R R Institute of Technology

Information Science & Engg.

Part A : Institutional Information

1 Name and Address of the Institution

R R Institute of Technology,
Raja Reddy Layout, Heseraghatta Main Road, Near Chikkabanavara Railway Station, Chikkabanavara Bangalore – 560 090

2 Name and Address of Affiliating University

Visvesvaraya Technological University

3 Year of establishment of the Institution:

2008

4 Type of the Institution:

☐ University	☐ Autonomous
☐ Deemed University	☑ Affiliated
☐ Government Aided	

5 Ownership Status:

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

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

Name of Institutions	Year of Establishment	Programs of Study	Location
NRR Hospital College and School Nursing	2018	B.Sc. in Optometry Technology, Radiotherapy Technology, Perfusion Technology, Radiography and Imaging Technology, Cardia Care Technology, OTT & Anesthesia Technology	RR Campus, Chikkabanavara, Bengaluru
NRR Hospital	2008	Multi Specialty health services	Hesarghatta Road, Chikkabanavara, Bengaluru
National Public School	2014	school	RR Campus, Chikkabanavara, Bengaluru
Prakriya Hospital	2019	Multi Specialty health services	Nagasandra, Tumkur Road
National Academy of Learning	2017	Pre-University	RR Campus, Chikkabanavara, Bengaluru
Rainbow International School	2018	School	Abhiggere main road, Chikkabanavara, Bengaluru
Little Millennium	2018	School	Abhiggere main road, Chikkabanavara, Bengaluru
RR School of Architecture	2014	Bachelor of Architecture	RR Campus, Chikkabanavara, Bengaluru
RR Polytechnic	2010	Diploma in Engineering	RR Campus, Chikkabanavara, Bengaluru
RR Institute of Advanced Studies	2009	Master of Business Administration	RR Campus, Chikkabanavara, Bengaluru
RR Institute of Management Studies	2011	B.Com, BBA (Aviation), BBA (Logistics), BCA (Cloud Computing), B.Com Tourism & Travel Management - Aviatioin (IATA)	RR Campus, Chikkabanavara, Bengaluru
RR college of Education	2004	B.Ed	RR Campus, Chikkabanavara, Bengaluru
RR College of Pharmacy	2008	D.Pharm, B.Pharm, M.Pharm (Pharmaceutics, Pharmacognosy), Pharm. D, Post Baccalaureate courses	RR Campus, Chikkabanavara, Bengaluru
RR College and School of Nursing	2004	B.Sc & M.Sc in Nursing, PB.B.Sc. Nursing, GNM, Research Centre in Ph.D	RR Campus, Chikkabanavara, Bengaluru
Manjunatha College and School of Nursing	2003	B.Sc & M.Sc in Nursing, PB.B.Sc. Nursing, GNM, Research Centre in Ph.D	RR Campus, Chikkabanavara, Bengaluru
RR Institute of Medical Sciences	2016	B.Sc. in Optometry Technology, Radiotherapy Technology, Perfusion Technology, Radiography and Imaging Technology, Cardia Care Technology, OTT & Anesthesia Technology	RR Campus, Chikkabanavara, Bengaluru

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

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Information Science & Engineering	UG	2008	2008	60	No	60	Applying first time	--	--	Yes	4
Computer Science & Engineering	UG	2008	2008	60	Yes	120	Applying first time	--	--	No	4
Electronics & Communication Engineering	UG	2008	2008	60	Yes	60	Not eligible for accreditation	--	--	0	4

Sanctioned Intake for Last Five Years for the Electronics & Communication Engineering	
Academic Year	**Sanctioned Intake**
2020-21	60
2019-20	60
2018-19	60
2017-18	120
2016-17	120
2015-16	120

Electrical & Electronics Engineering	UG	2008	2008	60	No	60	Not eligible for accreditation	--	--	0	4
Mechanical Engineering	UG	2010	2010	60	Yes	60	Not eligible for accreditation	--	--	0	4
Civil Engineering	UG	2010	2010	60	Yes	120	Eligible but not applied	--	--	0	4

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Civil Engg.
2	Under Graduate	Engineering & Technology	Computer Science & Engg.
3	Under Graduate	Engineering & Technology	Information Science & Engg.

9 Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2020-21		2019-20		2018-19	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	43	45	40	43	39	45
Faculty in Engineering (Female)	32	34	34	37	32	39
Faculty in Maths, Science & Humanities (Male)	7	11	10	11	7	13
Faculty in Maths, Science & Humanities (FeMale)	9	9	9	11	6	11
Non-teaching staff (Male)	10	13	20	24	19	24
Non-teaching staff (FeMale)	12	16	10	13	9	13

B. Contractual* Employees (Faculty and Staff):

Items	2020-21		2019-20		2018-19	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	2	3	0	0	2	2
Faculty in Engineering (Female)	2	2	0	0	3	3
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (FeMale)	0	0	0	0	1	1
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (FeMale)	0	0	0	0	0	0

10 Total number of Engineering Students:

Engineering and Technology- UG	☑ Shift1	☐ Shift2
Engineering and Technology- PG	☐ Shift1	☐ Shift2
Engineering and Technology- Polytechnic	☐ Shift1	☐ Shift2
MBA	☐ Shift1	☐ Shift2
MCA	☐ Shift1	☐ Shift2

Engineering and Technology- UG Shift-1

Items	2020-21	2019-20	2018-19
Total no. of Boys	673	611	711
Total no. of Girls	217	229	285
Total	**890**	**840**	**996**

11 Vision of the Institution:

"To be a Premier globally recognized Institute with ensuring academic excellence,Innovation and fostering Research in the field of Engineering."

12 Mission of the Institution:

Mission of RR Institute of Technology (RRIT)

- To consistently strive for Academic Excellence
- To promote collaborative Research & Innovation
- To create holistic teaching learning environment that build ethically sound manpower who contribute to the stake holders operating at Global environment

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

Head of the Institution	
Name	Dr. MAHENDRA K V
Designation	PRINCIPAL
Mobile No.	9591227283
Email ID	rrit@rrinstitutions.com

NBA Coordinator, If Designated

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	53.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	94.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	105.00
4	STUDENTS' PERFORMANCE	150	93.56
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	169.48
6	FACILITIES AND TECHNICAL SUPPORT	80	74.00
7	CONTINUOUS IMPROVEMENT	50	45.00
8	FIRST YEAR ACADEMICS	50	41.93
9	STUDENT SUPPORT SYSTEMS	50	40.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	84.00
	Total	**1000**	**800**

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60) Total Marks 53.00

1.1 State the Vision and Mission of the Department and Institute (5) Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	"To be a Premier globally recognized Institute with ensuring academic excellence,Innovation and fostering Research in the field of Engineering."
Mission of the institute	Mission of RR Institute of Technology (RRIT) • To consistently strive for Academic Excellence • To promote collaborative Research & Innovation • To create holistic teaching learning environment that build ethically sound manpower who contribute to the stake holders operating at Global environment
Vision of the Department	To impart quality education in order to produce outstanding technocrats and to enhance Information Science & Engineering related research activities.
Mission of the Department	**Mission No.** / **Mission Statements** M1: To Provide excellent technical education in the field of Information Science & Engineering to meet the needs of industry. M2: To be engaged in creative research and to learn from outreach activities. M3: To Impart ethical and leadership qualities to enhance professionalism and turn student to socially responsible citizens.

1.2 State the Program Educational Objectives (PEOs) (5) Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Graduates will be capable to adapt to new computing technology for professional excellence and research to be a lifelong learner.
PEO2	Graduates will communicate proficiently and collaborate successfully with peers, colleagues and organizations.
PEO3	Graduates will work productively exhibiting ethical qualities for the betterment of Society
PEO4	Graduates will possess leadership qualities, work harmoniously as a team member with effective communication skills.

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

Total Marks 9.00

Institute Marks : 9.00

Sl. No.	Published Places
1	Institute website
2	Course file
3	Alumni Survey forms
4	Employer Survey forms
5	Displayed in Staff & HOD's room
6	Displayed on Department Notice Boards in the Corridors
7	Displayed on Notice Boards of Laboratories & Classrooms
8	Institution/Department Information Newsletter
9	Bluebooks, Records, Observation & Assignment Books
10	Study Materials
11	Seminar Hall

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

Total Marks 22.00

Institute Marks : 22.00

Process of Defining V & M

Step 1: Department Academic Council(DAC) prepare the draft version of Vision & Mission of the department by looking into the Institute level Vision & Mission.

Step 2: Draft vision and mission statements are shared by Stakeholders such as faculty, students, alumni, parents and employer for their ideas.

Step 3: Incorporate Ideas and suggestions obtained by the stake holders,

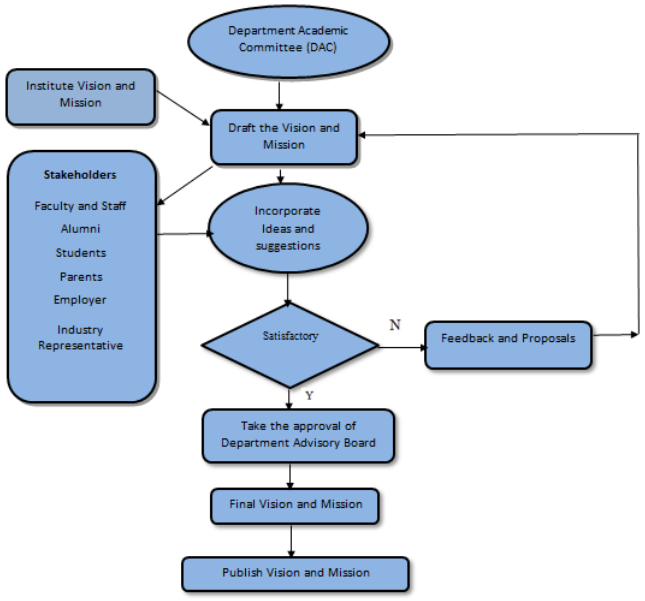
If it is not satisfactory again review the vision and mission.

Satisfactory then take the approval of Department Advisory Board.

Step 4: Final Vision & Mission.

Step 5: Publish the vision and mission.

Figure 1.4(a) Process of Vision and Misssion



Process for Establishing PEOs

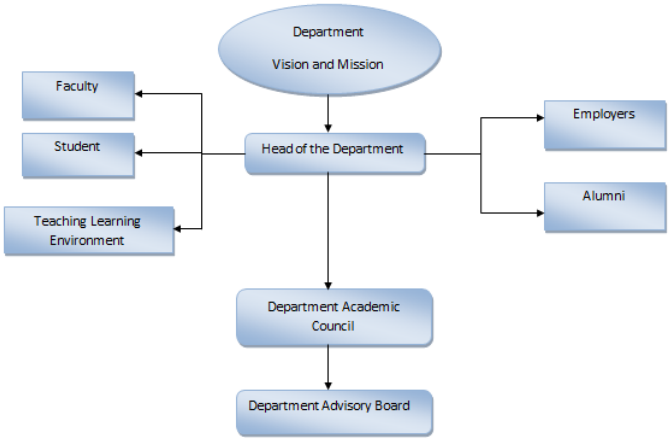
Step 1: Vision and Mission of the Institute and Department are taken as the basis to interact with all the key stake holders.

Step 2: Head of the Department takes the feedback from the Faculty, Students, Employers, Alumni and Teaching learning Environment and prepares the PEOs.

Step 3: Head of the Department reviews and recommends within the guidelines defined for the formulation of the PEOs to Department Academic Council.

Step 4: DAC finalizes the PEOs and submits to Department Advisory Board.

Figure 1.4(b) Process of PEOs



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

Total Marks 12.00

Institute Marks : 12.00

PEO		Mission	Consistency
PEO 1:	Graduates will be capable to adapt to new computing technology for professional excellence and research to be a lifelong learner.	M1	Strongly correlates by providing an excellent industry & research background for successful career of students
		M2	Averagely correlates by involving research-oriented activities.
PEO 2:	Graduates will communicate proficiently and collaborate successfully with peers, colleagues and organizations.	M3	Strongly correlates by imparting Team-leader qualities by group discussion, debates etc.
		M1	Strongly correlates by providing an accredited dynamic Technical knowledge.
PEO 3:	Graduates will work productively exhibiting ethical qualities for the betterment of society	M3	Averagely correlates by students to cope up with social context and Communication skills.
		M2	Averagely correlates with out-reach activity
PEO 4:	Graduates will possess leadership qualities, work harmoniously as a team member with effective communication skills.	M3	Strongly correlates by providing students with interpersonal skills, life-long learning needed for successful Leadership and technocrats.
		M2	Averagely correlates with providing Internships in industry to the students.

PEO Statements	M1	M2	M3
Graduates will be capable to adapt to new computing technology for professional excellence and research to be a lifelong learner.	3	2	1
Graduates will communicate proficiently and collaborate successfully with peers, colleagues and organizations.	3	1	3
Graduates will work productively exhibiting ethical qualities for the betterment of Society	1	2	2
Graduates will possess leadership qualities, work harmoniously as a team member with effective communication skills.	1	2	3

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120)

Total Marks 94.00

2.1 Program Curriculum (20)

Total Marks 16.00

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

Institute Marks : 10.00

R R Institute of Technology affiliated to Visvesvaraya Technological University (VTU) was started in the year 2008 and offers various Programs, Information Science and Engineering is one of them and started in the year 2008 with the intake of 60 students. The Department of Information Science and Engineering program is following the curriculum of VTU. The technical courses span for four years, which are a blend of both core and elective subjects that helps students to explore various fields to pursue higher studies or employment. Since every four years the curriculum is updated by the university to meet the growing needs. To identify the extent of compliance of university curriculum and to identify the gaps for attaining Program Outcomes (POs) and Program Specific Outcomes (PSOs), we first compare the courses, prescribed by VTU curriculum.

Table 2.1.1(i)

Sl no.	Streams	Curriculum content (number of courses)	Total marks	POs	PSOs
1	Basic science & Humanities	12	1100	1, 2, 6, 7, 8	-
2	Engineering courses	7	650	1, 2, 3, 5	1, 2
3	Professional courses	34	3400	1,2,3,4,5,6,11,12	1,2
4	Management courses	1	100	1,6,7,8,9,10,11,12	-
5	Elective courses	11	1100	1,2,3,4,5,7	1
All/Total		100% (65 courses)	6350	1, 2, 3, 4, 5, 6, 7, 8	1,2

Program Outcomes (POs)

- PO1: Engineering Knowledge
- PO2: Problem Analysis
- PO3: Design/Development of Solutions
- PO4: Conduct Investigations of Complex problems
- PO5: Modern Tool Usage
- PO6: The engineer and society
- PO7: Environment and sustainability
- PO8: Ethics
- PO9: Individual and team work
- PO10: Communication
- PO11: Project management and finance
- PO12: Life-long learning

Program Specific Outcome (PSO)

- **PSO1:** The ability to apply the knowledge of software fundamentals and strategies towards the work and various standards of computational industry.
- **PSO2:** Able to design and develop software aspects which are necessary for IT based solutions.

Program Curriculum :

The Below Table 2.1.1(ii) shows the Scheme:

Table 2.1.1(ii)

Sl. No.	Sub. code	Subject	Teaching hours/ week		Examination		
			Theory	Practical	Internal	Final	Total
	1st Year						

1	15MAT11	Engineering Mathematics	4		20	80	100
2	15PHY12/22	Engineering Physics	4		20	80	100
3	15CHE12/22	Engineering Chemistry	4		20	80	100
4	15CIV13/23	Elements of Civil Engineering & Engineering Mechanics	4		20	80	100
5	15CCP13/23	Computer Concepts & C Programming	4		20	80	100
6	15EME14/24	Elements of Mechanical Engineering	4		20	80	100
7	15CED14/24	Computer Aided Engineering Drawing	2	4	20	80	100
8	15ELE15 /25	Basic Electrical Engineering	4		20	80	100
9	15ELN15 /25	Basic Electronics	4		20	80	100
10	15WSL16 /26	Workshop Practice		3	20	80	100
11	15CPL16 /26	Computer Programming Laboratory		3	20	80	100
12	15PHYL17/27	Engineering Physics Lab		3	20	80	100
13	15CHEL17/27	Engineering Chemistry Lab		3	20	80	100
14	15CIV18	Environmental Studies	2		10	40	50
15	15CPH28	Constitution of India, Professional Ethics and Human Rights	2		10	40	50
16		Language (Kan.)	1				
17		Language (Eng.)	1				
	3rd Sem						
18	15CSL38	Data Structures Laboratory		3	20	80	100
19	15CSL37	Analog and Digital Electronics Laboratory		3	20	80	100
20	15MAT31	Engineering Mathematics - III	4		20	80	100
21	15CS32	Analog and Digital Electronics	4		20	80	100
22	15CS33	Data Structures and Applications	4		20	80	100
23	15CS34	Computer Organization	4		20	80	100
24	15CS35	Unix and Shell Programming	4		20	80	100
25	15CS36	Discrete Mathematical structures	4		20	80	100
	4th Sem						
26	15CS42	Software Engineering	4		20	80	100
27	15CS43	Design and Analysis of Algorithms	4		20	80	100
28	15CS44	Microprocessors and microcontrollers	4		20	80	100
29	15CS45	Object Oriented Programming with JAVA	4		20	80	100
30	15CS46	Data communications	4		20	80	100
31	15CSL47	Design and Analysis of Algorithm Laboratory		3	20	80	100
32	15CSL48	Microprocessors Laboratory		3	20	80	100

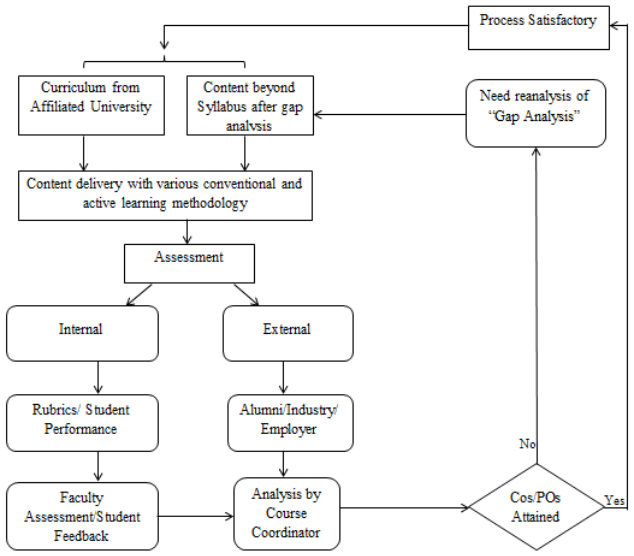
33	15MAT41	Engineering Mathematics - IV	4		20	80	100
	5th Sem						
34	15CS51	Management and Entrepreneurship for IT industry	4		20	80	100
35	15CS52	Computer Networks	4		20	80	100
36	15CS53	Database Management System	4		20	80	100
37	15CS54	Automata theory and Computability	4		20	80	100
38	15CS551	Object Oriented Modelling and Design	4		20	80	100
39	15CS565	Cloud Computing	4		20	80	100
40	15CSL57	Computer Network Laboratory		3	20	80	100
41	15CSL58	DBMS Laboratory with mini project		3	20	80	100
	6th Sem						
42	15CS61	Cryptography, Network Security and Cyber Law	4		20	80	100
43	15IS62	File Structures	4		20	80	100
44	15IS63	Software Testing	4		20	80	100
45	15CS64	Operating Systems	4		20	80	100
46	15CS653	Operation Research	4		20	80	100
47	15CS661	Mobile Application Development	4		20	80	100
48	15ISL67	Software Testing Laboratory		3	20	80	100
49	15ISL68	File Structures Laboratory with mini project		3	20	80	100
7th Sem							
50	15CS71	Web Technology and its applications	4		20	80	100
51	15IS72	Software Architecture and Design Patterns	4		20	80	100
52	15CS73	Machine Learning	4		20	80	100
53	15CS741	Natural Language Processing	4		20	80	100
54	15IS753	Information Management System	4		20	80	100
55	15CSL76	Machine Learning Laboratory		3	20	80	100
56	15CSL77	Web Technology Laboratory with mini project		3	20	80	100
57	15ISP78	Project Phase 1 + Seminar		3	20	80	100
8th Sem							
58	15CS81	Internet of things and applications	4		20	80	100
59	15CS82	Big Data Analytics	4		20	80	100
60	15CS834	System Simulation and Modelling	4		20	80	100
61	15IS84	Internship / Professional Practice	4		20	80	100
62	15ISS86	Seminar		3	50		50
63	15CSP85	PROJECT WORK PHASE II		3	100	100	200

ı. Process used to identify extent of compliance of the University Curriculum for attaining the Program Outcomes and Program Specific Outcomes.

The R R Institute of Technology is an Engineering college affiliated to Visvesvaraya Technical University (VTU), Belagavi. Department of Information Science and Engineering program curriculum is as per the scheme and syllabus of VTU. The Curriculum maintains the balance in the composition of basic science, humanities, professional courses and their distribution in core and elective and breadth offerings.Survey is carried out based on the data obtained from Internal Assessment (IA) and VTU external exam results. Results of survey will be analyzed to check the attainment of Course Outcomes, if Course Outcome is attained then it will give the average measure of attainment of the Course Outcomes (COs) with respect to Program Outcome (POs). If CO is not attained, it is considered as a gap and remedies are formulated by the Course Coordinator to fulfil those gaps by covering aspects through Content beyond gaps.

The figure 2.1.1(a) shows the process of assessment of gap analysis.

Fig 2.1.1(a) Assessment of gap analysis



B. Curricular Gaps for the attainment of defined POs and PSOs

Observation:
The Below Table 2.1.1 (iii) shows the courses mapping with each Program Outcomes & PSOs. It is observed that PO1, PO2, PO3, PO4, PO5, PO8, PO11, PO12, PSO1 have more than 60 percent courses mapping and the rest of the PO's and PSOs have less than 60 percent courses mapping. Particularly PO6, PO7, PO9, PO10, PSO2 were mapped to very few courses Therefore, there are gaps between VTU curriculum and POs/PSOs. In order to fulfill the gap of POs and PSOs we have conducted activities like Seminar,Workshop, SDP, Guest Lecture etc.,

Table 2.1.1 (iii) Mapping of Average Course Outcomes with Program Outcomes and Program Specific Outcomes

Sl No	Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	C101	Engineering Maths-I ->C101	√	√	√	√	√					√		√		
2	C102	Engineering Physics--> C102	√	√	√						√			√		
3	C103	Elements of Civil Engg. & Mechanics ->C103	√	√	√											
4	C104	Elements of Mechanical Engg. ->C104	√	√	√		√	√	√			√		√		
5	C105	Basic Electrical Engg .->C105	√	√	√	√						√	√	√		
6	C106	WorkshopPractice .->C106	√	√	√											
7	C107	Engg. Physics Lab .->C107	√	√	√											
8	C108	Constitution of India, Professional Ethics and HumanRights(CPH)->C108	√					√	√	√						
9	C111	Engineering Maths-II->C111	√	√	√	√	√				√	√		√		
10	C112	Engineering Chemistry ->C112	√	√					√					√		
11	C113	Programming in C & Data Structures->C113	√	√	√	√	√				√	√		√		
12	C114	Computer Aided Engineering Drawing-> C114	√		√	√	√					√		√		
13	C115	Basic Electronics ->C115	√	√	√											
14	C116	ComputerProgrammingLab ->C116	√	√	√	√	√				√	√		√		
15	C117	Engg. Chemistry Lab ->C117	√	√	√	√	√								√	√
16	C118	EnvironmentalStudies	√					√	√	√	√			√	√	
17		Language(Eng.)										√		√	√	
18	C201	Engineering Mathematics – III	√	√	√	√										
19	C202	Analog and Digital Electronics	√	√	√										√	
20	C203	Data Structures and Applications	√	√	√									√		
21	C204	Computer Organization	√	√	√	√								√	√	
22	C205	Unix and Shell Programming	√	√											√	
23	C206	Discrete Mathematical Structures	√	√	√										√	
24	C207	Analog and Digital Electronics Laboratory ->C207	√	√											√	√
25	C208	Data Structures Laboratory ->C208	√	√	√										√	√
26	C211	Engineering Mathematics - IV	√	√	√	√									√	√
27	C212	Software Engineering	√	√	√	√	√	√	√	√	√				√	

28	**C213**	Design and Analysis of Algorithms	√	√	√	√								√	√	
29	**C214**	Microprocessors and Microcontrollers	√	√	√	√									√	
30	**C215**	Object Oriented Concepts	√	√	√		√				√			√	√	
31	**C216**	Data Communication	√	√	√										√	
32	**C217**	Design and Analysisof Algorithm Laboratory ->C217	√	√	√	√								√	√	√
33	**C218**	Microprocessors Laboratory ->C218	√	√	√	√									√	√
34	**C301**	Management and Entrepreneurship for IT Industry		√	√					√	√	√	√	√	√	√
35	**C302**	Computer Networks	√	√	√										√	
36	**C303**	Database Management System	√	√	√		√								√	√
37	**C304**	Automata theory and Computability	√	√	√										√	√
38	**C3051**	Object Oriented Modeling and Design	√	√	√										√	√
39	**C3065**	Cloud Computing	√	√	√										√	**0**
40	**C307**	Computer NetworkLaboratory ->C307	√	√	√										√	√
41	**C308**	DBMS Laboratory with mini project ->C308	√	√	√										√	√
42	**C311**	Cryptography, Network Security and Cyber Law	√	√	√			√		√					√	√
43	**C312**	File Structures	√	√	√										√	
44	**C313**	Software Testing	√	√	√										√	
45	**C314**	Operating Systems	√	√	√	√									√	√
46	**C3153**	Operations Research	√	√	√										√	√
47	**C3161**	Mobile Application Development	√	√	√	√									√	√
48	**C317**	Software Testing Laboratory ->C317	√	√	√					√					√	√
49	**C318**	File Structures Laboratory With mini project ->C318	√	√	√										√	√
50	**C401**	Web Technology and its applications		√			√				√					√
51	**C402**	Software Architecture and Design Patterns	√	√	√										√	
52	**C403**	Machine Learning	√	√	√	√	√								√	√
53	**C4041**	Natural Language Processing	√	√	√										√	√
54	**C4053**	Information Management System		√	√										√	
55	**C406**	MachineLearningLaboratory-> C406	√	√	√	√	√								√	√
56	**C407**	Web Technology Laboratory with mini project->C407	√	√	√	√	√								√	√
57	**C408**	Project Phase1 ->C408	√	√	√	√	√	√	√	√	√	√	√	√	√	√
58	**C411**	Internet of Things and Applications	√	√	√	√	√								√	√
59	**C412**	Big Data Analytics		√	√		√								√	√
60	**C4134**	System Modelling and Simulation	√	√	√										√	√
61	**C4184**	Internship/Professional Practice -> C4184	√	√	√	√	√	√	√	√	√	√	√	√	√	√
62	**C415**	Project work phaseII ->C415	√	√	√	√	√	√	√	√	√	√	√	√	√	√
63	**C415**	Seminar ->C416	√	√		√	√			√	√	√		√	√	√

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

Institute Marks : 6.00

In order to enrich syllabus contents as per growing Information Technology sector, Department of Information Science and Engineering invites experts/trainers from both industry and academia to share newer avenues and update students as well as faculty members with contemporary developments in industry and research scenario. Following tables summarizes action taken for gaps identified and delivery details on contents covered beyond the syllabus in Information Science and Engineering.

Table 2.1.2(i) Content discussed beyond the syllabus to fill the curriculum gap

Sl No.	AY	Gap	Action Taken	Date	Resource Person with designation	No of Students Attended	Relevance to POs, PSOs
1	2019-2020	Use of Modern tools, Individual and team work, Lifelong Learning	Workshop on Introduction to Python and Machine Learning	19-02-2020	Mr. Sudarshan Manager Chira information Technology, Bengaluru	56	PO5, PO9, PO12, PSO1, PSO2
2	2019-2020	Use of Modern tools, Engineer and Society, Individual and team work, Lifelong Learning	Seminar on Food Technology in Machine Learning	26-05-2020	Dr. Gururaj H L, Professor, Vidyavardhaka College of Engg, Mysore	54	PO5, PO6, PO9, PO11, PO12, PSO2,
3	2019-2020	Use of Modern tools, Ethics, Individual and team work, Lifelong Learning	SDP on Ip address in Computer Networks	23-06-2020	Dr. Mohan Kumar, MSRIT, Bangalore	52	PO5, PO8, PO9, PO12, PSO2,
4	2019-2020	Use of Modern tools, , Engineer and Society, Project Management and Finance, Individual and team work,	Seminar on Emerging Trends and latest technologies in IT	30-08-2019	Mr. Subhas, IT consultant, LIVEWARE	54	PO5, PO6, P O9, PO11, PSO2,
5	2019-2020	Use of Modern tools, Engineer and Society, Ethics, Individual and team work,	Seminar on Quality assurance Testing on applications using Latest Tools	14-09-2019	Mr. B M Sapthsagar, Quality test Manager, NTT data global village, Bangalore	55	PO5, PO6, PO7, PO8, PO12, PSO2,
6	2019-2020	Use of Modern tools, Engineer and Society, Project Management and Finance,	A Course on Aircraft and aerospace engineering	24-10,2019, 30-10-2019& 31-10-2019	Nataraj Ramanna, CEO Centre of excellence in aerospace and Defence	40	PO5, PO6, PO11, PSO2,
7	2018-2019	Techniques, Contextual knowledge, Environment and sustainability, Lifelong learning	Workshop on Computer communication network and applications	27-02-2019 to 03-03-2019	Mrs. Sunita Amingad, Technical Manager, Jetking Sadashiv Nagar Bangalore	22	PO5, PO9, PO10, PO12, PSO2,
8	2018-2019	Use of Embedded Technologies, Individual and team work, Lifelong learning	Workshop on ARM Processor and its Applications	24-04-2019	Dr. Srinivas Setty Chief Technical officer, SSP Technologies Bengaluru	25	PO5, PO9, PO12, PSO2,
9	2018-2019	Contextual knowledge Environment and sustainability & Lifelong learning	Workshop on Python Programming	30-08-2018	Pro. Jahnavi N L Asst. Professor, ISE Department	53	PO5, PO9, PO10, PO12 , PSO1, PSO2
10	2017-2018	Use of Modern Technologies, Engineer and Society, Project Management and Finance, Lifelong learning	Workshop on Apple mobile App Development	16-08-2017	Mr. Shibu M V, Senior Techno commercial manager & Ms. Valentina M, Business Development Manager, Brilliant Distribution pvt ltd.	44	PO5, PO6, PO11, PO12, PSO1, PSO2
11	2017-2018	Use of Modern tools, Ethics Individual and Team work, Lifelong learning	Seminar on Object oriented Concepts with Java	08-02-2017	Mrs. Vani Sapthasagar Asst. Professor, Dept of ISE RRIT, Bangalore	50	PO5, PO8, PO9,PO12, PSO1, PSO2
12	2017-2018	Modern Tools Usage, Project Management and Finance, Lifelong Learning,	Seminar on Java Application Development	13-04-2017	Mrs. Sunitha M Asst. Professor, Dept of ISE RRIT, Bangalore	45	PO5,PO6, PO11, PO12, PSO1, PSO2
13	2017-2018	Modern Tools Usage, Engineer and Society, Project Management and Finance Lifelong learning	Seminar on Connect to the world of IT Networks	08-04-2017	Dr. Madhu B K Professor and Head Dept of ISE RRIT, Bangalore	48	PO5, PO6, PO9, PO11, PO12, PSO1,PSO2

2019-20

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Use of Modern tools, Engineer and Society, Project Management and Finance	Course on Aircraft and aerospace engineering	24/10/2019	Nataraj Ramanna, CEO Centre of excellence in aerospace and Defence	66	PO5, PO6, PO11, PSO2
2	Use of Modern tools, Engineer and Society, Ethics, Individual and team work	Seminar on Quality assurance Testing on applications using Latest Tools	14/09/2019	Mr. B M Sapthsagar, Quality test Manager, NTT data global village, Bangalore	91	PO5, PO6, PO7, PO8, PO12, PSO2
3	Use of Modern tools, , Engineer and Society, Project Management and Finance, Individual and team work	Seminar on Emerging Trends and latest technologies in IT	30/08/2019	Mr. Subhas, IT consultant, LIVEWARE	90	PO5, PO6, P O9, PO11, PSO2
4	Use of Modern tools, Ethics, Individual and team work, Lifelong Learning	Seminar on Ip address in Computer Networks	23/06/2020	Dr. Mohan Kumar, MSRIT, Bangalore	86	PO5, PO8, PO9, PO12, PSO2
5	Use of Modern tools, Engineer and Society, Individual and team work, Lifelong Learning	Seminar on Food Technology in Machine Learning	26/05/2020	Dr. Gururaj H L, Professor, Vidyavardhaka College of Engg, Mysore	90	PO5, PO6, PO9, PO11, PO12, PSO2
6	Use of Modern tools, Individual and team work, Lifelong Learning	Workshop on Introduction to Python and Machine Learning	19/02/2020	Mr. Sudarshan Manager Chira information Technology, Bengaluru	93	PO5, PO9, PO12, PSO1, PSO2

2018-19

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Contextual knowledge Environment and sustainability & Lifelong learning	workshop on Python Programming	30/08/2017	Prof.Jahnavi N L Asst. Professor, ISE Department	88	PO5, PO9, PO10, PO12 , PSO1, PSO2
2	Use of Embedded Technologies, Individual and team work, Lifelong learning	workshop on ARM Processor and its Applications	24/04/2019	Dr. Srinivas Setty Chief Technical officer, SSP Technologies Bengaluru	41	PO5, PO9, PO12, PSO2
3	Techniques, Contextual knowledge, Environment and sustainability, Lifelong learning	workshop on Computer communication network and applications	27/02/2019	Mrs. Sunita Amingad, Technical Manager, Jetking Sadashiv Nagar Bangalore	36	PO5, PO9, PO10, PO12, PSO2

2017-18

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Modern Tools Usage, Engineer and Society, Project Management and Finance Lifelong learning	seminar onConnect to the world of IT Networks	08/04/2017	Dr. Madhu B K Professor and Head Dept of ISE RRIT, Bangalore	80	PO5, PO6, PO9, PO11, PO12, PSO1,PSO2
2	Modern Tools Usage, Project Management and Finance, Lifelong Learning	seminar on Java Application Development	13/04/2017	Mrs. Suneetha M Asst. Professor, Dept of ISE RRIT, Bangalore	75	PO5,PO6, PO11, PO12, PSO1, PSO2
3	Use of Modern tools, Ethics Individual and Team work, Lifelong learning	seminar on Object oriented Concepts with Java	08/02/2017	Mrs. Vani Sapthasagar Asst. Professor, Dept of ISE RRIT, Bangalore	83	PO5, PO8, PO9,PO12, PSO1, PSO2
4	Use of Modern Technologies, Engineer and Society, Project Management and Finance, Lifelong learning	workshop on Apple mobile App Development	16/08/2017	Mr. Shibu M V, Senior Techno commercial manager & Ms. Valentina M, Business Development Manager, Brilliant Distribution pvt ltd.	73	PO5, PO6, PO11, PO12, PSO1, PSO2

2.2 Teaching - Learning Processes (100) Total Marks 78.00

2.2.1 Describe processes followed to improve quality of Teaching & Learning (25) Institute Marks : 20.00

A. ADHERENCE TO ACADEMIC CALENDAR

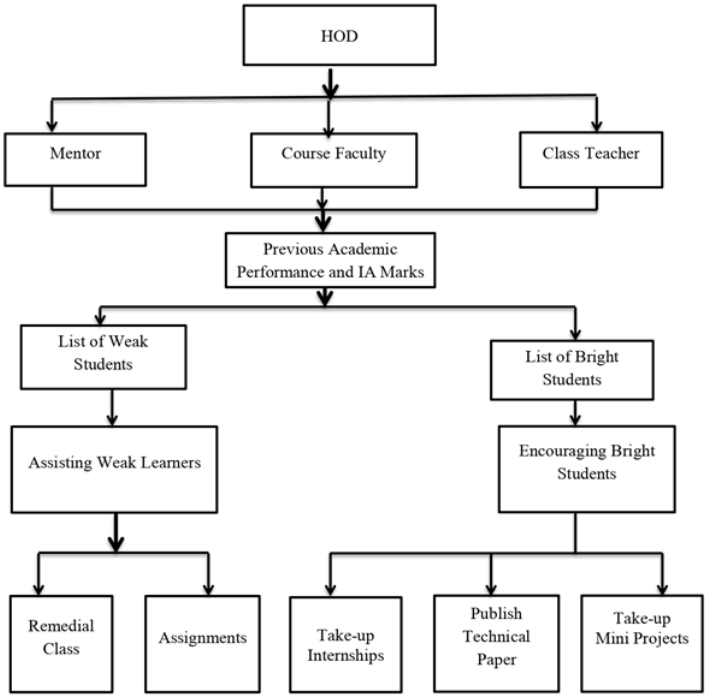
- Based on the University Calendar of Events, the Institute Calendar of Events will be prepared before the commencement of Semester and it will be circulated to all the Departments. The Department Academic calendar is prepared as per the University Academic Calendar and Institute Calendar of Events, considering the VTU guidelines of the first and last working days and University Holidays.
- The Department Calendar of Events consists of the activities planned from the gaps in attaining the PO's , internal exam dates,co-curricular & sports activities, schedule for IA-tests and Parents-Teachers Meeting etc.
- Courses are allotted to the faculty members for the forthcoming semester immediately after the end of the previous semester looking into the faculty specialization, experience and workload. Once the courses are allotted faculty members will prepare a Lesson Plan as per the Lesson Plan Template. Course files consisting of timetable, Calendar of Events, Lesson plan, Assignments, question bank, previous year question papers are collected and maintained by the faculty.
- The Department ensures that the specified contact hours for theory & laboratory as per university scheme is maintained in spite of unforeseen unscheduled holidays.

