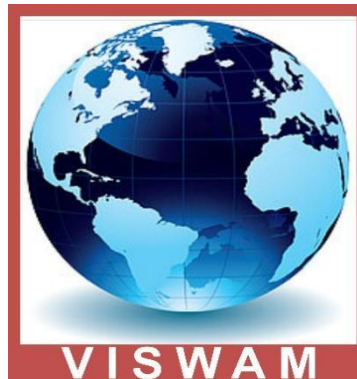




**SELF ASSESSMENT REPORT (SAR)
UNDERGRADUATE ENGINEERING PROGRAMS**

Submitted by



VISWAM ENGINEERING COLLEGE
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**Affiliated to Jawaharlal Nehru Technological University Anantapur
Accredited by NAAC “A” Grade and Recognized by AICTE, New Delhi
Angallu, Madanapalle Chittoor District, Andhra Pradesh-517325**

E-mail: principal@viswamengg.in

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PART A Institutional INFORMATION**1. Name and Address of the Institution:****Viswam Engineering College**

Angallu, Madanapalle

Chittor District, Andhra Pradesh-517325

2. Name and Address of the Affiliating University:**Jawaharlal Nehru Technological University Anantapur**

Ananthapuramu, Andhra Pradesh-515002.

3. Year of establishment of the Institution: 2006**4. Type of the Institution:**University Deemed University Government Aided Autonomous Affiliated **5. Ownership status:**Central Government State Government Government Aided Self Financing Trust Society Section 25 Company Any other (Please Specify)

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

Name of the Institution(s)	Year of Establishment	Programs of Study	Location
VISWAM DEGREE & PG COLLEGE	2001	B.Sc,B.Com,BBA,M.Com	Angallu, Madanapalle, Annamayya dist, Andhra Pradesh-517325
VISWAM SCHOOL CBSE	2001	Nursery to 12th Standard	Angallu, Madanapalle, Annamayya dist, Andhra Pradesh-517325

Table A.6 Note: Add rows as needed

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

S.N O	Program Name	Name of the Department	Year of Start	Intake	Increase in intake if any	Year of increase	AICTE Approval	Accreditation Status.
1	Computer Science & Engg.	CSE	2006	60	YES 60	2012	Approved	Applying first time
2	Electronics & Communication Engg.	ECE	2006	60	YES 60	2012	Approved	Applying first time
3	Civil Engineerin	CIVIL	201	60	YES	2014	Appro	Eligible but not

	g		0				ved	applied
4	Electrical & Electronics Engineering	EEE	2006	60	NO	NA	Approved	Eligible but not applied
5	Mechanical Engineering	MECH	2010	60	YES	2014	Approved	Not eligible for accreditation
6	Artificial Intelligence & Data Science	AI&DS	2022	60	NO	NA	Approved	Not eligible for accreditation
7	Masters in Business Administration	MBA	2010	60	YES 180	2011 & 2014	Approved	Applying first time
8	M.Tech- Software Engineering	CSE	2012	18	NO	NA	Approved	Eligible but not applied
9	M.Tech- Embedded systems	ECE	2012	18	NO	NA	Approved	Eligible but not applied
10	M.Tech-	MECH	201	18	NO	NA	Appro	Eligible

	Machine Design		4				ved	but not applied
11	M.Tech-Structural engineering	CIVIL	2014	18	NO	NA	Approved	Eligible but not applied

Write Applicable One:

- Applying first time
- Granted provisional accreditation for two/three years for the period (Specify period)
- Granted accreditation for 5/6 years for the period (Specify period)
- Not Accredited (Specify visit dates, year)
- Withdrawn (Specify Visit dates, year)
- Not eligible for accreditation
- Eligible but not applied

Note: Add rows as needed.

8. Programs to be considered for Accreditation vide this application

S.NO	Program Name
1.	Computer Science & Engg.
2.	Electronics & Communication Engg.
3.	Masters in Business Administration

Table A.8

9.Total Number of employees in the institution:**A. Regular Employees (Faculty & Staff):**

Items		CAY-2023-24		CAYm1 2022-23		CAYm2 2021-22	
		MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering	M	58	58	74	74	65	65
Faculty in Engineering	F	53	53	38	38	45	45
Faculty in Maths, Science & Humanities	M	15	15	16	16	17	17
Faculty in Maths, Science & Humanities	F	11	11	8	8	6	6
Non-teaching staff	M	78	78	75	75	72	73
Non-teaching staff	F	20	20	16	16	14	14

Table A.9a**Note:**

All the faculty whether regular or contractual (except part-time or hourly based), will be 5 considered. The contractual faculty appointed with any terminology whatsoever, who have taught for 2 consecutive semesters with or without break between the 2 semesters in 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 with or without break between the 2 semesters during the particular academic year under consideration.

3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit.

CAY – Current Academic Year

CAYm1- Current Academic Year minus1 = Current Assessment Year

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

B. Contractual Staff Employees (Faculty & Staff): (Not Covered in Table A)

Items		CAY-2023-24		CAYm1 2022-23		CAYm2 2021-22	
		MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering	M	0	0	0	0	0	0
Faculty in Engineering	F	0	0	0	0	0	0
Faculty in Maths, Science & Humanities	M	0	0	0	0	0	0
Faculty in Maths, Science & Humanities	F	0	0	0	0	0	0
Non-teaching staff	M	0	0	0	0	0	0
Non-teaching staff	F	0	0	0	0	0	0

Table A.9b

10. Total number of students:**Engineering and Technology- UG Shift-1**

Course Name	2023-24	2022-23	2021-22
Total no. of Boys	590	466	530
Total no. of Girls	473	357	396
Total	1063	823	926

Engineering and Technology- PG Shift-1

Course Name	2023-24	2022-23	2021-22
Total no. of Boys	13	15	15
Total no. of Girls	11	14	12
Total	24	29	27

Engineering and Technology- MBA Shift-1

Course Name	2023-24	2022-23	2021-22
Total no. of Boys	195	165	170
Total no. of Girls	127	95	116
Total	322	260	286

(Instruction: The data may be categorized in tabular form separately for undergraduate, postgraduate engineering, other program, if applicable)

Note: In case the Institution is running AICTE approved additional courses such as MBA, MCA in the first shift, engineering courses in the second shift, Polytechnic in Second shift etc., separate tables with the relevant heading shall be prepared.

11. Vision of the Institution:

To be a center of excellence for engineering and management education, research, and knowledge application for the good of society with a blend of moral principles and a global perspective.

12. Mission of the Institution:

- To promote engineering research and development while offering top-notch education in the field.
- To foster entrepreneurship and the development of new, cutting-edge technological applications.
- To develop the students into strong, socially responsible leaders

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

- i. Name: Dr.D Ramana Reddy
Designation: Principal
Mobile No: 9505021077
Email id: principal@viswamengg.in
- ii. NBA coordinator,if designated:

PART B: Criteria Summary

**Name of Program: Department of Electronics and
Communication Engineering**

Criteria No.	Criteria	Mark / Weightage
Program Level Criteria		
1	Vision, Mission & Program Educational Objectives	60
2	Governance, Leadership & Financial Resources	120
3	Program Outcomes & Course Outcomes	120
4	Curriculum & Learning Process	150
5	Student Quality and Performance	200
6	Faculty Attributes and Contributions	80
7	Industry & International Connect	50
8	Infrastructure	50
9	Alumni Performance and Connect	50
10	Continuous Improvement	120
TOTAL		1000

Criterion 1	Vision, Mission and Program Educational Objectives	60/60
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1. Vision Mission And Program Educational Objectives (60)

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

Vision of the Institute:

To be a center of excellence for engineering and management education, research, and knowledge application for the good of society with a blend of moral principles and a global perspective.

Mission of the Institute:

M1	To promote engineering research and development while offering top-notch education in the field.
M2	To foster entrepreneurship and the development of new, cutting-edge Technological applications.
M3	To develop the students into strong, socially responsible leaders.

Vision of the Department:

The Vision of Electronics and Communication Engineering is to produce globally competent and socially responsible Electronics and Communication Engineers with high academic knowledge, ethical values, leadership skills a passion to contribute to the society and also to be a center of excellence in emerging technologies to carry scientific research for the society.

Mission of the Department:

M1	To establish high quality learning environment comparable to world class standards.
M2	To foster innovation, creativity, integration, development activities and apply knowledge on Electronics and Communication Engineering.

M3	To promote innovative research in cutting edge technologies and establish industry-institute-interactions and equip the students to apply engineering principles to society development.
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The vision of the department ultimately aims at the progress of the society. This formulation is a long-term goal which describe the future state of the Department i.e., to become a Centre of excellence in the field of Electronics and communication Engineering. This can be achieved by unceasing research with the use of innovative technologies through various elements mentioned in Mission statements.

Mapping of Department's Vision and Mission with Institute Vision Mission

institute Department	Mission-1	Mission-2	Mission-3
Mission-1	2	2	2
Mission-2	3	3	2
Mission-3	3	3	2

Note: M1, M2, are distinct elements of Mission statement. Enter correlation levels 1, 2 or 3 as defined as **1: Slight (Low)** **2: Moderate (Medium)** **3: Substantial (High)**

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

PEO No.	Program Educational Objectives Statements
PEO1	Graduates will acquire the foundation of education that prepares them for both higher studies and professional careers in the sphere of Electronics and Communication Engineering.
PEO2	Graduates will be able to Indulge in problem identification, analysis and work based experience to formulate and solve problems with acceptable design solutions.
PEO3	Graduates will contribute towards entrepreneurship and research, and exercise leadership through effective communication, teamwork and knowledge up gradation through lifelong learning.

1.3. Indicate where the Vision, Mission and PEOs are published and disseminated among stake holders (10/10)

Vision, Mission and PEOs are published in various places using different media and means enabling clear proclaim and display among all the stakeholders. Vision, Mission and PEO statements are communicated to the industry/employer through presentation during industrial visit and other industry institute interactions.

Dissemination of Institute and Department Vision , Mission and PEOs are listed below

❖ **Vision and Mission of the Institute are**

Published in	Disseminated through	Displayed at
<ul style="list-style-type: none"> • Institute Website • Institute Brochure • Course files • Placement Brochure • Lab Manuals • Lab record Books • Student Mentoring Books 	<ul style="list-style-type: none"> • Faculty Development Programs • Seminars • Workshops • Alumni Meetings • Parents Teacher Meeting • First Year orientation program 	<ul style="list-style-type: none"> • Central Library • Principal Chamber • HoD Chamber • Classrooms • Laboratories • Administrative office • Department's Corridors • Seminar Hall • Hostel • Canteen • Training & Placement Cell • Notice Boards

❖ **Vision and Mission of the Department are**

Published in	Disseminated through	Displayed at
<ul style="list-style-type: none"> • Institute Website • Lab Manuals • Course files • Student Mentoring Books 	<ul style="list-style-type: none"> • Faculty Development Programs • Seminars • Workshops • Alumni Meetings • Parents Teacher Meeting • First Year orientation program • Meeting with HRs during placement drives • Department association activities 	<ul style="list-style-type: none"> • HoD Chamber • Department Library • Department staircase • Notice Boards • Classrooms • Laboratories • Staff Rooms

❖ **Department PEOs are**

Published in	Disseminated through	Displayed at
<ul style="list-style-type: none"> • Institute Website • Lab Manuals • Course files • Student Mentoring Books 	<ul style="list-style-type: none"> • Faculty Development Programs • Seminars • Workshops • Alumni Meetings • Parents Teacher Meeting • First Year orientation program • Meeting with HRs during placement drives • Department association activities 	<ul style="list-style-type: none"> • Department Library • HoD Chamber • Notice Boards • Classrooms • Laboratories • Department staircase • Staff Rooms

- The Institute Vision, Mission are displayed in Institute website <https://viswamengg.in/>

- The Department Vision, Mission and PEOs are displayed in Department website: <https://viswamengg.in/p.php?id=46>

The vision, mission, Program Education Objectives (PEOs) and Program Specific Outcomes (PSOs) of B.Tech in Electronics and communication Engineering were framed to implement and inculcate outcome based education and entail the faculty, students and various stakeholders towards outcome based education.

