convener

Frequency of Meetings : Twice in a Year & As and when required.

Counselling Committee

An essential committee in the college addressing issues of students. This committeewas constituted to help distracted, diverted and students who lack concerntrationin studies to getback 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 Manasa T.J	Student Counselor	Member
3	Ms.Rajina.R	Student Counselor	Member
4	Ms.Prachi Bhavsar	Student Counselor	Member
5	Ms.Pallavi	Student Counselor	Member
6	Dr.Sanjeev Sharma	Dean-QASDC	Member Secretary

Frequency of Meetings : Twice in a Year & As and when required.

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	Ms. Aruna M	Executive Director - Admissions	Member
3	Dr. Rajalakshmi	HoD- CSE	Member
4	Dr. Uma Reddy	HOD-AIML	Member
5	Mr. Shreyas L	1NH19AU053	Member
6	Ms. Charisma	1NH19EE023	Member
7	Dr. Anitha S Rai	Director-Library & Alumni Relations	Member- Secretary

Frequency of Meetings : Twice in a Year.

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 10.1.3.3.10 Disciplinary Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Shri. H. N. Surya Prakash	Registrar	Member
3	Dr. Anandhi R J	Dean Academics	Member
4	Dr. Sanjeev Sharma	Dean QASDC	Member
5	Dr. Revathi	HOD Applied Science – Physics	Member
6	Mr. Tarun Batra	Chief Operation Officer	Member Secretary

Frequency of Meetings : Twice in a Year & As and when required.

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 10.1.3.3.11 Energy Conversation Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. Karthik	Estate Manager	Member
3	Prof. Kavitha Chenna Reddy	Sr. Asst. Prof	Member
4	Dr. Joshua Daniel Raj	Sr. Asst.Prof	Member
5	Prof. Vinod Kumar S	Sr. Asst.Prof	Member
6	Prof. Sangeetha C N	Asst.Prof	Member
7	Dr. S Sujitha	HOD – EEE	Member Secretary

Frequency of Meetings : Twice in a Year

Equal Opportunity Cell

Table 10.1.3.3.12 Equal Opportunity Cell

Sl No	Name	Designation	Post
1	Dr Manjunatha	Principal	Chairman
2	Gp.Capt.tarun Batra	Chief Operating Officer	Member
3	Ms Vijaya	Advocate	Member
4	Mr.Girihas Reddy	Student	Member
5	Mr.Hari Kumar Karnati	Parent	Member
6	Dr. Anusuya Devi V S	HoD & Professor – Applied Science - Chemistry	Member – Secretary

Frequency of Meetings : Twice in a Year

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	Professor & Controller of Examination	Member-Secretary
3	Mr. Aravinda	Professor & HOD-ECE	Member
4	Dr. Revathi V	HOD Applied Science – Physics	Member
5	Dr. Prashanth K.S	Asso.professor-PHY	Member

Note: All HoDs of various Departments are Ex-officio Members of Examination Committee

Frequency of Meetings : Every Quarter of the Academic year.

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	Shri. H. N. Suryaprakash	Registrar	Member
3	Dr. Revathi Shankar	HOD Applied Science – Physics	Member
4	Ms. Geetha	Sr. Accounts Executive	Member
5	Mrs. Malathi Madhusudan	Sr.Ex. Director – A/c's & Finance	Member-Secretary

Frequency of Meetings : Twice in a Financial year

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	Ms. Malathi Madhusudan	Sr. Exe. Director A/c's & Finance	Member
3	Mr. Ramesh Babu	Warden	Member
4	Mr. Pankajakshan	Warden	Member
5	Mr. Sambasiva Rao	Warden	Member
6	Shri. H. N. Suryaprakash	Registrar	Member Secretary

Frequency of Meetings : Twice in a year

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	Shri. H. N. Suryaprakash	Registrar	Member
3	Ms. Malathi Madhusudan	Sr. Exe. Director A/c's & Finance	Member
4	Ms. Shanthy	Warden	Member
5	Ms. Yogita	Warden	Member
6	Ms. Aruna Machani	Executive Director - Admissions	Member Secretary

Frequency of Meetings : Twice in a year

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. L.N. Rao	Project Manager	Member
3	Dr. Niranjan P S	Professor & HOD Department of Civil Engineering	Member
4	Ms. Sailee Joshi	Quantity Surveyor	Member – Secretary