B. USE OF VARIOUS INSTRUCTIONAL METHODS AND PEDAGOGICAL INITIATIVES

- Faculties and students are instructed to attend the FDPs/Seminars, Workshops, Training Programs and Awareness Programs on latest technology.
- Faculty members deliver lectures on soft skills topic, beyond the normal curriculum, in the respective course, related to technology developments.
- Innovative teaching learning process is implemented as per the guidelines and format of the college while preparing lecture notes, lesson plan and course plan. Depending on the requirement of the courses video lecturing, power point Presentations, Blended Learning, Bridge Courses, Project Based Learning, flipped classroom ,Quizes and Invited talks are arranged.
- In each Semester, the difficult subjects are identified for which Tutorial Classes and Remedial Classes are conducted.
- Students select some of the topics mentioned in the best practice lectures for their main project work
- The students learn new concepts in the respective subjects, beyond curriculum.

C. METHODOLOGIES TO SUPPORT WEAK STUDENTS & ENCOURAGE BRIGHT STUDENTS.

Figure 2.2.1(a) Process of identifying and assisting weak and bright students



i.Identification of Weak students and action taken

- Identification of weak students is based on VTU Examination results and also marks obtained from the Internal Assessment.
- For the Improvement of weak students faculties will conduct Remedial/Tutorial Classes and continously monitor their attendance by providing study aids.
- The Faculty conducts class test and give assignments to improve their result.

ii. **Identify Bright Students:**

- The bright students are identified from the university result .
- The bright students are encouraged to participate in workshops,Student Development programs, Industrial visits, Guest Lecture, Awareness Programs and Seminars to gain knowledge on the latest developments.
- The students are motivated to attend Conferences and publish the papers in National/ International conferences and Journals.
- Toppers names & photos are published in department notice boards, newsletters & college magazines.
- Encouraged to take up innovative projects and apply for funding.
- The bright students having high academic track records are encouraged by faculties to achieve university ranks.

Impact analysis

- Improved results and less number of failures in each subjects.
- Achieve their goals with good percentage of marks and aiming at getting university ranks.
- Many students have published papers in conferences and improved their confidence level.

D.QUALITY OF CLASSROOM TEACHING

Quality of teaching is a very important factor for quality learning. The few aspects are considered to ensure a good quality classroom teaching which are specified below

1)Classroom ambience is made interactive.

2) Complex tutorial problems are solved in the class rooms by the Faculty and students together.

3) Principal and Head of Department regularly maintain monthly academic progress to observe the teaching process. Also convey their suggestions and appreciations to the Faculty member.

4)Standard college format of presentation is been maintained.

E. CONDUCT OF EXPERIMENTS

- Laboratories are well equipped with adequate number of experimental set-ups, computers & peripherals. Qualified lab instructor is allotted for all the batches of labs for its smooth functioning.
- Faculty members of respective specialization will prepare the manual, material requirements, conduction of experiments before commencement of semester, executed by respective lab in-charges, who handles such lab oriented Courses.
- Faculty members prepares the laboratory course file that includes laboratory lesson plan.
- Faculty members ensure that the students conduct all the experiments as per the University Syllabus.
- Students executes the program/experiments with output, related theory and algorithm / flowchart is documented in the Observation Book. The conducted experiment/program, theory related to the experiments and results are documented in the Record Book. The Observation Book and the Record Book is evaluated by the faculty based on their performance as a process of continuous evaluation .
- Standard and probable Viva questions for all the experiments are prepared and maintained in the Laboratory Manual/Course File.

F. **CONTINUOUS ASSESSMENT IN THE LABORATORY**

- In every laboratory session, continuous evaluation of students is done by the faculty for 10 marks for CBCS Scheme based on the Rubrics as shown below and the average marks of all session will be considered for awarding final internal assessment.
- Table 2.2.1(i), Table 2.2.1(ii) and Table 2.2.1(iii) list the rubrics for continuous evaluation in every lab session and internal assessment respectively

Table 2.2.1(i) Rubrics for Assessment in the Laboratory

VTU Scheme	Continuous Evaluation in every lab session		Laboratory Internal Test			Total marks
	Record submission	Conduction & Viva	Execution	Write up	Viva Voce	

2015 Scheme	5	5	5	3	2	**20**

Table 2.2.1(ii) Rubrics used for continuous evaluation in every lab session (CBCS)

Parameters	Allocated Marks	High	Medium	Low
Conduction	3	Given Program executed/circuit rigged up with output.	Given Program Partially executed/ circuit rigged up with Partial output	Given Program not executed/ circuit rigged up with no output
Viva Voce	2	Student answered all the viva voce questions	Student Answered only a few viva voce questions	Student did not answer any viva voce question
Record writing	5	completed record was submitted	Record was submitted but incomplete	Record was not submitted in the lab session

Table 2.2.1(iii) Rubrics used for continuous Evaluation of lab internals

Parameters	Allocated Marks	High	Medium	Low
Write up	5	Student was able to write Program/algorithm correctly/ design and draw the circuit diagram with expected output	Student was able to write Program/algorithm correctly/ design and draw the circuit diagram with expected output Partially	Student was unable to write Program/algorithm correctly/ design and draw the circuit diagram with expected output Partially.
		3-5 Marks	1- 2 Marks	0 Marks
Execution	3	Student was able to conduct the given experiment with output.	Student was partially able to conduct the given experiment.	Student was not able to conduct given experiment
		3 Marks	1- 2 Marks	0 Marks
Viva Voce	2	Student answered all the questions.	Student answered only few question	Student did not answer any question
		2 Marks	1 Marks	0 Marks

Impact Analysis

- Very good results in laboratory examination.
- With continuous evaluation the students are made to practice and understand practical approach towards learning the concept and the same will contribute to the total marks scored by the student.
- Improvement in analytical abilities of students thus improves the placement.

G Students feedback of teaching learning process and action taken

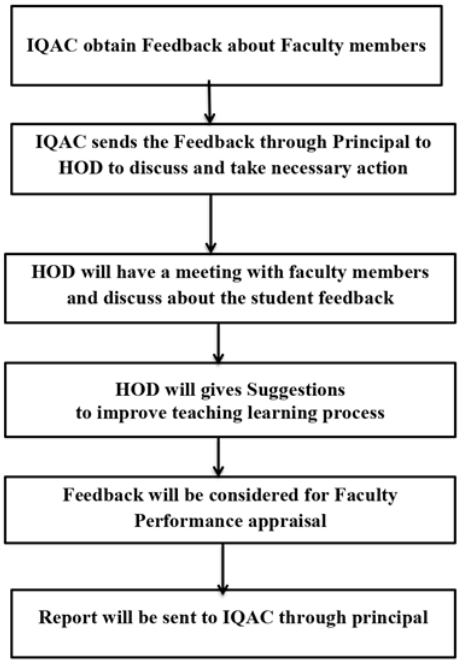
Student's feedback is taken from students on the effectiveness of teaching and subject learning at different points during the semester.Feedback will be taken at the end of semester during practical exams. The feedback issummarized and communicated to all faculty members. This feedback is considered part of Self Appraisal of the faculty member .

- Faculty Feedback Performance for every course is assessed from the students with various parameters.
- The parameters of Feedback includes:

  - Is faculty punctual to the class?
  - Does teacher come with adequate preparation for the class?
  - Does faculty use blackboard for illustration and solving the problems effectively?
  - Does the faculty solve problems from VTU Question paper in the class?
  - Does the faculty encourage student's interaction in the class?
  - Does faculty answer the question satisfactorily?
  - Does the faculty value the bluebooks on time and give the solutions to the test questions?
  - What is your rating for the faculty?

The process for the student feedback on teaching learning in Figure 2.2.1(b)

Figure 2.1.1(b) Process for the student feedback on teaching learning



2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20) Institute Marks : 18.00

A. **Process for Internal Assessment:**

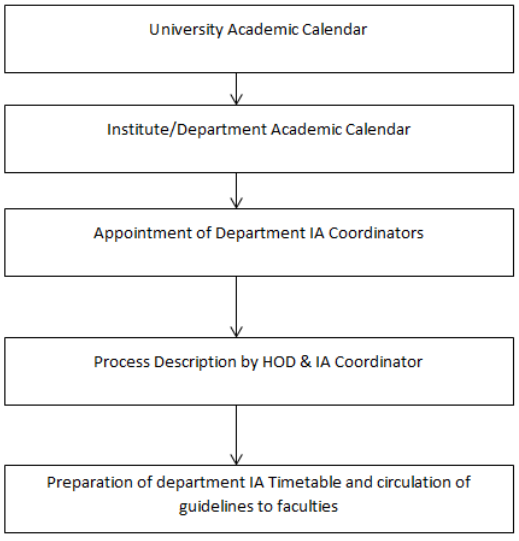
IA Schedule:

1. University Academic calendar will be circulated by VTU.
2. Principal and HoD will prepare institute academic calendar in-line with University Academic calendar to finalize the IA dates.
3. Appointment of department IA coordinator by respective Head of the department for IA conduction.
4. The following parameters of IA guidelines will be discussed by HOD with IA coordinator which involves:

- Preparing IA schedule
- Allotment of rooms and invigilators.
- Collecting blue books, question papers, scheme and solution as per schedule
- Required number of photocopies of the question papers has to be taken by IA Coordinators
- Recording absentee details.
- Display of IA
- VTU IA entry
- Any other assignments as given by the HOD/Principal

5. Department IA coordinator will circulate and brief about the IA conduction with faculty members.
6. Internal Assessment schedule Process is shown in the figure 2.2.2(a)

Figure 2.2.2(a) Intrenal Assessment Schedule Process

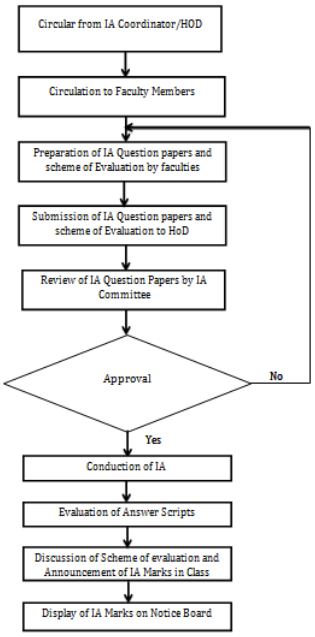


Internal Assessment Conduction Process:

1. The IA Coordinator will circulate the IA schedule to all faculties with the approval of HOD.
2. In-line with the circular the IA Coordinator will prepare IA time table and brought to the notice of all faculty members.
3. All the faculty members are instructed to prepare IA question paper along with scheme and solution. The same will be submitted to the HOD.
4. The submitted IA question papers will be reviewed and approved by the IA Committee and changes or corrections if any will be brought to the notice of concerned faculty members.
5. By Incorporating the changes or corrections if any, the IA question paper will be resubmitted to IA Committee for approval.

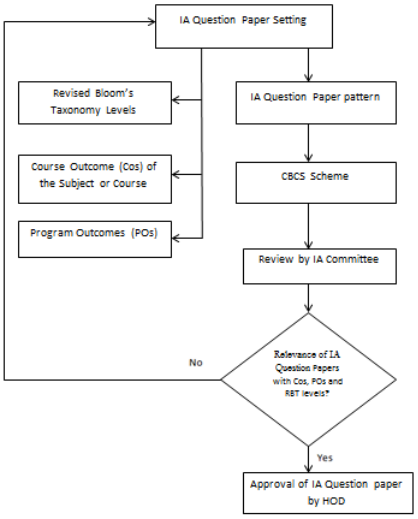
6. After the approval of IA question paper by IA Committee, IA will be conducted as per given schedule.
7. Faculty members will evaluate blue books as per the approved scheme and solution.
8. IA marks along with scheme of evaluation will be discussed with the students and grievances if any will be addressed by Course faculty.
9. Final IA marks will be displayed to the students.
10. Internal Assessment Conduction Process is shown in the figure 2.2.2(b)

Figure 2.2.2(b) Internal Assessment Conduction Process



B. Process to ensure quality of IA Question Paper:

Figure 2.2.2(c) Process for quality of internal assessment question paper



Description:

A question paper is the basic tool used in a test or examination. Question paper must be prepared in a way that can measure the change in the level of students' knowledge in a particular subject. The document as proof of attainment of course and program outcomes depends on several factors including course outcomes of the course, program outcomes, and mapping of COs with POs, quality of questions in the internal assessment to achieve the desired outcomes.

Table 2.2.2(i) CIE Marks for different schemes prescribed by VTU

Continuous Internal Evaluation			
Scheme	**Maximum Marks for IA**	**Assignments**	**Total marks**
2015	15	5	**20**

C. CO's coverage in Internal Assessment

- The Internal Assessment test is conducted based on the syllabus covered by the faculty.
- Based on the module coverage of each course the respective CO's will be aligned.
- The question paper will be set based on following considerations:

1. By keeping syllabus coverage plan as reference the Internal Assessment test question paper shall be prepared.
2. IA is conducted every 4th and 5th week of academic calendar as per the syllabus Coverage.
3. Table 2 shows the Maximum number of IA questions to be given along with Marks allocated for schemes prescribed by VTU.
4. The IA Questions shall be mapped to Course Outcomes (COs), Revised Blooms Taxonomy (RBT) Levels, and Program Outcomes (POs) to understand the level of attainment.

Table 2.2.2(ii) Maximum number of IA test questions and Marks

Scheme	**2015**

Maximum Number of Questions	**5**
IA1 Marks	40
IA2 Marks	40
IA3 Marks	40
Average IA Marks (A)	**Average(Best of Two IA)*0.75**
Assignments (B)	5
Total IA marks	(A+B)

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

- Assignments are integral part of the continuous assessment process to ensure that students apply and analyze the knowledge to raise the level of learning.
- The course faculty will look in to the syllabus content for setting the assignment questions.
- The assignment questions should be approved by HOD. After the completion of every module, assignment questions will be given to students, and student has to write & submit to the course faculty. The same will be evaluated and recorded by course faculty.
- Evaluation of the assignment according to rubrics defined and Attainment level based on following criteria.

Figure 2.2.2(d) Rubrics for evaluation of assignments

2015 Scheme Max Marks-5 Marks Scored	% of Students	Attainment Level
5	≥60	3
3 to 4	≥40 and <60	2
1 to 2	<40	1

2.2.3 Quality of student projects (25)

a) Identification of projects and allocation methodology to Faculty Members

- Head of the department, Project Coordinator & Faculty educates students with different verticals, domains and areas.
- The project coordinator advises the students to form a group of 2 to 4 members and identify the project area or title.
- Department encourages on undertaking relevant, achievable, time bound projects that attempt to solve recent technology in Computer Science & Engineering. Also students can r journals. Such projects could also be extension of previous/on-going works also.
- Project coordinator lists the types of projects on the basis of Environment, Safety, Ethics, and category of project i.e. whether it is application based, Product Development based or Rese
- Head of the department along with project coordinator depending upon the faculty specialization, allocate the guides for project team.
- Project coordinator along with guides finalizes the project titles and abstract.
- The students approach the guide and discuss their ideas.
- Teams are informed to submit the synopsis with presentation. If any corrections, the project team should modify and resubmit the synopsis.
- The head of the department will approve the project.
- The processes of student project is carried in final year as shown in figure 2.2.3(a) and table 2.2.3(i) gives project scheduling.

Figure 2.2.3(a) Process defined for Student Project

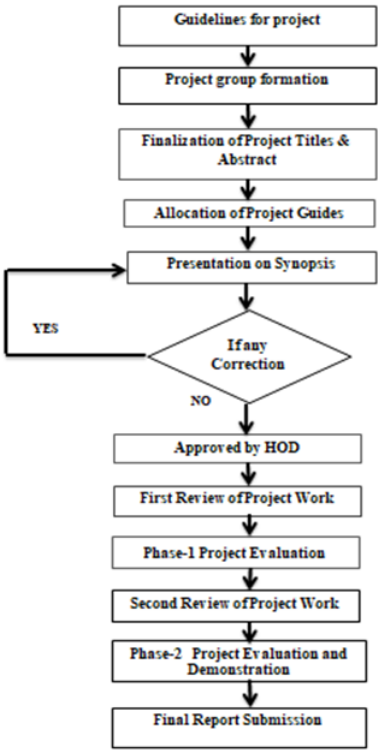


Table 2.2.3 (i): Process of Project Schedule

Schedule	Task	Details
7th Semester		
2nd week	Call for project batch	Students are informed to form their batch.
4th week	Call for Project titles with abstract submission	Students are instructed to submit the title with abstract.
6th week	Guide allotment.	Guide allotment based on the domain and expertise.
8th week	Presentation of Synopsis	Presentations are reviewed by a Project coordinator, Head of the department and senior faculty along with Guide
13th week	Phase1 First Review	Review of requirement by guide and Coordinator
16th week	Phase1 Final Review	Project coordinator, Head of the department and senior faculty along with guide will review the requirements and Design of the project.
8th Semester		
8th week	Phase2 First Review	Review of progress regarding implementation & validation by guide and Coordinator
13th week	Phase2 Final Review	Review of Testing of project with complete presentation & Demonstration by a Project coordinator, Head of the department and senior faculty along with Guide.
15th week	Report submission	Submission of the final report duly signed by the guide, HOD, and Principal.

Initiatives taken

- The HOD, project coordinator and faculty motivates the students to carry out projects in house. If some students are keen in undertaking projects at industries are permitted.
- Project Coordinator and the Project Guide will examine the quality of the project work and ensure that the project is Societal and Environmental related.
- Institute conducts a Project Exhibition called “Meraki” which recognizes and encourages students in developing innovative projects. In the exhibition the projects are evaluated by experts is selected and awarded based on the quality of the project.
- The students are encouraged to participate in conferences to present and publish their work.
- Also the students are motivated to publish in international journals.
- Motivated to apply for funds under various external funding schemes such as KSCST, VTU, etc.

b) Types and relevance of the projects and their contribution towards attainment of POs and PSOs

- Current academic projects are mapped to POs and PSOs.
- Each project is evaluated with internal marks and is graded according to their project quality and with their contribution towards attainment of PO’s.
- The below table 2.2.3(ii) shows sample Projects which are contributed towards attainment

Table 2.2.3(ii) Sample projects of Students

Sl No	Project Title	POs/PSOs
1	Automated Cardiac Monitoring System for Pervasive Healthcare Services	PO6,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
2	Evaluating the Real-Time Air Quality Data Using IOT.	PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
3	Air Pollutant vehicle tracking system based on IOT	PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2

c) Process of Monitoring and Evaluation:

Process of Monitoring

- All project team should submit the final synopsis to the guide, the project guides gives suggetions towards the improvement of project.
- The progress of a project is monitored by the guide on weekly basis and they have to report the updates to the respective guide every weekend.
- The project guide and coordinator gives suggestions to students from time to time that they need to incorporate before the submission of final report.
- Using the rubrics mentioned in below table, the project guide, coordinator along with head of the department will evaluate the project work.
- Monitoring will be for both ODD and Even semesters of final year.

ii) Process of Evaluation

a) Internal Evaluation:

The project work and the report will be evaluated by guide, coordinator and head of the department in both ODD and Even semesters of final year. The table 2.2.3(iii) gives the evaluation of

Table 2.2.3(iii): Evaluation of Project Work

Review No	Agenda	Review Assessment weightage (Marks)
1	Project Synopsis	-
2	Project Phase1-First review	50% (50)
3	Project phase1-Final review	50% (50)
ODD Sem-Total Internal Weightage (Marks)		100% (100)
4	Project phase2-First review	50% (50)
5	Project phase2-Final review	50% (50)
Even Sem-Total Internal Weightage (Marks)		100%(100)

b) External Evaluation:

The Final Projects are evaluated by Internal and External examiners as appointed by the university.

The external examiner is from other affiliated college.

The examiners conduct viva-voce examination for the students. The project teams will come forward and defend the carried out project work. Based on the performance in viva-voce examin awarded to the students that are sent to university.

d) Process to assess individual and team performance

The Individual and team performance is assessed in the project work based on the following.

Evaluation is carried out based on various criteria such as

a. Problem Formulation
b. Planning
c. Technical
d. Communication
    a. Presentation
    b. Documentation
e. Team work
a. Group participation
b. Peer review
c. Societal or environmental issues
d. Individual Roles and Responsibilities

Evaluation is carried out on individual basis as well as on team performance. At the end of the academic year, students present and demonstrate their work to the external and internal examine university. The evaluation will be done based on the below rubrics.

Table 2.2.3(iv): Rubrics1 for Project Phase 1 first Assessment

Agenda	Max. Marks	Rubric Parameter	Level of Marks				
			Excellent	Very Good	Good	Average	Poor
					Review-1		
Problem Statement	5	Identifying the Problems in the selected domain	Problem statement well defined 5 marks	Problem statement has slight changes 4 marks	Problem stateement has few changes 3 marks	Problem statement has major changes 2 marks	Problem statement should b
Scope & Objectives	5	The Scope and objectives to be identified	Scopes and objectives are identified correctly 5 marks	Scope and objectives are identified but objectives need few changes 4 marks	Scope and objectives are identified but require moderate changes 3 marks	Scope and objectives are identified but require lot of changes 2 marks	Scope & objectives are not c 1 mark
Requirements	20	Gathering all the Hardware and Software requirements	Gathered Hardware & Software requirements are correct 20 marks	Hardware requirements are approriate, where as Software requirements can be modified 18 marks	Hardware requiremens & Software requirements need few changes 16 marks	Hardware requirements and software requirements are not well defined 14 marks	Hardware & Software require defined 12 marks
Presentation	10	Preparation of Slides, Presentation Consistency	Relevant and consistent 10 marks	Relevant & partially consistent 8 marks	Partially relevant & consistent 6 marks	Partially relevant & partially consistent 4 marks	Partially relevant & inconsistent 3 marks
Viva	5	Handling Questions	Answered all questions with proper justification 5 marks	Answered 80% questions 4 marks	Answered 60% questions 3 marks	Answered 40% questions 2 marks	Answered 20% questions 1 ma
Total Weightage(Marks)			50				

Table 2.2.3(v): Rubrics2 for Project Phase1 final Assessment

Agenda	Max. Marks	Rubric Parameter	Level of Marks				
			Excellent	Very Good	Good	Average	Poor
Review-2							
Methodologies	15	The Particular Method/Technique involved been adopted	Methodology Properly followed & justified 15 marks	Methodology Properly followed & Justified partly 12 marks	Methodology Properly followed & Not Justified 10 marks	Methodology Partially followed and Partially Justified 8 marks	Methodology Partially followed and Not justified 6 marks
UML Design	20	Conceptual design, Division of problem into modules, Selection of design framework.	Properly Followed & Properly implemented 20 marks	Properly Followe d & implemented partly 18 marks	Properly followed & Not impleme nted 16 marks	Partially Followed and Partially implemented 14 marks	Partially followed and Not impleme nted 12 marks
Presentation	10	Preparation of Slides, Presentation Consistency	Relevant and consistent 10 marks	Relevant & partially consistent 8 marks	Partially relevant & consistent 6 marks	Partially relevant & partially consistent 4 marks	Partially relevant & inconsistent 3 marks
Viva	5	Handling Questions	Answered all questions with proper justification 5 marks	Answered 80% questions 4 marks	Answered 40% questions 2 marks	Answered 40% questions 2 marks	Answered 20% questions 1 mark
Total Weightage(Marks)		50					

Table 2.2.3(vi): Rubrics3 for Project Phase2 first Assessment

Agenda	Max. Marks	Rubric Parameter	Level of Marks				
			Excellent	Very Good	Good	Average	Poor
Review-3							
Implementation	20	Executing project as per work plan.	Project implementation is complete 20 marks	Project implementation is complete with few bugs 16 marks	Project implementation is complete with few issues 14 marks	One module features developed is not complete 12 marks	Most of the features are not yet complete. 10 marks
Verification & Validation	15	Software system satisfies specifications and standards as defined in requirements phase.	Relevant and consistent 15 marks	Relevant & partially consistent 12 marks	Partially relevant & consistent 10 marks	Partially relevant & partially consistent 8 marks	Partially relevant & validation is inconsistent 6 marks
Presentation	10	Preparation of Slides, Presentation Consistency	Relevant and consistent 10 marks	Relevant & partially consistent 8 marks	Partially relevant & consistent 6 marks	Partially relevant & partially consistent 4 marks	Partially relevant & inconsistent 3 marks
Viva	5	Handling Questions	Answered all questions with proper justification 5 marks	Answered 80% questions 4 marks	Answered 40% questions 2 marks	Answered 40% questions 2 marks	Answered 20% questions 1 mark
Total Weightage(Marks)		50					

Table 2.2.3(vii): Rubrics3 for Project Phase2 final Assessment

Agenda	Max. Marks	Rubric Parameter	Level of Marks				
			Excellent	Very Good	Good	Average	Poor
Review-4							
Testing	10	Testing		Relevant & partially		Partially relevant	Partially relevant & validation is inconsistent 2

		involves unit level, system level and integration level	Relevant and consistent 10 marks	consistent 8 marks	Partially relevant & consistent 6 marks	& partially consistent 4 marks	marks
Demonstration	10	Project Demonstration	Relevant and consistent 10 marks	Relevant & partially consistent 8 marks	Partially relevant & consistent 6 marks	Partially relevant & partially consistent 4 marks	Partially relevant & validation is inconsistent 2 marks
Presentation	5	Preparation of Slides, Presentation Consistency	Relevant and consistent 5 marks	Relevant & partially consistent 4 marks	Partially relevant & consistent 3 marks	Partially relevant & partially consistent 2 marks	Partially relevant & inconsistent 1 mark
Viva	5	Handling questions	Answered all questions with proper justification 5 marks	Answered 80% questions 4 marks	Answered 40% questions 3 marks	Answered 40% questions 2 marks	Answered 20% questions 1 mark
Project Report	20	Report format	Relevant and consistent 20 marks	Relevant & partially consistent 18 marks	Partially relevant & consistent 16 marks	Partially relevant & partially consistent 14 marks	Partially relevant & inconsistent 12 marks
Total Weightage(Marks)		**50**					

e) Quality of completed projects/working prototypes

All projects carried out by the students are categorized on the basis of types of projects such as application based projects, products based, research based and review based. The summary o projects is given in table 2.2.3(xi) is describing the number of projects completed by students of batch categorized as product based and research based.

Table 2.2.3(viii) Sample completed projects

Sl No	Project Title	POs/PSOs
1	Identification of Parkinson's Disease using ML Algorithms	Research Oriented Project
2	Evaluating the Real-Time Air Quality Data Using IOT.	Product Oriented Project
3	Chat-Bot for college Management	Application Oriented Project

Evidences of Paper Published/Awards

- Every group is motivated to write a technical paper/report or to participate in project competition organized by various engineering colleges.
- Students are provided with the 'research article formats' of various conferences or journals.

Table 2.2.3(ix) List of Student Publications

Sl No	Students Name	Name of the Organization/ Institute	Year	Title	ISSN NO
1	V. Anjali,K.Renuka, V.Namitha	International Journal of Research in Engineering, Science and Management	May 2019	Automated cardiac monitoring System for pervasive health care services in THINGSPEAK Cloud with KNN Algorithm	ISSN(Online): 2581-5792
2	Jayanth C R, Kavya C, Varsha K, Yashaswini R	International Journal of Innovative Research in Computer and Communication Engineering	June 2020	IOT based vehicle Emission Monitoring system using Raspberry Pi	e-ISSN: 2320-9801
3	Ganesha M, Pruthviraj S, Sharath R, Sushmitha N C	International Journal of Innovative Research in Computer and Communication Engineering	July 2020	A machine learning Approach for stock forecasting using regression Algorithm	e-ISSN: 2320-9801
4	Rajendra Tharu, Ranjan KC, Md. Irfan musalman, Shibam Mallick	International Journal of Innovative Research in Science, Engineering and Technology	July 2020	Brain Tumor Detection and Classification using Machine Learning	e-ISSN: 2319-8753

5	Ashish Acharya, Shailesh Man, Samir Paudyal, Ichchha parajuli	International Journal of Innovative Research in Computer and Communication Engineering	July 2020	Attendance Management system using face Recognition	e-ISSN: 2320-9801
6	Shantharuban A, Vinay N Holla, Vidya K S	International Journal of Innovative Research in Science, Engineering and Technology	July 2020	Chat-Bot for College Management using NLP and ML	e-ISSN: 2319-8753
7	S Aishwarya Rao, Rubina shrestha, Pooja Tiwari	International Journal of Innovative Research in Science, Engineering and Technology	July 2020	Credit Card Fraudulent Transaction Detection	e-ISSN: 2320-9801
8	Arasan J, S Shivakumar , Adithya U	International Journal of Innovative Research in Science, Engineering and Technology	July 2020	Vehicle Number Plate Detection Using Image Processing and OpenCV-Python	e-ISSN: 2319-8753
9	Saurab Kandel, Ajesh Mahato	International Journal of Innovative Research in Computer and Communication Engineering	July 2020	Vehicle Monitoring and accident Alert system Using IOT	e-ISSN: 2320-9801
10	Sadip karki, Madhav Baiju	International Journal of Innovative Research in Computer and Communication Engineering	June 2020	Digital Signature for E-Governance-Security & Authentication	e-ISSN: 2320-9801
11	R Kruthika, Swathi R, Ranjitha V	International Journal of Innovative Research in Computer and Communication Engineering	June 2020	Surveying and analysis of Parkinson disease by applying ML Algorithm	e-ISSN: 2320-9801
12	Niveda r, Bindhushree BS, Dhanyatha M, Sachin S	International Journal of Innovative Research in Computer and Communication Engineering	June 2020	Design and implementation for Drowsiness and alcohol Intoxication detection of Driver	e-ISSN: 2320-9801
12	R Kruthika, Swathi R, Ranjitha V	International Journal of Innovative Research in Science, Engineering and Technology	June 2020	Estimation and evaluation on Parkinson disease by implementing ML Algorithm	e-ISSN: 2319-8753
13	Niveda r, Bindhushree BS, Dhanyatha M, Sachin S	International Journal of Innovative Research in Computer and Communication Engineering	June 2020	Survey on Driver drowsiness detection and alcohol intoxication	e-ISSN: 2320-9801

Process to define best project

- The project synopsis submitted by the student to the project coordinator through their guides
- Scrutinizing the synopsis is carried out by HOD, Project coordinator and respective guide.
- In case of requirement of modification students are asked to resubmit the synopsis.
- On receiving the final synopsis based on real time solution, societal issues and research oriented the projects are classified.
- Various project competitions and funding agencies are Identified and the students are encouraged to participate
- If the project is selected for funding or recognized in project competitions such projects are considered as best projects.