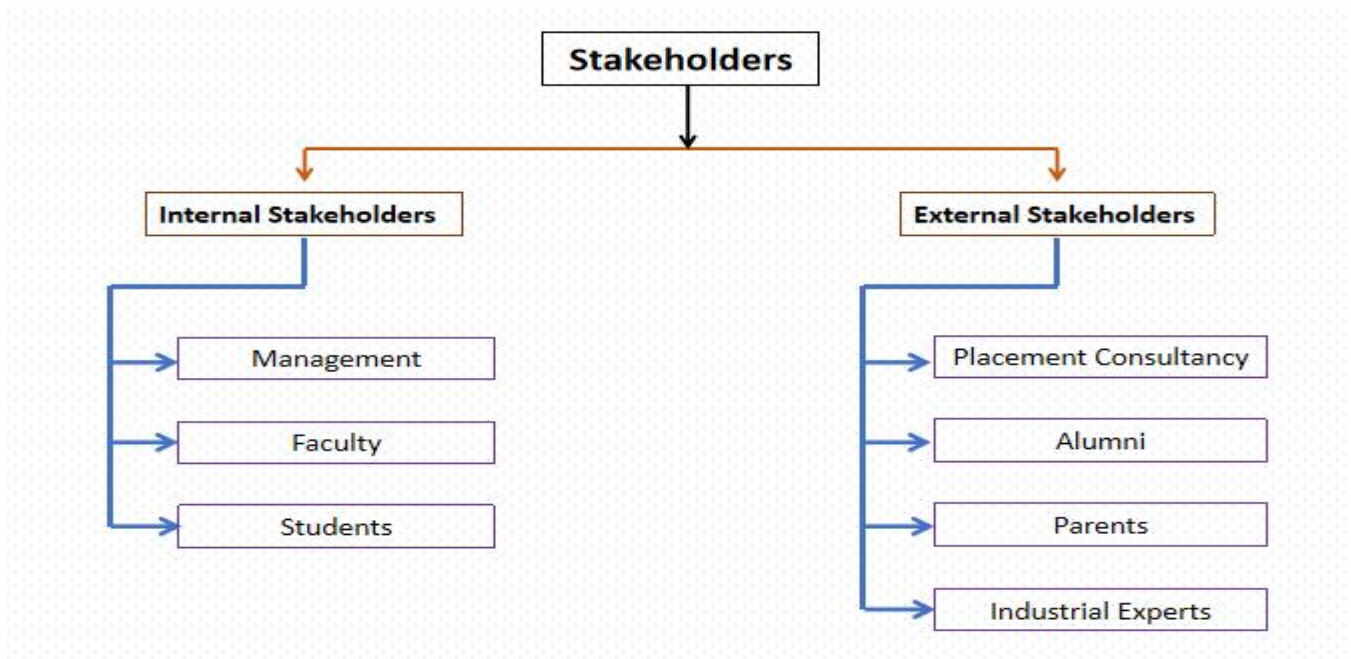


Figure1.3.1 List of Stake holders

Stakeholders of the Program are classified as Internal and External. Faculty members, Students and management are categorized as Internal Stakeholders whereas Alumni, placement consultancy, Parent and industrial experts are categorized as External Stakeholders.

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

A. Steps for Defining Vision and Mission of the Department (10/10)

The process of defining Vision and Mission of the Department was discussed and formulated through a consultative process involving the stakeholders of the department. The department vision and mission process flow chart is shown in Figure 1.4.1. In formulating the Vision and Mission of the Department, the following steps are followed:

Process of defining the Vision & Mission of the Department

- Step 1:** The Department Advisory Committee (DAC) consists of Program Coordinator and two senior faculty members marshal a meeting with the stakeholders.
- Step 2:** Formulate preliminary copy of Vision and Mission of the department that is in line with institute Vision and Mission
- Step 3:** Academic committee of Viswam Engineering College consists of senior members Corroborate the preliminary copy of Vision and Mission
- Step 4:** The above steps are iterated, if the College Academic Committee is not contented by the statements incorporated in Vision and Mission.
- Step 5:** Department Advisory Committee refines the Vision and Mission declarations by assimilating suggestions from the College Academic committee.
- Step 6:** The final copy of department Vision and Mission is ready for the approval of the principal.
- Step 7:** The approved draft of Vision and Mission statements are published, disseminated and displayed <https://viswamengg.in/>.

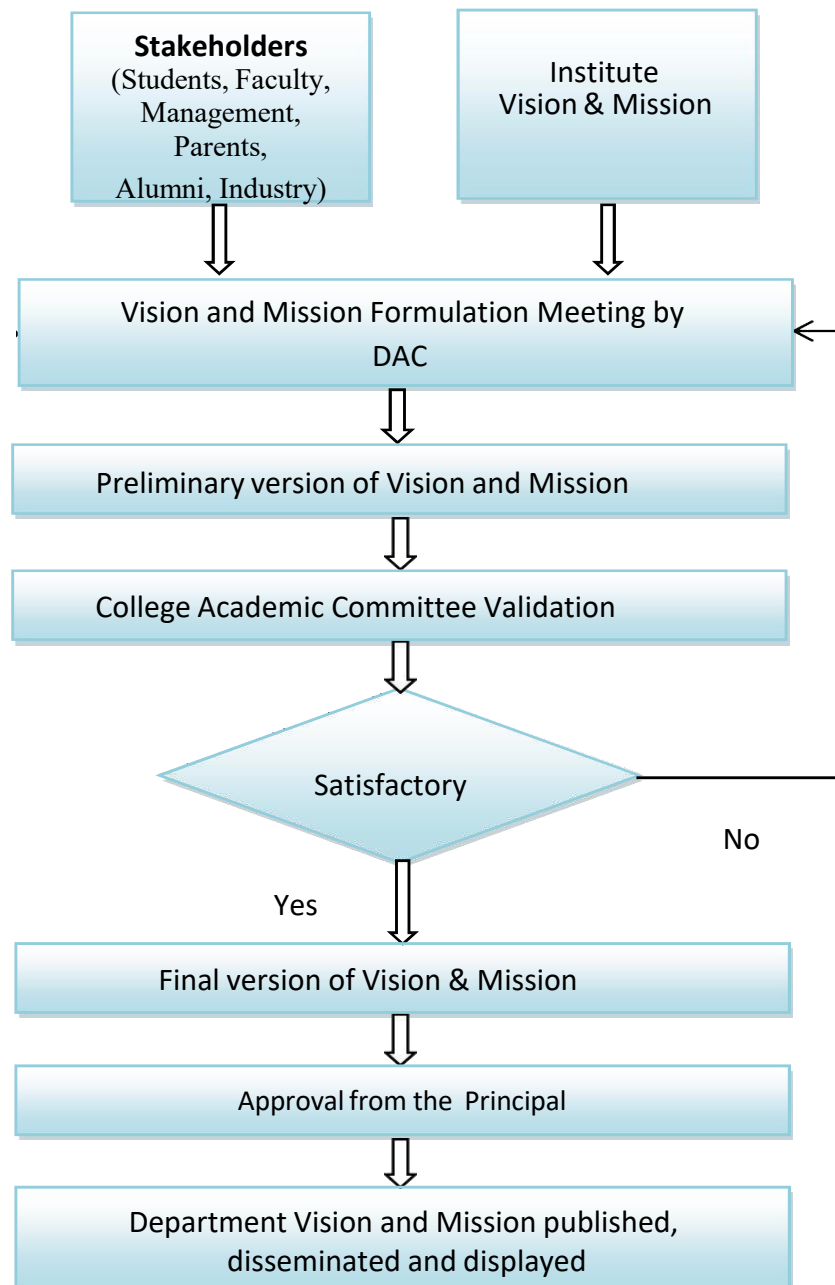


Figure A.1.4.1: Flow chart Showing the process defining Department Vision and Mission

B. Description of process involved in defining the PEOs of the program (15/15)

PEOs are drafted, formulated and finalized by active involvement of all the stakeholders

Step 1: The Department Advisory Committee (DAC) consists of program coordinator and two senior faculty members in consultation with the stakeholders organize a meeting.

Step 2: Formulate preliminary copy of PEOs referring department Vision and Mission along with the POs.

Step 3: College Academic Committee of Viswam Engineering College consists of senior members Corroborate the preliminary copy of PEOs.

Step 4: If the PEO statements are in society to satisfied in College Academic Committee validation the above steps are iterated.

Step 5: Department advisory committee refines the PEO statements by incorporating suggestions taken from the College Academic committee.

Step 6: The final copy of department PEOs is ready for the approval of the principal.

Step 7: The approved copy of PEO statements is published, disseminated and displayed <https://viswamengg.in/p.php?id=46>.

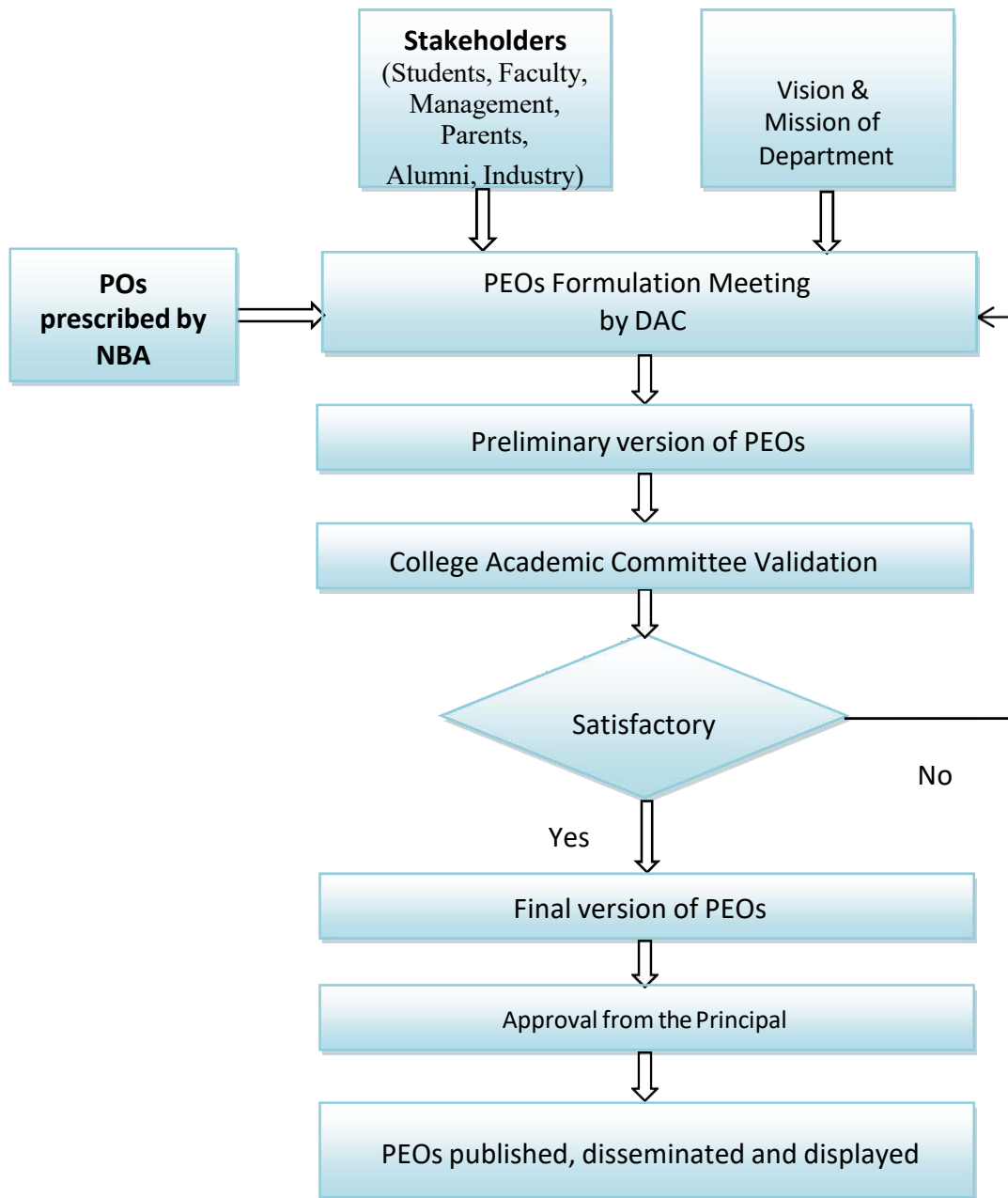


Figure B.1.4.2: Flow chart for defining PEOs

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

1.5.1 Mapping of PEO with the Mission of the Department

Mission Key elements PEOs	M1 To establish high quality learning environment comparable to world class standards.	M2 To foster innovation, creativity, integration, development activities and apply knowledge on Electronics and Communication Engineering.	M3 To promote innovative research in cutting edge technologies and establish industry-institute-interactions and equip the students to apply engineering principles to society development.
PEO1: Graduates will acquire the foundation of education that prepares them for both higher studies and professional careers in the sphere of Electronics and Communication Engineering.	3	3	2

<p>PEO2: Graduates will be able to Indulge in problem identification, analysis and work based experience to formulate and solve problems with acceptable design solutions.</p>	2	3	3
<p>PEO3: Graduates will contribute towards entrepreneurship and research, and exercise leadership through effective communication, teamwork and knowledge up gradation through lifelong learning..</p>	2	2	2

Table A.1.5.1: Mapping of Department Missions with PEOs

Note: M1, M2, are distinct elements of Mission statement. Enter correlation levels 1, 2 or 3 as defined as

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

1.5.2 Justification and Rationale of PEO- Department Mission Mapping:

PEO-1	M1	M2	M3
Graduates will acquire the foundation of education that prepares them for both higher studies and professional careers in the sphere of Electronics and Communication Engineering.	3	3	2
<p>M1: The Correlation between PEO-1 and Mission-1 is high because technically skilled graduates can provide contemporary solutions to engineering problems.</p> <p>M2: The Correlation between PEO-1 and Mission-2 is high because Industry oriented trained students on core & multidisciplinary domains can provide contemporary solutions to engineering problems in the industry.</p> <p>M3: The Correlation between PEO-1 and Mission-3 is moderate because mission focuses on Industry-Institute-Interactions</p>			

Table 1.5.2.a: PEO-1 Justification with Department Mission key elements

PEO-2	M1	M2	M3
Graduates will be able to Indulge in problem identification, analysis and work-based experience to formulate and solve problems with acceptable design solutions.	2	3	3

- M1:** The Correlation between PEO-2 and Mission-1 is moderate, because multidisciplinary concepts are required to implement the engineering products which can be obtained through technical skills.
- M2:** The Correlation between PEO-2 and Mission-2 is high because Research & consultancy skills can be obtained through state-of-art laboratories, Industrial training and higher education and research & consultancy skills are required for implementing engineering products.
- M3:** The Correlation between PEO-2 and Mission-3 is high because the Mission focuses on vital, state-of-the-art research facilities to provide students and faculty.