Frequency of Meetings : Twice in a year

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	Prof. Gurucharan Singh	Sr. Executive Director	Member-Secretary
3	Prof. Binod Kumar Singh	Head- IIIC & CR	Member
4	Prof. Anis Mirza	Head- Placements & CR	Member
5	Dr. Sowmya Narayanan	HOD –Lifeskills & Lifelong Learning	Member
6	Ms. Manisha Joshi	Senior HR Manager	Member
7	Mr. Santhosh Kumar BS	Senior HR Manager	Member
8	Ms. Rashmi S Gowda	HR Manager	Member

9	Mr. Santhosh Kumar K	HR Manager	Member
10	Ms. Hemalatha K	Senior Aptitude Trainer	Member
11	Ms. Vijaylakshmi M	Aptitude Trainer	Member
12	Mr. Franco Chris Antony J	Aptitude Trainer	Member
13	Ms. Bhakti Kulkarni	Verbal Trainer	Member
14	Dr. Sainath	MBA – Faculty Placement Coordinator	Member
15	Dr. Ashok	CSE- Faculty Placement Coordinator	Member
16	Dr. Bopanna	MECH- Faculty Placement Coordinator	Member
17	Sr. Asst. Prof. Latha	ISE- Faculty Placement Coordinator	Member
18	Dr. Ratheesh	CE- Faculty Placement Coordinato	Member
19	Sr. Asst. Prof. Rajashree	AI ML- Faculty Placement Coordinator	Member
20	Sr. Asst. Prof. Govindraju	MCA- Faculty Placement Coordinator	Member
21	Asst. Prof. Sabita Bhattacharya	ECE- Faculty Placement Coordinator	Member
22	Sr. Asst. Prof. Sunil	EEE- Faculty Placement Coordinator	Member
23	Mr. Sunil Prashanth	Auto- Faculty Placement Coordinator	Member
24	Asst. Prof. Chennabasava	Asst. Prof. Chennabasava	Member
25	Shiva Shankar L(1NH20EC408)	Student	Student Member
26	Nikhil V Gowda (1NH20EC096)	Student	Student Member
27	Nikhil V Gowda (1NH20EC096)	Student	Student Member
28	Sanjivani (1NH19CS158)	Student	Student Member

Frequency of Meetings : Twice in a year

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 10.1.3.3.19Instrument Cell Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. Rakesh Chandrashekar	Prof.& HOD / Mechanical	Member
3	Dr.Sujitha S	Prof. HOD – EEE	Member
4	Dr.Revathi	Prof HOD Applied Science – Physics	Member
5	Dr.Arvinda K	Prof.& HOD-ECE	Member Secretary

Frequency of Meetings : Once in a year

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	Prof. S.B. Kandagal	Professor, Department of Aerospace Engineering, IISC Bangalore	Expert Member
3	Prof.Chandramouli P.	Professor, IIT Madras, Chennai	Expert Member
4	Prof. BalajiPrathasarathy	Professor, International Institute of Information Technology – IIIT Bangalo	Expert Member
5	Mr.H.N. Surya Praksh	Registrar	Member
6	Dr.Anandhi R.J.	Dean -Academics	Member

7	Dr.Anitha S. Rai	Director – Library & Alumni Relation	Member
8	Dr.Revathi V.	HOD Applied Science – Physics	Member
9	Dr.B.Rajalakshmi	HoD – CSE	Member
10	Dr.Aravinda K.	HoD – ECE	Member
11	Dr.Sainath	HoD – MBA	Member
12	Dr.Sowmya Narayanan	HoD – Center for Life Skills and Lifelong Learning	Member
13	Dr.Niranjan P.S.	HoD – Civil Engineering	Member
14	Dr.Gurulakshmi A.B.	Associate Professor, ECE	Member
15	Dr.Sanjeev Sharma	Dean – QASDC	Member Secretary
16	Mr. SouravNaryan Biswas	Program Manager, Talent Acquisition, Capgemini India	Stakeholder & Employer
17	Mr.Sijio Mathew Varghese	Co – Founder, Overnight Ventures	Alumni
18	Mr.Bharathdeep	Department of ECE, NHCE	Student Nominee

Frequency of Meetings : Twice in a year

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 Principalensures 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. Anandhi R J	Dean- Academics	Member
4	Dr. Rajalakshmi	HoD-CSE	Member
5	Dr. Anusuya V	HOD Applied Science – Chemistry	Member