2.2.4 Initiative related to industry interaction (15)

Institute Marks : 10.00

Industry Initiatives :

- Every Semester the Department conduct Guest Lecture / Seminars/Workshops/Student Development Programs for the Students during academic period of the semester. Industry experts are invited to deliver Technical Talks related to the respective semester subjects.
- To strengthen interaction with industries and to keep our students updated with the latest trends in Information Science & Engineering, the Department has started collaboration with the IT Companies

Table 2.2.4(i) Industry involvement in partial delivery of Programs for students

Sl. No.	Program Name	Year
1	Workshop on Python Programming	2018
2	Workshop on Aircraft and Aerospace Engineering	2019
3	Technical Seminar on Introduction to Python and Machine Learning	2020

Functional MOU's

Table 2.2.4(ii) Functional MOUs

Sl. No.	Organisation with which MoU is signed	Year of signing MoU	Duration
1	Manyathy Business Solutions	1st Aug 2020	Lifelong
2	KarunaduTechnologiesPvt. Ltd.	1st Aug 2020	Lifelong
3	ParvamConsulTechPvt. Ltd.	20th Feb 2020	Lifelong
4	Acranton Technologies Pvt. Ltd.	3rd Feb 2020	2 years
5	SST Technologies	10th Jan 2020	Lifelong
6	Jet King	30th Jan 2019	3 years
7	LivewirePowered by cadd centre	2nd June 2018	3 years

- **Impact analysis of industry institute interaction**

i. Curriculum gap if any is identified and measures taken to bridge the gap.
ii. Faculty members are enabled in certain industry specific technology.
iii. A few of the students who underwent internship got placed in related industry
iv. Students get exposed to the working nature and environment of industry
v. Helps in building inter personal skills and teamwork.
vi. Application of academia in industrial environment.
vii. Students have seen live project site and from this they have gained practical knowledge.

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2.2.5 Initiative related to industry internship/summer training (15) Institute Marks : 10.00

A. **Industrial Training/Tours for Students**

Table 2.2.5(i) Industrial Tour

Sl.No.	Industry	Program Name	Date of Visit	No. of Students& faculties
1	IISC-open Day	Open Day Exhibition	29/2/2020	43

Table 2.2.5(ii) Industrial Training

Sl. No.	Program Name	Year
1	Technical workshop on Apple mobile App Development	2018
2	Workshop on Aircraft and Aerospace Engineering	2019
3	Technical Seminar on Introduction to Python and Machine Learning	2020

B. Industry Internship/Training

Table 2.2.5(iii) Industry Internship/Training for the academic year 2019-20

Sl. No.	NAME	USN	COMPANY	INTERNSHIP TITLE
1	Jayanth C R	1RI16IS015	I-QUADTECHNOLOGIES	Home security system using Raspberr
2	Yashaswini R	1RI16IS051	I-QUADTECHNOLOGIES	Home automation using Raspberry pi
3	Niveda R	1RI16IS023	I-QUADTECHNOLOGIES	Colorsgamingusingpythonanduserinte
4	Shailesh Man Nakarmi	1RI16IS038	KARUNADUTECHNOLOGIESPRIVATE LIMITED	Wine quality testing
5	Vinay N Holla	1RI16IS050	PARVAM PVT LMT	Accuracy Predictor in Machine learnin
6	R Kruthika	1RI15IS038	NANO ROBOTICS EMBED TECHNOLOGIES	Trash can monitoring in smart cities
7	Ashish Acharya	1RI16IS008	KARUNADU TECHNOLOGIES PVT. LTD.	Wine Quality Testing
8	Arasan J	1RI15IS006	NANO ROBOTICS EMBED TECHNOLOGIES	Trash Can Monitoring In Smart Cities
9	S Aishwarya Rao	1RI16IS031	IGEEKS TECHNOLOGY	Facial recognition using machine learn
10	Ajeshmahato	1RI16IS003	KARUNADUTECHNOLOGIESPRIVATE LIMITED	Prediction of CAR Price
11	Madhav Baiju	1RI16IS019	KARUNADU TECHNOLOGIES PVT. LTD	Prediction of iris dataset
12	Varsha K	1RI16IS053	I-QUAD TECHNOLOGY	Home Security System Using Raspbe
13	Rubina Shrestha	1RI16IS030	KARUNADU TECHNOLOGIES PVT. LTD.	Boston Housing Price Prediction

14	Ranjan KC	1RI16IS028	KARUNADU TECHNOLOGIES PRIVATE LIMITED	PREDICTIONS OF HEIGHT & WEIGH
15	Swati R	1RI15IS032	NANO ROBOTICS EMBEDDED TECHNOLOGIES	Motion detection for home security
16	Puja Tiwari	1RI16IS026	KARUNADU TECHNOLOGIES PVT LTD	Boston Housing Price Prediction
17	Rajendra Tharu	1RI16IS027	KARUNADU INSTITUTE	prediction of height and weight
18	Ichchha Parajuli	1RI16IS013	KARUNADU TECHNOLOGIES PRIVATE LIMITED	Wine quality testing
19	Adithya	1RI15IS002	NANO ROBOTICS EMBED TECHNOLOGY	Trash can Monitoring in Smart cities
20	Sachin S	1RI16IS032	I QUAD TECHNOLOGIES	Home security system using raspberry
21	Bindushree	1RI16IS010	TECHNOFLY SOLUTIONS	Security Robot System
22	Sharath R	1RI16IS040	PARVAM PVT LTD	Job portal
23	Shantharuban	1RI16IS039	I-QUAD TECHNOLOGY	HOME SECURITY SYSTEM
24	Pruthviraj S	1RI16IS025	PARVAM PVT. LTD	My hub web application
25	Ranjitha V	1RI15IS025	NANO ROBOTICS EMBEDDED TECHNOLOGY	Motion detection for home security usi
26	Shubha S	1RI16IS042	PARVAM CONSUL TECH PVT.LTD.	My hub web application
27	Sushant Bhusal	1RI16IS046	KARUNADU TECHNOLOGIES PVT LTD	Loan Prediction Using Machine Learni
28	Vidya K S	1RI16IS049	PARVAM	My Hub web application
29	Saurab Kandel	1RI16IS037	KARUNADU TECHNOLOGY	Prediction of Iris data set using Machir
30	Dhanyata	1RI15IS039	TECHNOFLY SOLUTION	SECURITY ROBOT
31	Samirpaudyal	1RI16IS034	KARUNADU TECHNOLOGY	Prediction of iris data set
32	S.Shiva Kumar	1RI15IS030	SEAMOVATION LABS	Web development
33	Del Gurung	1RI16IS011	KARUNADU TECHNOLOGIES PVT. LTD	Loan Prediction using Machine Learnir
34	Bikash Poudel	1RI16IS009	KARUNADU TECHNOLOGIES PVT. LTD	Loan prediction using machine learnin
35	Sanjay Senchury	1RI16IS035	KARUNADU TECHNOLOGIES PVT. LTD	Loan prediction using machine learnin
36	Mohammadirfan Musalman	1RI16IS021	KARUNADU TECHNOLOGIES PVT. LTD	PREDICTIONS OF HEIGHT & WEIGH
37	Sushmitha S	1RI16IS047	PARVAM CONSUL TECH PVT.LTD.	My hub web application
38	Kavya C	1RI16IS016	I QUAD TECHNOLOGIES	Home automation using raspberry pi
39	Sadip Karki	1RI16IS033	KARUNADU TECHNOLOGIES PVT. LTD	Accident alert system
40	Shibam Mallick	1RI16IS041	CYBRAIN SOFTWARE SOLUTIONS PVT LTD	Sentimental Analysis

Table 2.2.5(iv) Industry Internship/Training for the academic year 2018-19

Sl. No.	Name	USN	COMPANY	INTERNSHIP TITLE
1	Bibek Shah S	1RI15IS009	ParvamConsultech	Book my smart slot(Hardware)
2	Bikendra T	1RI15IS010	ParvamConsultech	Book my smart slot(Software)
3	Sabin Bista	1RI15IS028	ParvamConsultech	Handling Database on Data Parse
4	Krishna R M	1RI15IS017	Igeeks Technologies	Face Detection using Python
5	Yogitha.M	1RI15IS037	Igeeks Technologies	Face Detection using Python
6	Bibek K	1RI16IS401	ParvamConsultech	Movie Ticketing Booking System
7	Rohit Upadhyay	1RI15IS027	Knowx Innovations	IOT based Car Parking System
8	Bibek Khatri	1RI15IS008	Novel innovation	Price analyser in application developn
9	Saroj D	1RI15IS029	Novel innovation	Web application development
10	Pavan N	1RI15IS023	CodeCatalysts	Temperature Sensor using Raspberry
11	Renuka.K	1RI15IS026	LiveWire	Restaurant Billing System
12	Namitha.V	1RI15IS021	LiveWire	Restaurant Billing System
13	Anjali.V	1RI15IS005	Apex Hitech	Pharmacy Management
14	Divya B N	1RI14IS009	ParvamConsultech	Event Mania
15	Suma V	1RI14IS026	Apex Hitech	Pharmacy Management
16	Aishwarya R	1RI15IS003	Apex Hitech	Pharmacy Management
17	Ajay Kumar Thakur	1RI15IS004	ParvamConsultech	Strategic Data Parsing (Registration V
18	Pancharam Chaudhary	1RI14IS018	ParvamConsultech	Strategic Data Parsing (Uploading File
19	Deepen P	1RI15IS011	ParvamConsultech	Strategic Data Parsing (File Upload &

C. Impact Analysis of Industrial Training

- Students are exposed to the industry environment and its work culture
- Students gained hands on experience of the concepts learnt in theory courses
- Students gained experience in projects and placements.
- Students are more confident in facing the placement drive and some of the students are placed in the same Industry.

D. Student Feedback on Initiatives

After each program we will take student feedback on the programs like Workshops, Seminars, Student Development Programs, Awareness Programs and industrial visits. Feedback is considered to do further improvement for the same.Parameters Considered for the calculation of Student Parameters

Table 2.2.5(v) Student Feedback on initiatives

PARAMETERS	SCALES				
Did the Event Meet Your Expectations	5	4	3	2	1
The quality of instruction was good	5	4	3	2	1
Participation and interaction were encouraged	5	4	3	2	1
Adequate time was provided for questions and discussion	5	4	3	2	1
I really enjoyed this event	5	4	3	2	1

The Audio and Video facilities were clearly audible and visible	5	4	3	2	1
Materials distributed are useful	5	4	3	2	1
The programme was well paced with the allotted time	5	4	3	2	1
Overall event was excellent	5	4	3	2	1
Would you recommend this event to others	5	4	3	2	1

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

Total Marks 105.00

Define the Program specific outcomes

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

Total Marks 17.00

:

PSO1	The ability to apply the knowledge of software fundamentals and strategies towards the work and various standards of computational industry.
PSO2	Able to design and develop software aspects which are necessary for IT based solutions.

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

Institute Marks : 5.00

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

Course Name :	C2 01	Course Year :	2018-2019

Course Name	Statements
C2 01.1	Use of periodic signals and Fourier series to analyse circuits
C2 01.2	Explain the general linear system theory for continuous-time signals and systems using the Fourier Transform
C2 01.3	Analyse discrete-time systems using convolution and the z-transform
C2 01.4	Use appropriate numerical methods to solve algebraic and transcendental equations and also to calculate a definite integral
C2 01.5	Use curl and divergence of a vector function in three dimensions, as well as apply the Green's Theorem, Divergence Theorem and Stokes' theorem in various applications
C2 01.6	Solve the simple problem of the calculus of variations

Course Name :	C2 12	Course Year :	2018-2019

Course Name	Statements
C2 12.1	Design a software system, component, or process to meet desired needs within realistic constraints.
C2 12.2	Assess professional and ethical responsibility
C2 12.3	Function on multi-disciplinary teams
C2 12.4	Use the techniques, skills, and modern engineering tools necessary for engineering practice
C2 12.5	Analyse, design, implement, verify, validate, implement, apply, and maintain software systems or parts of software systems.

Course Name :	C3 01	Course Year :	2019-2020

Course Name	Statements
C3 01.1	Define management, organization, entrepreneur, planning, staffing, ERP and outline their importance in entrepreneurship
C3 01.2	Utilize the resources available effectively through ERP
C3 01.3	Make use of IPRs and institutional support in entrepreneurship

Course Name :	C3 11	Course Year :	2019-2020

Course Name	Statements
C3 11.1	Discuss cryptography and its need to various applications
C3 11.2	Design and develop simple cryptography algorithms
C3 11.3	Understand cyber security and need cyber Law

Course Name :	C4 01	Course Year :	2020-2021

Course Name	Statements
C4 01.1	Adapt HTML and CSS syntax and semantics to build web pages.
C4 01.2	Construct and visually format tables and forms using HTML and CSS
C4 01.3	Develop Client-Side Scripts using JavaScript and Server-Side Scripts using PHP to generate and display the contents dynamically.
C4 01.4	Appraise the principles of object oriented development using PHP
C4 01.5	Inspect JavaScript frameworks like jQuery and Backbone which facilitates developer to focus on core features.

Course Name :	C4 11	Course Year :	2020-2021

Course Name	Statements
C4 11.1	Interpret the impact and challenges posed by IoT networks leading to new architectural models.
C4 11.2	Compare and contrast the deployment of smart objects and the technologies to connect them to network.
C4 11.3	Appraise the role of IoT protocols for efficient network communication.
C4 11.4	Elaborate the need for Data Analytics and Security in IoT.
C4 11.5	Illustrate different sensor technologies for sensing real world entities and identify the applications of IoT in Industry

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

Institute Marks : 5.00

1 . course name : C201

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

C201.1	3	3	2	2	-	-	-	-	-	-	-	-
C201.2	3	2	1	1	-	-	-	-	-	-	-	-
C201.3	3	3	2	2	-	-	-	-	-	-	-	-
C201.4	3	2	2	1	-	-	-	-	-	-	-	-
C201.5	3	3	1	2	-	-	-	-	-	-	-	-
C201.6	3	2	2	2	-	-	-	-	-	-	-	-
Average	**3.00**	**3.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2 . course name : C212

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

3 . course name : C301

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301.1	-	2	-	-	-	-	-	-	2	-	1	-
C301.2	-	-	3	-	-	-	-	3	-	2	2	2
C301.3	-	-	-	-	-	-	-	-	2	2	3	-
Average	**0.00**	**2.00**	**3.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.00**	**2.00**	**2.00**	**2.00**	**2.00**

4 . course name : C311

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311.1	2	2	2	-	-	-	-	-	-	-	-	-
C311.2	1	1	1	-	-	-	-	-	-	-	-	-
C311.3	-	-	-	-	-	1	-	1	-	-	-	-
Average	**1.50**	**1.50**	**1.50**	**0.00**	**0.00**	**1.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**

5 . course name : C401

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C401.1	-	1	-	-	2	-	-	-	2	-	-	-
C401.2	-	1	-	-	2	-	-	-	2	-	-	-
C401.3	-	2	-	-	2	-	-	-	2	-	-	-
C401.4	-	2	-	-	3	-	-	-	3	-	-	-
C401.5	-	-	-	-	3	-	-	-	3	-	-	-
Average	**0.00**	**1.50**	**0.00**	**0.00**	**2.40**	**0.00**	**0.00**	**0.00**	**2.40**	**0.00**	**0.00**	**0.00**

6 . course name : C411

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C411.1	2	-	-	-	-	-	-	-	-	-	-	2
C411.2	-	-	2	-	-	-	-	-	-	-	-	2
C411.3	-	2	-	-	-	-	-	-	-	-	-	2
C411.4	-	-	-	2	-	-	-	-	-	-	-	2
C411.5	-	-	-	-	2	-	-	-	-	-	-	2
Average	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**

1 . Course Name : C201

Course	PSO1	PSO2
C201.1	2	-
C201.2	3	1
C201.3	2	-
C201.4	1	1
C201.5	2	-
C201.6	3	-
Average	**2.00**	**1.00**

2 . Course Name : C212

Course	PSO1	PSO2
C212.1	-	-
C212.2	-	-
C212.3	-	-
C212.4	-	-
C212.5	2	-
Average	**2.00**	**0.00**

3 . Course Name : C301

Course	PSO1	PSO2
C301.1	-	-
C301.2	-	-
C301.3	-	-
Average	**0.00**	**0.00**

4 . Course Name : C311

Course	PSO1	PSO2
C311.1	1	-
C311.2	2	1
C311.3	-	-
Average	**1.50**	**1.00**

5 . Course Name : C401

Course	PSO1	PSO2
C401.1	-	2
C401.2	-	2
C401.3	-	2
C401.4	-	2
C401.5	-	2
Average	**0.00**	**2.00**

6 . Course Name : C411

Course	PSO1	PSO2
C411.1	-	-
C411.2	2	-
C411.3	-	2
C411.4	2	-
C411.5	-	2
Average	**2.00**	**2.00**

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

Institute Marks : 7.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	3	3	3	2	2	PO6	PO7	PO8	PO9	1	PO11	3
C102	3	2	2	PO4	PO5	PO6	PO7	PO8	2	PO10	PO11	1
C103	3	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104	3	1	3	PO4	3	2	1	PO8	PO9	3	PO11	1
C105	3	3	2	1	PO5	PO6	PO7	PO8	PO9	2	2	3
C106	1	3	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C107	1	3	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C108	2	PO2	PO3	PO4	PO5	3	3	3	PO9	PO10	PO11	PO12
C111	3	3	3	3	3	PO6	PO7	PO8	1	3	PO11	3
C112	3	3	PO3	PO4	PO5	PO6	3	PO8	PO9	PO10	PO11	3
C113	3	3	3	1	3	PO6	PO7	PO8	3	1	PO11	1
C114	2	PO2	2	2	1	PO6	PO7	PO8	PO9	2	PO11	2
C115	3	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C116	3	3	3	1	3	PO6	PO7	PO8	3	1	PO11	1
C117	2	3	1	3	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C118	1	PO2	PO3	PO4	PO5	2	2	1	1	PO10	PO11	1
C201	3	3	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202	2	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203	2	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C204	2.5	3	2.5	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.5
C205	2	2.5	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C206	3	3	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C207	2	2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C208	2.5	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C211	3	3	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212	2	2	2	2	2	1	1	1	2	PO10	PO11	PO12
C213	2	2	3	3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
C214	2	2.5	2.5	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C215	3	2	2	PO4	2	PO6	PO7	PO8	2	PO10	PO11	2
C216	2	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C217	2	2	3	3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
C218	2	2.5	2.5	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301	PO1	2	3	PO4	PO5	PO6	PO7	3	2	2	2	2
C302	3	3	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303	2.5	3	3	PO4	2.5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C304	2	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C3051	3	2.5	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C3065	3	2.5	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C307	3	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C308	3	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311	1.5	1.5	PO3	PO4	1	PO6	1	PO8	PO9	PO10	PO11	PO12
C312	3	2.5	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C313	3	2	1.3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314	1.5	1	1.5	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C3153	3	2.5	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C3161	3	3	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C317	3	2	1	PO4	PO5	PO6	PO7	1	PO9	PO10	PO11	PO12
C318	3	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C401	PO1	1.5	PO3	PO4	2.4	PO6	PO7	PO8	2.4	PO10	PO11	PO12
C402	2.4	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C403	2	2	3	1.5	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12

C4041	2	2	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C4053	PO1	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C406	2	2	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C407	2	2	3	1	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C408	3	3	3	3	2	2	2	3	3	3	3	3
C411	2	2	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C412	PO1	2	2	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C4134	3	2.5	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C415	3	3	3	3	2	2	2	3	3	3	3	3
C416	3	3	PO3	2	1	PO6	PO7	3	2	3	PO11	2
C4184	3	3	3	3	2	1	2	2	2	2	1	2

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

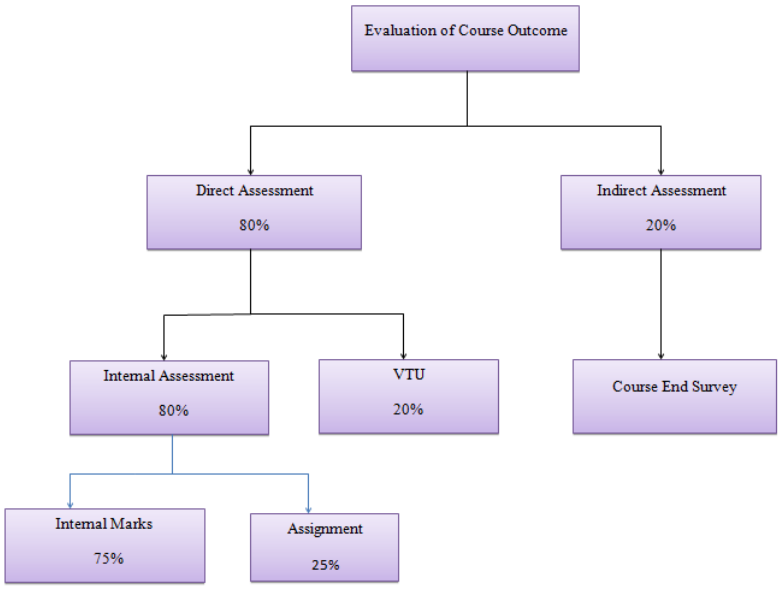
Course	PSO1	PSO2
C101	PSO1	PSO2
C102	PSO1	PSO2
C103	PSO1	PSO2
C104	PSO1	PSO2
C105	PSO1	PSO2
C106	PSO1	PSO2
C107	PSO1	PSO2
C108	PSO1	PSO2
C111	PSO1	PSO2
C112	PSO1	PSO2
C113	PSO1	PSO2
C114	PSO1	PSO2
C115	PSO1	PSO2
C116	PSO1	PSO2
C117	2	3
C118	1	0
C201	PSO1	PSO2
C202	3	PSO2
C203	3	PSO2
C204	2.5	PSO2
C205	2	PSO2
C206	2.6	PSO2
C207	3	2
C208	3	2.5
C211	2	1
C212	2	0
C213	2.5	0
C214	3	0
C215	3	0
C216	3	0
C217	2.5	2
C218	3	2
C301	2	2
C302	3	0
C303	3	3
C304	2	2
C3051	2	2.5
C3065	2	0
C307	2	3

C308	2	3
C311	1.5	1
C312	2	0
C313	2	0
C314	1.5	1
C3153	2	1.5
C3161	2	1
C317	1	1
C318	2	2
C401	PSO1	1.5
C402	2	0
C403	2	3
C4041	2	3
C4053	3	0
C406	2	3
C407	2	3
C408	2	1
C411	2	2
C412	2	2
C4134	3	3
C415	2	1
C416	2	1
C4184	1	2

3.2 Attainment of Course Outcomes (50) Total Marks 38.00

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10) Institute Marks : 8.00

Figure 3.2.1(a) Assessment Process



B. The quality /relevance of assessment processes and tools used

- Evaluation of course outcome is done based on Direct Assessment and Indirect Assessment.
- For obtaining course outcomes we consider 80%of Direct Assessment and 20% of Indirect Assessment.
- Direct assessment is done by considering 80% of the total internal assessment and 20% of university result., the computation of total Internal Assessment is calculated by taking 75% internal marks scored and 25% of marks scored in assignments.
- Indirect Assessment is computed through the course-end survey by the faculty handling the course.

3.2.2 Record the attainment of Course Outcome of all courses with respect to set attainment levels (40) Institute Marks : 30.00

			Target Set	CO ATTAINED					
SL. No	**Subject Name**	**Subject code**		**CO1**	**CO2**	**CO3**	**CO4**	**C05**	**C06**
	2nd Year								
1	Engineering Mathematics – III ->C201	15MAT31	**3**	2.6	2	2.3	2.8	2.7	2.5
2	Analog and Digital Electronics-> C202	15CS32	**2**	2	3	3	2		

3	Data Structures and Applications ->C203	15CS33	**2.5**	2.83	2.46	2.63	2.53		
4	Computer Organization ->C204	15CS34	**2.5**	2.8	2.5	2.3	2.8		
5	Unix and Shell Programming-> C205	15CS35	**2**	2.13	2.10	1.91	1.97	2	
6	Discrete Mathematical Structures ->C206	15CS36	**2**	2.7	2.8	2.3	2.6	2.32	
7	Analog and Digital Electronics Laboratory ->C207	15CSL37	**2**	3	3	2.5	1.5	1	
8	Data Structures Laboratory ->C208	15CSL38	**3**	3	3	2	2		
9	Engineering Mathematics – IV ->C211	15MAT41	**2**	1	1	2	2	2	
10	Software Engineering -> C212	15CS 42	**2**	3	2.3	2	2	2	
11	Design and Analysis of Algorithms ->C213	15CS43	**2**	2.5	2	3	3		
12	Microprocessors and Microcontrollers ->C214	15CS44	**2**	3	2.5	3	2.1		
13	Object Oriented Concepts-> C215	15CS45	**2**	2.7	2.8	2.3			
14	Data Communication -> C216	15CS46	**2**	1	1	2	2	3	
15	Design and Analysis of Algorithm Laboratory ->C217	15CSL47	**2.5**	3	3	2.5	2		
16	Microprocessors Laboratory ->C218	15CSL48	**2**	3	2.5	2	1		
3rd Year									
17	Management and Entrepreneurship for IT Industry-> C301	15CS51	**2.5**	2	3	3			
18	Computer Networks ->C302	15CS52	**2**	3	2.14	3	2.3	3	
19	Database Management System ->C303	15CS53	**2.6**	2.14	2.67	3	2.3		
20	Automata theory and Computability-> C304	15CS54	**2**	1	1	2	2	2	
21	Object Oriented Modeling and Design ->C3051	15CS551	**2**	2.8	3	3			
22	Cloud Computing ->C3065	15CS565	**2**	2.36	2.8	2.8	2.8		
23	Computer Network Laboratory ->C307	15CSL57	**3**	3	2.5	1.5			
24	DBMS Laboratory with mini project ->C308	15CSL58	**3**	3	2	1			
25	Cryptography, Network Security and Cyber Law ->C311	15CS61	**2.8**	2	2	2.5			
26	File Structures ->C312	15CS62	**2.5**	2.73	2.59	2.73	2.5		
27	Software Testing ->C313	15CS63	**2.5**	3	3	3	2		
28	Operating Systems ->C314	15CS64	**2.3**	3	3	3	2		
29	Operations research ->C3153	15CS653	**2.3**	2.9	3	2.9			
30	Mobile Application Development->C3161	15CS664	**3**	3	2.6	3	2.4	2.4	2
31	Software Testing Laboratory ->C317	15CSL67	**2**	2	2	2	2	2	
32	File structure with mini project ->C318	15CSL68	**3**	2	2	1			
4th Year									
33	Web Technology and its applications ->C401	15CS71	**2.5**	3	3	3	3	3	
34	Software Architecture and Design Patterns ->C402	15CS72	**2**	3	3	3	2	2	
35	Machine Learning ->C403	15CS73	**2.8**	3	3	3	3	2	
36	Natural Language Processing ->C4041	15CS743	**2.8**	3	3	3	3		
37	Information Management System ->C4053	15CS754	**2.6**	3	3	3	3		
38	Machine Learning Laboratory-> C406	15CSL76	**3**	3	2.5	2	1		
39	Web Technology Laboratory with mini project->C407	15CSL77	**3**	3	2	1			
40	ProjectPhase1+Seminar ->C408	15CSP78	**3**	3	1	2			
41	Internet of Things and Applications ->C411	15CS81	**2.8**	3	3	3	3	3	
42	Big Data Analytics ->C412	15CS82	**2.8**	3	3	3	3	3	
43	System Modeling and Simulation -> C4134	15CS834	**2.5**	3	3	3	3	3	
44	Internship/Professional Practice -> C4184	15CS84	**3**	3	3	2			
45	Project work phase II ->C415	15CSP85	**3**	3	2	3			

46	Seminar ->416	15CSS86	**3**	3	3				

Table 3.2.2(i) Attainment of Course Outcome

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50) Total Marks 50.00

3.3.1 Describe the assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10) Institute Marks : 10.00

A. The list of assessment tools for both direct and indirect methods is given below

Table 3.3.1(i) List of assessment tools

Assessment tool type	Assessment tool title	Description
Direct Attainment Tools	**Internal Assessments, Assignments**	Internal Assessment and Assignments are conducted during every semester towards final CIE marks. These tests and assignments will prepare the students for the Semester End Examination.
	Internal Laboratory Test	During the end of the semester, laboratory test conduction and evaluation is done. These tests will enhance the confidence of students to face External lab examination.
	Mini Projects, Internship, Projects	Evaluation is done in phases by a committee (HOD, Project Coordinator, Project guide).
	Semester End Examination	Both theory and practical/project examination are conducted as per the guidelines provided by the University.
Indirect Attainment Tools	**Exit Survey**	Feedback for the betterment of the department
	Alumni Survey	Feedback for the improvement Of infrastructure, library, placement activities, industry-academic interaction
	Employer Survey	Expectations and the requirements to bridge the industry-academia gap.

B. Process of PO & PSO Attainment

Course outcomes are assessed through Continuous Internal Evaluation (CIE) and Semester End Examination (SEE). The analysis is done to find the level of attainments of each course COs. The attainment of POs and PSOs are being calculated based on the COs attainment. For indirect assessments, survey questionnaire is circulated to students, alumni and employer. The surveys are assessed and evaluated to determine the strength of attainment level of POs/ PSOs. Survey results from graduates, alumni, and employer are consolidated and the final PO values are calculated through 3-point scale (,Strong, Moderate,Slightly). Overall attainments of POs are calculated by taking 80% of direct attainment and 20% of indirect attainment. If the POs and PSOs attainment value is below the target, an essential remedial action has been taken.