Table 1.5.2.b: PEO-2 Justification with Department Mission key elements

PEO-3	M1	M2	M3
Graduates will contribute towards entrepreneurship and research, and exercise leadership through effective communication, teamwork and knowledge up gradation through lifelong learning.	2	2	2
<p>M1: PEO-3 has medium correlation with Mission 1 as the mission focuses quality teaching learning processes to acquire engineering knowledge.</p> <p>M2: PEO-3 has medium map because demonstrate leadership & entrepreneurial skills are related to teaching and research through collaborative activities.</p> <p>M3: PEO-3 has moderate correlation with Mission 3 the Mission focuses on Industry-Institute-Interactions engineering principles to society development.</p>			

Table 1.5.2.c: PEO-3 Justification with Department Mission key elements

Criterion 2	Program Curriculum and Teaching-Learning Processes	120/120
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2. PROGRAM CURRICULUM AND TEACHING-LEARNING PROCESSES

2.1 Program Curriculum (20/20)

- Viswam Engineering College is affiliated to Jawaharlal Nehru Technological University, Anantapuramu
- The University curriculum structures as follows

Scheme of Instructions–2020-24 Admitted Batch (Regulation R20)

S.No	Basic Courses	Category	Number of Courses
1	Foundation Courses	Basic Sciences (BS)	8
		Engineering Sciences (ES)	11
		Humanities & Sciences (HS)	3
		Library Congress (LC)	2
2	Professional Core Subjects	Professional Core Subjects (PC)	36
		Project Work (PW)	1
3	Mandatory Course	Mandatory Course (MC)	4
4	Skilled Oriented Course	Skilled Oriented Course (SC)	3

Table 2.1.a: Electronics and Communication Engineering Course Contents for R20

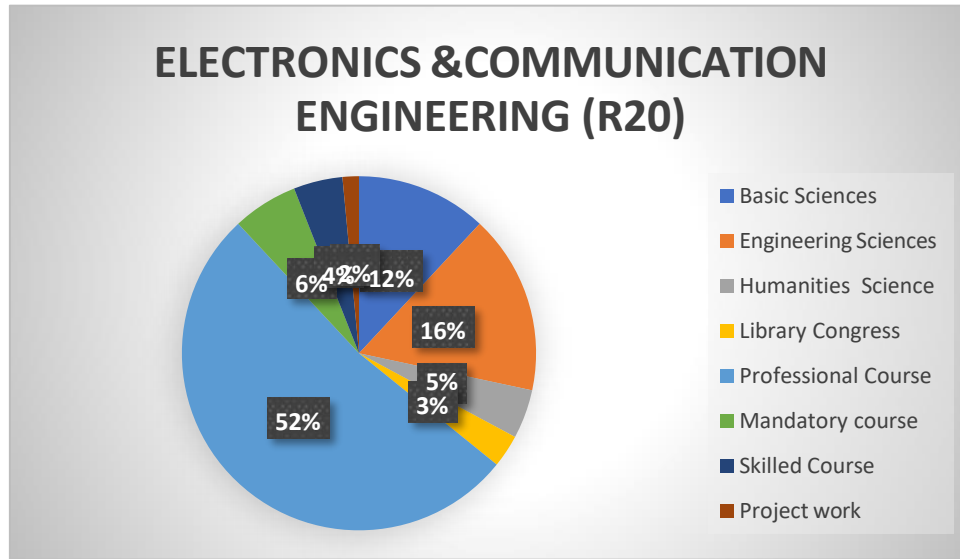


Fig.2.1.a: Electronics & Communication Engineering Course Contents for R20

Scheme of Instructions–2020-24 Admitted Batch

(RegulationR20)

S. No	Subject Code	Subject Title	Credits		Examination		Science/ HSS/Profe ssi onalCore/ Ele ctives
			Theory	Practical	Internal Marks	Final Exam	
IYEAR I SEMESTER							
1	20A54101	Linear Algebra & Calculus	3	-	30	70	BS
2	20A56201T	Applied Physics	3	-	30	70	BS
3	20A52101T	Communicative English	3	-	30	70	HS
4	20A02101I	Fundamentals of Electrical Circuits	3	-	30	70	ES
5	20A03101T	Engineering Drawing	2	-	30	70	ES
6	20A03101P	Engineering Graphics lab	-	1	30	70	ES

7	20A56201P	Applied Physics Lab	-	1.5	30	70	BS
8	20A52101P	Communicative English Lab	-	1.5	30	70	HS
9	20A52101P	Fundamentals of Electrical Circuits Lab		1.5	30	70	ES
IYEAR II SEMESTER							
10	20A54201	Differential Equations And Vector Calculus	3	-	30	70	BS
11	20A51101T	Chemistry	3	-	30	70	BS
12	20A05201T	C-Programming & Data structures	3	-	30	70	ES
13	20A04101T	Electronics Devices & Circuits	3	-	30	70	ES
14	20A03202	Engineering Workshop	-	1.5	30	70	LC
15	20A05202	IT Workshop	-	1.5	30	70	LC

16	20A05201P	C-Programming & Data structures Lab	-	1.5	30	70	ES
17	20A51101P	Chemistry Lab	-	1.5	30	70	BS
18	20A04101P	Electronics Devices & Circuits Lab	-	1.5	30	70	ES
19	20A99201	Environmental Science	-	-	30	-	MC
II YEAR I SEMESTER							
20	20A54302	Complex variables and transforms	3	-	30	70	BS
21	20A04301T	Signals and systems	3	-	30	70	PC
22	20A02303T	Electrical engineering	3	-	30	70	ES
23	20A04302T	Analog circuits	3	-	30	70	PC
24	20A52302	Organizational behavior	3	-	30	70	HS

25	20A04301P	Simulation lab	-	1.5	30	70	PC
26	20A02303P	Electrical engineering lab	-	1.5	30	70	ES
27	20A04302P	Analog circuits lab	-	1.5	30	70	PC
28	20A05305	Application development with python	-	2	30	70	SC
29	20A05305	Universal human values	-	-	30	70	MC
30	20A99301	NSS/NCC/NSO Activities	-	-	30	70	MC
II YEAR II SEMESTER							
31	20A54401	Probability theory & stochastic processors	3	-	30	70	BS
32	20A04303T	Digital Logic Design	3	-	30	70	PC

33	20A04401	EM waves and transmission lines	3	-	30	70	PC
34	20A04402T	Communication systems	3	-	30	70	PC
35	20A04403T	Linear and digital IC applications	3	-	30	70	PC
36	20A04303P	Digital logic design Lab	-	1.5	30	70	PC
37	20A04402P	Communication system Lab	-	1.5	30	70	PC
38	20A04403P	Linear and digital IC application Lab	-	1.5	30	70	PC
39	20A52401	Soft skills	-	2	30	70	SC
40	20A99401	Design thinking for innovation	-	-	30		MC
III YEAR I SEMESTER							

41	20A04501	Control System Engineering	3	-	30	70	ES
42	20A04502T	Digital Signal Processing	3	-	30	70	PC
43	20A04503T	Microprocessors and microcontrollers	3	-	30	70	PC
44	20A05602T 20A04504a 20A04504b	Professional Elective Course-I Machine Learning Computer Architecture & Organization Information Theory & Coding	3	-	30	70	PC
45		Open Elective Course-I	3	-	30	70	PC

20A01505	Building					
20A02505	Technology Electric					
20A03505	Vehicles					
20A05505a	3D Printing					
20A05502T	Technology Java					
20A12502	Programing					
20A27505	Artificial					
20A54501	Intelligence Mobile					
20A556501	Application					
	Development using					
	Android Computer					
	Applications in Food					
	Processing					
	Optimization					
	Techniques					
	Materials					
	Characterization					
	Techniques					

46	20A04502P	Digital Signal Processing Lab	-	1.5	30	70	PC
47	20A04503P	Microprocessors and Microcontrollers Lab	-	1.5	30	70	PC
48	20A04509	PCB Design and Prototype Development	-	2	30	70	PC
49	20A04510	Evaluation of Community Service Project	-	1.5	30	70	SC
III YEAR II SEMESTER							
50	20A04601T	Antenna & Wave Propagation	3	-	30	70	PC
51	20A04602T	VLSI Design	3	-	30	70	PC

52	20A04603T	Communication Networks	3	-	30	70	PC
53	20A04604a	Professional Elective Course-II	3	-	30	70	PC
	20A04604b	Electronic Measurements and Instrumentation					
	20A04604c	Embedded System Design Optical Communication					
	20A01605 20A02605 20A03605 20A05605a	Open Elective Course-II Environmental Economics Smart Electric Grid Introduction to Robotics					

54	20A05605b	Principles of Operating Systems	3	-	30	70	PC
	20A05605c						
	20A27605	Foundations of Machine Learning					
	20A54701	Data Analytics Using R					
	20A56701	Food Refrigeration and cold chain Management					
	20A051701	Wavelet Transforms & Its Applications					
55	20A04601P	Antenna & Wave Propagation Lab	-	1.5	30	70	PC
56	20A04602P	VLSI Design Lab	-	1.5	30	70	PC

57	20A04603P	Communication Networks Lab	-	1.5	30	70	PC
58	20A04607	RF System Design Lab	-	2	30	70	PC
59	20A99601	Intellectual Property Rights & Patents	-	-	30		PC
IV YEAR I SEMESTER							
60		Professional Elective Course- III	3	-	30	70	PC
	20A04701a	DSP Processors & Architectures					
	20A04701b	Introduction to Internet of Things					
	20A04701c	Satellite Communications					

61	20A04702a 20A04702b 20A04702c	Professional Elective Course- IV Real time Operating Systems Digital Image Processing Radar Engineering	3	-	30	70	PC
62	20A04703a 20A05703b 20A04703c	Professional Elective Course- V Smart Sensors Nano Electronics Cellular & Mobile Communicatio ns	3	-	30	70	PC

63	20A52701a 20A52701b 20A52701c	Humanities Elective-II Entrepreneurship and Incubation Management Science Enterprise Resource planning	3	-	30	70	PC
64	20A01704 20A02704 20A03704	Open Elective Course-III Cost Effective Housing Techniques IOT Applications in Electrical Engineering Product Design & Development	3	-	30	70	PC

	20A05704a	Web Technologies					
	20A05704b	VR & AR for					
	20A05704c	Engineers Software					
	20A27704	Engineering					
	20A54702	Human Nutrition					
	20A56702	Numerical Methods					
	20A51702	for Engineers					
		Sensors And Actuators					
		for Engineering					
		Applications Chemistry					
		of Nanomaterials And					
		Applications					
65		Open Elective Course-					
	20A01705	IV Health, Safety &					
	20A02705	Environmental					
	20A03705	Management Renewable					
	20A05705a	Energy Systems					
		Introduction to					

	20A05705b	Composite Materials					
	20A27705	Cyber Security					
	20A54703	Introduction to Full Stack Development					
	20A56703	Waste and Effluent Management	3	-	30	70	PC
	20A51703	Number Theory & Its Applications					
		Smart Materials And Devices Green Chemistry And Catalysis for Sustainable Environment					
66	20A04707	Industrial IOT & Automation	2	-	30	70	PC
67	20A04709	Evaluation of Industry	3	-			PC

		Internship					
IV YEAR II SEMESTER							
68	20A04801	Full Internship & Project Work	12	-	60	140	PW

Scheme of Instructions–2019-23 Admitted Batch

(Regulation R19)