6	Dr. Asha V	HoD-MCA	Member
7	Dr. Siddamallaiah	Principal Librarian(Retd.) , NIMHANS	Member
8	Mr. Aditya Raj	1NH19CS005	Student Member
9	Ms. Ms. Amulya Choudhary	1NH19ME013	Student Member
10	Dr. Anitha S Rai	Director – Library & Alumin Relations	Member Secretary

Frequency of Meetings : Twice in a year

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. Rakesh Chandrashekar	HOD-Mechanical Engg	Member
4	Dr. P S Niranjan	HOD Civil Engineering	Member
5	Dr. B. Rajalakshmi	HOD Computer Science &Engg	Member
6	Dr. Mohan H S	HOD Information Science &Engg	Member
7	Dr. Revathi S	HOD Applied Science – Physics	Member
8	Dr. Sujitha	HOD Electrical and Electronics Engineering	Member
9	Mr. Hari Kumar N	Physical Education Director	Member
10	Mr. RaviKumar	Sr.Asst Professor-Mechanical Dept & NCC CTO	Member Secretary

Frequency of Meetings : Twice in a year

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. Anitha S Rai	Director – Library & Alumni Relations	Member
4	Dr.Aravinda K	HOD – Department of ECE	Member
5	Dr.N.V.Uma Reddy	HOD – Department of AI & ML	Member
6	Dr.Mohan H S	HOD – Department of ISE	Member
7	Mr.Hanamant Yaragudri	Sr.Asst.Professor, Department of ME	Member convenor

Frequency of Meetings : Twice in a year

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. Geluvaraj B	Assistant Professor, CSE Dept	Member
3	Dr. Priyameet Kaur Keer	Associate Professor, MBA Dept	Member
4	Mr. T. A. Sudharshan	Senior Assistant Professor, MECH Dept	Member

| 5 | Dr. K.G. Madhwaraj | Professor, MCA Dept | Member Secretary |

Frequency of Meetings : Twice in a year

Physical Education and Sports Committee

      Parallel to studies, in order to give motivation and an opportunity to excel in sports to interested stdents, 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	Shri. H.N.Suryaprakash	Registrar	Member
3	Dr. Uma Reddy N V	HoD-AIML	Member
4	Mr. Rakesh Chandrashekar	HoD – ME	Member
5	Dr. Niranjan P S	HoD-CIV	Member
6	Dr. Rajalakshmi	HoD-CSE	Member
7	Dr. S P Manikandan	HoD-CE	Member
8	Dr. Aravinda K.	HoD-ECE	Member
9	Dr. Sujitha	HoD-EEE	Member
10	Dr. Mohan Kumar	HoD-ISE	Member
11	Dr. Revathi Sankar	HOD Applied Science – Physics	Member
12	Dr. V.S. Anusuya Devi	HOD Applied Science – Chemistry	Member
13	Mr. Hari Kumar K C	HOD-Physical Education and Sports	Member

Frequency of Meetings : Twice in a year

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 10.1.3.3.26 Public Relation Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Shri. H. N. Suryaprakash	Registrar	Member
3	Dr. R.J. Anandhi,	Prof & Dean Academics	Member
4	Dr. Rajalakshmi	HoD-CSE	Member
5	Dr. Anitha S Rai	Director – Library & Alumin Relations	Member
6	Ms. Aruna Machani	Executive Director - Admissions	Member Secretary

Frequency of Meetings : Twice in a year

Purchase Committee

This committee of the college is constituted to meet all the hardware requirements for the smooth running of the institute. Requisions given by all the departments for its running are provided by this committee.

Table 10.1.3.3.27 Purchase Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Shri.H. N. Suryaprakash	Registrar	Member
3	Mr. Umesh	Purchase Officer	Member
4	Mr. Tarun Batra	Chief Operating Officer	Member
5	Ms. Malathi Madhusudan	Sr. Ex. Dr. Accounts & Finance	Member Secretary

Frequency of Meetings : Twice in a year

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 10.1.3.3.28 Recruitment Committee

Sl. No.	Name	Designation	Position
1	Dr. Mohan Manghnani	Chairman-NHEI	Chairman
2	Dr. Manjunatha	Principal	Member
3	Dr. Anandhi R J	Dean-Academics	Member
4	Ms. V. Manjula	Executive Director- Human Resources	Member Secretary
5	Dr. Gowrishankar	VTU Nominee	Two Subject Externals
6	Respective Department HoD		
7	Two Subject Externals		