3.3.2 Provide results of evaluation of PO&PSO (40) Institute Marks : 40.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	3	3	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	3
C102	3	3	3	3	PO5	PO6	PO7	PO8	3	PO10	PO11	2
C103	3	3	3	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104	3	3	3	PO4	3	2	2	PO8	PO9	PO10	PO11	3
C105	3	3	3	3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C106	2	1	2	1	PO5	1	1	PO8	1	1	PO11	PO12
C107	3	2	2	2	1	1	1	1	2	2	PO11	PO12
C108	PO1	PO2	PO3	PO4	PO5	3	3	3	3	3	PO11	PO12
C111	3	3	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	3
C112	3	3	3	3	PO5	PO6	PO7	PO8	PO9	3	PO11	2
C113	3	3	3	3	3	PO6	PO7	PO8	PO9	3	PO11	3
C114	3	3	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C115	3	3	3	3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C116	3	3	3	PO4	1	PO6	PO7	PO8	PO9	2	PO11	2

C117	3	2	2	2	1	1	1	1	2	2	PO11	PO12
C201	3	3	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202	2	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	3
C203	2	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C204	3	3	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	3
C205	2	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C206	3	3	2	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C207	2	2	2	2	2	PO6	PO7	PO8	PO9	2	PO11	PO12
C208	3	3	3	PO4	1	PO6	PO7	PO8	2	PO10	PO11	1
C211	3	3	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212	2	2	2	2	2	1	1	1	2	PO10	PO11	PO12
C213	2	2	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	2
C214	2	3	3	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C215	3	2	2	PO4	2	PO6	PO7	PO8	2	PO10	PO11	2
C216	2	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C217	3	3	3	2	3	PO6	PO7	PO8	PO9	1	PO11	2
C218	2	2	2	1	PO5	1	PO7	PO8	PO9	1	PO11	1
C301	PO1	2	3	PO4	PO5	PO6	PO7	3	2	2	2	2
C302	3	3	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303	3	3	3	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	2
C304	2	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C3051	3	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	3
C3065	3	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C307	3	3	2	PO4	3	PO6	PO7	PO8	1	1	PO11	1
C308	3	3	3	3	3	PO6	PO7	PO8	3	3	1	2
C311	2	2	2	PO4	PO5	1	PO7	1	PO9	PO10	PO11	PO12
C312	3	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	3
C313	3	2	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314	2	1	2	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C3153	3	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	3
C3161	3	3	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C317	3	1	1	1	1	PO6	PO7	PO8	1	1	PO11	1
C318	3	3	3	PO4	3	PO6	PO7	3	3	3	1	1
C401	PO1	1	PO3	PO4	2	PO6	PO7	PO8	2	PO10	PO11	PO12
C402	2	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
C403	2	2	3	2	3	PO6	PO7	PO8	PO9	PO10	PO11	2
C4041	2	3	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C4053	PO1	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C406	3	3	3	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	1
C407	3	3	3	PO4	3	PO6	PO7	PO8	2	3	1	1
C408	3	3	3	3	3	2	2	2	3	3	3	3
C411	2	2	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C412	PO1	2	2	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C4134	3	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	3
C415	3	3	3	3	3	2	2	2	3	3	3	3
C416	3	3	1	2	1	PO6	PO7	3	2	3	PO11	2
C4184	3	3	3	3	3	1	1	1	2	3	PO11	1

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	2.20	2.12	2.10	1.87	1.95	1.23	1.33	1.60	1.80	1.86	1.53	1.75
Direct Attainment	2.70	2.58	2.56	2.26	2.38	1.45	1.56	1.91	2.16	2.25	1.83	2.12
InDirect Attainment	0.20	0.26	0.28	0.29	0.25	0.36	0.4	0.36	0.38	0.32	0.32	0.27

PSO Attainment

Course	PSO1	PSO2

C101	PSO1	PSO2
C102	PSO1	PSO2
C103	PSO1	PSO2
C104	PSO1	PSO2
C105	PSO1	PSO2
C106	PSO1	PSO2
C107	PSO1	PSO2
C111	PSO1	PSO2
C112	PSO1	PSO2
C113	PSO1	PSO2
C114	PSO1	PSO2
C115	PSO1	PSO2
C116	PSO1	PSO2
C117	PSO1	PSO2
C201	2	1
C202	3	PSO2
C203	3	PSO2
C204	3	PSO2
C205	2	PSO2
C206	3	PSO2
C207	1	1
C208	3	1
C211	2	1
C212	2	0
C213	3	0
C214	3	0
C215	3	PSO2
C216	3	PSO2
C217	3	2
C218	1	1
C301	PSO1	PSO2
C302	3	PSO2
C303	PSO1	3
C304	2	PSO2
C3051	2	PSO2
C3065	2	PSO2
C307	2	1
C308	3	2
C311	2	1
C312	2	PSO2
C313	PSO1	PSO2
C314	2	1
C3153	2	PSO2
C3161	2	1
C317	2	1
C318	3	2
C401	PSO1	2
C402	2	0
C403	3	0
C4041	2	PSO2
C4053	2	PSO2
C406	3	2
C407	3	2
C408	3	1
C411	2	2
C412	2	PSO2

C4134	2	PSO2
C415	3	1
C416	3	1
C4184	3	1

PSO Attainment Level

Course	PSO1	PSO2
CO Attainment	2.01	1.21
Direct Attainment	2.43	1.41
InDirect Attainment	0.35	0.40

4 STUDENTS' PERFORMANCE (150) Total Marks 93.56

:

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2020-21 (CAY)	2019-20 (CAYm1)	2018-19(CAYm2)	2017-18(CAYm3)	2016-17(CAYm4)	2015-16 (CAYm5)	2014-15 (CAYm6)
Sanctioned intake of the program(N)	60	60	60	60	60	60	60
Total number of students admitted in first year minus number of students migrated to other programs/ institutions plus No. of students migrated to this program (N1)	56	44	39	22	53	37	25
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	1	0	0	0	0	0
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	56	45	39	22	53	37	25

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2020-21 (CAY)	56	0	0	0	0
2019-20 (CAYm1)	45	15	0	0	0
2018-19 (CAYm2)	39	20	19	0	0
2017-18 (CAYm3)	22	5	3	3	0
2016-17 (LYG)	53	18	15	10	9
2015-16 (LYGm1)	37	7	3	3	3
2014-15 (LYGm2)	25	3	2	0	0

Table 4.3

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2020-21 (CAY)	56	0	0	0	0
2019-20 (CAYm1)	45	32	0	0	0
2018-19 (CAYm2)	39	32	30	0	0
2017-18 (CAYm3)	22	21	13	11	0
2016-17 (LYG)	53	52	36	33	33
2015-16 (LYGm1)	37	34	21	16	15
2014-15 (LYGm2)	25	23	15	10	10

4.1 Enrolment Ratio (20) Total Marks 16.00

Institute Marks : 16.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2020-21 (CAY)	60	56	93.33
2019-20 (CAYm1)	60	44	73.33
2018-19 (CAYm2)	60	39	65.00

Average [(ER1 + ER2 + ER3) / 3] : 77.22

Assessment : 16.00

4.2 Success Rate in the stipulated period of the program (40) Total Marks 9.15

4.2.1 Success rate without backlogs in any semester / year of study (25) Institute Marks : 2.00

Item	Latest Year of Graduation, LYG (2016-17)	Latest Year of Graduation minus 1, LYGm1 (2015-16)	Latest Year of Graduation minus 2 LYGm2 (2014-15)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	53.00	37.00	25.00
Y Number of students who have graduated without backlogs in the stipulated period	9.00	3.00	0.00
Success Index [SI = Y / X]	0.17	0.08	0.00

Average SI [(SI1 + SI2 + SI3) / 3] : 0.08

Assessment [25 * Average SI] : 2.00

4.2.2 Sucess rate in stipulated period (15) Institute Marks : 7.15

Item	Latest Year of Graduation, LYG (2016-17)	Latest Year of Graduation minus 1, LYGm1 (2015-16)	Latest Year of Graduation minus 2 LYGm2 (2014-15)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	53.00	37.00	25.00
Y Number of students who have graduated in the stipulated period	33.00	15.00	10.00
Success Index [SI = Y / X]	0.62	0.41	0.40

Average SI[(SI1 + SI2 + SI3) / 3]: 0.48

Assessment [15 * Average SI] : 7.15

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

4.3 Academic Performance in Third Year (15) Total Marks 9.54

Institute Marks : 9.54

Academic Performance	CAYm3 (2017-18)	LYG (2016-17)	LYGm1 (2015-16)
Mean of CGPA or mean percentage of all successful students(X)	8.28	7.81	7.99
Total number of successful students(Y)	11.00	33.00	16.00
Totalnumber of students appeared in the examination(Z)	13.00	36.00	21.00
API [X*(Y/Z)]:	5.83	7.16	6.09

Average API [(AP1 + AP2 + AP3)/3] : 6.36

Assessment [1.5 * AverageAPI] : 9.54

4.4 Academic Performance in Second Year (15) Total Marks 8.74

Institute Marks : 8.74

Academic Performance	CAYm2 (2018-19)	CAYm3 (2017-18)	LYG (2016-17)
Mean of CGPA or mean percentage of all successful students(X)	8.47	7.49	7.09
Total number of successful students (Y)	30.00	13.00	36.00
Total number of students appeared in the examination (Z)	32.00	21.00	52.00
API [X * (Y/Z)]	7.94	4.63	4.91

Average API [(AP1 + AP2 + AP3)/3] : 5.83

Assessment [1.5 * AverageAPI] : 8.74

4.5 Placement, Higher Studies and Entrepreneurship (40) Total Marks 30.13

Institute Marks : 30.13

Item	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
Total No of Final Year Students(N)	33.00	16.00	10.00
No of students placed in the companies or government sector(X)	24.00	8.00	10.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	1.00	0.00	0.00
No of students turned entrepreneur in engineering/technology (Z)	0.00	0.00	0.00
x + y + z =	25.00	8.00	10.00
Placement Index [(X+Y+Z)/N] :	0.76	0.50	1.00

Average Placement [(P1 + P2 + P3)/3] : 0.75

Assessment [40 * Average Placement] : 30.13

Program Name :

Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Ashish Acharya	1RI16IS008	ADHIIPEL	ADHIIPEL/11/2/20
2	Bikas Poudel	1RI16IS009	Aandhikhola Polytechnic Nepal	Aandhikhola/15/02/20
3	Bindushree B S	1RI16IS010	WhiteHat Jr	WhiteHatJr/10/3/21
4	Ichchha Parajuli	1RI16IS013	Verzes	0900KA2018PTC109509
5	Jayanth C R	1RI16IS015	Nagra Kudelski	Nagra/19/6/20
6	Kavya C	1RI16IS016	Manyathy Business Solutions	HRD/01012020/OL08
7	Mohammad Irfan	1RI16IS021	B2BC	B2BC/11/3/20
8	Niveda R	1RI16IS023	Manyathy Business Solutions	HRD/01012018/OR102
9	Pruthviraj S	1RI16IS025	Infibeam Avenues	Infibeam/21/1/21
10	Rajendra Tharu	1RI16IS027	ADHIIPEL	ADHIIPEL/11/2/20
11	S Aishwarya Rao	1RI16IS031	Feenixtech India	Feenixtech/01/6/20
12	Sachin S	1RI16IS032	Parvam Software Solutions	Parvam/10/9/20
13	Sadip Karki	1RI16IS033	Smart Brain Engineer & Technologies	SmartBrain/4/11/20
14	Samir Paudyal	1RI16IS034	ADHIIPEL	ADHIIPEL/11/2/20
15	Sanjay Senchury	1RI16IS035	ADHIIPEL	ADHIIPEL/11/2/20
16	Saurab Kandel	1RI16IS037	ADHIIPEL	ADHIIPEL/11/2/20
17	Shailesh Man Nakarmi	1RI16IS038	ADHIIPEL	ADHIIPEL/11/2/20
18	Shantharuban A	1RI16IS039	Infibeam Avenues	Infibeam/2/3/21
19	Sharath R	1RI16IS040	Tech Logic	TechLogic/9/1/20
20	Shubha S	1RI16IS042	Manyathy Business Solutions	HRD/01012018/OR102
21	Sushant Bhusal	1RI16IS046	Tech Logic	TechLogic/9/1/20
22	Sushmitha N C	1RI16IS047	Infibeam Avenues	Infibeam/4/2/21
23	Vidya K S	1RI16IS049	University of New Haven USA	NewHaven/13/11/20
24	Vinay N Holla	1RI16IS050	Tech Logic	TechLogic/9/1/20
25	Yashaswini R	1RI16IS051	Tech Logic	TechLogic/9/1/20

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Aishwarya	1RI15IS003	MINDTREE	MINDTREE/8/5/19
2	Anajali V	1RI15IS005	LIBRE Wireless Technologies	LIBRE/17/6/19
3	Krishna R	1RI15IS017	IBM	IBM/15/7/19
4	Namitha V	1RI15IS021	Ifocus Systec	Ifocus/22/7/19
5	Pavan N	1RI15IS023	RedSeer Mgmt. Consulting Pvt. Ltd.	RedSeer/5/9/19
6	Renuka	1RI15IS026	Alp Consulting Ltd.	Alp/16/9/20
7	Rohit Upadhyay	1RI15IS027	Mphasis	Mphasis/23/7/21
8	Yogitha M	1RI15IS037	Parvam Software Solutions	Parvam/22/8/19

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Chirag P	1RI14IS005	Ception Technologies Pvt. Ltd.	Ception/20/8/18
2	Kousalya S	1RI14IS012	Manyathy Business Solutions	HRD/01012018/OR102
3	Manisha	1RI14IS014	Parvam Software Solutions	Parvam/10/8/18
4	Neetu Varghese	1RI14IS015	Manyathy Business Solutions	HRD/01012018/OR102
5	Nisha Maria Gonsalves	1RI14IS016	Starlet Technologies Pvt. Ltd.	Starlet/20/8/18
6	P S Krutika	1RI14IS017	Manyathy Business Solutions	HRD/01012018/OR102
7	Pooja K	1RI14IS019	Parvam Software Solutions	Parvam/10/8/18
8	Samudhutha S	1RI14IS020	Inode Technologies Pvt. Ltd.	Inode/1/6/19
9	Sushmitha B R	1RI14IS027	Fish-X Catch Innovations	60962
10	Vaishnavi	1RI14IS029	Manyathy Business Solutions	HRD/01012018/OR102

4.6 Professional Activities (20) Total Marks 20.00

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

Institute Marks : 5.00

Table 4.6.1 (i) List of Professional Societies

Sl. No.	Professional Societies	Acronym
1	Indian Society for Technical Education ISTE	ISTE
2	Computer Society of India	CSI

Table 4.6.1 (ii) Activities

Sl.No	Activity	Resource persons	Date	No. of Participants
1	Seminar on Emerging Trends and Latest Technologies in IT	Mr. Subhas, IT consultant, LIVEWIRE	30-08-2019	74
2	Seminar on Quality Assurance Testing on Application using Latest Tools	Mr. B M Sapthasagar Quality Test Manager, NTT Data Global Village, Bangalore	14-09-2019	77
3	3 Days Couse on Aircraft and Aerospace engineering	Nataraj Ramanna, Chief Executive Officer, Center of Excellence in Aerospace & Defence(CoE A&D)	24-10-2019 30-10-2019 31-10-2019	40
4	Workshop on ARM-7 Processor and its Applications	Dr.Sreenivasa Settee, SST Technologies, Bangalore	24-04-2019	15
5	5 days workshop on computer communication networks & Application	Mrs. Sunitha Aminagad Jetking Sadashivanagar	27-02-2019 to 03-03-2019	22
6	Seminar on Effective Career planning for Engineering Students	Mr. Prakash Chakravarty, Ex-Employee of Citibank, Japan. VANI Institute, Bangalore	13-02-2019	48
7	Technical Seminar on Introduction to Python and Machine Learning	Mr. Sudarshan Manager Chira Information Technology Bangalore	19-02-2020	41
8	Open Day 2020	IISC Bangalor	29-02-2020	16
9	Technical Seminar on Food Technology in Machine Learning	Dr. Gururaj H L Professor Vidyavardhaka College of Engineering Mysore	26-05-2020	36
10	Workshop on Python Programming	Mrs. Jahnavi N L Assistant Professor RRIT Bangalore	30-10-2018	73
11	RRISE- Workshop on Apple mobile App Development IDUP-iOS developer University Program	Mr. Shibu M V Senior Techno Commercial Manager Apple	16-08-2017	57

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

Institute Marks : 5.00

Table 4.6.2 (i): List of publication of Technical Magazines, Newsletters.

Sl. No	AY	Name of the Magazine/News Letter	Issue	Editorial Board	Chief editor
1	2017-2018	Newsletter-InSpirE	Volume-2, Issue-1	Swetha K B, Anjali V, Krishna Makavan, Sanjay Kumar G Neethu Varghese	Dr. Madhu B K
2	2017-2018	Newsletter-InSpirE	Volume-2, Issue-2	Swetha K B, Anjali V, Krishna Makavan, Sanjay Kumar G Neethu Varghese	Dr. Madhu B K
3	2018-2019	Magazine SAMKHYA	Issue-3	Anshu Deepak, Swetha K B, Jyothi R, Lakshmi , Shreedhar Murthy Niveda R Jayanth C R	R Navaneetha Krishna
4	2018-2019	Newsletter-InSpirE	Volume-3, Issue-1	Swetha K B, Kavyashree LalBabu Mandal Jayanth Yashaswini, Yogitha M	Emmanuel R
5	2018-2019	Newsletter-InSpirE	Volume-3, Issue-2	Swetha K B, Jayanth Niveda	Emmanuel R
6	2019-2020	Newsletter-InSpirE	Volume-4, Issue-1	Swetha K B Jayanth Niveda	Emmanuel R
7	2019-2020	Newsletter-InSpirE	Volume-4, Issue-2	Swetha K B Vinay N Holla S Aishwarya	Emmanuel R
8	2019-2020	Magazine SAMKHYA 2019-20	Issue-4	R Navaneetha Krishna, Priyadarshini H P, Anshu Deepak, Swetha K B Shridaharmurthy H N, Pavan sagar	Manjunath R

4.6.3 Participationininter-institute events by students of the program of study (10)

Institute Marks : 10.00

A & B. Events within and outside the state

Table 4.6.3(i): Events within and outside the state

Sl No	AY	Students Name	Name of the Event	Name of the Organization/Institute	Date	Title
1	2019-2020	V Anjali , Renuka K, V Namitha	Publication	IJRESM, Andhra Pradesh	25/05/2019	Automated Cardiac Monitoring System for Pervasive Healthcare Services in THINGSPEAK cloud with KNN Algorithm
2	2019-2020	Jayanth C R S Aishwarya Rao, Varsha K	Hackathon	MSRIT, Bengaluru	15/11/19 16/11/19	Cyber Security in Digital India
3	2019-2020	Sharath R	Workshop	M S Engineering College, Bengaluru	03/10/19 4/10/19	Cyber Security
4	2019-2020	Kavya C Sachin S Bindushree B S	Hackathon	MSRIT, Bengaluru	15/11/19 16/11/19	Cyber Security in Digital India
5	2019-2020	Jayanth C R	Workshop	Coding Blocks, Bengaluru	13/6/20	Web Apps with React JS
6	2019-2020	Jayanth C R	Course	Microsoft, Bengaluru	15/6/20	Microsoft Advertising Certified Professional
7	2019-2020	Jayanth C R S Aishwarya Rao, Varsha K	TCE, Hackathon	TCE, Gadag, Karnataka	22/6/20 23/6/20	Online National Level coding Competition
8	2019-2020	Niveda R, Bindushree B S, Dhanyatha M, Sachin S	Publication	IJIRCCE, Chennai	June 2020	Survey on Driver Drowsiness Detection and alcohol Intoxication
9	2019-2020	Niveda R, Bindushree B S, Dhanyatha M, Sachin S	Publication	IJIRCCE, Chennai	June 2020	Design and implementation of Drowsiness Detection and alcohol Intoxication
10	2019-2020	R Kruthika, Swathi R, Ranjitha V	Publication	IJIRCCE, Chennai	June 2020	Estimation $ Evaluation on Parkinson's Disease by implanting ML Algorithms

11	2019-2020	R Kruthika, Swathi R, Ranjitha V	Publication	IJIRCCE, Chennai	June 2020	Surveying & Analysis of Parkinson's Disease by implanting ML Algorithms
12	2019-2020	Sandeep Karki, Madhav Baiju	Publication	IJIRCCE, Chennai	June 2020	Digital signature for E-Governance-Security &Authentication
13	2019-2020	Sandeep Karki, Madhav Baiju	Publication	IJIRCCE, Chennai	June 2020	Vehicle Monitoring and Accident Alert System using IOT
14	2019-2020	Swathi R	Seminar	CEC, Bengaluru	June 2020	Defense in depth approach to secure web application on AWS Cloud
15	2019-2020	Sachin S	Seminar	CEC, Bengaluru	June 2020	Defense in depth approach to secure web application on AWS Cloud
16	2019-2020	Arasan J, S ShivaKumar, Adithya U	Publication	IJIRSET, Chennai	July 2020	Vehicle Number Plate Detection using image Processing and Open CV-Python
17	2019-2020	Aishwarya Rao, Rubina Shrestha, Pooja Tiwari	Publication	IJIRCCE, Chennai	July 2020	Credit Card Fraudulent Transaction Detecbot tion
18	2019-2020	Shantharuban A, Vinaya N Holla, Vidya K S	Publication	IJIRCCE, Chennai	July 2020	Chat-Bot for College Management using NLP & ML
19	2019-2020	Ashish Acharya, Shailesh Man Nakarmi, Samir Paudyal, Ichchha Parajuli	Publication	IJIRCCE, Chennai	July 2020	Attendance Management System Using Face Recognition
20	2019-2020	Rajendra Tharu, Ranjan KC, Md. Irfan Musalman Shaibam Mallick	Publication	IJIRSET, Chennai	July 2020	Brain Tumor Detection and Classification using Machine Learning
21	2019-2020	Pruthviraj, Sharath R, sushmitha N C, Shubha S	Publication	IJIRCCE, Chennai	July 2020	A Machin Learning Approach for stock Forecasting using Regression Algorithm
22	2019-2020	Mithun K	Workshop	SJBIT,Bengaluru	July 2020	Mobile Application Development
23	2019-2020	D U Krupa	Workshop	SJBIT,Bengaluru	July 2020	Mobile Application Development

C. Prizes/awards received in such events

Table 4.6.3(ii):Prizes/awards received in events

Sl No	Students Name	Name of the Event	Name of the Organization/Institute	Date	Award
1	Jayanth C R S Aishwarya Rao, Varsha K	Hackathon On Cyber Security in Digital India	MSRIT, Bengaluru	15/11/19 & 16/11/19	2nd Prize

5 FACULTY INFORMATION AND CONTRIBUTIONS (200) Total Marks 169.48

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/Assoc. Prof.).	Initial Date of Joining	Association Type	At present working w Institution
SARAVANAN S	DGCPS0211Q	ME/M. Tech and PhD	01/12/2018	Computer Science & Engineering	0			Professor	01/02/2019	01/02/2019	Regular	No
SHWETHA K B	BVIPB7741J	M.E/M.Tech	03/05/2014	Computer Science & Engineering	9			Assistant Professor		13/08/2013	Regular	Yes
VANI SAPTASAGAR	CDRPS2315A	M.E/M.Tech	10/02/2009	Computer Science & Engineering	2			Assistant Professor		24/07/2013	Regular	Yes
EMMANUEL RAJARATHNAM	AANPE4033E	M.E/M.Tech	15/05/2007	COMPUTER NETWORKS & SECURITY	5			Assistant Professor		14/07/2018	Regular	Yes
ARPITHA MARTIN	CVSPA2203G	M.E/M.Tech	09/01/2018	Computer Science & Engineering	6			Assistant Professor		16/07/2018	Regular	Yes
MEGHANA KS	IECPS7283P	M.E/M.Tech	15/06/2019	Computer Science & Engineering	0			Assistant Professor		25/09/2019	Regular	Yes
GANESHA M	BLWPG9245F	M.E/M.Tech	16/04/2012	Computer Science & Engineering	2			Assistant Professor		19/09/2011	Regular	No
Dr. Naveen M	AWVPN1431H	ME/M. Tech and PhD	08/02/2020	Computer Science & Engineering	7			Assistant Professor		10/02/2020	Regular	Yes
Dr. Sumanth V	AJIPV1699P	ME/M. Tech and PhD	03/04/2021	Computer Science & Engineering	4			Assistant Professor		03/08/2012	Regular	Yes
VINOD L B	BLSPB8934Q	M.E/M.Tech	05/05/2016	Computer Science & Engineering	0			Assistant Professor		06/08/2015	Regular	Yes
GAUTHAM B S	BHWPG2848A	M.E/M.Tech	02/11/2017	Computer Science & Engineering	0			Assistant Professor		07/08/2017	Regular	Yes
JANHAVI NL	ATDPJ3655L	M.E/M.Tech	09/01/2017	Computer Science & Engineering	0			Assistant Professor		26/07/2018	Regular	Yes
SINDHOOR NAGRAJ	EBZPS5818G	M.E/M.Tech	05/12/2015	Computer Science & Engineering	0			Assistant Professor		18/07/2016	Regular	Yes
MADHU B K	AJAPM5627J	ME/M. Tech and PhD	21/01/2017	Computer Science & Engineering	0			Professor	21/08/2012	21/08/2012	Regular	No
M SUNEETHA	AJUPM8221C	M.E/M.Tech	09/08/2006	Computer Science & Engineering	5			Assistant Professor		24/06/2014	Regular	Yes
ASHA V	ALZPA5995N	M.E/M.Tech	03/12/2013	Computer Science & Engineering	0			Assistant Professor		27/07/2015	Regular	Yes

5.1 Student-Faculty Ratio (20)

Total Marks 20.00

Institute Marks : 20.00

UG

No. of UG Programs in the Department 1

Information Science & Engineering						
Year of Study	**CAY**		**CAYm1**		**CAYm2**	
	(2020-21)		**(2019-20)**		**(2018-19)**	
	Sanction Intake	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**
2nd Year	60	1	60	0	60	0
3rd Year	60	0	60	0	60	0
4th Year	60	0	60	0	60	0
Sub-Total	**180**	**1**	**180**	**0**	**180**	**0**
Total	**181**		**180**		**180**	
Grand Total	181		180		180	

PG

No. of PG Programs in the Department 0

Grand Total			

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 0

Description	**CAY(2020-21)**	**CAYm1 (2019-20)**	**CAYm2 (2018-19)**
Total No. of Students in the Department(S)	181 **Sum total of all (UG+PG) students**	180 **Sum total of all (UG+PG) students**	180 **Sum total of all (UG+PG) students**
No. of Faculty in the Department(F)	15 **F1**	13 **F2**	12 **F3**
Student Faculty Ratio(SFR)	12.07 **SFR1=S1/F1**	13.85 **SFR2=S2/F2**	15.00 **SFR3=S3/F3**
Average SFR	13.64 **SFR=(SFR1+SFR2+SFR3)/3**		
F=Total Number of Faculty Members in the Department (excluding first year faculty)			

Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:
1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

5.1.1. Provide the information about the regular and contractual faculty as per the format mentioned below:

	Total number of regular faculty in the department	**Total number of contractual faculty in the department**
CAY(2020-21)	15	0
CAYm1(2019-20)	13	0
CAYm2(2018-19)	12	0

Average SFR for three assessment years : 13.64

Assessment SFR : 20

5.2 Faculty Cadre Proportion (25) Total Marks 23.00

Institute Marks : 23.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2020-21)	1.00	1.00	2.00	0.00	6.00	14.00
CAYm1(2019-20)	1.00	1.00	2.00	0.00	6.00	12.00
CAYm2(2018-19)	1.00	0.00	2.00	0.00	6.00	12.00
Average Numbers	1.00	0.67	2.00	0.00	6.00	12.67

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 23.00

5.3 Faculty Qualification (25)

Total Marks 16.48

Institute Marks : 16.48

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F)]
2020-21(CAY)	2	13	9.00	20.00
2019-20(CAYm1)	1	12	9.00	16.11
2018-19(CAYm2)	0	12	9.00	13.33

Average Assessment : 16.48

5.4 Faculty Retention (25)

Total Marks 25.00

Institute Marks : 25.00

Description	2019-20	2020-21
No of Faculty Retained	12	12
Total No of Faculty	12	12
% of Faculty Retained	100	100

Average : 100.00

Assessment Marks : 25.00

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

Total Marks 20.00

Institute Marks : 20.00

Innovations by the faculty in teaching and learning:

- Use of modern teaching aids like LCD projectors, Camera, Slide Changer, Wi-Fi enabled laptops are usually employed in classrooms and other student learning environments.
- Department encourages Academic Discussions between faculties and students usingn WhatsApp.
- Department conducts Seminar, Workshops, Expert Talks and Industrial Visits on every academic year.
- Final year students will participate in Meraki- Project Exhibition and National Conference
- Faculty members use Open-Source platforms to make the subject easy to understand.
- The faculty members are encouraged to participate in short term courses, staff development programs and workshops on advanced topics to keep pace with the advanced level of knowledge and skills.
- Faculties are motivated to participate and Present papers in national/international conferences and publish their articles in national/international journals to enrich their knowledge.
- Faculty utilize department library for references.
- RRIT Library is a resource centre for teaching, learning & research: digital library, E- Learning Centre, Online class room with recording facility, Students Discussion rooms, Faculty discussion room, and Books & Stationary shop are available in the Ground Floor while Stack Area, Reference Section, Circulation Counter, Journals/Magazines and Newspaper Section
- Library holds a hybrid collection of printed as well as electronic resources which include books, journals, databases, audio-visuals, CDs/DVDs, e-books, e-journals, reports, course materials; previous years question papers, Bound Volumes, Project Reports, case studies, conference proceedings, training manuals, etc.
- Learning Resources are available to access like Gnana Sangama Portalhttp://164.100.133.129:81/e-CONTENT/, National Knowledge Network- http://nkn.gov.in/and National Digital Library- https://ndl.iitkgp.ac.in/ (https://ndl.iitkgp.ac.in/).
- As the e-journals access is IP based, the stakeholders can take benefit of this facility from anywhere in the campus at any time. Some of them include,

E-journal Details

1. Elsevier https://www.elsevier.co m/
2. IEEE POP * https://ieeexplore.ieee.org
3. Taylor & Francis https://www.tandfonline. com/
4. Springer Nature https://link.springer.com /
5. Emerald * https://www.emerald.co m/insight
6. ProQuest * https://www.proquest.co m
7. Knimbus https://rritb.knimbus.co m
8. NetAnalytiks (LANQUILL) https://www.lanquill.co m
9. Turnitin

Table 5.5(i) E-content provided by faculties are

Faculty Name	Facility	Link	Visitors
Dr. Naveen M	blogspot	https://mnaveenos.blogspot.com (https://mnaveenos.blogspot.com/)	83
Prof. Emmanuel R	blogspot	https://emmanuelrdc.blogspot.com (https://emmanuelrdc.blogspot.com/)	41
Prof. Vani Saptasagar	blogspot	https://vanipatil.blogspot.com (https://vanipatil.blogspot.com/)	85
Prof. Ganesha M	blogspot	https://ganesham664.blogspot.com (https://ganesham664.blogspot.com/)	32
Prof. Swetha K B	blogspot	https://profswethakb.blogspot.com (https://profswethakb.blogspot.com/)	45
Prof.Arpitha M	Blogspot	https://arpithamartin.blogspot.com (https://arpithamartin.blogspot.com/)	78

5.6 Faculty as participants in Faculty development/training activities/STTPs (15) Total Marks 15.00

Institute Marks : 15.00

Name of the faculty	Max 5 Per Faculty		
	2019-20 (CAYm1)	2018-19 (CAYm2)	2017-18 (CAYm3)
SHWETHA K B	5.00	5.00	5.00
VANI SAPTASAGAR	5.00	5.00	3.00
M SUNEETHA	0.00	5.00	2.00
VINOD L B	1.00	3.00	2.00
Ganesha M	5.00	0.00	0.00
EMMANUEL RAJARATHNAM	5.00	5.00	0.00
ARPITHA MARTIN	5.00	5.00	0.00
SARAVANAN S	0.00	1.00	0.00
Naveen M	5.00	0.00	0.00
Sum	31.00	29.00	12.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	9.05	9.00	9.00
Assessment [3*(Sum / 0.5RF)]	20.55	19.33	8.00

Average assessment over 3 years: 15.96

5.7 Research and Development (30) Total Marks 20.00

5.7.1 Academic Research (10) Institute Marks : 10.00

- **Number of quality publications in refereed/ SCI Journals, citations, Books/ Book Chapters etc.**

Table 5.7.1(i) Number of publications

Sl.No	Name of Faculty	No of Publication		
		2017-18	2018-19	2019-20
1	SHWETHA K B	2	0	7
2.	VANI SAPTHASAGAR S	2	0	2
3	M SUNEETHA	4	2	
4	GANESHA M	1	0	2
5	EMMANUEL RAJARATHNAM			3
6	SINDOOR N	1		
7	VINOD L B	1		2
8	MADHU B K	1		
9	ARPITHA MARTIN			2

Table 5.7.1 (ii) Details of Publications

Sl.No	Faculty Name	Title	Name of the Journal/Conference/Publisher	ISSN/ISBN	Year
1.	Swetha K B	Surveying & Analysis of Parkinson's Disease by Applying MI Algorithms	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
2.	Swetha K B	Survey on Driver Drowsiness Detection and Alcohol Intoxication	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
3.	Swetha K B	Estimation & Evaluation on Parkinson's Disease by Implementing ML	International Journal of Innovative Research in Science, Engineering and Technology	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
4.	Swetha K B	Design and Implementation for Drowsiness and Alcohol Intoxication Detection of Driver	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
5.	Arpitha Martin	Digital Signature for E-Governance-Security& Authentication	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
6.	Arpitha Martin	Vehicle Monitoring and Accident Alert System using IOT	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
7.	Arpitha Martin	Evaluating the Real-Time Air Quality Data Using IOT	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
8.	Dr Naveen M	Evaluating the Real-Time Air Quality Data Using IOT	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019

9.	Dr Naveen M	Credit Card Fraudulent Transaction Detection	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
10.	Emmanuel R	Attendance Management System Using Face Recognition	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
11.	Emmanuel R	Chat-Bot for College Management using NLP and ML	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
12.	Ganesh M	A Machine Learning Approach for stock forecasting using Regression algorithm	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
13.	Ganesh M	Brain Tumor Detection and Classification using Machine Learning	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
14.	Vani S	IOT Based Vehicle Emission Monitoring System using Raspberry Pi	International Journal of Innovative Research in Computer and Communication Engineering	e-ISSN:2320-9801, p-ISSN:2320-9798	2019
15.	Arpitha Martin	A Study on Importance of Digital Signature for E-Governance	THINK INDIA	ISSN:0971-1260	2019
16.	Emmanuel R,	Implementation of Chat-Bot System using Machine Learning and Natural Language Processing	THINK INDIA	ISSN:0971-1260	2019
17.	Arpitha M R	A Study on Applying Machine Learning approach to Forecast a Software Defect	THINK INDIA	ISSN:0971-1260	2019
18.	Swetha K B	Improved Smart Reading System for the Electrical Energy Meters	THINK INDIA	ISSN:0971-1260	2019
19.	Swetha K B	Prediction of Depression via Social Media and Ways to Provide Solution	THINK INDIA	ISSN:0971-1260	2019
20.	Arpitha Martin, Vani Sapthasagar	A IOT Frame work for Accident Detection, Vehicle Monitoring and Accident Alert	THINK INDIA	ISSN:0971-1260	2019
21.	Vinod L B	An Employment Discussion Conversation Structure with Independent Machine ERICA	THINK INDIA	ISSN:0971-1260	2019
22.	Vinod L B,	LEACH Protocol for gathering the data in Wireless network by using EE-LEACH Protocol	THINK INDIA	ISSN:0971-1260	2019
23.	Arpita Martin. SHWETHA K B	Survey on Prediction of Despair via Social Media and Remedies for it.	THINK INDIA	ISSN:0971-1260	2019
24	Suneetha.M	A Study on BigData Management in an Apache Environment	Global Scientific Journals	ISSN: 2320-9186 ,GSJ:Volume 6,Issue 7, July 2018	2018
25	Suneetha.M	Big Data Management: Market Analysis of Banking Sector	Conference Series LLC Ltd	ISSN: 2229-5518	2018
26	Suneetha.M	A Study on improving Query Performance Using Bucketing in Apache Hive	International Journal of Scientific & Engineering Research	ISSN: 2394-2320	2017
27	Suneetha.M	Comparison of Keyword Search and Ranked Keyword search in Cloud computing	International Journal of Innovative Research in Computer and Communication Engineering	ISSN: 2277-4408	2017
28	Suneetha.M	An Innovative Model for Optimization of Image and Video Analytics in the context of Big Data Management	International Journal of Computer Science Information and engineering , Technologies	ISSN: 2277-4408	2017
29	Vani saptasagar	Comparison of Keyword Search and Ranked Keyword search in Cloud computing	International Journal of Engineering Research in Computer Science and engineering	ISSN: 2394-2320	2017

Ph.D guided / Ph.D. awarded during the assessment period while working in the institute

Table 5.7.1 (iii) Details of Ph.D. awarded/Research Scholar

SL.No	Name of faculty	Details of Faculty	University	Title of Research	Year of Completion
Awarded					
1	Dr Sumanth V	Part-Time	VTU	"An Optimal Web usage mining technique for personalizing the web directory by using possibilistic fuzzy C means and Relevance feedback algorithm"	2020
Research Scholars					
1	Swetha KB	Part- Time	VTU	"Design & Develop an efficient framework for ubiquitous computing using Location sensing Technology"	Pursuing

2	Arpitha Martin	Part-Time	KSAWU	“Bandwidth Management by using Machine learning Techniques”	Pursuing
3	Emmanuel R	Part-Time	Veltech University	“Avoiding spam attack and improving crawling in web news in cloud computing”	Pursuing

5.7.2 Sponsored Research (5)

Institute Marks :

2019-20 (CAYm1)

Project Title	Duration	Funding Agency	Amount

2018-19 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2017-18 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

5.7.3 Development Activities (10)

Institute Marks : 10.00

- **Product Development**

Table 5.7.3 (i) Details of Product Development

Sl No	Product /Patent Name	Description	Faculty Name
1	RR Blood Bank	This product acts as an important role in saving life of human beings and which is also its main aim. The project RR Blood Bank system is developed so that users can view the information about registered blood donors such as name, address, and other such personal information along with their details of blood group and other medical information of donor. The product also has a login page where in the user is required to register and only then can view the availability of blood and may also register to donate blood if he/she wishes to. This product requires internet access and thus there is a disadvantage of internet failure. Thus this application helps to select the right donor online instantly using medical details along with the blood group. The main aim of developing this application is to reduce the time to a great extent that is spent in searching for the right donor and the availability of blood required. Thus this application provides the required information in no time and also helps in quicker decision making	Dr. Naveen. M
2	Indian Patent filed and published-202141032726	Machine Learning and IOT Based smart warehouse management system for early detection of spoilage	Dr.Naveen M Dr. Sumanth V
3	Indian Patent filed and published 202121039140	A web based system for breast cancer prediction using XGBoost classifier	Dr.Naveen M Dr. Sumanth V

- **Research laboratories**

- R & D Lab is used by faculties and students.
- This Lab consists of 10 computers with required softwares installed for Research & Development. All the computer systems in the lab have internet and LAN connection.