S.No	Basic Courses	Category	Number of Courses
1	Foundation Courses	Basic Sciences (BS)	9
		Engineering Sciences (ES)	10
		Humanities & Sciences (HS)	8
		Library Congress (LC)	2
2	Professional Core Subjects	Professional Core Subjects (PC)	31
		Project Work (PW)	2
3	Open Elective Subjects	Open Elective Subjects (OE)	4
4	Mandatory Course	Mandatory Course (MC)	1

5	Skilled Oriented Course	Skilled Oriented Course (SC)	2
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Table2.1.b: Electronics & Communication Engineering Course Contents for R19

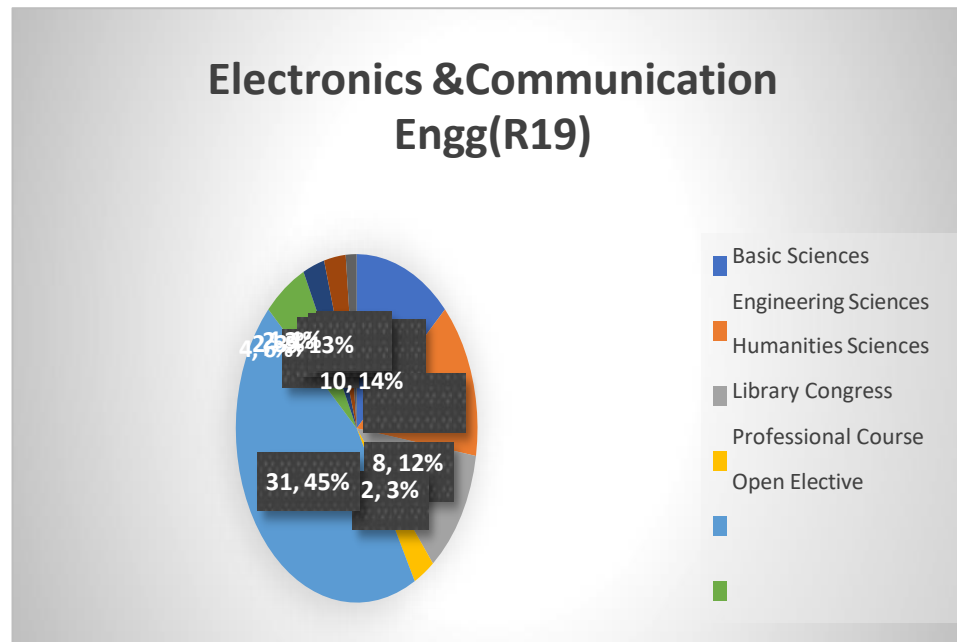


Fig.2.1.b: Electronics & Communication Engineering Course Contents for R19

Scheme of Instructions–2019-23 Admitted Batch

(Regulation R19)

S.No	Subject Code	Subject Title	Credits		Examination		Science/ HSS/Profe ssi onalCore/ Ele ctives
			Theory	Practical	Interna l Marks	Final Exam	
I YEAR I SEMESTER							
1	19A54101	Algebra & Calculus	4	-	30	70	BS
2	19A56101T	Applied Physics	3	-	30	70	BS
3	19A05101T	Problem Solving & Programming	4	-	30	70	ES
4	19A52101T	Communicative English 1	2	-	30	70	HS
5	19A10101	Electronics & Communication Engineering Workshop	-	1	30	70	LC

6	19A56101P	Applied Physics Lab	-	1.5	30	70	BS
7	19A05101P	Problem Solving & Programming Lab	-	1.5	30	70	ES
8	19A52101P	Communicative English 1 Lab	-	1	30	70	HS
I YEAR II SEMESTER							
9	19A04201T	Network theory	3	-	30	70	ES
10	19A054201	Differential Equations and Vector Calculus	4	-	30	70	BS
11	19A51102T	Chemistry	3	-	30	70	BS
12	19A05201T	Data structures	3	-	30	70	ES
13	19A03101	Engineering workshop	-	1	30	70	LC
14	19A03102	Engineering Graphics lab	-	3	30	70	ES

15	19A04201P	Network Theory lab	-	1.5	30	70	ES
16	19A51101P	Chemistry lab	-	1.5	30	70	BS
17	19A05201P	Data structures lab	-	1.5	30	70	BS
II YEAR I SEMESTER							
18	19A54302	Complex Variables and Transforms	3	-	30	70	BS
19	19A04301	Signals & Systems	3	-	30	70	PC
20	19A04302T	Electronic Devices and Circuits	3	-	30	70	PC
21	19A04303	Probability Theory and Stochastic Processes	3	-	30	70	PC
22	19A04304	Digital Electronics and Logic Design	3	-	30	70	PC
23	19A02304T	Electrical Technology	3	-	30	70	ES

24	19A04302P	Electronic Devices and Circuits Lab	-	1.5	30	70	PC
25	19A04305	Basic Simulation Lab	-	1	30	70	PC
26	19A02304P	Electrical Technology lab	-	1	30	70	ES
27	19A99302	Biology for engineers	-	0	30		HS
II YEAR II SEMESTER							
28	19A04401	Electromagnetic Waves and Transmission lines)	3	-	30	70	PC
29	19A04402T	Electronic Circuits – Analysis and Design	3	-	30	70	PC
30	19A02404	Control Systems	3	-	30	70	ES

31	19A04403T	Analog Communications	3	-	30	70	PC
32	19A05304T	Python Programming	3	-	30	70	ES
33	19A04404	Computer Architecture and Organization	3	-	30	70	PC
34	19A52301	Universal Human Values	-	2	30	70	HS
35	19A04402P	Electronic Circuits – Analysis and Design Lab	-	1.5	30	70	PC
36	19A04403P	Analog Communications Lab	-	1.5	30	70	PC
37	19A99301	Environmental Science	-	0	30	70	BS
III YEAR I SEMESTER							
38	19A04501T	Integrated Circuits and Applications	2	-	30	70	PC

39	19A04502	Antennas and Wave Propagation	3	-	30	70	PC
40	19A52601T	English Language Skills	3	-	30	70	HS
41	19A04503T	Digital Communications	3	-	30	70	PC
42	19A05403T 19A02403 19A05303T 19A04504a 19A05404b	Professional Elective-I Operating Systems Power Electronics Object oriented Programming through JAVA Data Communications and Networks Nano Electronics	3	-	30	70	PC
43	19A01506a	Open Elective -I Experimental stress analysis. Building	3	-	30	70	OE

	19A01506b	Technology					
	19A02506a	Electrical Engineering					
	19A03506a	Materials Introduction to Hybrid and					
	19A03506b	Electric					
	19A05506a	Vehicles Rapid Prototyping					
	19A05506b	Free and Open Sources Systems Computer					
	19A27506a	Graphics and Multimedia					
	19A27506b	Animation Brewing Technology					
	19A54506a	Computer Applications in Food Industry					
	19A52506a	Optimization Techniques Technical Communication and Presentation Skills					
	19A51506a	Chemistry of Energy Materials					

44	19A04501P	Integrated Circuits and Applications Lab	-	1.5	30	70	PC
45	19A52601P	English Language Skills Lab	-	1.5	30	70	HS
46	19A04503P	Digital Communications Lab	-	1	30	70	PC
47	19A04507	Socially Relevant Project	-	0.5			SC
48	19A99601	Research methodology	-	0			PC
III YEAR II SEMESTER							
49	19A04601T	Microprocessors and Microcontrollers	3	-	30	70	PC
50	19A04602T	Digital Signal Processing	3	-	30	70	PC
51	19A04603	Digital System Design through VHDL	3	-	30	70	PC

52	19A04605a	Professional Elective-II(MOOCs) Introduction to Wireless and Cellular Communications (IITMadras) Fabrication Techniques for	3	-	30	70	PC
	19A04506b	MEMs-based sensors (IISc, Bangalore)					
	19A04605c	Integrated Photonics Devices and Circuits Electrical Measurement and Electronic Instruments (IIT KGP)					
	19A04605d	Principles and Techniques of Modern Radar Systems (offered by IIT KGP)					
	19A04605e						

53		Open Elective-II					
	19A01604a	Industrial waste and wastewater management.					
	19A01604b	Building Services & Maintenance					
	19A02604a	Industrial Automation					
	19A02604b	System Reliability					
	19A03604a	Concepts Introduction to Mechatronics					
	19A03604b	Optimization techniques through MATLAB	3	-	30	70	OE
	19A05604a	Fundamentals of VR/AR/MR Data Science					
	19A05604b						
	19A27604a	Food Toxicology					
	19A27604b	Food Plant Equipment					
	19A54604a	Design Wavelet Transforms & its applications					

	19A52604a	Soft Skills					
	19A51604a	Chemistry of Polymers and Its Applications					
54	19A52602a	Humanities Elective-I Entrepreneurship & Incubation	3	-	30	70	HS
	19A52602b 19A52602c 19A52602d 19A52602e	Managerial Economics and Financial Analysis Business Ethics and Corporate Governance Enterprise Resource Planning Supply Chain Management					
55	19A04602P	Digital Signal Processing Lab	-	1.5	30	70	PC
56	19A04601P	Microprocessors and Microcontrollers Lab	-	1.5	30	70	PC

57	19A99501	Constitution of India (Mandatory Course)	-	0.5	30	70	MC
58	19A04606	Socially Relevant Project	-	-			SC
59	19A04607	Comprehensive Online Examination-	-	-			PC
IV YEAR I SEMESTER							
60	19A04701T	Microwave Engineering and Optical Communications	3	-	30	70	PC
61	19A04702T	VLSI Design	3	-	30	70	PC
62	19A04703a	Professional	3	-	30	70	PC
	19A04703b	Elective-III Satellite					
	19A04703c	Communications Digital TV					
	19A04703d	Engineering Embedded Systems					

	19A04703e	Image Processing Advanced Digital Signal Processing					
63	19A01704a	Open Elective-III	3	-	30	70	OE
	19A01704b	Air pollution and control. Basics of civil Engineering Renewable Energy Systems					
	19A02704a						
	19A02704b	Electric Vehicle					
	19A03704a	Engineering Finite element methods					
	19A03704b	Product Marketing					
	19A05704a	Fundamentals of Game Development					
	19A05704b						
	19A27704a	Cyber Security					
	19A27704b	Corporate Governance in Food Industries					
	19A54704a	Process Technology for					

	19A51704a	Convenience & RTE Foods Numerical Methods for Engineers (ECE , CSE, IT &CE) Chemistry of Nanomaterials and Applications					
64	19A52701a 19A52701b 19A52701c 19A52701d 19A52701e	Humanities Elective- II Organizational Behaviour Management Science Business Environment Strategic Management E-Business	3	-	30	70	HS
65	19A04701P	Microwave and Optical Communications Lab	-	1.5	30	70	PC

66	19A04702P	VLSI Design Lab	-	1.5	30	70	PC
67	19A04705	Industrial Training/Skill Development/Research Project	-	2			PW
IV YEAR II SEMESTER							
68	19A04801a 19A04801b 19A04801c	Professional Elective-IV Advanced 3G and 4G Wireless Mobile Communications	3	-	30	70	PC
	19A04801d 19A04801e	Introduction to Internet of Things Fuzzy sets, logic and systems and Applications Biomedical Signal Processing Analog IC design					

69	19A01802a	Open Elective-IV	3	-	30	70	OE
	19A01802b	Disaster					
	19A02802a	Management.					
	19A02802b	Global Warming and					
	19A03802a	climate changes					
	19A03802b	IoT Applications in					
	19A05802a	Electrical Engineering					
	19A05802b	Smart Electric Grid					
	19A27802a	Energy conservation					
	19A27802b	and management					
	19A54802a	Non-destructive testing					
	19A51802a	Block Chain					
		Technology and					
	Applications						
	MEAN Stack Technology						
	Food Plants Utilities &						
	Services Nutraceuticals &						
	Functional Foods						

		Mathematical Modelling & Simulation Green Chemistry and Catalysis for Sustainable Environment					
70	19A04803	Project	7	-	60	140	PW

Scheme of Instructions–2018-22 Batch Admitted Batch

(RegulationR15)

S.No	Basic Courses	Category	Number of Courses
1	Foundation Courses	Basic Sciences (BS)	1
		Engineering Sciences (ES)	1
		Humanities & Sciences (HS)	9
		Library Congress (LC)	1
2	Professional Core Subjects	Professional Core Subjects (PC)	52
		Project Work (PW)	1