Frequency of Meetings : Twice in a year

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 paers 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 10.1.3.3.29 Research & Development Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. Priyabrata Adhikary	Professor and Associate Head(R&D)	Member
3	Dr. Agalya V	Professor and Associate Head(R&D)	Member
4	Dr. Hemantha Raju	Assoc. Professor- ME	Member
5	Dr. Nagendra Prabhu	Assoc. Professor – CSE	Member
6	Dr. Jagadeesh.C.B.	Professor – CV	Member

7	Dr. Sujitha.S.	Assoc. Professor – EEE	Member
8	Dr. Sivarama Krsihnan	Assoc. Professor – ISE	Member
9	Dr. Gurulakashmi	Assoc. Professor – ECE	Member
10	Dr. Sujin Jose	Assoc. Professor – AUT	Member
11	Dr. Priyameet Kaur		Member
12	Dr. Madhwaraj.K.G.	Professor – MCA	Member
13	Dr. Madhumohana Raju. A B (Mathematics)	Assoc. Professor– Maths	Member
14	Dr. M S Raghu (Chemistry)	Assoc. Professor –Chemistry	Member
15	Dr. Rama Chandra Naik (Physics)	Assoc. Professor – Physics	Member
16	Dr. Sanjeev Sharma	Dean-QASDC	Member Secretary

Frequency of Meetings : Every Quarter of the Year

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 10.1.3.3.30 SC/ST Welfare Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Mr. Ravikumar	Professor – ME	Member
3	Mr. Manjunatha Swamy	Professor – CSE	Member
4	Dr. G Rajesh	Professor – ECE	Member
5	Ms. Kalaivani	Professor – ISE	Member
6	Shri. H.N.Suryaprakash	Registrar	Member Secretary

Frequency of Meetings : Twice in a year

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 10.1.3.3.31 Software/Hardware Training Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. R.J. Anandhi	Dean – Academics	Member
3	Dr. Sanjeev Sharma	Dean-QASDC and Professor- ECE	Member
4	Dr. Asha. V	Dr. Asha. V	Member
5	Dr. B. Rajalakshmi	HOD-CSE	Member Secretary

Frequency of Meetings : Twice in a year

Staff Welfare Committee

This committee constituted on the similar lines of the Staff Grievances Redressal Committeelooks into providing welfare schemes to all the staff of the college. The committee addressesthe requirements of the staff and takes necessary steps of action.

Table 10.1.3.3.32 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	Executive Director- Human Resources	Member Secretary

Frequency of Meetings : Twice in a year

Student Mentoring Committee

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 leraning. 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 10.1.3.3.34 Student Grievances Redressal Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Ms. Malathi Madhusudan	Sr.Ex. Director-A/c's & Finance	Member
3	Ms. Aruna Machani	Executive Director - Admissions	Director of Admission, Branding & Marketing
4	Shri. H. N. Suryaprakash	Registrar	Member
5	Mr. Tarun Batra	Chief Operating Officer	Member Secretary

Frequency of Meetings : Twice in a year & As and when required.

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 10.1.3.3.35 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	HoD- ECE	Member

4	Dr. Anitha S. Rai	Director – Library & Alumin Relations	Member
5	Ms Vijaya	Advocate	Member
6	Dr. Anusuya Devi V S	HoD & Professor– Chemistry	Member Secretary

Frequency of Meetings : Twice in a year.

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 10.1.3.3.36 Universal Human Values Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. Jayasheel	HoD – AU	Member
4	Dr. Niranjan	HoD – Civil	Member
5	Dr. Rajalakshmi	HoD – CSE	Member
6	Dr. Aravinda K	HoD – ECE	Member
7	Dr. Sujitha S	HoD – EEE	Member
8	Dr. Mohan K	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 Cycle)	Member
13	Ms. Malathi Madhusudhan	Senior Executive Director – Accounts & Finance	Member Secretary
14	Dr. R J Anandhi	Dean-Academics	Member Secretary

Frequency of Meetings : Twice in a year.