- LCD projector is available for demonstration of new projects done by the students.
- Faculties use this lab for doing their research work For Pursuing their PhD.
- Students use this Lab to develop their projects and to apply for fundings.

- **Instructional Materials**

Table 5.7.3 (ii) Details of Instructional Materials

S.No	Details
1	Lab Manuals
2	Assignments
3	PPT
4	LCD Projector
`5	Mini/Major Projects
6	Lab Description Charts
7	Lecture Notes
8	Blogspot

- **Working models/charts/monograms etc.**

Table 5.7.3 (iii) Details of **Working Models**

Sl No	Student/Faculty Name	Model Name	Year
1	Sanjay kumar G, Chirag P, Sibin, Swetha K B	Digital Notice Board using Speech to Text Conversion	2018
2	Saroj Doranga, Bibek Khatri, Rohit Upadhya Y, Pavan N	Classification Of Cancerous Profile Using Machine Learning	2019
3	Jayanth C R, Yashaswini R, Varsha K, Kavya C, Vani S	Air Pollutant vehicle tracking System based on IOT	2020

charts

Subject oriented Charts are displayed in Laboratories :

- Web Programming
- Computer Networks
- Data base Management System
- Computer Graphics
- C Programming Charts
- Data Structure and Algorithm
- Analog and digital Electronics

5.7.4 Consultancy(from Industry) (5)

Institute Marks :

2019-20 (CAYm1)

Project Title	Duration	Funding Agency	Amount

2018-19 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2017-18 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

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

Total Marks 30.00

Institute Marks : 30.00

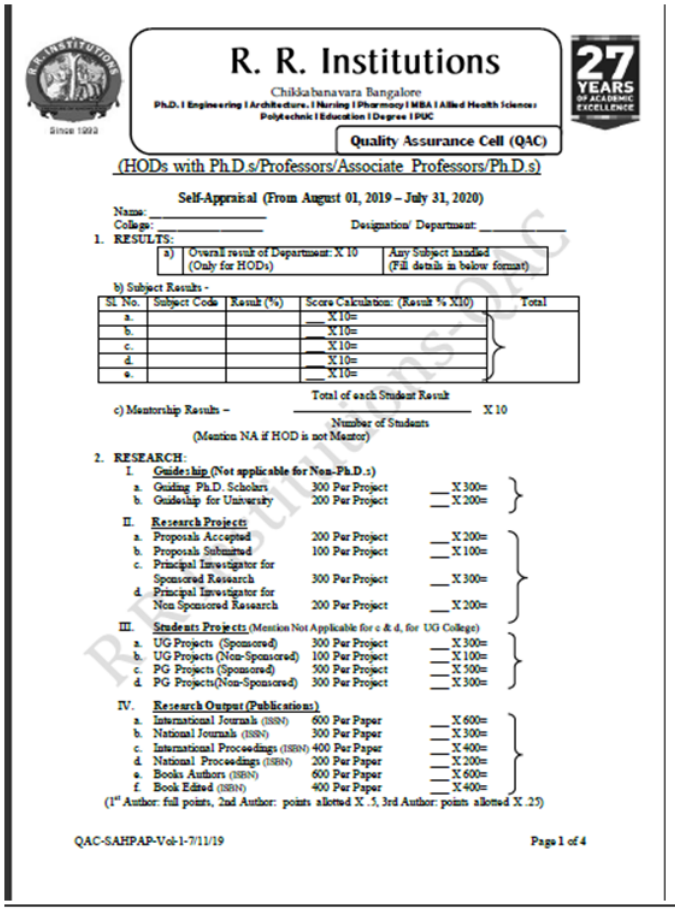
Faculty Performance Appraisal is evaluated by collecting the self- appraisal form from each faculty in which they need to present their Academic progress , Research progress and other Contributions for their self-renewal to cope up with changes in technology.
Based on the Self Appraisal evaluation the Faculty will be recommneded for awards and annual Increments.
The Following Parameters are used to evaluate the Faculty Performance Appraisal which is shown in Table 5.8(i):

Table 5.8(i): Parameters for Faculty Self Appraisal

Sl.No	Parameters	Evidences
1.	**RESULTS:** a. Subject Results	Consider Subjects (Theory & Practical) of which results are announced in the duration mentioned for appraisal

	b. Mentorship Results	Result sheet of each Student under respective Proctor System
2.	Guiding Students Projects/Research Students (Mention Not Applicable for c & d, for UG College) a. UG Projects (Sponsored) b. UG Project (Non-Sponsored) c. PG Projects (Sponsored) d. PG Projects(Non-Sponsored)	• Sponsored Project • Acceptance Letter by funding Agency • Project Competition Letter • Non-sponsored: • First copy of Project, with Title, Student name and Faculty name • Group Project will be single count
3.	Number of Students guided for presentation of Papers / Posters/ Internship (not covered in Point.3)	• Certificate on presentation by organizing committee • Certificates of events organised by R R Institutions will not be considered • Certificates of Internship
4.	Student Evaluation (Total of all subjects and Average X Ten Times)	• Feedback sent by QAC recently to be considered • Students Appraisal (feedback) scores Total of all subjects X 10 • Number of subjects
5.	Number of Research activity (Papers Published) Note: (1st Author: full points, 2nd Author: points allotted X .5, 3rd Author: points allotted X .25)- • International Journals (ISSN) • National Journals (ISSN) • International Proceedings (ISBN) • National Proceedings (ISBN) • Books Authors (ISBN) • Book Edited (ISBN)	• **Journal:** • First Sheet of the paper displaying Title, Author Name, Journal Name and ISSN compulsory • **Proceedings:** • Index sheet mentioning Title and Author Name • Front & back cover page of proceeding showing ISBN number • **Book:** Front and back cover displaying Title, Author's name and RR Institution affiliation and ISBN number
6.	MOU signed / Centre Of Excellence Established	• MOU signed copies / Certificate of COE from companies
7.	Invited/Expert Lecture: a. At Industry b. Colleges (outside RR Institutions) c. At RR Institutions (not in the respective college)	• Appreciation Letter / Certificate from Host Organisation
8.	Membership of Professional Societies: a. Any Life member b. New Membership taken during the year	• Memberships taken in Academic Year 2018-19 will be considered • Proof of Registration of membership with date
9.	University Assignments: a. Member of Academic Council b. Members of BOS / BOE c. External Examiner / External DCS d. Question Paper setting	• Letter from University for allotted work
10.	Co-ordinator for organizing Conference/Seminar/ Work Shop/QIP/FDP Etc	• Invitation copies displaying as convenor • Certificates given by QAC for organizing events • Multiple Coordinators for single event will not be considered • Only main Coordinator will be considered
11.	Attending Conference/Seminar/ Work Shop/QIP/FDP Etc	• Certificates of the events with faculty and college name
12.	Awards: a. State level/ Regional Level b. National Level c. International Level	• Certificates of Awards
13.	Additional Responsibilities (Given by Principal/Management)	• Letter from College registered allotted work • Events organising will not be considered here
14.	Committee Incharges	• Members of committee • Committee should be functional / conducting meetings / events etc.
15.	Any other Contribution for Image building of College (not mentioned in any above)	• Proofs for the same • Considered which is not added in questions 1-14

- Sample Format of Appraisal Form HOD with phd/ Professors /associate Professors /ph.D 2019-2020



R. R. Institutions

Chikkabanavara Bangalore

Ph.D. | Engineering | Architecture. | Nursing | Pharmacy | MBA | Allied Health Sciences | Polytechnic | Education | Degree | PUC

Since 1993

27 YEARS OF ACADEMIC EXCELLENCE

Quality Assurance Cell (QAC)

(HODs with Ph.D.s/Professors/Associate Professors/Ph.D.s)

Self-Appraisal (From August 01, 2019 – July 31, 2020)

Name: _____

College: _____ Designation/ Department: _____

1. **RESULTS:**

a)	Overall result of Department: X 10 (Only for HODs)	Any Subject handled (Fill details in below format)

b) Subject Results -

Sl. No.	Subject Code	Result (%)	Score Calculation: (Result % X10)	Total
a.			___ X10=	
b.			___ X10=	
c.			___ X10=	
d.			___ X10=	
e.			___ X10=	

c) Mentorship Results – $\frac{\text{Total of each Student Result}}{\text{Number of Students}}$ X 10

(Mention NA if HOD is not Mentor)

2. **RESEARCH:**

I. **Guideship (Not applicable for Non-Ph.D.s)**

a.	Guiding Ph.D. Scholars	300 Per Project	___ X 300=
b.	Guideship for University	200 Per Project	___ X 200=

II. **Research Projects**

a.	Proposals Accepted	200 Per Project	___ X 200=
b.	Proposals Submitted	100 Per Project	___ X 100=
c.	Principal Investigator for Sponsored Research	300 Per Project	___ X 300=
d.	Principal Investigator for Non Sponsored Research	200 Per Project	___ X 200=

III. **Students Projects** (Mention Not Applicable for c & d, for UG College)

a.	UG Projects (Sponsored)	300 Per Project	___ X 300=
b.	UG Projects (Non-Sponsored)	100 Per Project	___ X 100=
c.	PG Projects (Sponsored)	500 Per Project	___ X 500=
d.	PG Projects(Non-Sponsored)	300 Per Project	___ X 300=

IV. **Research Output (Publications)**

a.	International Journals (ISSN)	600 Per Paper	___ X 600=
b.	National Journals (ISSN)	300 Per Paper	___ X 300=
c.	International Proceedings (ISBN)	400 Per Paper	___ X 400=
d.	National Proceedings (ISBN)	200 Per Paper	___ X 200=
e.	Books Authors (ISBN)	600 Per Paper	___ X 600=
f.	Book Edited (ISBN)	400 Per Paper	___ X 400=

(1st Author: full points, 2nd Author: points allotted X .5, 3rd Author: points allotted X .25)

3.	Consultancy Work (with financial profits to College)	400 Per Work	___ X 400=
4.	MOU signed / Centre Of Excellence Established	200 Per Work	___ X 200=
5.	Number of Students guided for Presentation of Papers / Posters (Not covered in Point 2 (II))	200 Per Event	___ X 200=
6.	Membership of Professional Societies:		
a.	Any Life member	100 Per Unit	___ X 100=
b.	New Membership taken during the year	200 Per Unit	___ X 200=
7.	University / Assignments:		
a.	Member of Academic Council	300 Per Unit	___ X 300=
b.	Members of BOS / BOE	200 Per Unit	___ X 200=
c.	External Examiner / External DCS	200 Per Unit	___ X 200=
d.	Question Paper setting	100 Per Unit	___ X 100=
8.	Awards		
a.	International Level	300 per award	___ X 300=
b.	National Level	200 per award	___ X 200=
c.	State level/ Regional Level/ R.R. Institutions	100 per award	___ X 100=
9.	Main Co-ordinator for organizing Conference/Seminar/ Work Shop/ QIP/FDP Etc	200 Per event	___ X 200=
10.	Attending Conference/Seminar /Workshop/FDP	100 Per Unit	___ X 100=
11.	Invited/Expert Lecture:		
a.	At Industry	300 Per Lecture	___ X 300=
b.	Colleges (outside R.R. Institutions)	200 Per Lecture	___ X 200=
c.	At RR Institutions (not in the respective college)	100 Per Lecture	___ X 100=
12.	Committee Incharges (not mentioned in any of the above)	300 per Com.	___ X 300=
13.	Student Evaluation (Ten Times Average)		
14.	Additional Responsibilities (Given by Principal/Management)	100 Per Unit	___ X 100=
15.	Any other Contribution for Image building of College (not mentioned in 12 & 14)	200 per Activity	___ X 200=

Total Scored Points:

SIGNATURE OF STAFF SIGNATURE OF HOD

PRINCIPAL

Verified by: Signature

- Sample Format of Appraisal Form Teacher HOD without phd/ Professors 2019-2020

R. R. Institutions

Chikkabanavara Bangalore

Ph.D. | Engineering | Architecture | Nursing | Pharmacy | MBA | Allied Health Sciences | Polytechnic | Education | Degree | PUC

Since 1993

27 YEARS OF ACADEMIC EXCELLENCE

Quality Assurance Cell (QAC)

(Teachers/HODs without Ph.D.s)

Self-Appraisal Form (from August 01, 2019 – July 31, 2020)

Name: _____ College: _____

Designation/ Department: _____

1. Results:

a) Subject Results -

Sl. No.	Subject Code	Result (%)	Score Calculation: (Result % X10)	Total
a.			___ X 10=	
b.			___ X 10=	
c.			___ X 10=	
d.			___ X 10=	
e.			___ X 10=	
f.			___ X 10=	
g.			___ X 10=	
h.			___ X 10=	

b) Mentorship Results – $\frac{\text{Total of each Student Result}}{\text{Number of Students}}$ X 10= ___

2. Guiding Students Projects/Research Students (Mention Not Applicable for c & d, for UG College)

a.	UG Projects (Sponsored)	300 Per Project	___ X 300=
b.	UG Project (Non-Sponsored)	100 Per Project	___ X 100=
c.	PG Projects (Sponsored)	500 Per Project	___ X 500=
d.	PG Projects(Non-Sponsored)	300 Per Project	___ X 300=

3. Number of Students guided for Presentation of Papers / Posters (not covered in Point 2) — 200 Per Event — ___ X 200=

4. Student Evaluation (Total of all subjects and Average X Ten Times)

5. Number of Research activity(Papers Published)

a.	International Journals (ISSN)	600 Per Paper	___ X 600=
b.	National Journals (ISSN)	300 Per Paper	___ X 300=
c.	International Proceedings (ISBN)	400 Per Paper	___ X 400=
d.	National Proceedings (ISBN)	200 Per Paper	___ X 200=
e.	Books Authors (ISBN)	600 Per Paper	___ X 600=
f.	Book Edited (ISBN)	400 Per Paper	___ X 400=

(1st Author: full points, 2nd Author: points allotted X .5, 3rd Author: points allotted X .25)

6. MOU signed / Centre Of Excellence Established — 200 Per Work — ___ X 200=

7. Invited/Expert Lecture:

a.	At Industry	300 Per Lecture	___ X 300=
b.	Colleges (outside RR Institutions)	200 Per Lecture	___ X 200=
c.	At RR Institutions (not in		
d.	the respective college)	100 Per Lecture	___ X 100=

8. Membership of Professional Societies:

a.	Any Life member	100 Per Unit	___ X 100=
b.	New Membership taken during the year	200 Per Unit	___ X 200=

9. University / Assignments:

a.	Member of Academic Council	300 Per Unit	___ X 300=
b.	Members of BOS / BOE	200 Per Unit	___ X 200=
c.	External Examiner / External DCS	200 Per Unit	___ X 200=
d.	Question Paper setting	100 Per Unit	___ X 100=

10. Main Co-ordinator for organizing Conference /Seminar/ Work Shop/QIP/FDP Etc — 300 Per event — ___ X 300=

11. Attending Conference/Seminar/ Work Shop/ QIP/FDP Etc — 100 Per Unit — ___ X 100=

12. Awards

a.	State level/ Regional Level/ R.R.Institutions	100 per award	___ X 100=
b.	National Level	200 per award	___ X 200=
c.	International Level	300 per award	___ X 300=

13. Additional Responsibilities (Given by Principal/Management) — 100 Per Unit — ___ X 100=

14. Committee Incharges (not mentioned in 13) — 100 per Com. — ___ X 100=

15. Any other Contribution for Image building of College (not mentioned in 13, 14) — 200 Per Activity — ___ X 200=

Scored Points: Total Scores:

SIGNATURE OF STAFF SIGNATURE OF HOD

PRINCIPAL

Verified by: Signature

- **Sample copy**

R.R. Institute of Technology
Chikkabanavara, Bangalore-560090
Internal Quality Assurance Cell
IQAC Version: 01

Performa for Self-Performance Evaluation of Teaching

Academic year: 2017 - 2018

Name of the Teacher: SHETHA. K.B

Designation/ Department: Assistant Professor [ISE]

1. Theory Subjects: Marks/Unit — 100 per Subject

Sl. No.	Subject Code	No. of Classes Handled	% Portion Covered	% of Result
①	101574	52	100%	90
②	15CS565	40	100%	100
③	15CS661	40	100%	Results Awaited
④	10CS545 / 10CS555	52 / 52	100% / 100%	Results Awaited

2. Practical Subjects: 50 per Subject

Sl. No.	Subject Code	No. of Classes Handled	% Portion Covered	% of Result
①	10CSL77	13	100%	100
②	15CSL58	13	100%	100
③	15CSL48	13	100%	Results Awaited
④	15ISL67	13	100%	Results Awaited

3. Guiding Students Projects/Research Students

i.	UG Projects (Sponsored)	300 Per Project
ii.	UG Project (Non-Sponsored)	1 × 100 Per Project – 100
iii.	M. Tech Projects (Sponsored)	500 Per Project
iv.	M. Tech Projects	300 Per project
v.	M.Sc Engg by research	50 Per Project
vi.	Ph.D Students	100 Per Students

4. Number of Research Papers Published

i.	In International Journals	600 Per Paper
ii.	National Journals	1 × 500 Per Paper – 500
iii.	International Conference/Seminars	400 Per Paper
iv.	National Conference/Seminars	1 × 300 Per Paper – 300
v.	Work Shop/Training Programmes	200 Per Paper

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7. Preparation of Laboratory Manuals — 2 × 200 Per Student – 400; 7 × 100 Per Paper – 700; 2 × 100 Per Manual – 200
8. Co-Ordinator for organizing conference/Seminar/ Work Shop/Training Programme — 9 × 300 Per Unit; 100 Per Unit – 900; 400 Per Project
9. Attending Conference/Seminar/Workshop — 300 Per Project; 400 Per Work – 400; 100 Per Test – 100
10. Principal Investigator for Sponsored Research Project — 300 Per Lecture
11. Principal Investigator for AICTE Projects (MODROBS/RESEARCH) — 100 Per Lecture; 2 × 200 Per Unit – 400
12. Consultancy Work — 300 Per Unit; 200 Per Unit; 100 Per Unit – 200
13. Testing Work Under Taken — 100 Per Unit – 800
14. Invited Lecture in Conference/Seminars — 100 Per Unit
15. Expert Lecture Delivered in Work shop Training Programme/Institution — 100 Per Unit; 300 Per Book; 200 Per Book
16. Membership of Professional Societies — 200 Per Activity
17. University/AICTE/DTE Assignments Chairmanship / Membership / Others
18. Additional Responsibilities (Co-Ordinator/Dy. Chief/Warden etc)
19. Student Evaluation (Ten Times Average)
20. Training Programme
21. Authoring Books
22. Book Edited
23. Any other Contribution/Activities(Specify)

① Editorial Board ② Proctor ③ Admission Processing ④ Discipline ⑤ Stock Verification ⑥ Organizing Team Member for Workshops

Total scored points: 5876

SIGNATURE OF STAFF

SIGNATURE OF HOD
HOD of Information Science Engineering
R.R. Institute of Technology
Hesaraghatta Main Road, Chikkabanavara, Bangalore - 90.

PRINCIPAL

Verified by:

Signature

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

Institute Marks :

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 74.00

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

Total Marks 28.00

Institute Marks : 28.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Computer Programming Laboratory	20	CPU: Intel Motherboard, Dual core processor, 4GB RAM, 500 GB Hard disk, 15” Monitor, Projector, Windows 7 starter, C++/ Turbo C MS office	9 hours	Swetha H C	Programmer	B.E
2	Data structure Laboratory and Design and Analysis of Algorithm Laboratory/Software Testing Laboratory	20	CPU: Intel core i3 7100 @ 3.9 Ghz, 4 GB RAM, 1TB hard disk, 19.5” dell monitor Windows 7 starter Turbo C Python Anaconda-3.5 MS office-10	9 hours	Santhosh Karnth	Instructor	MSc
3	Analog and Digital Electronics Laboratory	20	DC- Regulated power supply. Function generator. Decade resistance box. 4) Decade induction box. Decade capacitance box. Op-Amp fixed power supply Digital multimeter Linear IC kit Digital IC trainer kit	9 hours	Pavan H	Instructor	Diploma
4	Microcontroller Laboratory	20	Advanced trainer kit ARM7 architecture using LPC2148 CPU: Intel dual core processor, 4 GB RAM, 500 GB HDD, 19” monitor, KEIL-4	9 hours	Kavya Gururaj Roa	Instructor	M.Sc
5	Computer Network Laboratory / System Software and Operating System Laboratory	20	CPU: Intel Pentium dual core @ 3.20 Ghz, 4GB RAM, 500 GB HDD, 15” chirag monitor Feroda NCTUNS-4.0 N8-2 simulator tool, Turbo C	9 hours	Mamatha K B	Instructor	Diploma
6	DBMS Laboratory / Computer Graphics Laboratory	20	CPU: Intel Pentium dual core @ 3.20 Ghz, 4GB RAM, 500 GB HDD, 15” chirag monitor Optiplex 980 i5 processor @ 3.2 Ghz, 4 GB RAM, 250 GB HDD, 15” monitor. SQL Oracle-11G Turbo C	9 hours	Siddalingappa	Instructor	Diploma
7	Machine Learning Laboratory/ Project Laboratory	20	Dell optiplex 3050 MT, CPU: i3 7100 @ 3.9 Ghz, 4 GB RAM, 1TB HDD, 19.5” monitor, Turbo C, Python, Anaconda-3.5	9 hours	Satyanarayanan V	Programmer	B.Sc
8	Web Technology Lab/ Project Laboratory	20	CPU: Intel Pentium dual core @ 3.20 Ghz, 4GB RAM, 500 GB HDD, 15” chirag monitor Wamp server, Xamp server, Fedora-8/14	9 hours	Swetha G N	Instructor	Diploma

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

Total Marks 23.00

Institute Marks : 23.00

Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	Software available	Sublime text XAMPP Flash Magic MASM Keil NS2 Anaconda LaTeX	Mini projects/Projects/Lab Programs	It is used by the students to conduct various experiments	Web programming, ARM Processor programming, Assembly programming, Simulator programming, Python and R programming languages, Project work Report writing	PO3, PO5 PSO2
2	Access to Internet	Ethernet/WiFi	Access to Web Resources	It is available throughout the year for utilization for students and staffs	Inculcate self-learning skills	PO10, PO12
3	Access to e-learning and Journals	E-Resources packages available, IEEE-IEL Online, Springer, Taylor & Francis, Proquest Technology, Knimbus (10000+ E-journals), Kopykitab EBooks/Test Preparation platform, VTU-E-Consortium	To help students to enhance their knowledge with latest trends and updates in the field of technology	It is available throughout the year for utilization	Students and staff can access to e-learning and Journal books, to have a better understanding of subjects this helps to carry out project work smoothly.	PO1, PO2, PO12, PSO2
4	Virtual Lab	To provide remote-access to simulation-based Labs in various disciplines of Science and Engineering.	To provide remote-access to simulation-based Labs in various disciplines of Science and Engineering	To enthuse students to conduct experiments by arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.	Machine Learning,IOT, Cloud computing, Computer networks, Data mining, Image processing	PO6, PO7, PO9, PO11, PO12
5	D-Book	D-Bookstore enables you to seek out precise context specific content	A teaching faculty of an institution uploads some content on a topic or subject through the D-Bookstore deployed in the institution.	It is utilized by the students for their Academic purpose.	Students and staff can access to D-Book store , to have a better understanding of subjects.	PO1,PO2,PO3,PO4,PO5,PO6,PO12
6	Research Lab	Systems with LAN Connectivity	Research work and to develop system Application	It is used by Research Scholars and Students	Artificial Intelligence & MAchine Learning, Cloud computing, Computer networks, Data mining, Image processing and IOT	PO6, PO7, PO9, PO11, PO12
7	Edusat Lab	Equified with systems, A-View, Software, LCD Projector, Audino System & Recording Facility	To Support students to Gain Academic Knowledge through e Learning	Faculties & UG Students	Self Learning	PO1, PO2, PO12, PSO1
8	Digital Library	Equipped with computer systems, E-Resources packages available, IEEE-IEL Online, Springer, EBooks/ Test Preparation Platform, Proquest, Knimbus, Kopykitab, Taylor & Francis, Asian Age International, NDL of India, Institutional Repository, VTU-E-Consortium	To help students to enhance their knowledge with latest trends and updates in the field of Technology	It is available throughout the year. Utilized by all the research scholars, students and faculties.	Inculcate self-learning skills	PO1, PO2, PO12, PSO1
9	Language Lab	It is equipped with Computer Systems, Internet Connection, Projector, Software, Head Set and Teaching Board	To Teach Lessoning, Speaking, Reading & Writing Skills (LSRW)	UG Students	English & Communication Skills	PO10, PO12
10	Internet of Things Lab	It is equipped with Raspberry pi kit, Arduino kit Customized CDAC kit	To explore in the field of Internet of Things and conduct Experiments.	Faculties, Research Scholars & UG students	Aurdino IDE programming, Python programming, Circuit building.	PO2, PO3, PO4, PO5, PO9, Po12, PSO2

6.3 Laboratories: Maintenance and overall ambiance (10)

Total Marks 10.00

Institute Marks : 10.00

Maintenance of Laboratory Equipments:

1. Maintenance of laboratory equipment includes computer system, CRO, digital kit and Function generator.
2. Maintenance is done in two ways:

Regular maintenance:

1. Regular maintenance of computer system is done by deleting junk files and formatting the system.
2. As per requirement minor repairs are carried out by the lab assistant & faculty member.
3. Major repairs are outsourced by following the procedure of the institute.

On call maintenance:

1. On call maintenance is done in case of major issue or breakdown of the equipment.
2. In case of any major issue or breakdown of the equipment, a complaint is raised from the department to System administration department.
3. If issue is not resolved by System admin department further based on the recommendation the new equipment shall be procured.

Overall ambiance:

1. All laboratories have a seating capacity as per the requirements.
2. Laboratories are equipped with LCD projectors, white screen and white board. The boards are installed in places with proper lighting.
3. The laboratories are spacious, well ventilated and well furnished.
4. The laboratories are provided with un-interrupted power supply.
5. House Keeping will be done regularly.
6. The cleanliness of the laboratory is maintained.
7. The overall ambiance of the laboratories is serene and provide excellent learning environment.

6.4 Project laboratories (5)

Total Marks 4.00

Institute Marks : 4.00

In department, Project labs has been utilized for project works to be carried out by students of all semesters.Project Laboratory enables UG students to obtain hands-on experience and to realize their project ideas as executable projects which is a part of Program curriculum.

Table 6.4(i) List of Softwares available and their utilization

Sl. No	Software Available	Utilization
1	Back End-SQL, MySql, MS Sql 2005 Front End – Java Net Beans / Eclipse, PHP	DBMS Mini Project – V Semester, FS Mini Project – VI Semester
2	Web Servers : XAMPP, Tomcat Server	Database related projects for Final year Students
3	Python, HTML, CSS, Java script, PHP, Java- Net Beans, Eclipse, NS2, NS3,Zamp server	Application and research oriented projects for final year students.

6.5 Safety measures in laboratories (10)

Total Marks 9.00

Institute Marks : 9.00

Sr. No	Laboratory Name	Safety Measures
1	Computer Programming Laboratory	- Fire Extinguisher - Do's and Dont's board - First aid box - Antivirus -Centralized Power back up -CCTV
2	Data structure Laboratory and Design and Analysis of Algorithm Laboratory/Software Testing Laboratory	- Fire Extinguisher - Do's and Don'ts board - First aid box - Antivirus -Centralized Power back up -CCTV
3	Analog and Digital Electronics Laboratory	- Fire Extinguisher - Do's and Don'ts board - First aid box - Antivirus -Centralized Power back up -CCTV
4	Micro Controller Laboratory	- Fire Extinguisher - Do's and Dont's board - First aid box - Antivirus -Centralized Power back up -CCTV
5	Computer Network Laboratory	- Fire Extinguisher - Do's and Dont's board - First aid box - Antivirus -Centralized Power back up -CCTV
6	DBMS Laboratory / File Structures Laboratory	- Fire Extinguisher - Do's and Dont's board - First aid box - Antivirus -Centralized Power back up -CCTV
7	Machine Learning Laboratory/ Project Laboratory	- Fire Extinguisher - Do's and Dont's board - First aid box - Antivirus -Centralized Power back up -CCTV
8	Web Technology Lab/ Project Laboratory	- Fire Extinguisher - Do's and Dont's board - First aid box - Antivirus -Centralized Power back up -CCTV

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 45.00

7.1 Actions taken based on the results of evaluation of each of the POs & PSOs (20)

Total Marks 15.00

Institute Marks : 15.00

POs Attainment Levels and Actions for Improvement- (2019-20)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	70%	73%	Target Achieved
We encourage students to participate in technical events, other events where their basic knowledge should convert to application matching with a defined level of their standards.			
PO 2 : Problem Analysis			
PO 2	71%	70%	Target Achieved
Students are encouraged to observe their homes and surroundings to gain insight into real life engineering problems and think of possible approaches/solutions to these problems. Gained knowledge on complex engineering problems and solutions on visiting industries.			
PO 3 : Design/development of Solutions			
PO 3	66%	70%	Target Achieved
Students are motivated to include all standard parameters and constraints according to National and International safety norms and to address environmental concerns.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	60%	62%	Target Achieved
Academic workshops and Hands on session are coming into picture to apply more knowledge in terms of conduction of experiments and analysis of results at required level.			
PO 5 : Modern Tool Usage			
PO 5	76%	65%	Target Not Achieved
Students need to be exposed to use of technological advancement in lieu of solving the problems. Action 1: Modern labs are developed to demonstrate the use of Modern tools like Software testing, Python, Java etc. to specify fulfillment of requirements in engineering applications in the new industrial era. Action 2: Workshop and Hands on Session to train Modern tools.			
PO 6 : The Engineer and Society			
PO 6	58%	41%	Target Not Achieved
Action 1: To understand the safety concerns and social aspects, students visited industry to expand their practical knowledge with the effect of improved practices in engineering. Action 2:Emphasize on security and social issues in engineering practices by conducting expert talks and guest lectures.			
PO 7 : Environment and Sustainability			
PO 7	52%	44%	Target Not Achieved
Action 1: Students are encouraged to indulge in projects, in which global and environmental issues are improved, with respect to consumption of energy and utilization of renewable energy resources. Action 2: Students will Undergo internships in industries carrying out societal technical projects.			
PO 8 : Ethics			
PO 8	70%	53.33%	Target Not Achieved
Action 1: Career readiness program, corporate lectures and motivational talks are arranged to overcome the above observations. Action 2:Plagiarism for paper Published and student Project reports will be adopted.			
PO 9 : Individual and Team Work			
PO 9	57%	60%	Target Achieved
Institute has initiated a Program which provides a platform to work in individual as well as a group in the fields of Engineering helps the students to groom the skills like leadership, effective team members.promote students leadership qualities by providing platform for co-curricular and extra-curricular.			
PO 10 : Communication			
PO 10	51%	62%	Target Achieved
Soft skills training is imparted to students to enhance various aspects of communication/technical talks by group discussions, presentations and new learning outcomes.			
PO 11 : Project Management and Finance			
PO 11	73%	51%	Target Not Achieved
Action 1: The awareness created among the students regarding the management principles and managing projects. Action 2:Participate in organizing departmental and college events Action 3:Interdisciplinary projects and Add-on courses on project management.			
PO 12 : Life-long Learning			
PO 12	69%	58%	Target Not Achieved
Action 1: Using ICT(Information & Communication Technology) facilities, such as PPT's, live demonstration of topic imparted using video lectures. Lecture content includes new technological developmental tools and knowledge of new Products. Action 2: Motivate for higher studies and Updating with global certifications time to time			

PSOs Attainment Levels and Actions for Improvement- (2019-20)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : The ability to apply the knowledge of software fundamentals and strategies towards the work and various standards of computational industry.			
PSO 1	63%	65%	Target Achieved
Students are motivated to take up the real life problems during their project work so that they can design, analyze and find solution which gives exposure to latest technologies			
PSO 2 : Able to design and develop software aspects which are necessary for IT based solutions.			
PSO 2	56%	40%	Target not Achieved
Action 1: Academic workshops and conferences are coming into picture to apply more knowledge in terms of conduction of experiments and analysis as required. Action 2:Internship and Mini-Projects/Projects are done on the modern tools and IT Technologies			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10)

Total Marks 10.00

Institute Marks : 10.00

Course file evaluation

Course files are prepared by faculty members before the semester starts. The academic review committee consisting of HOD and few of departmental senior faculty members performs audit of course files. The comments of the committee are conveyed as feedback to the faculty member to include missing content in course file. This audit ensures the quality deliverables to the students.

Table 7.2(i) Evaluation of Course file

1.	Vision, Mission of Institution & Department
2.	Calendar of events - University
3.	Calendar of Events – College, Department
4.	Attendance Register
5.	Class Time Table
6.	Individual Time Table
7.	Syllabus Copy with text book, reference books
8.	Student List
9.	Toppers list & Below average Students list
10.	Proctor’s list and Proctor student data
11.	Course Objectives & Course Outcomes & Programme Outcome
12.	Lesson Plan
13.	Teaching Diary
14.	University Question Papers : Min 05 (Latest)
15.	Question Bank – Module wise (All 5 Module) - Min 20 Questions per Module
16.	Assignment Questions – Module wise
17.	Internal Test Question Papers & Scheme
18.	Class Test
19.	Lecturer Notes, Copies of PPT & Other Learning Materials
20.	Internal Test Marks List
21.	Subject Results & Student Feed back

Audit on Department File

The academic committee also verifies the maintenance of department documents and give feedback to head of the department,. This ensures the maintenance of documentary evidence at department level, The list of department files audited by committee is listed below.