Table 2.1.b: Electronics & Communication Engineering Course Contents for R15

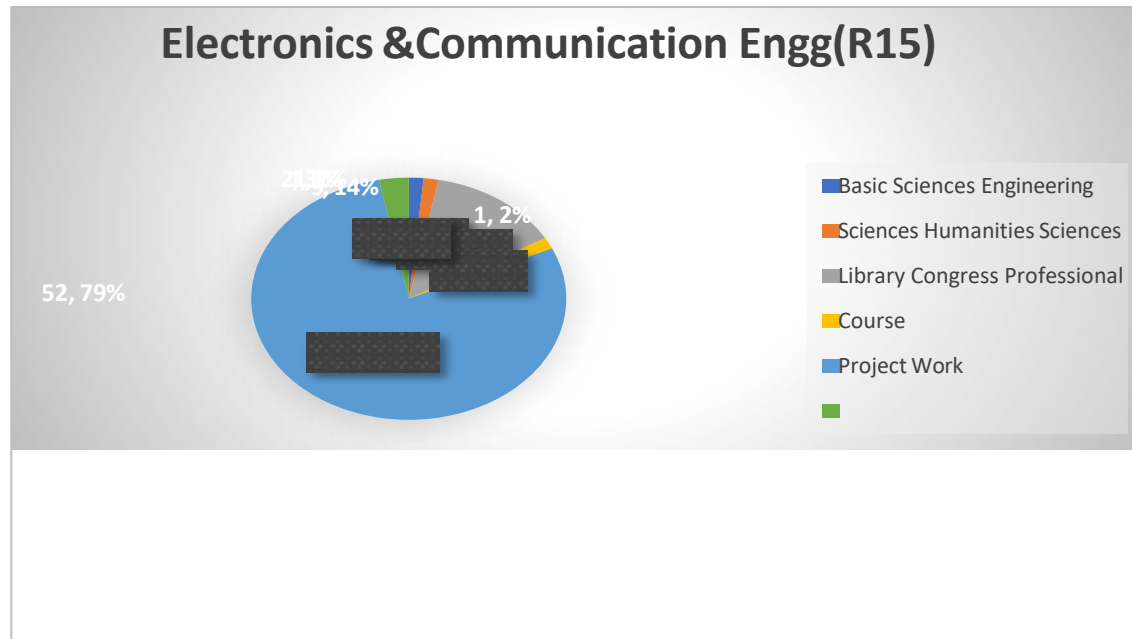


Fig.2.1.c : Electronics & Communication Engineering Course Contents for R15

Scheme of Instructions–2018-22 Admitted Batch

(Regulation R15)

S.No	Subject Code	Subject Title	Credits		Examination		Science/ HSS/Profe ssi onalCore/ Ele ctives
			Theory	Practical	Interna l Marks	Final Exam	
I YEAR I SEMESTER							
1	15A52101	Functional English	3	-	30	70	HS
2	15A54101	Mathematics -1	3	-	30	70	HS
3	15A05101	Computer programming	3	-	30	70	PC
4	15A51101	Engineering chemistry	3	-	30	70	HS
5	15A01101	Environmental studies	3		30	70	LC
6	15A52102	English language communication skills lab	-	2	30	70	HS

7	15A51102	Engineering chemistry lab	-	2	30	70	HS
8	15A05102	Computer programming lab	-	2	30	70	PC
I YEAR II SEMESTER							
9	15A52201	English for professional communication	3	-	30	70	HS
10	15A54201	Mathematics-II	3	-	30	70	HS
11	15A04201	Network Analysis	3	-	30	70	PC
12	15A56101	Engineering Physics	3	-	30	70	HS
13	15A03101	Engineering Drawing	3	-	30	70	PC
14	15A04202	Network Analysis lab	-	2	30	70	PC
15	15A56102	Engineering Physics lab	-	2	30	70	PC
16	15A99201	Engineering& IT	-	2	30	70	PC

		workshop					
II YEAR I SEMESTER							
17	15A54301	Mathematics -III	3	-	30	70	BS
18	15A04301	Electronic Devices and Circuits	3	-	30	70	PC
19	15A04302	Switching theory and logic design	3	-	30	70	PC
20	15A04303	Signals & Systems	3	-	30	70	PC
21	15A04304	Probability Theory and Stochastic Processes	3	-	30	70	PC
22	15A02306	Electrical Technology	3	-	30	70	ES
23	15A04305	Electronic Devices and Circuits Lab	-	2	30	70	PC
24	15A02307	Electrical Technology &	-	2	30	70	PC

		Basic Simulation Lab					
II YEAR II SEMESTER							
25	15A54402	Mathematics- IV	3	-	30	70	PC
26	15A04401	Electronic Circuits Analysis	3	-	30	70	PC
27	15A04402	Analog Communications	3	-	30	70	PC
28	15A04403	Electromagnetic theory and transmission lines	3	-	30	70	PC
29	15A05201	Data structures	3	-	30	70	PC
30	15A02303	Control system Engineering	3	-	30	70	PC

31	15A04404	Electronic Circuits Analysis lab	-	2	30	70	PC
32	15A04405	Analog Communications Lab	-	2	30	70	PC
33	15A04406	Comprehensive Online Examination	-	1	30	70	PC
III YEAR I SEMESTER							
34	15A04511	Computer Organization	2	-	30	70	PC
35	15A04501	Antennas and Wave Propagation	3	-	30	70	PC
36	15A04502	Digital Communications systems	3	-	30	70	PC
37	15A04503	Linear Integrated Circuits and Applications	3	-	30	70	PC

38	15A04504	Digital system Design	3	-	30	70	PC
39	15A04505 15A04506	MOOCS-I a. Linux Programming & Scripting b. MEMS & Microsystems	3	-	30	70	PC
40	15A04507	IC Applications Lab	-	2	30	70	PC
41	15A04508	Digital Communications systems lab	-	2	30	70	PC
42	15A99501	Audit course- social values & ethics	-	0	30	70	PC
III YEAR II SEMESTER							
43	15A52301	Managerial Economics Financial Analysis	3	-	30	70	PC

44	15A04601	Microprocessor & Microcontrollers	3	-	30	70	PC
45	15A04602	Electrical Measurement and Instrumentation	3	-	30	70	PC
46	15A04603	Digital Signal Processing	3	-	30	70	PC
47	15A04604	VLSI design	3	-	30	70	PC
48	15A04605 15A04606 15A02605 15A01608	CBCC-I a. MATLAB Programming b. Industrial Electronics c. Neural Networks & Fuzzy Logic d. Intellectual Property Rights	3	-	30	70	PC

49	15A04607	Microprocessors and Microcontrollers Lab	-	2	30	70	PC
50	15A04608	Digital Signal Processing Lab	-	2	30	70	PC
51	1A52602	Advanced English Language Communication (AELCS) laboratory (Audit Course)	-	-	30	70	HS
52	15A04609	Comprehensive Online Examination-	-	1			PC
IV YEAR I SEMESTER							
53	15A04701	Optical Fiber Communications	3	-	30	70	PC
54	15A04702	Embedded Systems	3	-	30	70	PC

55	15A04703	Microwave Engineering	3	-	30	70	PC
56	15A04704	Data Communications and Networking	3	-	30	70	PC
57		CBCC-II					
	15A04705	a. Radar Systems	3	-	30	70	PC
	15A04706	b. Adaptive Signal Processing					
	15A04707	c. FPGA Design					
58		CBCC-III	3	-	30	70	PC
	15A04708	a. Digital Image Processing					
	15A04709	b. Cellular & Mobile Communication					
	15A04710	c. Real Time Systems					
59	19A04702P	Microwave & Optical Communications Lab	-	2	30	70	PC
60	19A04705	VLSI & Embedded	-	2	30	70	PC

		systems					
61	15A04801 15A04802	MOOCS-II* a. Advanced Digital Signal Processing- Multirate & Wavlet b. Low Power VLSI Circuits & Systems	3	-	30	70	PC
62	15A04803 15A04804	MOOCS-III * a. Pattern Recognition & Applications b. RF Integrated Circuits	3	-	30	70	PC
63	15A04805	Comprehensive viva voice	2	-	50		PC
64	15A04806	Technical seminar	2	-	50		PC
65	15A04807	Project work	12	-	60	140	PW

Scheme of Instructions–2017-21 Batch Admitted Batch**(RegulationR15)**

S.No	Basic Courses	Category	Number of Courses
1	Foundation Courses	Basic Sciences (BS)	1
		Engineering Sciences (ES)	1
		Humanities & Sciences (HS)	9
		Library Congress (LC)	1
2	Professional Core Subjects	Professional Core Subjects (PC)	52
		Project Work (PW)	1

Table2.1.b: Electronics & Communication Engineering Course Contents for R15

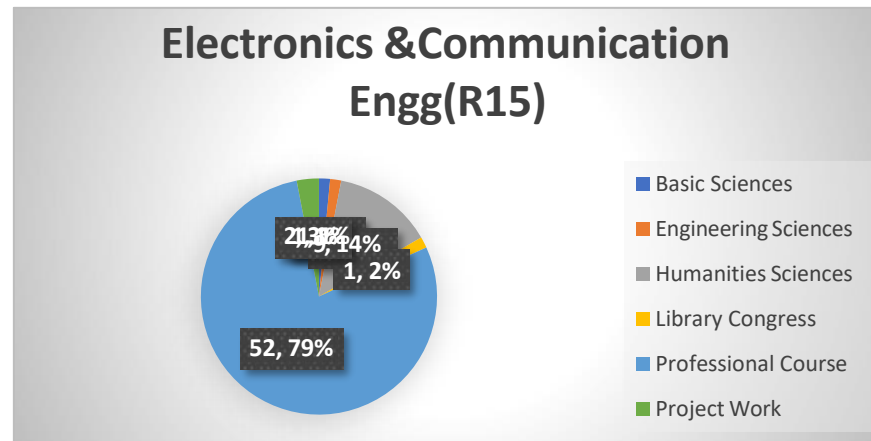


Fig.2.1.d: Electronics & Communication Engineering Course Contents for R15

Scheme of Instructions–2017-21 Admitted Batch

(RegulationR15)

S.No	Subject Code	Subject Title	Credits		Examination		Science/ HSS/ Professiona 1 Core/ Electives
			Theory	Practical	Internal Marks	Final Exam	
I YEAR I SEMESTER							
1	15A52101	Functional English	3	-	30	70	HS
2	15A54101	Mathematics -1	3	-	30	70	HS
3	15A05101	Computer programming	3	-	30	70	PC
4	15A51101	Engineering chemistry	3	-	30	70	HS
5	15A01101	Environmental studies	3		30	70	LC
6	15A52102	English language communication skills lab	-	2	30	70	HS

7	15A51102	Engineering chemistry lab	-	2	30	70	HS
8	15A05102	Computer programming lab	-	2	30	70	PC
I YEAR II SEMESTER							
9	15A52201	English for professional communication	3	-	30	70	HS
10	15A54201	Mathematics-II	3	-	30	70	HS
11	15A04201	Network Analysis	3	-	30	70	PC
12	15A56101	Engineering Physics	3	-	30	70	HS
13	15A03101	Engineering Drawing	3	-	30	70	PC
14	15A04202	Network Analysis lab	-	2	30	70	PC
15	15A56102	Engineering Physics lab	-	2	30	70	PC
16	15A99201	Engineering& IT	-	2	30	70	PC

		workshop					
II YEAR I SEMESTER							
17	15A54301	Mathematics -III	3	-	30	70	BS
18	15A04301	Electronic Devices and Circuits	3	-	30	70	PC
19	15A04302	Switching theory and logic design	3	-	30	70	PC
20	15A04303	Signals & Systems	3	-	30	70	PC
21	15A04304	Probability Theory and Stochastic Processes	3	-	30	70	PC
22	15A02306	Electrical Technology	3	-	30	70	ES
23	15A04305	Electronic Devices and Circuits Lab	-	2	30	70	PC
24	15A02307	Electrical Technology &	-	2	30	70	PC

		Basic Simulation Lab					
II YEAR II SEMESTER							
25	15A54402	Mathematics- IV	3	-	30	70	PC
26	15A04401	Electronic Circuits Analysis	3	-	30	70	PC
27	15A04402	Analog Communications	3	-	30	70	PC
28	15A04403	Electromagnetic theory and transmission lines	3	-	30	70	PC
29	15A05201	Data structures	3	-	30	70	PC
30	15A02303	Control system Engineering	3	-	30	70	PC
31	15A04404	Electronic Circuits Analysis lab	-	2	30	70	PC
32	15A04405	Analog	-	2	30	70	PC

		Communications Lab					
33	15A04406	Comprehensive Online Examination	-	1	30	70	PC
III YEAR I SEMESTER							
34	15A04511	Computer Organization	2	-	30	70	PC
35	15A04501	Antennas and Wave Propagation	3	-	30	70	PC
36	15A04502	Digital Communications systems	3	-	30	70	PC
37	15A04503	Linear Integrated Circuits and Applications	3	-	30	70	PC
38	15A04504	Digital system Design	3	-	30	70	PC
39	15A04505	MOOCS-I a. Linux Programming &	3	-	30	70	PC