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 10.1.3.3.37 Universal Human Values Committee

Sl. No.	Name	Designation	Position
1	Dr. Manjunatha	Principal	Chairman
2	Dr. Anitha S Rai	Director-Library and Alumni Relations	Member
3	Dr. Sainath	HOD-MBA	Member
4	Dr. V. S. Anusuya	HOD Applied Science – Chemistry	Member
5	Dr. D Kaliavani	Associate Professor	Member
6	Ms. Lipsa Dash	Sr. Assistant Professor	Member
7	Ms . Rajina	Student Counselor	Member
8	Ms. Shanthi	Girls Hostel Warden	Member
9	Ms. Chayanika	Student Representative	Member
10	Dr. R.J. Anandhi	Dean-Academics	Member-Secretary

Frequency of Meetings : Twice in a year.

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	HoD & Professor	Administrative work	Sports Activities
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	Applied Science & Humanities	HoD & Professor	Administrative work	
9	Library and Information Centre	Director	Administrative work in the Library	Student Extra curricular Club activities Cultural Coordinator Students Feedback Alumni

Composition of Grievance Redressal Cell, Anti Ragging Committee & Anti- Sexual Harassment Committee has been mentioned in 10.1.3

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)

(Information on policies, rules, processes and dissemination of this information to Stakeholders is to be made available on the web site)

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/ (http://newhorizonindia.edu/nhengineering/wpcontent/ uploads/2020/07/HR-POLICIES-2019-NHCE-10-Copy.pdf) (http://newhorizonindia.edu/nhengineering/academic-guidelines/)

Department BOS/BOE Procedures:

- https://newhorizoncollegeofengineering.in/information-science-engineering/wp-content/uploads/2021/06/BOS-MOM-11.05.2019.pdf
- https://newhorizoncollegeofengineering.in/information-science-engineering/wp-content/uploads/2021/03/5th-BOS-Meeting.pdf

- https://newhorizoncollegeofengineering.in/information-science-engineering/wp-content/uploads/2021/09/BOS-Meeting_ISE-2.pdf
- https://information-science-engineering.newhorizoncollegeofengineering.in/wp-content/uploads/2023/02/7th-BOS-Meeting_merged.pdf
- https://information-science-engineering.newhorizoncollegeofengineering.in/wp-content/uploads/2022/12/Updated-BOS-MOM-28.11.2022.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 2022-2023

Total Income 1102000000				Actual expenditure(till…): 639500000			Total No. Of Students 5552
Fee	Govt.	Grant (S)	Other Sources (Placement Training, Bus Fees, etc.,)	Recurring Including Salaries	Non-recurring	Special Projects (Land, Building, WIP)	Expenditure per student
950000000	0	2000000	150000000	570000000	42000000	27500000	115183.72

Table 10.2a1:Institute Income and Expenditure for CFYm1 2021-22

Total Income 1091904383				Actual expenditure(till…): 621868093			Total No. Of Students 5575
Fee	Govt.	Grant (S)	Other Sources (Placement Training,	Recurring Including Salaries	Non-recurring	Special Projects (Land, Building, WIP)	Expenditure per student

			Bus Fees, etc.,)				
948528728	0	2678555	140697100	554032082	41222000	26614011	111545.85

Table 10.2a2: Institute Income and Expenditure for CFYm2 2019-20

<table>
<tr><td colspan="4">Total Income : 1123895595</td><td colspan="3">Actual Expenditure   : 639296425</td><td>Total No. of Students: 5654</td></tr>
<tr><td>Fee</td><td>Govt.</td><td>Grant (S)</td><td>Other Sources (Placement Training, Bus Fees, etc.,)</td><td>Recurring Including Salaries</td><td>Non-recurring</td><td>Special Projects (Land, Building, WIP)</td><td>Expenditure per student</td></tr>
<tr><td>874854134</td><td>0</td><td>4345598</td><td>244695863</td><td>564611227</td><td>12942579</td><td>61742619</td><td>113069.76</td></tr>
</table>

Table 10.2a3:Institute Income and Expenditure for CFYm3 2018-19

<table>
<tr><td colspan="4">Total Income 861810316</td><td colspan="3">Actual expenditure(till…): 587518237</td><td>Total No. Of Students 5301</td></tr>
<tr><td>Fee</td><td>Govt.</td><td>Grants</td><td>Other sources(specify) (Placement Tra</td><td>Recurring including salaries</td><td>Non Recurring</td><td>Special Projects/Anyother, specify (Land, Building</td><td>Expenditure per student</td></tr>
<tr><td>700108874</td><td>0</td><td>5741147</td><td>155960295</td><td>540542224</td><td>18570033</td><td>28405980</td><td>110831.59</td></tr>
</table>