1. Subject Allocation File
2. Project File (With Synopsis)
3. Seminar File
4. Time Table
5. Lesson as per the New Format
6. CO-PO mapping of the Previous Semester
7. Department Profile
8. Staff Meeting Notice file
9. Circular File
10. Purchase File and Equipment Service Register
11. PTM File
12. Proctor File
13. Department Library File
14. Publication File
15. Collaboration with MOU
16. Conference/Seminar / Workshop
17. Stock register
18. Result Analysis File
19. Department Placement File
20. Course File
21. Personal File (Teaching and Non-Teaching)
22. Feedback Analysis
23. Remedial measure for the weaker students
24. Proctor File
25. Co-Po Calculation

Action taken by the faculty members:

Faculty members incorporate changes suggested by the academic committee, if any gaps are found.

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10) Total Marks 10.00

Institute Marks : 10.00

Table 7.3(i) Placement Details

Year	No of Students for final examination	No of students placed	Salary packages INR in Lakhs	
			MIN	Max
CAYm1 2019-20	33	24(72%)	2.16-3.5	
CAYm2 2018-19	15	8(53%)	2.8-2.85	
CAYm3 2017-18	12	10(83%)	1.8-3.0	

7.4 Improvement in the quality of students admitted to the program (10)

Total Marks 10.00

Institute Marks : 10.00

Item		2020-21	2019-20	2018-19
National Level Entrance Examination	No of students admitted	0	0	0
COMED-K	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
State/ University/ Level Entrance Examination/ Others	No of students admitted	8	11	5
KEA-CET	Opening Score/Rank	75727	57709	71722
	Closing Score/Rank	134988	210951	127263
Name of the Entrance Examination for Lateral Entry or lateral entry details	No of students admitted	0	1	0
KEA-DCET	Opening Score/Rank	0	57709	0
	Closing Score/Rank	0	210951	0
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		0	0	0

8 FIRST YEAR ACADEMICS (50)

Total Marks 41.93

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

Total Marks 5.00

Institute Marks : 5.00

Please provide First year faculty information considering load for the particular program

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
							CAY	CAYm1	CAYm2			
Hanumesh	AHBPH0356C	M.Sc	01/09/2010	Mathematics	Assistant Professor	22/07/2013	100	100	100	Yes	Regular	
Radha R	BRDPR4772B	M.Sc	01/07/2011	Mathematics	Assistant Professor	23/08/2011	100	100	100	No	Regular	30/12/2019
Muktha J	BDEPR9898F	M.Sc	09/05/2008	Mathematics	Assistant Professor	02/08/2010	100	100	100	No	Regular	18/07/2018
Vimala	AIUPV1396A	M.Sc	10/06/2008	Mathematics	Assistant Professor	24/02/2016	100	0	0	No	Regular	05/08/2016
Apoorva E	BGOPA7781H	M.Sc	30/07/2012	Mathematics	Assistant Professor	11/08/2014	100	100	100	Yes	Regular	
Tejaswi C M	ASAPT7787K	M.Sc	12/01/2014	Mathematics	Assistant Professor	01/08/2014	0	100	100	No	Regular	12/02/2016
Shankaranand	BMLPS5390F	M.Sc. and PhD	17/07/2014	Physics	Associate Professor	20/10/2009	100	100	100	No	Regular	17/03/2020
Venkatesh K	AAGPV1705R	M.Sc. and PhD	07/02/1981	Physics	Professor	03/09/2012	100	100	100	No	Regular	31/07/2019
Lakshmidevi	ALCPL0601M	M.Sc	28/09/1998	Physics	Assistant Professor	08/02/2012	100	100	100	No	Regular	12/12/2017
Ashalatha M L	BNZPA4570N	M.Sc	14/07/2014	Physics	Assistant Professor	04/08/2014	100	100	100	No	Regular	03/04/2017
D N Rao	ACMPD4416H	M.Sc. and PhD	24/03/1984	Chemistry	Associate Professor	25/07/2016	100	0	0	No	Regular	31/07/2019
Ajaykumar Sinl	ASGPS3207B	M.Sc. and PhD	09/07/1997	Chemistry	Associate Professor	01/08/2012	100	100	100	No	Regular	31/07/2019
Prakasha M P	BGIPP8530K	M.Phil	01/06/2008	Chemistry	Assistant Professor	16/08/2011	100	100	100	Yes	Regular	
Thejaswini D	BHGPD4257E	M.Sc	03/11/2009	Chemistry	Assistant Professor	22/02/2012	100	100	100	Yes	Regular	
Rudraswamy M	CPMPM5709K	M.Sc	02/12/2013	Civil	Assistant Professor	20/07/2015	100	100	0	Yes	Regular	
Nitish	AVYPN7970M	M.E/M.Tech	10/02/2014	Civil	Assistant Professor	21/07/2014	0	0	100	No	Regular	29/12/2016
NAGENDRA R	AJLPN9618H	M.E/M.Tech	18/04/2011	ME	Assistant Professor	09/09/2011	100	100	100	Yes	Regular	
SRINIVASU N	FMKPS4933P	M.E/M.Tech	28/11/2013	ME	Assistant Professor	06/09/2013	100	100	100	No	Regular	19/07/2017
PRAMOD K	BILPP9375B	M.E/M.Tech	28/11/2013	ME	Assistant Professor	23/08/2013	100	100	100	No	Regular	01/08/2017
Shyamsundar I	CAAPS0372R	M.E/M.Tech	02/05/2011	EEE	Assistant Professor	08/08/2014	100	100	100	No	Regular	26/02/2020
Sowmya G J	BAKPJ7291R	M.E/M.Tech	04/09/2014	EEE	Assistant Professor	21/07/2014	100	100	100	Yes	Regular	
Raghu C N	AISPN1052B	M.E/M.Tech	05/04/2012	EEE	Associate Professor	25/07/2012	100	100	100	No	Regular	30/06/2017
Premsagar H	ANXEG9945L	M.E/M.Tech	03/05/2014	ECE	Assistant Professor	02/09/2013	100	100	100	No	Regular	27/02/2021
Suhas A R	DONPS8187A	M.E/M.Tech	30/11/2011	ECE	Assistant Professor	04/07/2011	100	100	100	No	Regular	23/06/2020
Vani Saptasaga	CDRPS2315A	M.E/M.Tech	10/02/2009	ISE	Assistant Professor	22/07/2013	100	100	100	Yes	Regular	
Ganesha M	BLWPG9245F	M.E/M.Tech	03/02/2010	ISE	Assistant Professor	19/09/2011	100	100	100	Yes	Regular	
M Suneetha	AJUPM8221C	M.E/M.Tech	09/08/2006	ISE	Assistant Professor	24/06/2014	100	100	100	No	Regular	31/07/2020
PRAVEEN KUI	BFMCA7439V	MA	19/09/2013	LAW	Assistant Professor	19/08/2014	100	100	100	No	Regular	27/07/2018
RAVIKUMARA	AFWPR0532F	M.Sc	06/03/2003	MATHEMATICS	Associate Professor	24/08/2012	100	100	100	No	Regular	31/07/2019

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment=(5*20)/FYSFR(Limited to Max.5)
2018-19(CAYm2)	480	26	18	5.00
2019-20(CAYm1)	480	26	18	5.00
2020-21(CAY)	480	27	18	5.00
Average	0	0	0	0

8.2 Qualification of Faculty Teaching First Year Common Courses (5) Total Marks 1.33

Institute Marks : 1.33

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]
2018-19	3	14	24	2.00
2019-20	0	12	24	1.00
2020-21	0	9	24	1.00

Average Assessment: 1.33

8.3 First Year Academic Performance (10) Total Marks 5.60

Institute Marks : 5.60

Academic Performance	2020-21	2019-20	2018-19
Mean of CGPA or mean percentage of all successful students(X)	7.73	6.46	6.16
Total Number of successful students(Y)	32.00	32.00	21.00
Total Number of students appeared in the examination(Z)	44.00	39.00	22.00
API [X*(Y/Z)]	5.62	5.30	5.88

Average API[(AP1+AP2+AP3)/3] : 5.60

Assessment [1.5 * Average API] : 5.60

8.4 Attainment of Course Outcomes of first year courses (10) Total Marks 10.00

8.4.2 Record the attainment of Course Outcomes of all first year courses (5) Institute Marks : 5.00

The attainment of course is evaluated based on the following rubrics.

80% of Weightage to University exams & 20 % weightage to Internal Assessment Test. Based on that attainment level is calculated.

CO/Course code	15MAT11
CO1	Establish nth derivatives of product of two functions and polar curves
CO2	Demonstrate the concept and use of partial differentiation in various engineering problems
CO3	Recognize and solve first order ODE and Newton's law of cooling
CO4	Formulate the integration of trigonometric functions involving positive integral power and solving physical problems
CO5	Analyze the techniques for solving the system of linear equations in different areas of linear algebra
CO6	Explain the velocity and acceleration in three dimension and vector calculus and Identify the rough sketch of curves in various coordinate systems.

CO/Course code	15MAT21
CO1	Analyze and Solve Ordinary differential equations of electrical circuits forced oscillation of mass spring and elementary heat transfer
CO2	Recognize the Partial differential equations in fluid mechanics , electromagnetic theory and heat transfer

CO3	Formulate Double and triple integrals to find Area, Volume, Mass and Moment of inertia of plane and Solid region
CO4	Use curl and divergence of vector valued functions in various applications of electricity magnetism and fluid flows
CO5	Use Laplace transforms to determine general or complete solution to linear ODE
CO6	Interpret the relationship between beta and gamma function and apply the concept for easier approach towards integration

CO/Course code	**15PHY12/22**
CO1	Learn & understand more about basic principles & to develop problem solving skills and implementation in technology
CO2	Gain knowledge about modern about modern physics and quantum mechanics will update the basic concepts to implement the skills.
CO3	Study of material properties and their applications is the prime role to understand and use in engineering applications and studies
CO4	Study lasers and optical fibres and its applications are to input knowledge and to develop skills and to use modern instruments in the engineering applications
CO5	Understand crystal structure and applications are to boost the technical skills and its applications
CO6	Expose shock waves concepts and its applications will bring latest technology to the students at the first year level to develop research orientation programs at higher semester level
CO7	Understand basic concepts of nano science and technology

CO/Course code	**15CHE12/22**
CO1	Understand the principles of electrochemistry & battery technology in our day -today life.
CO2	Apply the knowledge of Corrosion and metal finishing in solving environmental issues.
CO3	Utilize the knowledge of fuels and solar energy for various Engineering applications
CO4	Apply the knowledge of polymer chemistry in replacement of conventional materials by polymers for various applications
CO5	Utilize the knowledge of water technology for various engineering applications
CO6	Develop solutions for problems associated with nano technology.

CO/Course code	**15CIV13/23**
CO1	Know basics of Civil Engineering, its scope of study, knowledge about Roads, Bridges and Dams
CO2	Comprehend the action of Forces, Moments and other loads on systems of rigid bodies
CO3	Compute the reactive forces and the effects that develop as a result of the external loads
CO4	Locate the centroid and compute the MOI of regular cross sections
CO5	Express the relationship between the motion of bodies
CO6	Equipped to pursue studies and allied courses in mechanics

CO/Course code	**15PCD13/23**
CO1	Achieve Knowledge of design and development of problem solving skills
CO2	Understand the basic principles of Programming in C language
CO3	Design and develop modular programming skills.
CO4	Effective utilization of memory using pointer technology, and
CO5	Understands the basic concepts of pointers and data structures.

CO/Course code	**15EME14/24**
CO1	Apply the basic in core mechanical science and principles in their further Engineering Career.
CO2	Perceive the essentialities of sustainable energy generations.
CO3	Impart wide Knowledge about primary parts of Global voracious Consumers' mechanical products (Prime Movers, Refrigeration System, Air-Conditioning system and Boiler).
CO4	Analyze and automate the joints and FOM's eventually conceptualize robot for various case scenarios.
CO5	Recognize engineering materials of any tangible products. Apply the knowledge of tools, machining process and joining processes.

CO/Course code	**15ELN15/25**
CO1	Understand the significance of electronics in present day life.
CO2	Learn the applications of basic electronic circuits like diodes, transistors, flip-flops, transducers, Opamps etc.
CO3	Analyze various modulation technologies and present day communication systems
CO4	Apply the concept of diodes and transistors in rectifiers, filters, oscillators, bias circuits etc
CO5	Design simple circuits like amplifiers, adders, integrator using transistors/opamps
CO6	Design simple digital circuits using FFs which can be used in day to day life.

CO/Course code	**15ELE15/25**
CO1	Impart a basic knowledge of electrical quantities such as voltage, current, power, energy and frequency to understand the impact of technology in a global and societal context.
CO2	Provide working knowledge for the analysis of basic DC and AC circuits used in electrical and electronic devices.
CO3	Develop selection skill to identify the type of generators or motors required for particular application.

CO4	Highlight the importance of transformers in transmission and distribution of electric power.
CO5	Emphasize the effects of electric shock and precautionary measures.
CO6	Improve the ability to function on multi-disciplinary teams.

			Target Set	CO ATTAINED					
SL. No	Subject Name	Subject code		CO1	CO2	CO3	CO4	C05	C06
		1st Year							
1.	Engineering Maths-I ->C101	15MAT11/21	2.0	2.80	2.6	2.3	2.6		
2.	Engineering Physics--> C102	15PHY12/22	2.1	2.80	2.6	2.4	2.6	2.7	1.2
3.	Elements of Civil Engg. & Mechanics ->C103	15CIV13/23	2.5	2.80	2.6	2.4	2.7	2.7	1.5
4.	Elements of Mechanical Engg. ->C104	15EME14/24	2.5	2.6	2.8	2.4			
5.	Basic Electrical Engg.->C105	15ELE15/25	1.8	2.75	2.4	2.6	2.8	2.4	
6.	Workshop Practice	15WSL16/26	2.0	2	2	1	1		
7.	Engg. Physics Lab	15PHYL17/27	2.8	3	2	2	1		
8.	Engineering Maths-II->C111	15MAT11/21	2.0	2.4	2.6	2.8	2.4	2.4	
9.	Engineering Chemistry ->C112	15CHE12/22	2.0	2.75	2.8	2.4	2.6	2.7	1.75
10.	Programming in C & Data Structures->C113	15PCD13/23	2.1	2.8	2.8	2.4	2.4	2.6	
11.	Computer Aided Engineering Drawing-> C114	15CED14/24	2.5	2.6	2.4	2.6			
12.	Basic Electronics ->C115	15ELN15/25	1.5	2.6	2.8	2.4	2.4	2.6	2.8
13.	Computer Programming Lab ->C116	15CPL16/26	2.8	3	3	3	2		
14.	Engg.ChemistryLab ->C17	15CHEL17/27	2.8	3	2				

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5)

Institute Marks : 5.00

Attainment level is be measured in terms of student performance with respect to internal assessments of a subject plus the performance in the University examination)

TAttainment level is be measured in terms of student performance with respect to internal assessments of a subject plus the performance in the University examination)

TARGET & ATTAINMENT LEVELS OF COS FOR INTERNAL ASSESSMENT

Target is stated in terms of number of students scoring greater than or equal to 60% (>=12) in the internal assessment for a maximum marks of 20. Attainment Level 60% of the students scoring greater than or equal to 12 in the internal assessment is set as an attainment level and if the targets are achieved then all the course outcomes are attained for that year

TARGET & ATTAINMENT LEVELS OF COS FOR EXTERNAL ASSESSMENT : Target is stated in terms of number of students pass in examination i.e scoring greater than or equal to 28 marks out of 80 or 40% marks total in the external exam for a maximum marks of 100. Attainment Level 75% of the students scoring greater than or equal to 28 (>= 28) in the external assessment is set as an attainment level and if the targets are achieved then all the course outcomes are attained for that year

Data Collection Process and Procedures:

- **In the Outcome Based Education (OBE), assessment is done through one or more than one processes, carried out by the institution, that identify, collect, and prepare data to evaluate the achievement of course outcomes (CO's).**
- **Assessment tools are categorized into two methods : Direct methods and indirect methods.**
- **Direct methods measures the student's knowledge and skills based on the performance in the continuous internal assessment tests, semester examinations and classroom and laboratory assignments etc. These methods measures the level of what students know and/or can do after learning.**
- **Indirect methods such as surveys will reflect on student's learning. They assess opinions or thoughts about the graduate's knowledge or skills and they are valued through survey from different stakeholders.**

Continuous Internal Evaluation (CIE)

Sl.no	Assessment Methods
1	Test

2	**Quiz**
3	**Assignments**
4	**Seminar**
5	**Laboratory**

Semester End Examination (SEE)

Sl.no	Assessment Methods
1	**Theory examination**
2	**Laboratory examination**

Direct Assessment of Theory & Lab:

- Internal test are conudcted as per the calendar of Events set by instuitutions and IA marks are computed considering the performance of the students in internal test plus assignment .
- The lab evlautions are caluclated as per the rubrics and assigned
- The Maximum Internal assessment for 2015 scheme is 20 marks .

Direct Assessment Methods are formative as well as summative	
For some of the POs that are abstract, rubrics has been designed using performance indicators and shared with the students in advance. This helps students to understand against which parameter their work will be judged". These rubrics can be used by students in, revising, and judging their own work and progress.	
Internal Assessment Test	**Qualitative performance assessment tool such as Class tests are conducted by course coordinator to assess students knowledge and problem solving skills.**
End semester exam (theory + practical)	**Semester End examination is the metric for assessing whether all the POs are attained or not. Examination is more focused on attainment of course outcomes and program outcomes.**
Lab Internal Test	**This is mainly to assess student's practical knowledge with their design thinking or logical analysis capabilities.**
Indirect Assessment Methods	
Course end survey	**To evaluate the success of program in providing students with opportunities to achieve the program outcome- every year**

Sl. No.	Assessment Method	Assessment frequency	Assessment Tool	Incharge	Reviewer
1	**Internal Assessment Test**	**At the end of 5th 10th, 15th week of each Semester**	**Student's performance in internal assessment booklets.**	**Course Faculty**	**I st year co-ordinator**
2	**End semester exam (theory + practical)**	**At the end of the semester**	**Student's performance in university exams**	**Evaluators assigned by University**	
3	**Lab Internal Test**	**At the end of the semester**	**Student's performance in conducting experiments and journal writing.**	**Course Faculty**	**I st year co-ordinator**
4	**Course end survey**	**At the end of the semester**	**Student survey**	**Course Faculty**	**I st year co-ordinator**

Rubrics for continuous evaluation in every lab session

Max Marks: 25

Parameters	High	Marks	Medium	Marks	Low	Marks
Conduct /Perform	Understood the objective of the experimental setup/algorithm	2	Partially Understood the objective of the experimental setup/ compared the output with computation	1	Not Understood the objective & not completed the work in the lab session	0 marks
	Rigged up the circuit/ Executed the Program/Performed the expeiment/Recording the Tabulation / Calculation	4	Partially Rigged up the circuit/ Executed the Program/ Performed the expeiment/	2		
	Compare the output with computation / The output result with calibrated reading /Executed the program & obtained the output correctly	4	Partially compared the output with calibrated reading /computation / obtained the output.	2		
	Total: 10 Marks		Total: 5 Marks		Total: 0 Marks	
Record Writing	Clearly Stated Aim/Procedure/theory for the given problem /experiment	4	Partially Stated Aim/Procedure/theory for the given problem /experiment	2	Non – Submission of record in the lab session	0
	Clearly Stated algorithm/ design/ Drawing / calculation/ tabulation	4	Partially Stated algorithm/ design/ calculation/ tabulation	2		
	Clearly Stated the result/conclusions/compared the result with computation/ drawn graph	2	Partially Stated the result/ conclusions /compared the result with computation/ drawn graph	2		
	Total: 10 Marks		Total: 6 Marks		Total: 0 Marks	

Viva Voce or Quiz	Answered 5 questions	Answered 4 questions	Answered 3 questions	Answered 2 questions	Answered 1question	Student did not answer any question
	Total: 5 Marks	Total: 4 Marks	Total: 3 Marks	Total: 2 marks	Total: 1 Mark	Total: 0 Marks

Rubrics for Evaluation of Internal Lab Examination

Max Marks: 15

Parameters	High	Marks	Medium	Marks	Low	Marks
Conduct	Student is able to design//tabulate / write appropriate formula used for calculation / write algorithm /expected result.	2	Partially Able to draw circuit but doesn't design / write a program doesn't know the algorithm	1	No knowledge of the given experimental setup &problem statement	0
	Draw/ Tabulate or write Program / Computation and obtain result	2	Partially Know the Program / Experimental setup	1		
	Able to debug the circuit or program	1				
	Total: 5 Marks		Total: 2 marks		Total: 0 Marks	

Execution	Able to Execute the experiment compile the problem without error	3	Partially able to conduct the given experiment	1	Not able to execute	0
	Draw/ Tabulate/ conduct/ execute the program	2				
	Obtain the result as expected	1	Partially Obtain the result as expected	1		
	Total: 5 Marks		Total: 2 Marks		Total: 0 Marks	

Viva Voce or Quiz	Answered 5 questions	Answered 4 questions	Answered 3 questions	Answered 2 questions	Answered 1 question	Did not answer any question
	Total: 5 Marks	Total: 4 Marks	Total: 3 Marks	Total: 2 marks	Total: 1 Mark	Total: 0 Marks

8.5 Attainment of Program Outcomes from first year courses (20) Total Marks 20.00

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15) Institute Marks : 15.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	3	3	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	3
C102	3	3	3	3	PO5	PO6	PO7	PO8	3	PO10	PO11	2
C103	3	3	3	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104	3	3	3	PO4	3	2	2	PO8	PO9	PO10	PO11	3
C105	3	3	3	3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C106	2	1	2	1	PO5	1	1	PO8	1	1	PO11	PO12
C107	3	2	2	2	1	1	1	1	2	2	PO11	PO12
C108	PO1	PO2	PO3	PO4	PO5	3	3	3	3	3	PO11	PO12
C111	3	3	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	3
C112	3	3	3	3	3	PO6	PO7	PO8	PO9	3	PO11	2
C113	3	3	3	3	3	PO6	PO7	PO8	PO9	3	PO11	3
C114	3	3	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C115	3	3	3	3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C116	3	3	3	PO4	1	PO6	PO7	PO8	PO9	2	PO11	2
C117	3	2	2	2	1	1	1	1	2	2	PO11	PO12

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.93	2.71	2.79	2.58	2.33	1.6	1.6	1.67	2.2	2.29	0	2.57
CO Attainment	2.93	2.71	2.79	2.58	2.33	1.6	1.6	1.67	2.2	2.29	0	2.57

PSOs Attainment:

Course	PSO1	PSO2
C107	1	1
C111	1	0
C117	1	0

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	1	1
CO Attainment	1	1

8.5.2 Actions taken based on the results of evaluation of relevant POs (5) Institute Marks : 5.00

POs Attainment Levels and Actions for Improvement- (2019-20)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	90	97.66	Target Achieved
1. ICT enabled teaching. 2. Problem oriented extra tutorial classes were scheduled 3. Problematic assignments were given			
PO 2 : Problem Analysis			
PO 2	90	90.33	Target Achieved
1. Analytical oriented extra tutorial classes were scheduled 2. Analytical assignments were given. 3. Students were practiced to analyze problems and analytical concepts.			
PO 3 : Design/development of Solutions			
PO 3	90	93	Target Achieved
1. Special attentions were given to engineering subjects, helped to develop solutions for various engineering problems. 2. Design procedure for simple computer programs, electrical and electronic circuits was discussed.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	90	86	Target Not Achieved
1. To investigate complex problems, the significance of literature survey on the topics of current research was outlined to students. 2. Students were encouraged to participate in seminars, workshops and conferences. 3. Students were encouraged to participate in Project Expos			
PO 5 : Modern Tool Usage			
PO 5	83.33	77.66	Target Not Achieved
1. Latest Techniques are used in C Programming to solve problems. 2. Latest versions of CAD was exposed to design tools.			
PO 6 : The Engineer and Society			
PO 6	83.33	53.33	Target Not Achieved
1. Ethics of engineers and its importance being emphasised 2. Engineers contribution to public was emphasized through the course Constitution of India and Professional Ethics. 3. Orientation program also outlined the contribution of engineers to the society			
PO 7 : Environment and Sustainability			
PO 7	83.33	53.33	Target Not Achieved
1. Engineers contribution to environment was emphasized through the course Environmental Science. 2. Talks were conducted on e-waste and its disposure 3. Students were encouraged to attend seminars, talks and workshops on environment and sustainability			
PO 8 : Ethics			
PO 8	83.33	55.66	Target Not Achieved
1. Ethics of engineers and its importance being emphasized through the course Constitution of India and Professional Ethics. 2. Students were taught ethical usage of various software. 3. Students were demonstrated togetherness by participating in teams in various events			
PO 9 : Individual and Team Work			
PO 9	83.33	73.33	Target Not Achieved
1. Seminar were conducted to showcase individual talent. 2. Group discussions on current research were given during the classes. 3. Experiments were conducted in teams and individually to demonstrate the importance of team work.			
PO 10 : Communication			
PO 10	83.33	76.33	Target Not Achieved
1. Importance of communication skills in the industry was emphasized 2. Assignments were given in English classes. 3. seminar reports and record of experiment conducted were made by students.			
PO 11 : Project Management and Finance			
PO 11	80	60	Target Not Achieved
1.Students get hands on experience on managing events and associated finances by participating actively in the Curricular, Co-curricular and department activities. 2. Students were encouraged to participate in various projects. 3.Students were taught about managerial skills.			
PO 12 : Life-long Learning			
PO 12	83.33	85.66	Target Achieved
1. Importance of upgrading themselves to latest technologies were emphasized. 2. Encouraged to learn few topics beyond syllabus by themselves. 3. Life skills were developed			

PSOs Attainment Levels and Actions for Improvement- (2019-20)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : The ability to apply the knowledge of software fundamentals and strategies towards the work and various standards of computational industry.			
PSO 1	33.33	33.33	Target Achieved
1. Seminars were conducted on basic software fundamentals. 2. Importance of computational skills were discussed 3. Students were asked to solves problems beyond syllabus.			
PSO 2 : Able to design and develop software aspects which are necessary for IT based solutions.			
PSO 2	33.33	33.33	Target Achieved
Emphasized importance of Design implements and validate system and application software to the various societal needs during program classes			

9 STUDENT SUPPORT SYSTEMS (50)

Total Marks 40.00

9.1 Mentoring system to help at individual level (5)

Total Marks 3.00

Institute Marks : 3.00

Mentoring System

Objective:

Faculty members as Mentors must keep in mind the students'best interests, abilities, skills and talents ,by guiding them to realize their best potential.

Operating procedure:

1. Allocation of mentees to faculty members by the mentor coordinator /HOD at the beginning of the academic year.
2. Procedure for allocation:

No. of Mentors= total number of students/ total no. of available faculty

3. Mentor orientation by the head of the institution.
4. Orientation for students by the head of the department
5. The basic science department faculty will be the mentors for first year students.
6. The records of mentees, updated in all respects will be handed over to the respective departments by the basic science department at the end of 2nd semester.
7. Mentoring to be slotted in the time table to facilitate the meetings
8. The mentors should be aware of the strengths and weaknesses of the mentees.
9. Mentor should maintain a file on each mentee recording their meetings, academic record, parent contact,any medical or personal problem, co curricular activities ,general behavior in class, future plan ,mentoring reports and other important documents. eg medical certificate, leave letters etc.,
10. Mentors should bring to the notice of the head of the department/chief mentor/ Principal in case of any issues/problems.
11. Mentors must send the progress report to the parents after every internals within ten days from the last day of the test
12. Mentors should regularly communicate parents regarding their wards academic performance
13. Regular meeting will be held between the head of the department and the mentors to assess the progress. The mentors can discuss the issues related to their mentees. Head of the department should also meet mentees informally to take feedback about mentor and the mentoring process.
14. Mentoring will be a parameter in evaluating a faculty members performance in a year.
15. Mentor committee will monitor and evaluate the process, by conducting regular audits and submit the report to the head of the institution.

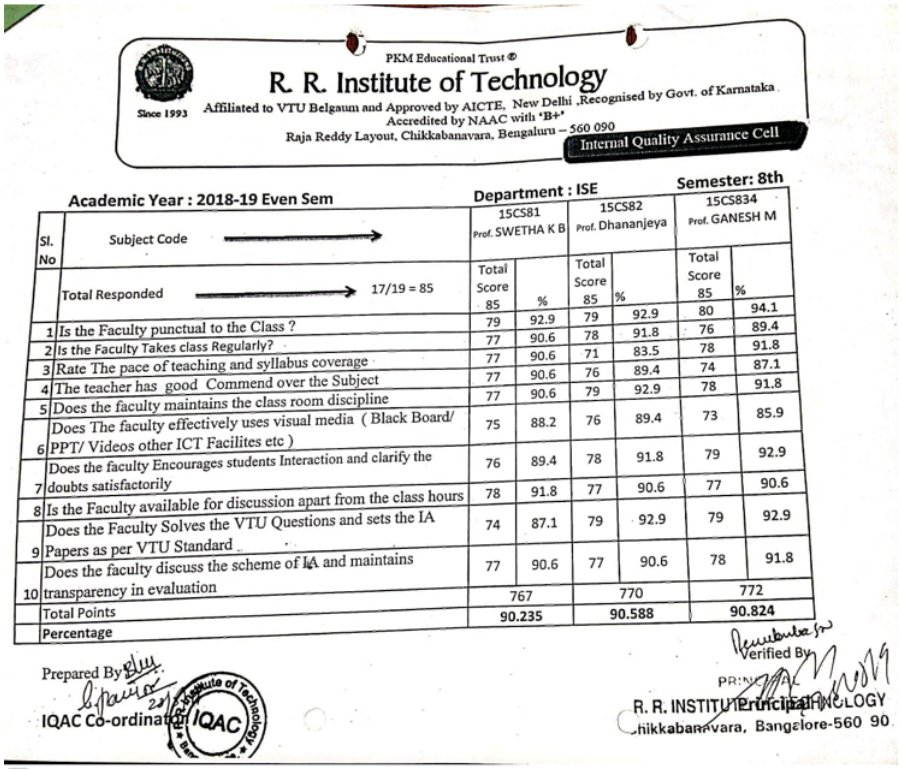
9.2 Feedback analysis and reward /corrective measures taken, if any (10)

Total Marks 6.00

Institute Marks : 6.00

A. **Methodology being followed for analysis of feedback and its effectiveness**

Student feedback is collected in both odd and even semester from Iqac for all the courses. The feedback is collected, analysed and communicated to all faculty members once in a Semester through Principal & HOD. The faculty members with prescribed norms in feedback are counselled by the HOD, Principal, taking corrective measures if required. The indices used for measuring teaching and learning through Student Feedback are as follows:
1)Is the Faculty punctual to the class?
2)Is the Faculty takes class regularly?
3)Rate the pace of teaching and syllabus coverage.
4)The teacher has good Commend over the Subject.
5)Does the faculty maintains the class room discipline.
6)Does the faculty effectively uses visual media (Black board/ppt/videos other ICT facilities etc)
7)Does the faculty encourages students' interaction and clarify the doubts satisfactorily
8)Is the Faculty available for discussion apart from the class hours.
9)Does the faculty solves the VTU Questions and sets the IA papers as per VTU Standard.
10)Does the faculty discuss the scheme of IA and maintains transparency in evaluations
With the aid of the response given by the students, average percentage of feedback is calculated and circulated to the faculty.



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Raja Reddy Layout, Chikkabanavara, Bengaluru – 560 090

Internal Quality Assurance Cell

Academic Year : 2018-19 Even Sem **Department : ISE** **Semester: 8th**

Sl. No	Subject Code	15CS81 Prof. SWETHA K B		15CS82 Prof. Dhananjeya		15CS834 Prof. GANESH M	
	Total Responded → 17/19 = 85	Total Score 85	%	Total Score 85	%	Total Score 85	%
1	Is the Faculty punctual to the Class ?	79	92.9	79	92.9	80	94.1
2	Is the Faculty Takes class Regularly?	77	90.6	78	91.8	76	89.4
3	Rate The pace of teaching and syllabus coverage	77	90.6	71	83.5	78	91.8
4	The teacher has good Commend over the Subject	77	90.6	76	89.4	74	87.1
5	Does the faculty maintains the class room discipline	77	90.6	79	92.9	78	91.8
6	Does The faculty effectively uses visual media (Black Board/ PPT/ Videos other ICT Facilites etc)	75	88.2	76	89.4	73	85.9
7	Does the faculty Encourages students Interaction and clarify the doubts satisfactorily	76	89.4	78	91.8	79	92.9
8	Is the Faculty available for discussion apart from the class hours	78	91.8	77	90.6	77	90.6
9	Does the Faculty Solves the VTU Questions and sets the IA Papers as per VTU Standard	74	87.1	79	92.9	79	92.9
10	Does the faculty discuss the scheme of IA and maintains transparency in evaluation	77	90.6	77	90.6	78	91.8
	Total Points	767		770		772	
	Percentage	90.235		90.588		90.824	

Prepared By
IQAC Co-ordinator

Verified By
PRINCIPAL
R. R. INSTITUTE OF TECHNOLOGY
Chikkabanavara, Bangalore-560 90

B. Record of corrective measures taken

Based on the consolidated feedback reports the faculty members are apprised about their performance. The faculty members who follow good and innovative teaching pedagogies are appreciated and awarded according to their self-appraisal points on teachers day.

Necessary corrective actions are taken for the faculty members who score less than the institution standard, are followed as given below.

1)Head of the department advise the faculty about handling and monitoring the class.
2)Encouraging faculty to attend more seminars, workshops and Faculty Development Programs (FDPs).
3)Suggestions are given to enhance their academic skill set with the peer support within a stipulated time period. The performance is reviewed by the head of the department regularly.
4)To motivate all the faculty members recognition is given to the Best performance faculty members in various categories.

- The sample copy of recognition to faculty is shown in below figure 9.2(b).