	15A04506	Scripting b. MEMS & Microsystems					
40	15A04507	IC Applications Lab	-	2	30	70	PC
41	15A04508	Digital Communications systems lab	-	2	30	70	PC
42	15A99501	Audit course- social values & ethics	-	0	30	70	PC
III YEAR II SEMESTER							
43	15A52301	Managerial Economics Financial Analysis	3	-	30	70	PC
44	15A04601	Microprocessor & Microcontrollers	3	-	30	70	PC
45	15A04602	Electrical Measurement an	3	-	30	70	PC

		Instrumentation					
46	15A04603	Digital Signal Processing	3	-	30	70	PC
47	15A04604	VLSI design	3	-	30	70	PC
48		CBCC-I					
	15A04605	a. MATLAB Programming					
	15A04606	b. Industrial Electronics					
	15A02605	c. Neural Networks & Fuzzy Logic	3	-	30	70	PC
	15A01608	d. Intellectual Property Rights					
49	15A04607	Microprocessors and Microcontrollers Lab	-	2	30	70	PC
50	15A04608	Digital Signal Processing Lab	-	2	30	70	PC

51	1A52602	Advanced English Language Communication (AELCS) laboratory (Audit Course)	-	-	30	70	HS
52	15A04609	Comprehensive Online Examination-	-	1			PC
IV YEAR I SEMESTER							
53	15A04701	Optical Fiber Communications	3	-	30	70	PC
54	15A04702	Embedded Systems	3	-	30	70	PC
55	15A04703	Microwave Engineering	3	-	30	70	PC
56	15A04704	Data Communications and Networking	3	-	30	70	PC

57	15A04705 15A04706 15A04707	CBCC-II a. Radar Systems b. Adaptive Signal Processing c. FPGA Design	3	-	30	70	PC
58		CBCC-III	3	-	30	70	PC
	15A04708 15A04709 15A04710	a. Digital Image Processing b. Cellular & Mobile Communication c. Real Time Systems					
59	19A04702P	Microwave & Optical Communications Lab	-	2	30	70	PC
60	19A04705	VLSI & Embedded systems	-	2	30	70	PC
IV YEAR II SEMESTER							

61	15A04801 15A04802	MOOCS-II* a. Advanced Digital Signal Processing- Multirate & Wavelet b. Low Power VLSI Circuits & Systems	3	-	30	70	PC
62	15A04803 15A04804	MOOCS-III * a. Pattern Recognition & Applications b. RF Integrated Circuits	3	-	30	70	PC
63	15A04805	Comprehensive viva voice	2	-	50		PC
64	15A04806	Technical seminar	2	-	50		PC
65	15A04807	Project work	12	-	60	140	PW

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 Annexure Also mention the identified curricular gaps if any (10/10)

(State the process details; also mention identified curricular gaps).

Note: *In case all POs are being demonstrably met through University Curriculum then*

2.1.2 will not be applicable and the weight age of 2.1.1 will be 20.

A-Process used to identify the extent of compliance of the University Curriculum for attaining POs& PSOs. (6/6)

- Curriculum gap is identified based on CO-PO mapping and the assessment offered back from various stakeholders on curriculum.
- The samisen to BOS, JNTUA in the form of letter.
- Identified Gaps are analyzed by DAC followed by CAC based on which gaps are filled by conducting workshops, seminars and guest lectures on add on topics which include content beyond syllabus.
- This analysis helps to fulfil the gap between Institution and Industry.

List of Program Outcomes:

PO1	Engineering Knowledge: Apply the knowledge of mathematics science,engineering fundamentals and an engineering specialization to the solution of electrical and electronics engineering problems.
PO2	Problem analysis: Identify, formulate, review research literature and analyze complex electrical and electronics engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

PO3	Design/development of solutions: - Design solutions for complex electrical and electronics engineering problems and design system components or process that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.
PO4	Conduct investigations of Complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage:- Create select and apply appropriate techniques, resources ,and modern engineering and IT tools including prediction and modeling to complex electrical and electronics engineering activities with an understanding of the limitations.
PO6	The Engineer and society:- Apply reasoning informed by the contextual knowledge to assess societal, health ,safety , legal and cultural issues and the consequent responsibilities relevant to the professional electrical and electronics engineering practice..
PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the electrical and electronics engineering practice.

PO9	Individual and team work: Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication: - Communicate effectively on complex engineering activities with the engineering community and with society at large. such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.
PO11	Project Management and finance: - Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work. as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life -Long learning: - Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

Program Specific Outcomes

PSO1	Apply standard Software Engineering practices and strategies in real time software project development using open-source programming environment or commercial environment to deliver quality product for the organization success
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PSO2	Design and develop computer programs/computer-based systems in the areas related to algorithms, networking, web design, cloud computing, IoT and data analytics of varying complexity
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With reference to university curriculum, all the subjects are mapped with twelve Program Outcomes and two Program Specific Outcomes. The percentage compliance of subjects with all the POs individually has been tabulated below:

Program level course POs/PSOs Mapping

Regulation: R20

S.No	Name of The Subject	Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS 1	PS 2
1	Linear Algebra & Calculus- 20A54101	101	2.6	2.4	2.2	2	-	-	-	-	-	-	2	2	2.2	-
2	Applied Physics- 20A56201T	102	2.4	2.4	2.2	-	-	-	-	-	-	-	-	-	-	-
3	Communicative English- 20A52101T	103	-	-	-	-	-	-	-	2	2.4	2.6	-	3	-	2
4	Fundamentals of Electrical Circuits- 20A02101T	104	2.4	2.2	2	2	-	-	-	-	-	-	-	2	-	-
5	Engineering Drawing -	105	2.4	2	2	2	-	-	-	-	-	-	-	-	-	-

	20A03101T															
6	Engineering Graphics Lab-20A03101P	106	2.4	2	2	2	-	-	-	-	-	-	-	-	-	-
7	Applied Physics Lab-20A56201P	107	2.6	2.6	2.2	-	-	-	-	-	-	-	-	-	-	-
8	Communicative English Lab-20A52101P	108	-	-	-	-	-	-	-	2	2.4	2.6	-	3	-	2.6
9	Fundamentals of Electrical Circuits Lab-20A02101P	109	2.4	2.2	2	2	-	-	-	-	-	-	-	2	-	-
10	Differential equations & vector calculus -20A54201	110	2.6	2.4	2	2	-	-	-	-	-	-	-	2	2	-

11	Chemistry- 20A51101T	111	2.3	2	-	-	-	-	-	-	-	-	-	-	-	-
12	C Programming& data structures- 20A05201T	112	2.4	2	2	-	-	-	-	-	-	-	2.4	2	-	-
13	Electronic Devices &Circuits- 20A04101T	113	2.3	2.2	2	-	-	2	-	-	-	-	-	-	1.8	1.5
14	Engineering workshop – 20A03202	114	2.4	2.2	2	2	-	-	-	-	-	-	2	-	2.4	2.3
15	IT Workshop-- 20A05202	115	2	2	2	-	-	-	-	-	-	-	2	2	-	1.6
16	C Programming & data structures Lab-20A05201P	116	2.3	2	-	-	-	-	-	-	-	-	-	-	-	-

17	Chemistry Lab 20A51101P	117	2.4	2	2	-	-	-	-	-	-	-	2.4	2	2	-
18	Electronic Devices & Circuits Lab- 20A04101P	118	2	2.2	2	-	-	-	-	-	-	-	-	-	2.2	2
19	Environmental Science-20A99201	119	-	-	-	2	2	-	2.6	-	-	-	-	2	-	-
20	Complex variables & Transforms-	201	2.4	2.3	-	2.5	-	-	-	-	-	-	-	-	1.8	1.6
	20A54302	2.4	2.3	-	2.5	-	-	-	-	-	-	-	-	1.8	1.6	2.4
21	Signals and systems- 20A04301T	202	2	2.33	2	2	-	-	-	-	-	-	-	2	1.9	-
22	Electrical Engineering-	203	2	2	1.5	-	2.2	-	-	-	-	-	-	-	-	-

	20A02303T															
23	Analog Circuits- 20A04302T	204	2.3	2.2	2	-	-	-	-	-	-	-	-	-	2.5	2
24	Organizational Behavior- 20A52302	205	-	-	-	-	-	-	-	2.3	2	-	2	2	-	-
25	Simulation Lab- 20A04301P	206	2.3	2	-	-	2.3	2	-	-	-	-	-	2	2	2.5
26	Electrical Engineering Lab- 20A02303P	207	2	2.2	1.5	-	2.2	-	-	-	-	-	-	2	-	-
27	Analog Circuits Lab 20A04302P	208	2.3	2.6	2.2	-	2	-	-	-	-	-	-	-	2	2
28	Application Development with	209	2	-	1.8	-	2	-	-	-	-	-	-	2	2	2

	Python-20A05305															
29	Universal Human Values-20A52201	210	-	-	-	-	-	-	-	2.6	-	2	-	2	-	2
30	NSS/NCC/NSO Activities-20A99501	211	-	2	2.2	-	2	2.2	2	2	2.3	2	2	2	2.3	3
31	Probability Theory &Stochastic Process-20A34403	212	2.4	2.3	2.2	2	-	-	-	-	-	-	-	-	-	1.8
32	Digital Logic Design-20A04303T	213	2	2.2	2.2	-	-	-	-	-	-	-	-	-	2	2
33	EM Waves and Transmission lines-20A04401	214	2.3	2.5	2.5	-	-	-	-	-	-	-	-	-	1.7	1

34	Communication Systems- 20A04402T	215	2.2	2.3	2.4	-	-	-	-	-	-	-	-	-	2	2
35	Linear And Digital IC Applications- 20A04403T	216	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-	2	-
36	Digital Logic Design Lab- 20A04303P	217	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-	2	-
37	Communication Systems Lab- 20A04402P	218	2.2	2.3	2.6	-	-	-	-	-	-	-	-	-	-	-
38	Linear And Digital IC Applications	219	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-	2	-

	Lab-20A04403P		2.2	2.4	2.2	-	-	-	-	-	-	-	-	-	2	-
39	Soft Skills- 20A52401	220	-	2.2	-	2	-	-	-	-	2.2	1.6	-	2	-	2.2
40	Design Thinking for Innovation- 20A99401	221	-	2.2	-	2	-	-	-	-	2.2	1.6	-	2	-	2.2
41	Control System Engineering- 20A04501	301	2	2.3	2	2	-	-	-	-	-	-	-	-	2.5	2
42	Digital Signal Processing- 20A04502T	302	2.3	2.3	2.3	2	-	-	-	-	-	-	-	-	2.5	-
43	Microprocessor and Microcontroller- 20A04503T	303	2.3	2	2.2	-	2.2	-	-	-	-	-	-	-	2	-

44	Computer Architecture & organization-20A04504a	304	2	2.2	2	-	-	-	-	-	-	-	-	-	-	-
45	Mobile Application Development Using Android-20A12502	305	2	-	-	-	2	-	-	-	-	-	-	2	1	3
46	Digital Signal Processing Lab-20A04502P	306	2	2	1.5	1.5	2.2	-	-	-	-	-	-	-	2.3	-
47	Microprocessor and Microcontroller Lab-20A04503P	307	2.4	2	2.3	-	2.3	-	-	-	-	-	2	2	2	-
48	PCB Design and prototype	308	2	-	-	-	-	-	2	-	-	-	2	2.2	3	2

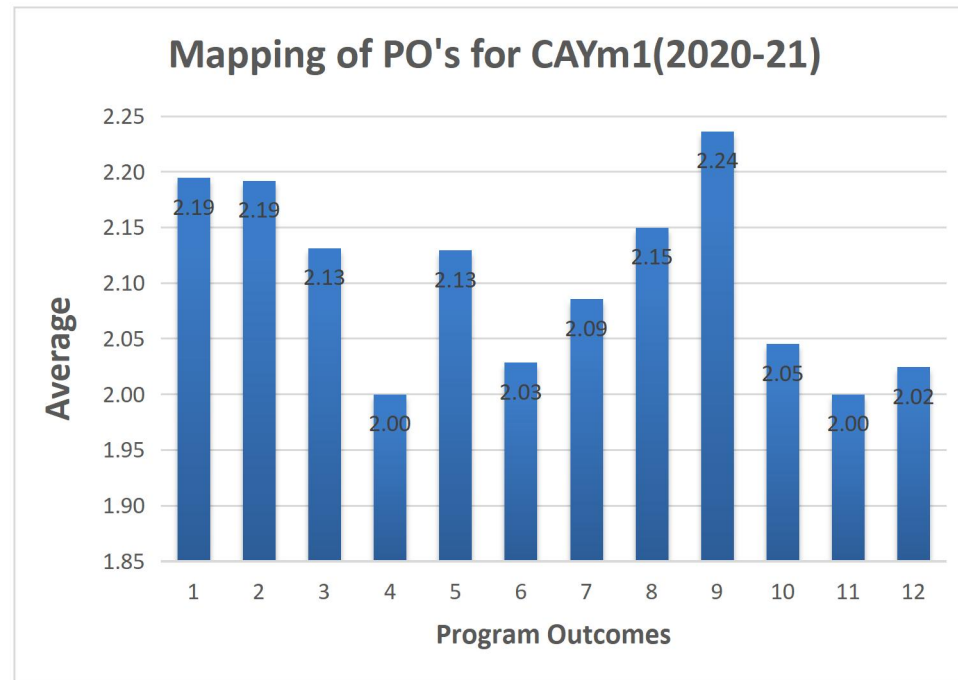
	development- 20A04509																
49	Evaluation of Community Service project- 20A04510	309	2	2.2	-	2	2.2	2	2	2.3	2	2	2	2.3	3	2	
50	Antenna & Microwave Engineering - 20A04601T	310	2.2	2.5	2.5	-	-	2	-	-	-	-	-	1	2	1	
51	VLSI Design- 20A04602T	311	2.2	2	2	2	-	-	-	-	-	-	-	1.6	2	-	
52	Communication Networks- 20A04603T	312	1.6	2	2.3	-	-	2	-	-	-	-	-	2	-	-	