Table 10.2b: Institute Budget and Expenditure for assessment years 2022-2023,2021-22, 2020-21,2019-20

Items	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till	Budgeted in 2020-2021	Actual Expenses in 2020-2021 till	Budgeted in 2019-2020	Actual Expenses in 2019-2020 till
Infrastructure Built-up	3700000	3600000	3500000	3542186	1000000	7122322	4000000	3266887
Library	6200000	6000000	6000000	5715715	2700000	2531367	4000000	3816878
Laboratory Equipment	3500000	3350000	3000000	3262996	4000000	3706977	1500000	1465099
Laboratory Consumables	6000000	5500000	5000000	4840960	3000000	2937829	6000000	6420770
Teaching & Non Teaching Staff Salary	4500000	4000000	4000000	3836839	3500000	3354161	3800000	3780872
Maintenance and Spares	3000000	3600000	3600000	3538390	3500000	2547021	3750000	3836299
Research & Development	5000000	5000000	4000000	4282178	7000000	6937699	1000000	9780824
Training & Travel	2000000	2500000	2500000	2316216	3000000	2788771	3250000	3196585
Others (Global & Professional Training)	8500000	8500000	8000000	8007769	1000000	1535648	5000000	5011372
Misc	1700000	1750000	1650000	1666966	1000000	9620388	2150000	2165003
Total	**691200000**	**649500000**	**637500000**	**621868095**	**641700000**	**639296425**	**596500000**	**587518237**

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	691200000	649500000	Adequate
2	CFYm1	637500000	621868095	Adequate
3	CFYm2	641700000	639296425	Adequate
4	CFYm3	596500000	587518237	Adequate

Table 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	691200000	649500000	93.97
2	CFYm1	637500000	621868095	97.55
3	CFYm2	641700000	639296425	99.63
4	CFYm3	596500000	587518237	98.49

10.2.3.: Availability of the audited statements on the institute's website (5)

The audited statements is available on the institution website and the link is as follows:

1. https://newhorizoncollegeofengineering.in/wp-content/uploads/2023/05/Financial-Statements-2021-22.pdf (https://newhorizoncollegeofengineering.in/wp-content/uploads/2023/05/Financial-Statements-2021-22.pdf)

2. https://newhorizoncollegeofengineering.in/wp-content/uploads/2023/05/Financial-Statements-2020-21.pdf (https://newhorizoncollegeofengineering.in/wp-content/uploads/2023/05/Financial-Statements-2020-21.pdf)

3. https://newhorizoncollegeofengineering.in/wp-content/uploads/2022/05/Financial-Statements-2019-20.pdf (https://newhorizoncollegeofengineering.in/wp-content/uploads/2022/05/Financial-Statements-2019-20.pdf)

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.1: Income and Expenditure for CFY 2022-2023 -EEE

Total Budget 48384000		Actual expenditure (till…): 45465000		Total No. Of Students 448
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
5040000	43344000	4865000	40600000	101484.38

Table 10.3a.2: Income and Expenditure for CFY 2022-2023 -ISE

Total Budget 103680000		Actual expenditure (till…): 97425000		Total No. Of Students 878
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
10800000	92880000	10425000	87000000	110962.41

Table 10.3. b.1: Income and Expenditure for CFYm1 2021-22 -EEE

Total Budget 51000000		Actual expenditure (till…): 49749448		Total No. Of Students 466
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
5200000	45800000	5444146	44305302	106758.47

Table 10.3.b.2: Income and Expenditure for CFYm1 2021-22 -ISE

Total Budget 91800000		Actual expenditure (till…): 89549006		Total No. Of Students 804
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
82440000	9360000	79749543	9799463	111379.36

Table 10.3.c.1 : Income and Expenditure for CFYm2 2019-20 -EEE

Total Budget 51336000		Actual expenditure (till…): 51143714		Total No. Of Students 487
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
8320000	43016000	5994416	45149298	105017.89

Table 10.3.c.2 : Income and Expenditure for CFYm2 2019-20 -ISE

Total Budget 83421000		Actual expenditure (till…): 83590443		Total No. Of Students 741
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
69901000	13520000	73849517	9740926	112807.62

Table 10.3.d.1: Income and Expenditure for CFYm3 2018-19 -EEE

Total Budget 53685000		Actual expenditure (till…): 52876642		Total No. Of Students 495
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
4950000	48735000	4258789	48617853	106821.5