Figure 9.2(b) Sample copy of recognition to faculty

R R Institutions

27 YEARS OF EXCELLENCE

Teachers Day

CERTIFICATE
of Appreciation

Prof. Swetha K.B is awarded as "Best Teacher 2019-20"
of R R Institute of Technology on 5th September 2020

Prof. Maya Salimath
Director-QAC
R R Institutions

Shri Arun H R
Director
R R Institutions

Shri Kiran H R
Secretary
R R Institutions

9.3 Feedback on facilities (5) Total Marks 3.00

Institute Marks : 3.00

Feedback on Facilities:

A standard procedure for feedback on facilities is taken up in the department as per the following steps:

1. Every year, The feedback on the infrastructure facility is taken up through student survey and Graduate exit survey from students
2. The feedback is also collected orally during meeting with stakeholders i.e parents, alumni, employer)
3. The department conducts Parent Teacher meeting and collect feedback
4. The feedback is analyzed and reports prepared to take up necessary corrective measures and are implemented with appproval of head of the institute.

Process followed in feedback:

1.Feedback collection process
2) Feedback analysis and report generation
3) Plan to Corrective measures
4. Implementation of plan of action

Feedback collection process:

1. Prepare Feedback question on all facilities provided by the college with the approval of head of the institute
2. Generate computerized Feedback forms and share to the students
3. The Administrative department receives feedback
4. Analyze the feedback using the Metrics as 5-Excellent 4-Very good 3-Good 2-Satisfactory 1-Below average
5. Additional question given in feedback for the students to share any view points as their perspective

Composition of Feedback Questions:

The feedback question are prepared by considering the following Heads:

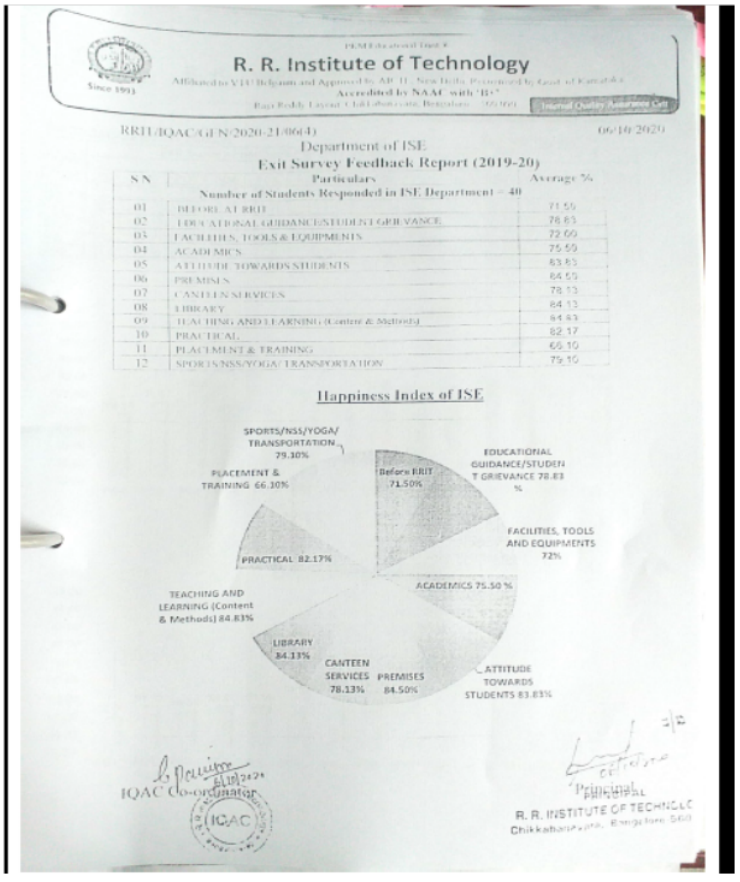
1, Educational Guidance and Grievance
2. Facilities, tools and equipment
3. Academics
4. Attitude towards students
5. Premises
6. CanteenServices
7.Library
8.Teaching and Learning(Content and Methods)
9.Practical
10.Placement and Training
11. Sports/NSS/Yoga/Transportation

Feedback analysis

1. The feedback given by the students is consolidated and analyzed.
2. The Principal discuss consolidated report with the Head of the department and prepares plan of action
3. All the department executes the plan as discussed

Corrective measures:

Some of the corrective actions initiated are:
· canteen / Hostel committee is created to monitor the food quality in canteen and boys, girls hostel.



9.4 Self-Learning (5) Total Marks 3.00

Institute Marks : 3.00

Self-Learning:

Self-Learning is a process by which individuals take the initiative, with or without the assistance of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, and evaluating learning outcomes.

A. Scope of self-learning includes

- Library
- Digital Library
- **P**rofessional bodies/other association activities
- Industrial visit
- Seminars & workshops
- Language Lab
- Online Resources
- Assignment
- Research Publications

B.Self Learning Facilities

Sl No	**Self-learning process**	**Description**
1.	Library	• The college library is enriched with vast collection of books, journals, periodicals, research articles. The library is equipped with 20 systems with internet facility.
2.	Digital Library	• Faculty and students have access to the following content: • IEEE IEL Online database • ASCE e-journals Elsevier-Science • ASCE Civil Engineering
3.	Professional bodies/other association activities	• A professional association is one of the most important activities in a student career. • All career options related to professional association, offers valuable information and resources for their career enhancement. • College is a registered member of following professional bodies: ISTE, CSI, Institution of Engineers India (IEI) & IEEE.
4.	Industrial visit	• Industrial visit is a part of college curriculum during which students visit companies and get insight regarding the internal working environment of a company. • It helps students to gain first-hand information regarding functioning of the industry. • Provides an opportunity to plan, organize and engage in active learning experiences both inside and outside class room. • Provides an awareness and importance of industry in the real working world. • Assist them for future placement. • Helps to enhance their interpersonal and communication skills, it also enriches the knowledge about industrial practices.
5.	Seminars & workshops	• A seminar is a group meeting led by an expert that focuses on specific topic or discipline such as emerging technologies and job opportunities. • Attending seminar will have numerous benefits to a student for improving communication skills and gaining domain knowledge. • Seminars are conducted frequently at the department level and the seminars offer students to interact with industry experts, research persons, entrepreneurs and small business partners. • Workshops allow a student to further develop marketable business skills in a focused interactive environment.
6.	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. • Assignments help the students to understand the subject in a more detailed pattern. • Faculty give assignments on regular basis and they are graded.
7.	Language Lab	• Technical english software has been installed in the Language lab. • Students and Staff make use of this lab for improving there communication skills.
8.	Web based learning	• The internet is an open information system in which various sources of information, media and materials such as text, images, video sequences can be linked together in diverse ways to form so- called self-learning environment. • Internet offers new possibilities to structure, represent, adapt and integrate various learning content and materials.
9.	Research Publications	• Expands the knowledge of students in various fields and increases visibility, credibility and competitiveness of students. • Helps in presenting papers in conferences.
10.	Online resources	• Enhances active learning. • Contextualized content can be shared by all. • VTU e-resources • E-Sikshana

Utilization and its effectiveness

The above facilities help students to present technical papers in conferences, publish papers in journals, take-up projects and participate in competitions/exhibitions and complete online certification courses.

- The overall aim of this review is to evaluate the effectiveness of self-directed learning on the professional development of students.
- 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 Placement drives and get placed in suitable companies.

9.5 Career Guidance, Training, Placement (10)

Total Marks 10.00

Institute Marks : 10.00

Members of placement cell

The Department of Training and Placement provides job opportunities to the graduating students through campus placement. The process normally begins at the end of the sixth semester and continues till eight semesters and beyond. Students are recruited in reputed companies and offered high salary package.The Cell handles all aspects of placements, right from contacting companies to managing all logistics of arranging pre-placement talks, online tests, group discussions and conducting final interviews.

A. **Availability of career guidance facilities**

Placement cell also organizes career guidance workshops like career opportunities in IT sector, civil services, defence services etc. Students are also motivated and to pursue higher studies as well.

Sl.No	Date	Event Conducted	Company
2018-19			
1	13/02/2019	Effective Career Planning for Engineering Students	Citibank
2	15/02/2019	Innovation and Manufacturing startups Karnataka Small Scale Industries Association	MSME Centre of Excellence, NASCOM Bengaluru
3	20/02/2019	Effective Career Planning after UG Programme	Vani Institute
4	23/08/2018	Seminar on Exposures to the Entrepreneurship activity	Telenoc Solutions
4	2019	Career Guidance	Vani Institute
5	2019	Internship and Career opportunities in civil engineering	Kites Construction Academy
6	2019	Seminar on Effective Career Planning for Engineering Students.	
2019-20			
1	17/07/2020	Career opportunities in Networking	NaWin Gurukula, Bengaluru
2	19/09/2019	Workshop on Career in Cyber Security	QOS Technologies, Bengaluru
3	30/08/2019	Talk on IT Technology Emerging Trends	Livewire Company
4	2019	Guest Lecture on Job Opportunities in India and abroad	RRIT
5	2020	Industrial talk-Educate students about corporate world	RRIT
6	2019	Guest Lecture on Current Trends in Industry	RRIT

B. **Counselling for higher studies (GATE/GRE, GMAT,etc.)**

- Guidance and motivation is provided for the students by respective student mentors and counselling experts.
- College provides resources to students to prepare for the entrance exams conducted for higher studies.
- College encourages the students on career prospectus which enable them to choose the right carrier option.
- College regularly organizes career guidance programs from different organizations, to guide the students in the admission procedure for higher studies.

Sl.No	Date	Event Conducted	Company
2019-20			
1	08/06/2020	Special Talk on Research Opportunities	RRIT
2	15/07/2020	Technologies for Competitive Exam	RRIT
3	29/08/2019	Career Opportunities awareness on higher studies	IDP Education India
4	2019	SDP on Competitive exam preparation for jobs in public sector and qualifying GATE	RRIT
5	2020	Higher Studies and job opportunities in public sector	RRIT
6	2020	Personal Counselling	RRIT
2018-19			
1	18/09/18	Seminar on overseas educational opportunities	IDP Education India
2	17/09/2018	Seminar on GATE Exam and Scholarship	BDM GATE Forum

C. **Pre-placement training**

- Placement training is organized from first semester one onwards to make students industry ready. The training comprises of aptitude and domain specific subjects.
- College provides placement for all eligible students. Students appearing for campus recruitment are put through a very rigorous training programme. Students are trained in Aptitude, Soft skills and domain- specific training which is supplemented by training by senior technical / HR personnel of leading IT Companies.

List of training programme conducted

Year	Date	Training Programme	Company
2017-18	01/08/2017	Soft skills personality development	R.R. Institute of Technology
	28/10/2017	Pre placement training programme	7th sense talent solutions
2018-19	19/02/2019	Skill Assessment Test	HIREME
	13/02/2019	Boot Strap Session	GRID Infotech
	06/02/2019	Ethical Hacking	Offence Security Limited

	13/02/2019	Technical Aptitude on C/C++	RRIT
	06/09/2018	IOT	CAISER
	05/09/2018	Aptitude Session	Anil Nair classes
2019-20	28/08/2019 – 10/10/2019	Pre Placement Training Programme	RRIT
	28/08/2019	Aptitude on C/C++	RRIT
	04/09/2019	Data Structures	RRIT
	18/09/2019	Technical Quiz	RRIT
	25/09/2019	Quiz on SQL	RRIT
	03/10/2019	Quiz on Software Testing	RRIT
	10/10/2019	Quiz on Networking	RRIT
	26/02/2020	Personality Development	Genesis Training Technology
	27/02/2020	Softskill Training	iNurture
	04/03/2020	Softskill Training	Genesis Training Technology
	20/02/2020	Aptitude Training	Buzibrains
	10/04/2020	Coding full stack training	Destination Technology
	24/04/2020	Softskill Development Training	Career Focus
	22/05/2020	Group Discussion Training	Krackin
	17/06/2020	Positive Mental Attitude	Department of Strategy & Communication
	19/06/2020	Industry Talk	Global Tree
	27/06/2020	Bridge between Industry	Department of Strategy & Communication
	30/06/2020	Workshop on Personality Development and Resume Building	Parvam Consultech Pvt Ltd
	08/07/2020	Positive Mindset	Department of Strategy & Communication
	11/07/2020	Resume Building and Skill Development Training	CegonSoft
	2020	Pre placement Activity	RRIT

D. **Placement process and support**

- The placement cell will prepare the students for the corporate world .
- The cell organizes workshops/training personality development, soft skills, quantitative aptitude, company-specific modules, a crash course of technical topics and other placement-related training every year to all students across all semesters.
- To strengthen the industry-academia interaction, a number of technical talks, seminars, and workshops are also organized by inviting industry experts on topics like Artificial Intelligence, Machine Learning, Cyber Security, Data Analytics, life in a corporate world etc.,

Placement Process

- Prepare the list of students based on their merit.
- Invite companies to visit college for recruitment.
- If the company accepts, collect the relevant data from the company like the minimum cut-off percentage, branches in demand, selection procedures, number of students they want to recruit etc.,
- Make the students to ready for the requirement.
- Prepare the list of eligible students.
- Finalize the schedule and conduct the process.

9.6 Entrepreneurship Cell (5) Total Marks 5.00

Institute Marks : 5.00

A. **Initiatives Taken**

The Entrepreneurship cell was started with the aim of promoting trained knowledge in the field of entrepreneurship development. In view of worldwide shortage of jobs in both government and private sectors leading to unemployment problems and lack of proper utilization of human resources, the Cell strives to identify talented youth to entrepreneurial works. The Cell plans to organize various programmers regarding Entrepreneurship development.

Objective of the Cell

- Creating awareness among Students.
- Training Programs in the field of Entrepreneurship and Development.
- To Provide Guidance and facilities for the budding entrepreneurs during gestation.
- To encourage the development for the better linkages between the parent institutions, Industries, Research and Development (R&D) in the region and other organizations engaged in promoting Small and Medium Enterprises (SME) and Non-Governmental Organization.
- To industrialize rural and backward sections of the society.
- To offer profitable employment opportunities to Interested Students.
- To increase the supply of entrepreneurs for quick industrial development.
- To investigate the environmental set-up relating to small industries and small businesses.
- To respond effectively to the emerging challenges and opportunities both at national and international level relating to SME's and Micro Enterprises.

Functions

- To organize entrepreneurship awareness camps, entrepreneurship development programmes and faculty development programmes in the region for the benefit of Student and Teacher.
- To develop and introduce curriculum on entrepreneurship development at various levels including degree/diploma courses of the parent institution and other institutes in the region.
- To conduct research work and survey for identifying entrepreneurial opportunities.
- To guide and assist prospective entrepreneurs on various aspects such as preparing project reports, obtaining project approvals, loans and facilities from agencies of support systems and information on various technologies.
- To arrange industry visits for prospective entrepreneurs.
- To extend necessary guidance and escort services to the trainees in obtaining approval and execution of their projects.
- To provide testing, calibration, quality assurance, design, tool room, pilot plant and other facilities for entrepreneurs besides expertise in Intellectual Property rights, Patents search, etc.
- To render advice to sick enterprises and assist the entrepreneurs in rehabilitating them.
- To conduct skill development training programmers leading to self-employment .

Funds Received

Sl. No.	Proposal Name	Received From	Year	Amount	Date
1	Entrepreneurship Awareness Camp	Entrepreneurship Development Institute of India	2018	16,000/-	10/8/2018

B. Students Beneficiary Program

Sl. No.	Name of the Activity	`Organized Date
1	Entrepreneurship Awareness camp	29/10/2018
2	Seminar on Exposures to the Entrepreneurship Activity	23/08/2018
3	Seminar of Entrepreneurship Awareness Program	1/10/2018
4	Energy Literacy-Learn to design your own Solar home System	15/07/2020
5	Seminar on IPR & Patent filing Procedure	30/09/2020

9.7 Co-curricular and Extra-curricular Activities (10)

Total Marks 10.00

Institute Marks : 10.00

The college encourages the students to take part in both co-curricular and extra-curricular activities.

A. Sports and Cultural

Physical Education Department aims to develop students physical competence and knowledge of movement and safety. The objective of the department is Physical education are improved, physical fitness, Appreciation of physical activity, Sportsmanship development Improved social skills. The college providing Sports facilities like Sports Club, Foot Ball Ground, Basket Ball Ground, Volley Ball Court, Recreation Room like Chess, Carom , Table Tennis, Swimming Pool. Sports and cultural activities are organized at the institution level. The table 9.7(i), 9.7(ii) and 9.7(iii) shows sports and cultural activies for the academic year 2017-18, 2018-19 and 2020-21.

Table 9.7(i): Sports and Cultural activies for 2017-18

Year 2017-2018		
Activity	**Level**	**Participants**
Solo dance(Classical)	Institution level	14
Solo dance(Western)	Institution level	24
Dumb Charades	Institution level	14
Vegetable curving	Institution level	7
Rangoli	Institution level	13
Quiz Competition	Institution level	8
Face painting	Institution level	6
Solo Singing(Non classical)	Institution level	25
JAM	Institution level	8
Improv	Institution level	10
Mehandi	Institution level	16
Group Dance(Classical)	Institution level	2
Group Dance(Non Classical)	Institution level	26
Group Singing(Non classical)	Institution level	10
Kannada Antakshari	Institution level	5
Fireless cooking	Institution level	19
Hindi Antakshari	Institution level	7
Air crash	Institution level	4
Solo Singing	Institution level	23
Event 1- Group dance	Institution level	9
Event 2- Fashion Show	Institution level	18

Event 3- Group singing	Institution level	12

Table 9.7(ii): Sports and Cultural activies for 2018-19

Year 2018-2019		
Activity	**Level**	Participants
Fireless cooking	Inter- College (RR GROUP) level	4
Gaming		34
Flower arrangement		3
Hairstyle		7
Mehandi competition		12
Painting		4
Pencil sketch		7
Photography		5
Pot painting		4
Pot pourri		4
Rangoli		6
Short movie		5
Tik tok		7
Treasure hunt		6
Vegetable curving		3
Wolf of wall street		2
Annual Sports Meet 2019		120
19 Activities		
Annual Sports Meet 2018		200
16 Activities		
Debate competition(anti-drugs committee)	Intra - College level	40
Graduation day		250
Elocution competition		15
Elocution Competition- Development of Women in the field of Society, Politics, Industry, Science and Technology		10
Quiz Competition		17

Table 9.7(iii): Sports and Cultural activies for 2017-18

Year 2019-2020		
Activity	**Level**	**Participants**
Awareness Quiz on Pandemic	Institutions	211
Awareness Quiz on COVID -19	Department level	74
Awareness Quiz on first aid in case accidents	Institutions	47
Technical quiz –ME Dept.	Department level	66
Technical quiz –ME Dept.	Department level	67
Technical Quiz – EC dept.	Department level	52
Technical quiz on solid waste management	Department level	29
Technical quiz on Matrix method	Department level	19
Technical quiz on alternative building materials	Department level	20
Technical quiz on water resource management	Department level	60
Technical quiz on earthquake structure	Department level	50
Technical quiz on design of prestress concrete	Department level	48
Technical quiz on Quantity surveying and contract management	Department level	50
Technical Quiz on C,C++	Department level	146
Technical Quiz on DS	Department level	50
Technical Quiz on Python	Department level	103
Technical Quiz on Java	Department level	56

Technical Quiz on Data Communication	Department level	55
Technical Quiz on Data Mining	Department level	48
Technical Quiz on IOT	Department level	51
Technical Quiz on OS	Department level	88
Technical Quiz on Machine Learning	Department level	44
Technical Quiz on Algorithms	Department level	49
Technical Quiz on Cryptography	Department level	44
Technical Quiz on Big Data	Department level	87
Online Quiz on Virtual Memory Management in Operating Systems	Department Level	109
Online Quiz on Digital & Analog Transmission	Department Level	48
Online Quiz on Python for Data Science	Department Level	65
Online Quiz on Data Warehouse	Department Level	90
Online Quiz on Software Engineering	Department Level	64
Online Quiz on Data Structure & Algorithms	Department Level	56
Online Quiz on Machine Learning	Department Level	84
Online Quiz on OOPS with JAVA	Department Level	77

B. National Service Scheme (NSS) and Other Committees/Clubs

NSS aim developing the personality and character of the student youth through voluntary community service. NSS objectives, to understand the community in which they work. To understand themselves in relation to their community, Identify the needs and problems of the community and involve them in problem solving process, Identify the needs and problems of the community and involve them in problem solving process, Develop among themselves a sense of social and civic responsibility.The table 9.7(iv) shows activities organized from NSS and other committees/clubs for the academic year 2019-20, 2018-19 and 2017-18. The table 9.7(v) shows the student participation in extension activities for the academic year 2019-20, 2018-19 and 2017-18. The table 9.7(vi) shows awards & recognition received for extension activities. The table 9.7(vii) shows awards & recognition by students for participation in extension activities.

Table 9.7(iv): Activities organized from NSS and other committees/clubs for 2019-20, 2018-19 and 2017-18.

Year 2019-2020					
Sl. No.	**Academic Year**	**Title of the Activities**	**Organising Unit/Agency/ Collaborating Agency**	**Number of Teachers Participated in such activities**	**Number of students Participated in such activities**
1	2019-20	Blood Donation Camp	Red Cross ,RRIT	1	150
2	2019-20	Environmental awareness program	NSS	2	15
3	2019-20	Constitution day	NSS	2	80
4	2019-20	Awareness program on Environmental Hazards of Electronic Waste -An initiative by MHRD, Govt. of India.	MHRD –ECE EEE RRIT	3	91
5	2019-20	Svasthya Jagruthi	Red Cross -RRIT Prakriya Hospital, Sapthagiri Hospital and college for research	9	400
6	2019-20	Educational Camp Visited to Hesaraghatta horticulture office -NSS	NSS	5	48
7	2019-20	Special lecture on biodiversity in view of World environmental day celebration	Green Club -R R Institute of Technology	5	63
8	2019-20	Germination programme at S.S Ghati	Green Club -R R Institute of Technology	06	10
9	2019-20	Engineer’s day and ozone day celebration	Green Club -R R Institute of Technology	02	99
10	2019-20	Rally on Environmental awareness Program	Green Club -R R Institute of Technology	07	200

2018-19					
11	2018-19	Environmental Awareness program-Government School Mandya.	Green Club - RRIT	2	20
12	2018-19	World Forestry day	Green Club - RRIT	25	100
13	2018-19	Drug Free India – by art of living.	Anti-Drug Abusing Committee - RRIT	15	78
14	2018-19	Blood Donation Camp and Eye Screeing Camp	LIONS CLUB - RRIT	7	200
15	2018-19	NSS camp at SIDDARABETTA	SIDDARABETTA MATT and RRIT	6	50
16	2018-19	Tobacco : A Threat to career and Life	Anti-Drug Abusing Committee - RRIT	7	40
17	2018-19	Plantation at RRIT	GREEN CLUB and NSS - RRIT	6	30
18	2018-19	World Heart Day	CSE RRIT SIMSRH	6	168
19	2018-19	Swachh Bharat Abhyan (Shramadhan) at Hesaraghatta lake	NSS - RRIT	10	130
20	2018-19	World Organ Donation Day	Electronics and Communication	11	120
2017-18					
21	2017-18	Student sensitization program on energy conservation	IQAC Energy club RRIT	06	70
22	2017-18	Blood Donation camp	Mediscope Blood Bank and RR Institute of Technology	05	244
23	2017-18	New India Pledge	RR Institute of Technology	3	96
24	2017-18	Rashtriya ekta diwas	IT Club-RR Institute of Technology	04	40
25	2017-18	NSS Swachh Bharath Shramadhan	NSS-RR Institute of Technology	2	45
26	2017-18	Expert talk on gender sensitization	Internal Complaint Committee-RR Institute of Technology	06	70
27	2017-18	Sadbhavana Diwas	RR Institute of Technology	10	114
28	2017-18	Cyber Crime Awareness program	RR Institute of Technology	10	50
29	2017-18	Digital India	RR Institute of Technology	03	29
30	2017-18	75 Anniversary of Quit India Movement	RR Institute of Technology	05	79

Table 9.7(v): Student Participation in Extension Activities for the year 2019-20, 2018-19 and 2017-18

Sl. No.	Academic Year	Name of the scheme	Organising unit/Agency/Collaborating Agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
2019-20						
1	2019-20	Environmental Awareness	Green Club	Rally on Environmental Awareness	7	200
2	2019-20	Awareness Program	Reverse Logistics (MHRD initiative)	Awareness Program on Environmental hazards of E-Waste	3	91
3	2019-20	Awareness Program	EEE-RRIT (AICTE-initiative)	Sadbhavana Divas Day	25	100
4	2019-20	Awareness Program	Green club-RRIT	Engineer’s day and ozone day celebration	2	99
5	2019-20	Awareness Program	Green Club RRIT	Germination programme at S.S Ghati	6	10
6	2019-20	Awareness Program	ECE-RRIT	Awareness quiz on COVID_19	2	74
7	2019-20	Awareness Program	IQAC-RRIT	Covid-19 Awarenss	2	100
8	2019-20	Awareness Program	IQAC –Yoga Club RRIT	Importance of Yoga In Day to Day life	4	115
9	2019-20	World environmental day	Green Club-R R Institute of Technology	Special lecture on biodiversity in view of World environmental day celebration	5	63
10	2019-20	Awareness Programme	NSS -RRIT	Electric Shock first aid and prevention	6	150
11	2019-20	Awareness Programme	ECE-RRIT	First Aid in case of accidents	2	105

12	2019-20	Environmental Awareness	NSS	Environmental awareness program at Government School	2	100
13	2019-20	Covid Awareness	QAC- RRIT	Corona virus precautionary measures	102	-
2018-19						
14	2018-19	Awareness Program	Green Club - RRIT	Enviormental Awareness program- Government School Mandya.	2	20
15	2018-19	Awareness Program	Green Club - RRIT	World Forestry day	25	100
16	2018-19	Awareness Program	LIONS CLUB - RRIT	Blood Donation Camp and Eye Screening Camp	7	200
17	2018-19	Awareness Program	SIDDARABETTA MATT and RRIT	NSS camp at SIDDARABETTA	6	50
18	2018-19	Awareness Program	Anti-Drug Abusing Committee - RRIT	Drug Free India – by art of living.	15	78
19	2018-19	Awareness Program	Anti-Drug Abusing Committee - RRIT	Tobacco : A Threat to career and Life	7	40
20	2018-19	Awareness Program	GREEN CLUB and NSS - RRIT	Plantation at RRIT	6	30
21	2018-19	Awareness Program	CSE Department in Association with SIMSRH	World Heart Day	6	168
22	2018-19	Awareness Program	ECE - RRIT	World Organ Donation Day	11	120
23	2018-19	Swachh Bharat A bhyan (Shramadha n)	NSS - RRIT	Swachh Bharat A bhyan (Shramadha n) at Hesaraghatta cleaning the surrounding of Reservoir	10	130
2017-18						
24	2017-18	Extension activity	IQAC Energy club RRIT	Student Sensitization program on energy conservation	6	40
25	2017-18	Extension activity	Mediscope Blood Bank and RR Institute of Technology	Blood Donation camp	4	244
26	2017-18	Extension activity	RR Institute of Technology	New India Pledge	3	96
27	2017-18	Extension activity	RR IT Club-RR Institute of Technology	Rashtriya ekta diwas	4	40
28	2017-18	Extension activity	NSS-RR Institute of Technology	NSS Swachh Bharath Shramadhan	2	45
29	2017-18	Extension activity	Internal Complaint Committee- RR Institute of Technology	Expert talk on gender sensitization	6	70
30	2017-18	Extension activity	RR Institute of Technology	Sadbhavana Diwas	10	114
31	2017-18	Extension activity	RR Institute of Technology	Cyber Crime Awareness program	10	50
32	2017-18	Extension activity	RR Institute of Technology	Digital India	3	29
33	2017-18	Extension activity	RR Institute of Technology	75 Anniversary of Quit India Movement	05	79

Table 9.7(vi): Awards & Recognition received for extension activities

Sl. No.	Academic Year	Name of the Activity	Award/recognition	Awarding Bodies	No. of Students Benefited
1	2019-20	Blood donation camp	Recognition	Lion's club blood bank	150
2	2018-19	Blood Donation and EYE screening camp	Recognition	Lions Club Blood Bank	200
3	2017-18	Blood donation Camp	Recognition appreciation	Mediscope Blood Bank	244
	2017-18	Iab Blind Empowerment Champions 2017	Awarded in recognition of voluntary contribution for the empowerment of visual challenges	Indian Association For The Blind	160

Table 9.7(vii): Awards & Recognition received by students for participation in extension activities

C. Annual Students Activities

The Table 9.7(viii) below shows the annual students activities.

Table 9.7(viii) Annual Students Activities

Sl. No.	Events

Year	Name of the award/ medal	National/ International	Sports	Student ID number	Name of the student
2019	Mysore Dasara	State	Yoga	1RI15CS002	Akshay N Mohan
2019	KSLOC	State	Yoga	1RI15CS002	Akshay N Mohan
2019	National level open yoga championship	National	Yoga	1RI15CS002	Akshay N Mohan
2019	Yoga siriprabodhapatra	National	Yoga	1RI15CS002	Akshay N Mohan

CULTURAL EVENTS	
1	Solo Singing(Non classical)
2	Solo dance(Classical)
3	Solo dance(Western)
4	Group Dance(Non Classical)
5	Group Singing(Non classical)
6	Group Dance(Classical)
7	Solo Singing
8	Event 1- Group dance
9	Event 2- Fashion Show
10	Event 3- Group singing
11	Fireless cooking
12	Gaming
13	Flower arrangement
14	Hairstyle
15	Mehandi competition
16	Painting
17	Pencil sketch
18	Photography
19	Pot painting
20	Rangoli
21	Short movie
22	Tik tok
23	Treasure hunt
24	Vegetable curving
25	Wolf of wall street
26	Debate competition(anti-drugs committee)
27	Awareness Quiz on Pandemic
28	Chess
29	Carom
30	Table Tennis
31	Badminton
32	Foot Ball
33	Throw Ball
34	Volley Ball
35	Kabaddi
36	Cricket
37	Cricket
38	100 mts
39	200 mts
40	400 mts
41	800 mts
42	Shot Put
43	Discuss Throw

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120) Total Marks 84.00

10.1 Organization, Governance and Transparency (40) Total Marks 30.00

10.1.1 State the Vision and Mission of the Institute (5) Institute Marks : 5.00

Vision :
"To be a Premier globally recognized Institute with ensuring academic excellence,Innovation and fostering Research in the field of Engineering."
Mission :

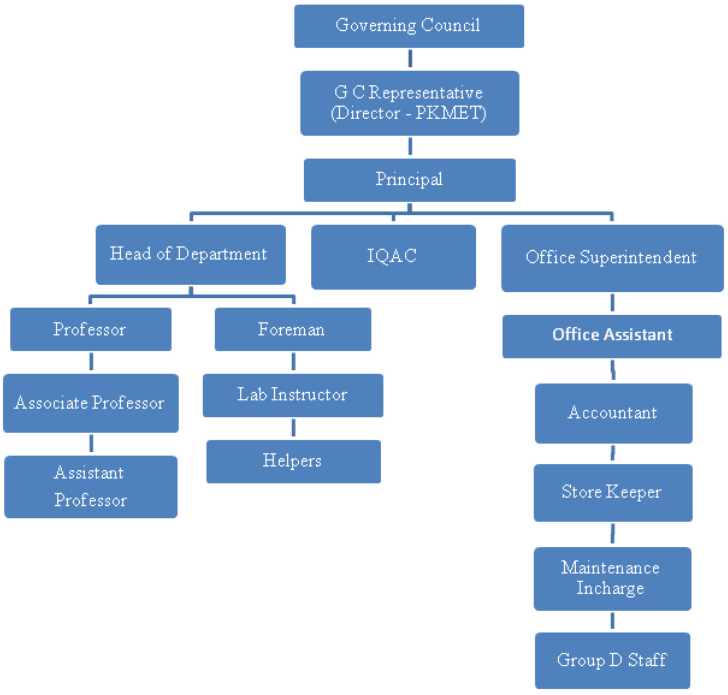
Mission of RR Institute of Technology (RRIT)

- To consistently strive for Academic Excellence
- To promote collaborative Research & Innovation
- To create holistic teaching learning environment that build ethically sound manpower who contribute to the stake holders operating at Global environment

10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies (10) Institute Marks : 8.00

- The Governing Council is the superlative administrative body of the college, It is constituted as per the norms given by AICTE, New Delhi; University affiliated and Govt. Of Karnataka.
- The Governing Council overseas the growth of the college and set the framework of governance and approves strategic set to achieve the mission and vision of the institution, long term academic plans and annual budgets in accordance to meet the desires of the stakeholders.
- The principal is appointed as Executive member by Governing council as system of control to monitor overall performance and ensure growth of the institute to higher level.
- The council ensures that the principal maintains accountability including financial & operational and risk assessment; and also set procedure for handling internal grievances.
- Governing Council monitors overall activities of the institutions performance as per approved plans and sets the benchmarks for future academic plans and research activities by providing direction of implementation wherever possible to ensure the achievement of the mission and vision of the organization;
- Governing Council approves the budgetary allocation , recruitment process that support the head of the institution for smooth execution of the programmes.
- Frequency of meeting of the Governing Council is minimum two times a year or whenever needed.

Figure 10.1.2(a) Organization chart



We at RRIT believe in Family kind of work culture. In particular, the concept of process owners, which facilitates a perfect decentralization of activities and delegation of authorities, has proven itself to be a key concept in the success achieved by the institute on different counts. Involvement of each and everyone in the decision-making at their respective levels is ensured. The functions of various key positions are depicted in Table 10.1.2.