53	Optical Communications-	313	2.2	2.2	2	-	-	-	-	-	-	-	1.6	-	2	-
	20A04604c		2.2	2.2	2	-	-	-	-	-	-	-	1.6	-	2	-
54	Antenna & Microwave Engineering Lab - 20A04601P	314	2.2	2.5	2.5	-	-	2	-	-	-	-	-	1	2	1
55	VLSI Design Lab- 20A04602P	315	2.2	2.2	2.2	2	-	-	-	-	-	-	2	2	2	1.5
56	Communication Networks Lab- 20A04603P	316	1.6	2	2.3	-	-	2	-	-	-	-	-	2	-	-
57	RF System Design -20A04607	317	1.6	2	2.3	-	-	2	-	-	-	-	-	2	-	-

58	Intellectual Property Rights & Patents	318	-	2.2	-	2	-	-	-	-	2.2	1.6	-	2	-	2.2
59	Principles of Operating Systems- 20A05605a	319	1.6	2	2.3	-	-	2	-	-	-	-	-	2	-	-
60	DSP Processors & Architectures- 20A04701a	401	2.3	2.3	2.3	2	-	-	-	-	-	-	-	-	2.5	-
61	Radar Systems- 20A04702c	402	2.2	2.2	2.2	-	-	-	-	-	-	-	1.6	-	-	2
62	Cellular & Mobile Communications- 20A04703c	403	2.3	2	2	-	-	-	-	-	-	-	2	2	-	-
63	Management	404	-	2	2	2	-	2	2	2	2	2	2	-	-	2

	Science- 20A52701b2																
64	Industrial IOT & Automation- 20A04707	405	2	2	2	-	2	2	-	-	-	-	-	2.33	2	-	
65	Web Technologies- 20A05704a	406	2	-	-	-	2	-	-	-	-	-	-	2	1	3	
66	Cyber Security- 20A05705a	407	2	-	-	-	2	-	-	-	-	-	-	2	1	3	
67	Evaluation of Industry Intenship- 20A04709	408	-	2	2.2	-	2	2.2	2	2	2.3	2	2	2	2.3	3	
68	Full Internship &Project Work- 20A04801	409	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5	-	-	

Average		2.19	2.19	2.13	2.00	2.13	2.03	2.09	2.15	2.24	2.05	2.00	2.02	2.05	2.06
Average (%)		71.05	66.67	70.98	67.62	69.52	71.67	74.55	68.18	66.67	67.48	68.38	68.75	68.38	68.75



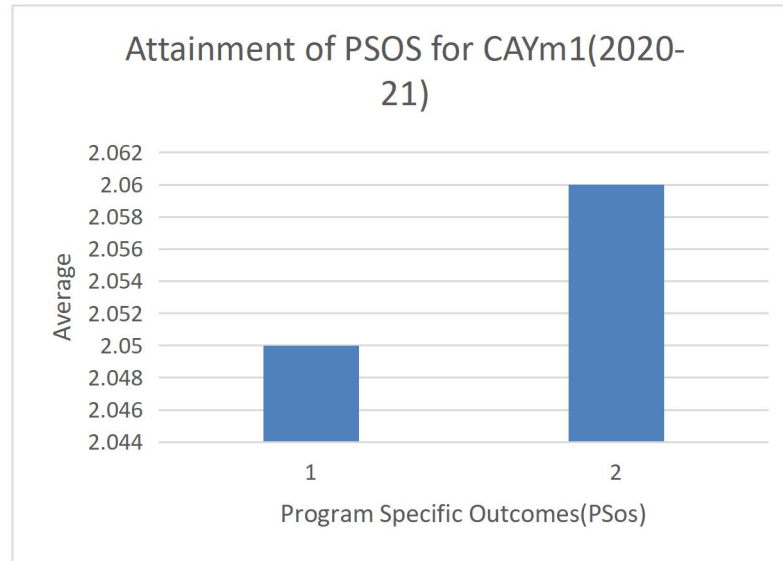


Fig 2.1.1 a: Program level course POs/PSOs mapping for R20

Program level course POs/PSOs Mapping

Regulation: R19

S.No	Name of The Subject	course	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS 1	PS 2
1	Algebra & Calculus- 19A54101	101	2.6	2.4	2.2	2	-	-	-	-	-	-	2	2	2.2	-
2	Applied Physics- 19A56101T	102	2.4	2.4	2.2	-	-	-	-	-	-	-	-	-	-	-
3	Problem Solving & Programming- 19A05101T	103	2.4	2.2	2	-	-	-	-	-	-	-	2	2	2.2	1.5
4	Communicative English-I- 19A52101T	104	-	-	-	-	-	-	-	2	2.4	2.6	-	3	-	2

5	Electronics & Communication Engineering Workshop- 19A04101	105	2.6	2	-	-	-	-	-	-	-	-	-	2	2.4	-
6	Applied Physics Lab - 19A56101P	106	2.6	2.6	2.2	-	-	-	-	-	-	-	-	-	-	-
7	Problem Solving & Programming Lab 19A05101P	107	2.4	2.2	2	-	-	-	-	-	-	-	2	2	2.3	2
8	Communicative English-I Lab - 19A52101P	108	-	-	-	-	-	-	-	2	2.4	2.6	-	3	-	2.6
9	Network Theory- 19A04201T	109	2.4	2.2	2	2	-	-	-	-	-	-	-	2	-	-

10	Differential Equation & Vector Calculus-19A04201T	110	2.6	2.4	2	2	-	-	-	-	-	-	-	2	2	-
11	Chemistry-19A51102T	111	2.3	2	-	-	-	-	-	-	-	-	-	-	-	-
12	Data Structures-19A05201T	112	2.4	2	2	-	-	-	-	-	-	-	2.4	2	-	-
13	Engineering Workshop-19A03101	113	2.4	2.2	2	2	-	-	-	-	-	-	2	-	2.4	2.3
14	Engineering Graphics Lab-19A03102	114	2.4	2	2	2	-	-	-	-	-	-	-	-	-	-
15	Network Theory Lab-19A04201P	115	2.4	2.2	2	2	-	-	-	-	-	-	-	2	-	-

16	Chemistry Lab- 19A51102P	116	2.3	2	-	-	-	-	-	-	-	-	-	-	-	-
17	Data Structures Lab- 19A05201P	117	2.4	2	2	-	-	-	-	-	-	-	2.4	2	2	-
18	Complex Variables & Transforms- 19A54302	201	2.4	2.3	-	2.5	-	-	-	-	-	-	-	-	1.8	1.6
19	Signals & Systems- 19A04301	202	2	2.33	2	2	-	-	-	-	-	-	-	2	1.9	-
20	Electronic Devices & Circuits- 19A04302T	203	2.3	2.2	2	-	-	2	-	-	-	-	-	-	1.8	1.5
21	Probability Theory & Stochastic Processes-	204	2.4	2.3	2.2	2	-	-	-	-	-	-	-	-	-	1.8

	19A04303																
22	Digital Electronics & Logic Design- 19A04304	205	2	2.2	2.2	-	-	-	-	-	-	-	-	-	-	2	2
23	Electrical Technology- 19A02304T	206	2	2	1.5	-	2.2	-	-	-	-	-	-	-	-	-	-
24	Electronic Devices & Circuits Lab - 19A04302P	207	2	2.2	2	-	-	-	-	-	-	-	-	-	-	2.2	2
25	Basic Simulation Lab- 19A04305	208	2.3	2	-	-	2.3	2	-	-	-	-	-	2	2	2	2.5
26	Electrical Technology Lab 19A02304P	209	2	2.2	1.5	-	2.2	-	-	-	-	-	-	2	-	-	-

27	Biology for Engineers- 19A99302	210	-	2	-	-	-	-	-	2	-	-	-	-	2	-	-
28	Electromagnetic Waves and Transmission Lines- 19A04401	211	2.3	2.5	2.5	-	-	-	-	-	-	-	-	-	-	1.7	1
29	Electronic Circuit analysis and design 19A04402T	212	2.3	2.2	2	-	-	-	-	-	-	-	-	-	-	2.5	2
30	Control Systems- 19A02404	213	2	2.3	2	2	-	-	-	-	-	-	-	-	-	2.5	2
31	Analog Communications- 19A04403T	214	2.2	2.3	2.4	-	-	-	-	-	-	-	-	-	-	2	2
	Python Programming- 19A05304T	215	2	-	1.8	-	2	-	-	-	-	-	-	-	2	2	2

32																	
33	Computer Architecture and organization- 19A04404	216	2	2.2	2	-	-	-	-	-	-	-	-	-	-	-	-
34	Universal Human Values - 19A52301	217	-	-	-	-	-	-	-	2.6	-	2	-	2	-	2	
35	Electronic Circuit analysis and design Lab 19A04402P	218	2.3	2.6	2.2	-	2	-	-	-	-	-	-	-	-	2	2
36	Analog Communications Lab-19A04403P	219	2.2	2.3	2.6	-	-	-	-	-	-	-	-	-	-	-	-
37	Environmental Science- 19A99301	220	-	-	-	2	2	-	2.6	-	-	-	-	2	-	-	-

38	Integrated Circuits- 19A04501T	301	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-	2	-
39	Antennas and Wave Propagation- 19A04502	302	2.2	2.5	2.5	-	-	2	-	-	-	-	-	1	2	1
40	English Language Skills- 19A52601T	303	-	2.2	-	2	-	-	-	-	2.2	1.6	-	2	-	2.2
41	Digital Communications- 19A04503T	304	2.2	2.3	2.2	2.3	-	-	-	-	-	-	-	1.8	2	-
42	Data Commination & Netwoking- 19A04504a	305	1.6	2	2.3	-	-	2	-	-	-	-	-	2	-	-
43	Technical Communication and Presentation Skills-	306	-	2.2	-	2	-	-	-	-	2.3	1.8	-	2	-	3

	19A52506a															
44	Integrated Circuits and Applications Lab-19A04501P	307	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-	2	-
45	English Language Skills Lab -19A52601P	308	-	-	-	-	-	-	-	-	2.2	1.6	-	2	-	2.5
46	Digital Communications Lab 19A04503P	309	2.3	2.3	2	2	-	-	-	-	-	-	-	1.6	2	2
47	Socially Relevant Project 19A04507	310	-	2	2.2	-	2	2.2	2	2	2.3	2	2	2	2.3	3
48	Research Methodology (Mandatory course)-19A99601	311	-	2	-	-	-	-	-	2	-	-	-	2	2.2	3

49	Microprocessors and Microcontrollers- 19A04601T	312	2.3	2	2.2	-	2.2	-	-	-	-	-	-	-	2	-
50	Digital Signal Processing- 19A04602T	313	2.3	2.3	2.3	2	-	-	-	-	-	-	-	-	2.5	-
51	Digital System Design through VHDL- 19A04603	314	2.2	2.3	2.2	-	-	2	-	-	-	-	-	-	2	2.5
52	Electrical Measurements and Electronic Instruments- 19A04605d	315	2	2.3	-	-	-	-	-	-	-	-	-	-	-	-
53	Industrial waste and wastewater management- 19A01604a.	316	2	2	-	-	-	-	2.3	2	2	-	-	2	-	-

54	Business Ethics and Corporate Governance- 19A52602c	317	-	-	-	-	-	-	-	-	2.3	2	-	2	2	-	-
55	Digital Signal Processing Lab- 19A04602P	318	2	2	1.5	1.5	2.2	-	-	-	-	-	-	-	-	2.3	-
56	Microprocessors and Microcontrollers Lab- 19A04601P	319	2.4	2	2.3	-	2.3	-	-	-	-	-	-	2	2	2	-
57	Socially Relevant Project- 19A04606	320	-	2	2.2	-	2	2.2	2	2	2.3	2	2	2	2	-	2.5
58	Constitution of India (Mandatory Course)- 19A99501	321	-	-	-	-	-	-	-	-	2	-	-	2	-	-	2.5
59	Comprehensive online examination-	322	2.4	2.2	2.4	2	2.5	2	2	-	2.4	2.4	2.5	2.5	2.5	2.5	2.6