Table 10.3.d.2: Income and Expenditure for CFYm3 2018-19 -ISE

Total Budget 68597500		Actual expenditure (till…): 67564597		Total No. Of Students 613
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
62272500	6325000	62122812	5441785	110219.57

Table 10.3.e.1 b: EEE- Budget and Expenditure for assessment years 2022-2023,2021-22, 2020-21,2019-20

Items	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till	Budgeted in 2020-2021	Actual Expenses in 2020-2021 till	Budgeted in 2019-2020	Actual Expenses in 2019-2020 till
Laboratory equipment	2590000	2520000	2400000	2610397	320000	296558	1350000	1318590
Software	84000	77000	80000	77455	48000	47005	108000	115574
Laboratory consumable	336000	308000	320000	309821	192000	188021	432000	462295
Maintenance and spares	2100000	2520000	2880000	2830712	2800000	2037617	3375000	3452669
R & D	350000	350000	320000	342574	560000	555016	900000	880274
Training and Travel	1400000	1750000	2000000	1852973	2400000	2231017	2925000	2876927
Miscellaneous Expenses*	5950000	5950000	6400000	6406216	8000000	1228518	4500000	4510235
Total	**12810000**	**13475000**	**14400000**	**14430148**	**14320000**	**17640421**	**13590000**	**13616564**

Table 10.3.e.1 b: ISE- Budget and Expenditure for assessment years 2022-2023,2021-22, 2020-21,2019-20

Items	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till	Budgeted in 2020-2021	Actual Expenses in 2020-2021 till	Budgeted in 2019-2020	Actual Expenses in 2019-2020 till
Laboratory equipment	5250000	5025000	4320000	4698714	520000	4819070	1725000	1684864
Software	810000	742500	648000	6273884	351000	3437259	621000	6645496
Laboratory consumable	90000	82500	72000	6970982	39000	3819177	69000	7383885
Maintenance and spares	4500000	5400000	5184000	5095282	4550000	3311127	4312500	4411744
R & D	750000	750000	576000	6166336	910000	9019008	1150000	1124794
Training and Travel	3000000	3750000	3600000	3335351	3900000	3625403	3737500	3676073
Miscellaneous Expenses*	1275000	1275000	1152000	1153118	1300000	1996342	5750000	5763078
Total	**15675000**	28500000	**15552000**	33693667	**11570000**	30027386	**17365000**	30689934

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)

Table 10.3.1.a: Program budget and expenditure -EEE

Sl No	Assessment Year	Budget Allocated in Rs.	Actual Expenditure in Rs.	Adequate/ Non Adequate
1	CFY	48384000	45465000	Adequate
2	CFYm1	51000000	49749448	Adequate
3	CFYm2	51336000	51143714	Adequate
4	CFYm3	53685000	52876641	Adequate

Table 10.3.1.a: Program budget and expenditure -ISE

Sl No	Assessment Year	Budget Allocated in Rs.	Actual Expenditure in Rs.	Adequate/ Non Adequate
1	CFY	109209600	102621000	Adequate
2	CFYm1	91800000	89549006	Adequate
3	CFYm2	83421000	83108535	Adequate
4	CFYm3	68597500	67564597	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.a: Utilisation of allocated funds – EEE

Sl No	Assessment Year	Budget Allocated in Rs.	Actual Expenditure in Rs.	Percentage of Utilisation
1	CFY	48384000	45465000	93.97
2	CFYm1	51000000	49749448	97.55
3	CFYm2	51336000	51143714	99.63
4	CFYm3	53685000	52876641	98.49

10.3.2.b: Utilisation of allocated funds – ISE

Sl No	Assessment Year	Budget Allocated in Rs.	Actual Expenditure in Rs.	Percentage of Utilisation
1	CFY	109209600	102621000	93.97
2	CFYm1	91800000	89549006	97.55
3	CFYm2	83421000	83108535	99.63
4	CFYm3	68597500	67564597	98.49

10.4. Library and Internet (20)

(Indicate whether zero deficiency report was received by the Institution for all the assessment years. Effective availability/purchase records and utilization of facilities/equipment etc. to be documented and demonstrated).