Table 10.1.2(i) The functions of various key positions

Position	Functions
Governing Council	• Frame directive principles and policies • Amend and approve policies from time to time • Approve budgets
G C Representative Director	• To look after the overall development of the institute • Mobilize external resources to strengthen the institute • Plan & provide for necessary facilities / equipments for development

Principal	• Design & define organization structure • Define & delegate responsibilities of various positions in the organization. • Ensure periodic monitoring & evaluation, of various processes & sub-processes • Ensure effective purchase procedure • Define quality policy and objectives • Prepare annual budget • Conduct periodic meeting of various bodies such as Governing Council, Academic Review, Anti Ragging, Standing Committee and Grievance Redressal Committee etc • Manage accounts and finance • Employee recruitment process • Office Administration • Compliance with AICTE, DTE & University • Admission • Internal and External examinations
Alumni Association	• Formation of alumni council • Arrange periodic meetings • Ensure alumni registration • Prepare alumni news letter • Organizing Alumni Meet
Office Superintendent	• Liasoning with AICTE, DTE and University • College register • Service Books • Faculty personal files • Recruitment process • Maintain minutes of meeting (all) • New proposals • Co – ordinate day to day activities of office • Purchase process • Annual College budget
Placement Officer	• Liaison with industry • Student Training and Placement drive • Identify and provide training needs of students • Arrange interviews • Ensures the smooth coordination with various stakeholders required for the process of placement
Librarian	• Maintains the library assets • Procure the necessary learning materials such as books, monographs, journals , e resources that meets the need of all stake holder
Director Physical Education	• Ensure smooth conduct of sports • Maintains and manages sports facility • Encourage students to participate in tournaments
Head of Departments	• Plan and execute academic activities and organizes events for overall development of the department • Maintain discipline and culture in the department • Co-ordinate the activities of class teachers • Organizes Faculty Development Programs.
Faculty members (Teaching Team)	• The primary role of faculty is disseminate the work allotted by head of the department time to time • Deliver lectures (theory classes) and conduct Lab sessions (Practical classes) as per the allotted Timetable. • Counsel and mentor the students, maintain Academic/Course files, plan and conduct tests, design assignments/projects for students, discharge examination duties, and assist co- curricular and extracurricular activities as assigned by the department • Carryout collaborative with industry and present papers, seek growth opportunities and participate in FDPs and update technical knowledge and keep abreast with developments in their domain
Admin Staff	Admin Staff are responsible for up keeping the office of the institute with all necessary documentation and records. They collectively are responsible for: • Maintenance of student and staff records • Undertake all responsibilities in recruitment and admission related requirements of the institute • Prepare correspondence with University and other statutory agencies and keep the record of the same

Table 10.1.2 (ii): List of Governing Council Members

Sl. No	Name	Designation & Affiliation	Role	Academic Year
1	Shri Y. Raja Reddy	Chairman, P.K.M.E. Trust	Chairman	2017-18
2	Shri H. R. Kiran	Secretary, P.K.M.E. Trust	Member	
3	Shri H.R. Arun	Trustee, P.K.M.E. Trust	Member	
4	Dr. K. Rajani kanth	Former Principal,MSRIT	Member	
5	Dr. K P J Reddy	Professor, Dept. of Aerospace, IISc.	Member	
6	Dr. U Ramesh	Regional Director	Member,AICTE Nominee	
7	Dr. Abdul Sharief	Principal, PACE, Mangalore	Member,VTU Nominee	
8	Sri. H. U. Talawar	Directorate of Technical Education	Member, DTE Nominee	
9	Sri. Giri M	Secretary, Peenya Industries Association	Govt. Nominee	
10	Dr. M. S. Bhagyashekar	Principal, RRIT, Bangalore	Member Secretary	

Sl. No	Name	Designation & Affiliation	Role	Academic Year
1	Shri Y. Raja Reddy	Chairman, P.K.M.E. Trust	Chairman	2018-19
2	Shri H. R. Kiran	Secretary, P.K.M.E. Trust	Member	
3	Shri H.R. Arun	Trustee, P.K.M.E. Trust	Member	
4	Dr. K. Rajani kanth	Former Principal,MSRIT	Member	
5	Dr. K P J Reddy	Professor, Dept. of Aerospace, IISc.	Member	
6	Dr. U Ramesh	Regional Director	Member,AICTE Nominee	
7	Dr. Abdul Sharief	Principal, PACE, Mangalore	Member,VTU Nominee	
8	Sri. H. U. Talawar	Directorate of Technical Education	Member, DTE Nominee	
9	Sri. Giri M	Secretary, Peenya Industries Association	Govt. Nominee	
10	Sri Somashekar H L	Retd.Additional Controller, Accounts Department, Govt. of Karnataka	Member	
11	Dr. M. B Manjunath	Principal, RRIT, Bangalore	Member Secretary	

Sl. No	Name	Designation & Affiliation	Role	Academic Year
1	Shri Y. Raja Reddy	Chairman, P.K.M.E. Trust	Chairman	2019-20
2	Shri H. R. Kiran	Secretary, P.K.M.E. Trust	Member	
3	Shri H.R. Arun	Trustee, P.K.M.E. Trust	Member	
4	Dr. K. Rajani kanth	Former Principal,MSRIT	Member	
5	Dr. K P J Reddy	Professor, Dept. of Aerospace, IISc.	Member	
6	Dr. U Ramesh	Regional Director	Member,AICTE Nominee	
7	Dr. Abdul Sharief	Principal, PACE, Mangalore	Member,VTU Nominee	
8	Sri. H. U. Talawar	Directorate of Technical Education	Member, DTE Nominee	
9	Sri. L. N Prasad	Lakshmi Vacuum Technologies Pvt. Ltd. Peenya Industries	Govt. Nominee (Industrialist/Technologist/ Educationalist)	
10	Sri. Somashekar H L	Retd.Additional Controller, Accounts Department, Govt. of Karnataka	Member	
11	Dr. Srinivas G Bhat	Principal, RRIT, Bangalore	Member Secretary	

Major Responsibilities of the Governing Council

- Uphold the legal structure of the college to satisfy the norms of AICTE, UGC, State Government and affiliating University (VTU)or any other body or agency.
- To take decisions regarding the intake ,recruitment and addition or discontinuation of any program and take formal steps with the affiliating body and prepare action plan
- Approve the budget and recommend necessary corrections.
- Nominate and constitute committees for smooth discharge of responsibilities

Functions of Governing Council: The Governing Council shall exercise powers and discharge the functions as follows:

- To ensure management of institutional assets like land and maintenance of infrastructure, equipment, including loans and grants received from AICTE, Central Government and Government of Karnataka.
- To ensure implementation of acts, instructions , rules and regulations prescribed by AICTE and Government of Karnataka in matters of service conditions of staff relating to appointment, leave, Provident Fund, age of retirement and disciplinary actions.
- Set the rule to utilize building, land, furniture and for running AICTE approved courses in the institute the compliance of instructions issued by AICTE, Government of Karnataka and affiliating University are satisfied.
- To submit reports and returns statement to AICTE, Government of Karnataka and affiliating University as and when it is required

- Create ragging free campus for peaceful and favourable atmosphere for study.

B. Service Rules, Policies and Procedures

The service rules, policies and procedures are well defined by R R Institute of Technology. The service rules is approved by Governing Council .same is communicated to employees on Joining to the institute. The institute encourages the faculty by giving various awards based on performance appraisal procedures set by Institute and various schemes are in practice for the welfare of the staff.

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C. Minutes of Meetings

The GC Meetings held frequently as shown in below table 10.1.2(iii) and evidences of meetings are shown in figure 10.1.2(b)

Table 10.1.2(iii): GC Meeting Details

Sl. No	Academic Year	No of Meetings
1	2017-18	2
2	2018-19	2
3	2019-20	1

10.1.3 Decentralization in working and grievanceredressal mechanism (10) Institute Marks : 8.00

Decentralization in working and Grievance Redressal Mechanism.

An administrative body is set up in the Institution to make the campus ragging free , eradicate harassment and to address the grievances of students and staff. The head of the committee and members are nominated by Head of the Institution to oversee the process and maintain strict vigil in all the activities carried out at the institute. Principal holds a meeting with all the members and brief the importance of the committee and also the responsibility of each members . The members are advised to implement their task diligently and periodically update the report to the head of the committee and during any unforeseen incidents an emergency meeting is conducted in the presence of Head of the Institution to discuss and the action is taken accordingly.
The management has delegated its authority to the Principal. The principal in-turn has delegated the powers to committee Heads and committee members. All these committees work independely and implement need based action into force for the upliftment of the college.

Sl.no	Name of the Committee	Head of the Committee
1.	Academic Review (Acadamic Council) Committee	Dr. Mahendra K V Principal
2.	Research & Development	Dr. Mahendra K V Principal
3.	Students Progress/ Counselling /Communication (Proctoring)	Dr. Sunitha H D Professor & HOD ECE
4.	Ed Cell/ Students Projects Committee/Internship/Innovation	Dr. Manjunatha G Associate Professor, Mech
5.	Nba /Vtu/ Aicte/ Naac Coordinator/ Nirf	Prof. Parimala Gandhi G Associate Professor Dept. of ECE & Dr. Niranjan R Chougala Prof. Dept. of ISE
6.	Placement Committee	Dr. Sumanth V HOD, Dept.of ISE
7.	Certificate Program Committee	Prof. Mohan Kumar B N , Assistant Prof, Dept. of ECE
8.	Alumni Committee	Prof. Deepika Assistant Prof, Dept. of Civil
9.	Purchase Committee	Dr. Mahendra K V ,Principal
10.	Edusat Programme Committee	Prof. Dhananjaya M K Assistant Prof, Dept. of CSE
11	Student Attendance Management Committee	Dr. Naveen M, Assistant Prof. Dept. of ISE
12	Library Committee	Dr. Amarnath G, Professor, Dept. of ME
13	Sports & Yoga Committee	Dr. Naveen M, Assistant Prof. Dept. of ISE
14	Cultural Committee	Prof. Shruthi S, Prof. Assistant Prof. Dept. of CSE
15.	Anti- Ragging Committee	Dr. Mahendra K V , Principal
16.	Anti Ragging Squad	Dr. Niranjan R Chougala Prof. Dept. of ISE
17.	Grievance Redressal Committee	Dr. Mahendra K V , Principal
18	Sc/St	Dr. Sunitha H D, Hod ECE
19	Nss/ Green Club	Prof. Gunasheela P Assistant Prof Civil
20	Redcross	Prof. Chitharanjan Das V (ECE)
21	Icc /Anti Sexual Harassment	Prof. Parimala Gandhi G Associate Professor Dept. of ECE
22	Magazine Department Newsletter/ Journal Committee	Dr Manjunath, HOD, Dept of CSE
23	Media/Web Page/ Branding Coordinator	Dr. Sumanth V , HOD, ISE
24	Energy Club	Dr. Chanabasavaraju, HOD ME
25	Hostel & Canteen Committee/ Transport Committee	Prof. Dhananjaya M K , Assistant prof Dept. CSE

GRIEVANCE REDRESSAL COMMITTEE

students who come from various backgrounds to study face a lot of problems and many distractions to take them off from their learning path. Thus to address the problem the students grievance redressal cell is formed to resolve the issues of the students. To receive grievance from students, Parents & others concerned college has hosted a link inthe webpage which comes into the preview of principal and committee. The committee will investigate into the matter and shall try to resolve it as quickly as possible . The composition of the committee is as follows.
.(https://www.rrit.ac.in/committees-grievance.php)

Sl. No	Name	Designation & Department	Role

1	Dr. Mahendra K V	Principal	Chairman
2	Dr. Channabasavaraj S(ME)	Professor & Head,ME	Convener
3	Dr. Gullapalli Sankara (CV)	Professor & Head,CV	Member
4	Dr. Sunitha H D (ECE)	Professor & Head,ECE	Member
5	Dr. Manjunath R (CSE)	Professor & Head,CSE	Member
6	Mr. Emmanuel Rajarathnam (ISE)	Associate Professor,ISE	Member
7	Dr. Mangala Gowri S G (EEE)	Associate Professor, EEE	Member
8	Dr.V Ramachandramurthy(BS)	Professor & Head,BS	Member

Mechanism followed by Grievance Redressal Committee:

1. Student / Parent/Staff register their Grievance to the committee
2. The Committee holds a meeting and analyze the registered grievance and its impact
3. Resolve the issue and give feasible solution to registrant
4. Initiate necessary plan to eradicate the raised grievance raised in future

ANTI- RAGGING COMMITTEE

The College has an Anti - Ragging committee to curb the ragging in the campus and make the campus ragging free. In case if any student is found encountering such activity, the students who affected can report to members of the Anti - Ragging committee. The composition of the committee is as follows.

Sl No	Name	Designation & Department	Role
01	Dr. Mahendra K V	Principal	Chairman
02	Dr. V Ramachandramurthy(BS)	Professor & Head, BS	Convener
03	Dr. Channabasavaraj S(ME)	Professor & Head, ME	Member
04	Dr. Gullapalli Sankara (CV)	Professor & Head, CV	Member
05	Dr. Sunitha H D (ECE)	Professor & Head, ECE	Member
06	Dr. Manjunath R (CSE)	Professor & Head, CSE	Member
07	Mr. Ramachandra C (EEE)	Professor & Head, EEE	Member
08	Mr. Emmanuel Rajarathnam (ISE)	Assistant Professor	Member
09	Mr. Srinath N Ramesh (BW)	Boys Warden	Member
10	Ms. Ritabahun Syiemlieh (GW)	Girls Warden	Member

Mechanism followed by Anti Ragging Committee:

1. If any student is affected due ragging , raise a complaint to any of the committee members
2. On receipt of complaint , the chairman of the committee hold meeting with members students complained and students who indulged ragging
3. Committee registers statement of complainant and respondent and thoroughly scrutiny the reviews and suggest feasible solution to the complainant by keeping respondent student future in to consideration.
4. Committee educate students about the impact if one involves in ragging and its consequences through awareness program.
5. The details of committee is displayed in all prominent places in the campus as well as in webpage, this enables students to reach the committee immediately if they face any problem due to ragging.

ANTI RAGGING SQUAD:

The College has an Anti - Ragging Squad which keeps vigil round the clock in the campus to prevent the occurrence of ragging in the campus . The composition of the committee is as follows.

Sl. No	Name	Designation & Department	Role
1	Dr. Mahendra K V	Principal	Chairman
2	Mr. Deepak A R (ME)	Assistant Professor, ME	Convener
3	Ms. Sharmila H C (CV)	Assistant Professor, CV	Member
4	Dr. Sumanth V (ISE)	Associate Professor, ISE	Member
5	Mrs. Swetha K B (ISE)	Assistant professor, ISE	Member
6	Mr. Vyshnav B (EEE)	Assistant professor, EEE	Member
7	Mrs. Charutha M V (ECE)	Assistant professor, ECE	Member

Mechanism followed by Anti Ragging squad Committee:

1. A schedule is prepared by head of the committee in consultation with all the members to go for squad duty and continuously keep vigil over ragging to prevent its occurrence and recurrence
2. As per schedule the members will visit all prominent places where the lower and higher semester students meet to curb the menace of ragging.
3. Committee ensures display Pamphlets of Anti ragging, Observation of Anti ragging in the campus including hostel, Night inspection of hostels.
4. Organize pledge/oath ceremonies against anti-ragging & drug abuse.

Internal Complaint committee /Anti Sexual Harassment committee

Internal complaint committee is formed to address the internal issues that arise within in the college of the faculties / students and give solutions to the various issues raised internally. Suggestions and remedies are given by the members to tackle the problems that arise.
Sexual Harassment is a major issue and very sensitive, the students who face such problems will not be in a mind-set to share these issues with anyone. This committee is constituted to address the students how to overcome such problems . Powers are given to the committee to take stringent action on students if anyone involve in such activities. The committee is constituted as follows.

Sl. No	Name	Designation & Department	Role
1	Mrs. Parimala Gandhi G (ECE	Associate professor,ECE	Chairman
2	Dr. Anita R Shettar(BS)	Associate professor,BS	Convener
3	Mr. Girish G (CV)	Assistant professor, CV	Member
4	Mrs. Veena V (CSE)	Assistant professor, CSE	Member
5	Dr. Mangala Gowri (EEE)	Associate professor, EEE	Member
6	Mrs. Chaitra K S (Office)	Office Assistant, OF RRIT	Member
7	Dr. Padmakshi Lokesh	External meber, NGO	Member

Mechanism followed by Internal Complaint Committee / Anti Sexual Harassment Committee

1. Address the Needs and problems of Girls student, women faculty members , resolve the complaints if any,
2. Organize events to emphasis importance of gender equity Seminars
3. Arrange counselor to address the issues and to prevent the harassment at college
4. Motivate Women members or girl students to speak out their issues boldly to get issues shorted if any
5. Organize events to educate importance of oral talk , words that lead to unwelcome sexual advances, unsolicited acts of physical intimacy.

6. The Committee solves the issues if any internally and suggest feasible solution by keeping students future in mind.

10.1.4 Delegation of financial powers (10)

Institute Marks : 5.00

Delegation of power process for Financial Management

Institution financial powers delegated to the Principal, Heads of Departments and relevant in-charges.
For smooth running of the department budgets are very essential.

Budgets are prepared before the commencement of the academic year by every department. In this regard, Heads of the Departments, submits the budget proposal to the Principal with request 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 for procuring new equipment for the labs, interactive technologies in the classrooms, conduction of workshops/ conferences/ seminars by the Heads of Departments for which proposals are submitted and same is approved and fund allocations are made.

Pre-amble:

The Institution generates funds through Fees, Interest on the capital & the expenditure is based on the budget request from departments, also based on institutional budget.

- For each financial year the budget requisitions are prepared by the department & submitted to the Head of the Institution for approval at the start of the financial year.
- The Head of the Institution hold a meeting with heads of the department to finalize the requirements.

Delegation of Financial power & utilization by various authorities

Principal: The Principal is the final decision making authority on all department & Institution requirements, Prepares Institutional budget proposal for financial year and get approval in G C Meeting.

- All the financial approvals will be sanctioned on the recommendation of the HODs and Principal.
- Instructing office superintend to dispose Cheque to students for the Scholarship fund received from various government organizations.
- The budget allocated by the Management on the basis of the budget estimates submitted by the college is adequate to meet the recurring and non-recurring expenditure.
- Signing Authority for Department Association Accounts.

Accountants: Preparation of budget proposal for Institution for financial year.

- Based on the approval from Principal ,accountant release funds to various vendors/suppliers/petty contractors/distributors etc. throughout financial year
- Manage all accounts related to PF/salary, Insurance, Rental, IT, Taxes, Billings etc.

HOD: preparation of budget proposal for financial year.

- Recommending & forwarding authority for all the department requirements and initiate the process of purchase.
- In exigencies & emergency initiating request for purchase/procurement of all requirements of department.
- HODs are the recommending authority for Department Association Account.

10.1.5 Transparency and availability of correct/unambiguous information in public domain (5)

Institute Marks : 4.00

RULES & REGULATIONS

1. All students should attend the classes start from the reopening day of the Semester.
2. Students should be punctual , regular for lecture classes, laboratories, workshops, seminars etc., and any other activity organized by the college.
3. Students shall be attentive in all classes and labs without creating any disturbance to fellow students
4. Students shall compulsorily wear their identity cards when they are in the college campus.
5. Loss / theft of ID cards / library cards and change of address or contact number shall be informed to HOD / college office without delay.
6. Use of mobile phones, iPods, and walkman are strictly banned inside the campus.
7. Any kind of indecent or tight fitting dresses are not permitted.
8. Students shall maintain strict discipline and good behavior at all times in campus
9. Smoking, chewing of pan masala / gutka consuming alcoholic drinks and drugs of any kind in the campus are strictly prohibited.
10. Strike or any such undesirable activities in the campus are not permitted and those involved in such activities will be severely punished.
11. Tuition fees shall be paid within as per circular set by college after the reopening of the odd semester in every academic year.
12. Students shall take prior permission from HOD before availing leave.
13. Attendance condonation will be given as per University Norms.
14. Leave / Permission letters to be signed by parents/guardians/ hostel wardens.
15. Students are encouraged to participate in co-curricular and extracurricular activities and develop their skills.
16. Students are counseled periodically regarding academic performance, higher studies, placement, attendance, discipline etc.
17. Hostel students shall abide by the rules and regulations of the hostel.
18. Students are advised to wear helmets while riding two wheeler vehicles.

ACADEMIC RULES

1. Students shall submit their assignments, records, observation notebooks etc. within the specified time.
2. Attendance condonation will be given as per University Norms.
3. Students shall equip themselves with approved drawing material, instrument boxes and record note books as required.
4. Student are advised to handle Lab equipments with care. Loss or damage attracts penalty.
5. Students have to use college official lab record books to write the practical record. No other notebook shall be permitted.
6. Students are encouraged to participate in conferences, workshops, seminars and technical paper presentation.
7. To ensure good Internal assessment marks and overall academic performance attendance is mandatory for all the internal tests.

EXAM RULES AND REGULATIONS SET BY AFFILIATING UNIVERSITY

1. Only a single answer book will be issued. No additional answer books are permitted.
2. Answer books should be handed over personally to room superintendent before leaving the examination hall.
3. The candidate should not take any books / notes, log tables, scribbling pads, cell phones, programmable calculators or any kind of references into the examination hall.
4. No candidate shall be admitted into the Exam hall after the commencement of the examination.
5. No candidate shall be allowed to leave the examination hall before 30 minutes after commencement of the examination.
6. The candidate should append his / her signature at the specified space on the answer book as and when he / she received the answer book
7. Answer books should be handed over personally to room superintendent before leaving the examination hall.
8. The student leaving the examination hall till 30 minutes before the scheduled completion time of the examination shall not be permitted to take the question paper.
9. Students are strictly instructed not to write any matter on the question paper except their USN.
10. The candidate should append his / her signature at the specified space on the answer book as and when he / she received the answer book.

Any candidate appearing for UG / PG examination is liable to be charged for committing malpractice in the following cases

1. Possessing any written matter on any paper, scribbling pad, question paper, admission ticket, calculator, palm, hand, leg, kerchief, clothes, etc.
2. Copying from the material of another candidate or similar aid, or assistance is rendered to another candidate
3. Supply of copying material from inside or from outside the examination hall.
4. Unruly behavior inside or near the examination hall.
5. Communicating with any candidate or any other person inside or outside the examination hall.
6. For more detailed information on academic regulation please refer to VTU website: www.vtu.ac.in

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30) Total Marks 20.00

10.2.1 Adequacy of budget allocation (10) Institute Marks : 5.00

Adequacy of budget allocation

- **The department prepares the budget on recurring and non recurring details and submit to Head of Institution.**
- **The HeadofInstitution prepares budget by keep in view of Departmental requirements, Salary component, Infrastructural Development and Additional requirements and also considereing the previous year expenditure.**
- **The prepared budget will be submitted to GC Meeting for Approval.**

Table 10.2.1 Budget allocation

Financial Year	Approved Budget (In Lakhs)	Adequate/Not Adequate
2020-2021	750	Adequate
2019-2020	850.2	Adequate
2018-2019	1010	Adequate
2017-2018	890.2	Adequate

Summary of currentfinancial year’s budget and actual expenditure incurred(for the institution exclusively)in the three previous financial years :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY : (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2020-21

Total Income 642.53				Actual expenditure(till…): 627.94			Total No. Of Students 890
Fee	Govt.	Grants	Other sources(specify) 0	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify 0	Expenditure per student
560.15	0	0	82.38	627.70	0.24	0	0.71

Table 2 - CFYm1 2019-20

Total Income 822.38				Actual expenditure(till…): 788.18			Total No. Of Students 840
Fee	Govt.	Grants	Other sources(specify) 0	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify 0	Expenditure per student
598.38	0	0	224	779.52	8.66	0	0.94

Table 3 - CFYm2 2018-19

Total Income 957.29				Actual expenditure(till…): 957.29			Total No. Of Students 996
Fee	Govt.	Grants	Other sources(specify) 0	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify 0	Expenditure per student
669.02	0	0	288.27	878.52	78.77	0	0.96

Table 4 - CFYm3 2017-18

Total Income 854.08				Actual expenditure(till…): 842.78			Total No. Of Students 895
Fee	Govt.	Grants	Other sources(specify) 0	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify 0	Expenditure per student
811.37	0	0	42.71	781.26	61.52	0	0.94

Items	**Budgeted in 2020-21**	**Actual Expenses in 2020-21 till**	**Budgeted in 2019-20**	**Actual Expenses in 2019-20 till**	**Budgeted in 2018-19**	**Actual Expenses in 2018-19 till**	**Budgeted in 2017-18**	**Actual Expenses in 2017-18 till**
Infrastructure Built-Up	0	0	0	0	0	0	0	0
Library	11	6.42	3	1.97	77	94.81	22	20.81
Laboratory equipment	01	0.23	6.5	4.28	79	62.72	43.5	38.29
Laboratory consumables	10	9.05	10	8.6	12	10.12	7.5	6.82
Teaching and non-teaching staff salary	250	200.75	350	327.66	400	394.95	400	397
Maintenance and spares	65	60.46	65	60.39	50	40.4	42	39.94
R&D	10	7.19	10	9.03	15	13.57	12	10.46
Training and Travel	18	12.55	30	26.9	47	19.31	42	26.74
	160	127.42	30	182.77	80	210.91	75	239.33
Others, specify	225	203.86	345.7	166.58	250	110.50	246.2	63.39
Total	**750**	**627.93**	**850.2**	**788.18**	**1010**	**957.29**	**890.2**	**842.78**

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

Institute Marks : 5.00

Institutional audit statements are available on the institute's website

10.2.2 Utilization of allocated funds (15)

Institute Marks : 10.00

Table 10.2.2(i) Utilization of allocated funds

Financial Year	**Approved Budget (In Lakhs)**	**Actual Expenditure (In Lakhs)**	**Percentage of Utilization**
2020-2021	750	627.94	83.72
2019-2020	850.2	788.18	92.70
2018-2019	1010	957.29	94.78
2017-2018	890.2	842.78	94.67

10.3 Program Specific Budget Allocation, Utilization (30)

Total Marks 20.00

Institute Marks :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY: (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2020-21

120.00		Actual expenditure (till…): 103.91		Total No. Of Students 161
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
119.00	1	103.81	0.10	0.65

Table 2 :: CFYm1 2019-20

130.90		Actual expenditure (till…): 98.19		Total No. Of Students 127
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
128.90	2.00	98.01	0.18	0.77

Table 3 :: CFYm2 2018-19

93.55		Actual expenditure (till…): 80.46		Total No. Of Students 120
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
90.55	3.00	79.89	0.57	0.67

Table 4 :: CFYm3 2017-18

101.20		Actual expenditure (till…): 82.69		Total No. Of Students 99
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
90.20	11	75.58	7.11	0.84

Items	Budgeted in 2020-21	Actual Expenses in 2020-21 till	Budgeted in 2019-20	Actual Expenses in 2019-20 till	Budgeted in 2018-19	Actual Expenses in 2018-19 till	Budgeted in 2017-18	Actual Expenses in 2017-18 till
Laboratory equipment	1.00	0.10	1.00	0.38	10	7.11	1	0.35
Software	0.5	0.49	0.5	0.34	0.5	0.35	0.5	0.49
Laboratory consumable	1	0.1	0.5	0.19	0.35	0.25	0.5	0.28
Maintenance and spares	0.35	0.27	0.5	0.38	0.4	0.24	0.35	0.32
R & D	1.00	0.5	0.5	0.12	0.5	0.25	2	1.16
Training and Travel	0.4	0.32	0.5	0.42	0.35	0.23	0.28	0.26
	115.75	102.13	127.4	96.36	81.45	72.03	94.77	78.84
Total	**120.00**	**103.91**	**130.90**	**98.19**	**93.55**	**80.46**	**99.40**	**81.70**

10.3.2 Utilization of allocated funds (20)

Institute Marks : 15.00

The allocated budget is utilized to purchase of equipment for lab establishment, consumables and for Miscellaneous Expenses.
As average of 90% allocated budgets are utilized by the department

Table 10.3.2(i) Utilization of budget

Financial Year	Approved Budget	Actual Expenditure	Percentage of Utilization
2020-2021	12.25	7.64	62.36
2019-2020	12.00	6.21	51.75
2018-2019	13.25	6.99	52.75
2017-2018	22.70	14.60	64.31

10.3.1 Adequacy of budget allocation (10)

Institute Marks : 5.00

Adequacy of budget allocation

Financial Year	Approved Budget	Adequate/Non-Adequate
2020-2021	120	Adequate
2019-2020	130.9	Adequate
2018-2019	93.55	Adequate
2017-2018	99.4	Adequate

10.4 Library and Internet (20) Total Marks 14.00

10.4.1 Quality of learning resources (hard/soft) (10) Institute Marks : 7.00

A. Availability of Relevant Learning Resources including E-resources & Digital Library

The library books of current titles, volumes, print resources and other relevant learning materials are procured on the recommendations of department heads. The number of volumes and titles are added every year in accordance with the norms and standards set by AICTE and VTU from time to time.
Budget formulation: Library Committee will conduct a meeting and prepare a budget plan for the next academic year. The budget plan will be submitted to the management through the principal.

a. **Procurement process of the print books:** The library through the library committee will send a request to all the departments requesting them to submit the list of books to be procured for the library for the next semester. The departments send the list of books including reference and textbooks as per the latest syllabus to the library. The Librarian gets quotations for the list of books from at least three vendors.

   A comparative statement of quotations along with the list of books and quotations will be submitted to the management through the Principal.
   The selected vendor will be asked to submit the Performa invoice after which the books will be purchased with due payment.

b. **Accessibility to the students:** The library books procured will be entered in the accession register; given class numbers as per Dewey Decimal Classification (DDC) classification and arranged open access in the racks likewise. The books are kept programme-wise in the racks. In each programme, the books are arranged as per DDC classification.

A rack guide having alphabetical list of topics with the corresponding rack number is provided in each department racks to facilitate easy access of the books to the students.
Student also can check the availability of books in WEBOPAC provided through QR code 24x7.

c. **Procurement process of print journals:** Procurement process of print journals is similar to that of print books. The list of print journals sent by the departments as per AICTE guidelines will be subscribed according to the calendar year. Bound volumes of the journals are maintained.

d. **Project reports:** The students who complete project works are mandated to submit a hard copy of their project report to the library which will be maintained in the library.

Details on library books:
As per the data, at the end of 2020, we have

Sl. No.	Titles	Volumes
1.	7747	12733

Details on print journals:

Sl. No.	Titles
1.	37

The following print journals were subscribed from 2017 to 2020.

Sl. No	Titles of Journals	ISSN
1	Asian Journal of Computer science and Technology	2249-0701
2	International Journal of Advanced Computer in Engineering	0974-5785
3	International Journal of Computer science and Communication	0973-7391
4	International Journal of Soft Computing Bio Informatics	0975-816x
5	Journal of Advanced Research in Computer Engineering	0974-4320
6	Journal of Neural Computing System	0974-4401
7	Asian Journal of Information science and Technology (OA)	2231-6108
8	Indian Journal of Information Sources and Services (OA)	2231-6094
9	International Journal of Information Analysis and Processing	0973-5712
10	International Journal of Information Technology and Knowledge Management	0973-4414
11	Journal of Analysis and Computation	0973-2861
12	Journal of Hybrid Computing Research (JHCR	0974-5858

Digital library Learning Resources:

Learning resources include e-resources subscribed under VTU e-consortium, DELNET, National Digital Library of India and Institutional Repository and K-Nimbus digital library.

i. **VTU e-consortium:** RRIT has been subscribing to VTU e-consortium annually. The e-resources can be accessed on-campus.
ii. **DELNET:** RRIT subscribed to DELNET till the year 2019.
iii. **National Digital Library of India (NDLI):** An initiative of Ministry of Education, GoI AND IIT, Kharagpur, National Digital Library of India provides quality resources. The students and the faculty members of the college were enrolled as the members of NDLI. The students and the faculty can access by using the username and password given NDLI.
iv. **Institutional Repository:** An Institutional Repository was created using D-Space. The research papers of the institution were stored in which can be accessed throughout the campus.
v. **K-Nimbus digital library:** Access through remote access, on campus.

Details of e-journals

Sl. No.	Year	Publisher	No. of e-books	No. of e-journals
1.	2017-18	IEEE IEL		305
		Elsevier Science Direct		999
		Springer e-journals		815
		ASCE e-journals		38
		Taylor & Francis		466
		ProQuest e-journals		4,244
		Knimbus Digital Library	7,913	
2.	2018-19	IEE IEL		1,800
		ASME e-journals		35
		Taylor & Francis		535
		ProQuest Engineering + Managament journals		3,900
		Digibooks Kopykitab e-books	16,000	
		Knimbus Digital Library	5,700	10,000
		Net Analytika Sententia		
3.	2019-20	Elsevier Science Direct	436	306
		Springer e-journals		690
		Institution of Civil Engineers		31
		Taylor & Francis		466

		Emerald	120
		Knimbus Digital Library	5,700	10,000
		McGraw Hill Education	505	
		New Age International	220	
		Net Analytika Sententia		
		Packet	5,000	

LIBRARY STATISTICS:

1.	CDs	1,149
2.	PROJECT/SEMINAR REPORTS	255
3.	NEWSPAPERS	08
4.	MAGAZINES	07
5.	NATIONAL JOURNALS	36
6.	READING ROOM CAPACITY	160
7.	COMPUTERS	17
8.	BOUND VOLUMES OF JOURNALS	109
9.	SEATING CAPACITY	160
10.	TOTAL FLOOR AREA	540m^2

B. Accessibility to students

Special Services/ Facilities offered:
· Online Public Access Catalogue (OPAC)/WEBOPAC
· Book Bank facilities for SC/ST Students
· Access to e-Journals/Books
· Old VTU question papers
· Membership with NDL
· Documents are fully bar-coded for fast and accurate transactions.
· Back volumes of journals (bound volumes)
· Newspaper clippings services.
· Inter Library Loan Facility.
· Display of new arrivals-books and periodicals
· Faculty publications & Research paper available in reference.

10.4.2 Internet (10) Institute Marks : 7.00

Name of the Internet provider	City online
Available band width	100 MBPS
WiFi availability	Yes
Internet access in labs, classrooms, library and offices of all Departments	Yes
Security arrangements	Yes

Annexure I

(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

1. **Engineering Knowledge :** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1	The ability to apply the knowledge of software fundamentals and strategies towards the work and various standards of computational industry.
PSO2	Able to design and develop software aspects which are necessary for IT based solutions.

Declaration

The head of the institution needs to make a declaration as per the format given -

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute
Name : Dr. MAHENDRA K V
Designation : PRINCIPAL
Signature :

Seal of The Institution :

Place : BANGALORE
Date : 29-11-2021 22:33:34