Library Services	Yes
Carpet Area of library (in m2)	4018 m2
Reading Space (in m2)	2500 m2
Nymber of seats Reading Space	605
Number users issue book per day	389
Number of users visits per day	515 (Physical Access)
Timings : Ground Floor Lower Level	24/7, 365 days 8.00am – 6.30pm
Number of Library Staff	11
Number of Library staff with degree in Library	7
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 (Mapmy Access)
	◦ NDLI Club Activities
	◦ Online Reservation
	◦ Circulation Service
	◦ Reference Service
	◦ Reprographic Service
	◦ Document Scanning
	◦ Document Printing
	◦ OPAC (Online Public Access Catalog)
	◦ NPTEL
	◦ Overnight Circulation
	◦ E-mail Reminder
	◦ Online Q & A
	◦ Grammar Tool – Lanquill
	◦ Online Lecture
	◦ Organising Book Exhibition
	◦ News Paper Clippings
	◦ Similarity or Plagiarism Checking Service
	◦ Orientation Program
	◦ Awareness of Reference Manager Tool – "Mendeley Desktop"
	◦ Social Media alert service

10.4.1. Quality of Learning resources (hard/soft) (10)

Digital Library Services	Yes
Availability of Digital Library Contents	Yes
Number of Courses	13
Number of eBooks	27439
Availability of Exclusive Server	Yes
Availability of Intranet /Internet	Yes
Availability of Exclusive Space/Room	Yes
Number of users per day	992 (e-access)

| Digital Library is provided in the Central Library where students can access all kinds of e-journals | **E-Journals Links**
Elsevier (https://www.sciencedirect.com/) - https://www.sciencedirect.com/ (https://www.sciencedirect.com/) Taylor & Francis (http://www.tandfonline.com/) - http://www.tandfonline.com/ (http://www.tandfonline.com/)
Springer Nature (http://link.springer.com/) - http://link.springer.com/ (http://link.springer.com/)
Emerald (https://www.emeraldinsight.com/) - https://www.emeraldinsight.com/ (https://www.emeraldinsight.com/)
ProQuest - https://www.proquest.com/165290 (https://www.proquest.com/165290)
E-Conference Proceedings- IEEE https://ieeexplore.ieee.org/Xplore/home.jsp (https://ieeexplore.ieee.org/Xplore/home.jsp)
E-Case Studies – Emerald https://www.emerald.com/insight/content/case-studies (https://www.emerald.com/insight/content/case- studies)

E-Books Links
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Mint Books - https://nhce.mintbook.in/ (https://nhce.mintbook.in/)
New Age Publishers (https://digital.elib4u.com/) https://digital-elib4u-com.vtuconsortium.mapmyaccess.com/ (https://digital-elib4u-com.vtuconsortium.mapmyaccess.com/)
Packt (https://prod.packtpub.com/in) - https://videeya-in.nhce.mapmyaccess.com/ (https://videeya- in.nhce.mapmyaccess.com/)
McGraw Hill Education - https://www-expresslibrary-mheducation-com.vtuconsortium.mapmyaccess.com/ (https://www- expresslibrary-mheducation-com.vtuconsortium.mapmyaccess.com/) |
| Video Course online | NPTEL NDLI GIAN
SarvajanikaGranthalaya
SWAYAM
SWAYAM PRABHA PM eVIDYA
Virtual Labs
E-PG Pathshala |

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.

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

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College, Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA
The Trust is a recipient of prestigious Rajyotsava State Award 2012 conferred by Government of Karnataka

Declaration

• 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 hall fully abide by them.

• It is submitted that information provided in this Self-Assessment Report is factually correct.

• I understand and agree that an appropriate disciplinary action against the Institute 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 : MANJUNATHA

Designation : PRINCIPAL

Signature :

Seal of The Institution :

Principal
New Horizon College of Engineering
Ring Road, Bellandur Post
Bangalore - 560 103

Place : BANGALURU

Date : 10-06-2023 14:54:1

New Horizon Knowledge Park
Ring Road, Bellandur Post, Near Marathalli, Bangalore, India. Pin- 560103

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Annexure I

(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

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

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

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

and environmental considerations.

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

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

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

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

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

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

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

presentations, and give and receive clear instructions.

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

environments.

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

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

Program should specify 2-4 program specific outcomes.

PSO1 The ability to understand, analyse and develop computer programs in the areas related to Algorithms, System Software, Web Design, Big Data Analytics, Machine Learning, Internet of Things, Data Science and Networking for efficient design of computer based systems of varying complexity.

PSO2 The ability to apply standard practices and strategies in software project development using innovative ideas and open ended programming environment with skills in teams and professional ethics to deliver a quality product for business success.