	19A04607															
60	Microwave Engineering and Optical Communications- 19A04701T	401	2.2	2.2	2	-	-	-	-	-	-	-	1.6	-	2	-
61	VLSI Design- 19A04702T	402	2.2	2	2	2	-	-	-	-	-	-	-	1.6	2	-
62	Satellite Communications- 19A04703a	403	2.3	2	-	-	-	2	-	-	-	-	-	2	-	-
63	Air pollution and Control - 19A01704a	404	-	-	2	-	-	-	-	-	-	-	1	1	-	-

64	Management Science- 19A52701a	405	-	2	2	2	-	2	2	2	2	2	2	-	-	2
65	Microwave and Optical Communications Lab- 19A40701P	406	2.3	2	2	-	-	-	-	-	-	-	1.6	-	-	-
66	VLSI Design Lab- 19A04702P	407	2.2	2.2	2.2	2	-	-	-	-	-	-	2	2	2	1.5
67	Industrial Training/Skill Development/Rese arch Project- 19A04705	408	2.4	2.2	2.4	2	2.5	2	2	-	2.4	2.4	2.5	2.5	2.3	2.3
68	Introduction to Internet of Things- 19A04801c	409	2.25	2.5	2.5	-	2.5	-	-	-	-	-	-	2	2.5	2.5

69	Global Warming and climate changes-19A01802b	410	-	2	-	-	-	-	2	-	-	-	-	2	-	-
70	Project-19A04803	411	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5	2.6	2.6
	Average		2.27	2.19	2.13	2.01	2.23	2.03	2.09	2.10	2.25	2.13	2.00	2.01	2.12	2.14
	Average (%)		75.5	73.1	70.8	67.1	74.4	67.7	69.6	70.0	75.0	70.8	66.6	67.0	70.54	71.38
			9	3	7	0	4	8	7	0	0	3	7	7		

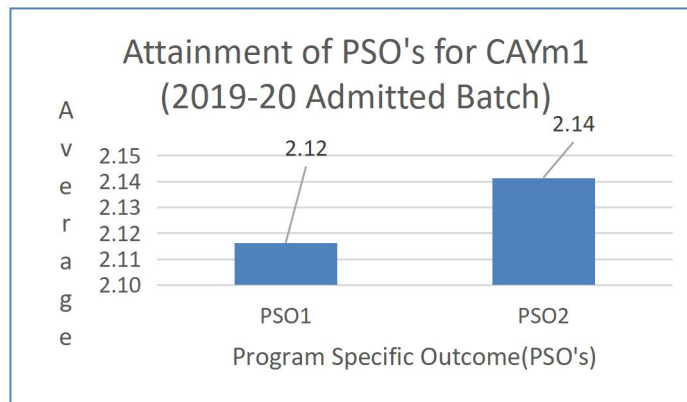
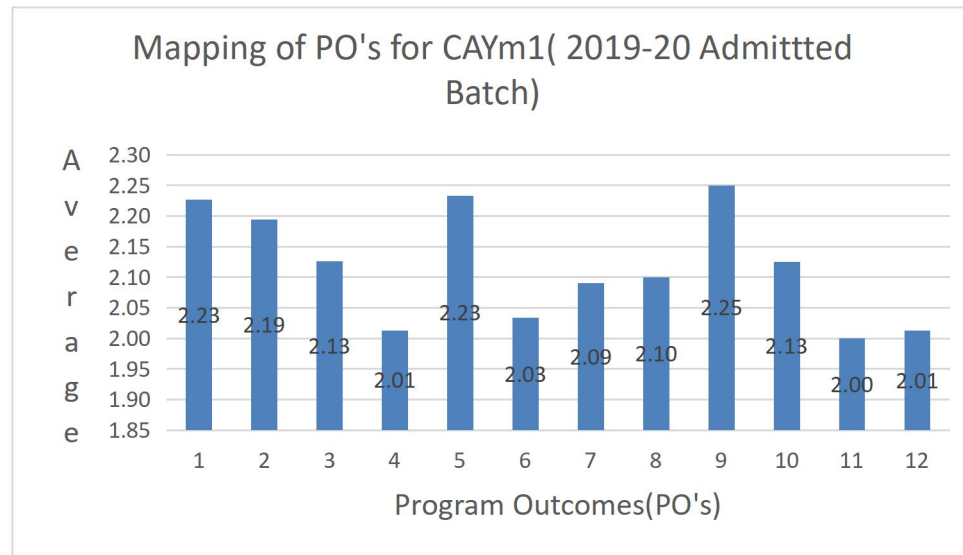


Fig 2.1.1 c :Program level course POs/PSOs mapping for R19

Regulation: R15**Program level course POs/PSOs Mapping**

1	Functional English- 15A52101	101	-	-	-	-	-	-	-	2	2.4	2.6	-	3	-	2
2	Mathematics 1- 15A54101	102	2.6	2.6	2.6	2.6	2.8	-	-	-	-	-	-	2	1.8	-
3	Computer Programming- 15A05101	103	2.4	2.4	2.6	2.6	2.4	-	-	-	-	-	-	2	1.6	-
4	Engineering Chemistry- 15A51101	104	2.3	2	-	-	-	-	-	-	-	-	-	-	-	-
5	Environmental Studies- 15A01101	105	-	-	-	2	2	-	2.6	-	-	-	-	2	-	-
	English Language Communication	106	-	-	-	-	2.4	-	-	-	2.6	2.4	-	2	-	2

6	Skills Lab - 15A52101															
7	Engineering Chemistry Lab- 15A51102	107	2	1.8	-	-	-	-	-	-	-	-	-	-	-	-
8	Computer Programming Lab 15A05102	108	1.6	2	2	-	-	-	-	-	-	-	2	2	-	2
9	English for Professional Communication- 15A52201	109	-	2.2	-	2	-	-	-	2.2	1.6	-	2	-	2	
10	Mathematics-II- 15A54201	110	2.6	2.6	2.6	2.6	2.8	-	-	-	-	-	-	2	-	-
11	Network Analysis- 15A04201	111	2	2	2	2	-	-	-	-	-	-	2	2	2	-

12	Engineering Physics- 15A56101	112	2.3	2	-	-	-	-	-	-	-	-	-	-	-	-
13	Engineering Drawing- 15A03101	113	1.8	2	2	-	-	-	-	-	-	-	-	-	1.6	-
14	Network Analysis Lab- 15A04202	114	2.2	2.2	2.3	2.3	-	-	-	-	-	-	-	-	2	-
15	Engineering Physics Lab- 15A56102	115	2	1.8	-	-	-	-	-	-	-	-	-	-	-	-
16	Engineering and IT workshop -15A99201	116	2	2	2	-	-	-	-	-	-	-	2	2	-	1.6
17	Mathematics-III- 15A54301	201	2.3	2.2	-	2.3	-	-	-	-	-	-	-	-	2	-
18	Electronic Devices and circuits- 15A04301	202	2.2	2.2	2	-	-	2	-	-	-	-	-	-	2	-

19	Switching Theory and Logic Design- 15A04302	203	2	2.2	2	-	-	-	-	-	-	-	-	-	-	1.8	1.5
20	Signals and System- 15A04303	204	2	2.3	2	2	-	2	-	-	-	-	-	2	-	-	2
21	Probability Theory and Stochastic processes- 15A04304	205	2	2.2	2.2	2	-	-	-	-	-	-	-	-	-	2	2
22	Electrical Technology- 15A02306	206	2	2	1.5	-	2.2	-	-	-	-	-	-	-	-	-	-
23	Electronic Devices and circuits Lab- 15A04305	207	2	2.2	2	-	-	-	-	-	-	-	-	-	-	2.2	-

24	Electrical Technology and Basic Simulation Lab- 15A02307	208	2	2	1.5	-	2.2	-	-	-	-	-	-	-	-	2	2
25	Mathematics-IV- 15A54402	209	2.2	2	2	2	-	-	-	-	-	-	-	-	-	2	1
26	Electronic Circuit Analysis- 15A04401	210	2.2	2.2	2	-	-	-	-	-	-	-	-	-	-	2.3	2
27	Analog Communication System-15A04402	211	2	2.3	2.2	-	-	-	-	-	-	-	-	-	-	2	2
28	Electromagnetic Theory and Transmission Lines- 15A04403	212	2.2	2.3	2.4	-	-	-	-	-	-	-	-	-	-	1	-

29	Data Structures- 15A05201	213	2	-	-	-	2	-	-	-	-	-	-	2	2.6	2
30	Control System Engineering- 15A02303	214	2	2.2	2	2	-	-	-	-	-	-	-	-	-	-
31	Electronic Circuit Analysis Lab- 15A04404	215	2.2	2.3	2.2	-	-	-	-	-	-	-	-	-	2	1.8
32	Analog Communication System Lab- 15A04405	216	2.2	2.3	2.3	-	-	-	-	-	-	-	-	-	2	1.8
33	Comprehensive Online Examination I-15A04406	217	-	-	-	-	-	-	-	-	-	2	-	-	-	-
34	Computer Organization-	301	2	2	2	-	-	-	-	-	-	-	-	-	2	-

	15A04511															
35	Antennas and Wave Propagation- 15A04501	302	2.2	2.3	2.3	-	-	2	-	-	-	-	-	-	2	-
36	Digital Communication Systems-15A04502	303	2	2.2	2.2	2.2	-	-	-	-	-	-	-	1.8	2.2	2
37	Linear Integrated Circuits and Applications- 15A04503	304	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-	2	-
38	Digital System Design- 15A04504	305	2.2	2.3	2.2	-	-	2	-	-	-	-	-	-	-	-
39	Linux Programming & Scripting - 15A04505	306	2	-	-	-	2	-	-	-	-	-	-	2	1	3

40	IC Applications Lab- 15A04507	307	2.2	2.3	2.2	-	-	-	-	-	-	-	-	-	2	-
41	Digital Communication Systems Lab- 15A04508	308	2.3	2.3	2	2	-	-	-	-	-	-	-	-	2.2	2.6
42	Audit Course-Social values &Ethics- 15A99501	309	-	-	-	-	-	-	-	3	-	2	-	2	2	2
43	Managerial Economics and Financial Analysis- 15A52301	310	-	-	-	-	-	-	-	-	-	2	2	2	2	-
44	Microprocessors & Microcontrollers- 15A04601	311	2.2	2	2.2	-	2	-	-	-	-	-	-	-	2.3	-

45	Electronic Measurements and Instrumentation-15A04602	312	2	2	-	-	-	-	-	-	-	-	-	-	-	2.2
46	Digital Signal Processing- 15A04603	313	2.3	2.3	2.3	2	-	-	-	-	-	-	-	-	2.2	1.8
47	VLSI Design-15A04604	314	2.2	2	2	2	-	-	-	-	-	-	-	1.6	2	1.8
48	MATLAB Programming-15A04605	315	2	2	2	2	-	-	-	-	-	-	2	2	-	2
49	Microprocessors & Microcontrollers Lab-15A04607	316	2.4	2	2.3	-	2.3	-	-	-	-	-	2	2	2.3	-
50	Digital Signal Processing Lab-15A04608	317	2	2	1.5	1.5	2.2	-	-	-	-	-	-	-	2	2
51	Advanced English Language	318	-	-	-	-	-	-	-	-	2.2	2.2	-	2	-	2.5

	Communication (AELCS) Laboratory (Audit Course)- 15A52602																
52	Comprehensive Online Examination- II-15A04609	319	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2.5
53	Optical Fiber Communication- 15A04701	401	2.2	2	2	2	-	-	-	-	-	-	1.6	-	1.8	-	
54	Embedded Systems- 15A04702	402	2	2	2	-	2	2	-	-	-	-	-	2.33	2	-	
55	Microwave Engineering- 15A04703	403	2.2	2	2	-	-	-	-	-	-	-	1.6	-	-	-	
56	Data Communications and Networking- 15A04704	404	1.6	2	2.3	-	-	2	-	-	-	-	-	2	-	-	

57	Radar Systems- 15A04705	405	2.2	2.2	2.2	-	-	-	-	-	-	-	1.6	-	-	2
58	Cellular & Mobile Communication- 15A04709	406	2.3	2	2	-	-	-	-	-	-	-	2	2	-	-
59	Microwave and Optical Communication Laboratory- 15A04711	407	2.3	2	2	-	-	-	-	-	-	-	1.6	-	2	1.5
60	VLSI & Embedded Systems Laboratory- 15A04712	408	2.2	2.2	2.2	2	-	-	-	-	-	-	2	2	2.3	2.3
61	Low Power VLSI Circuits & Systems- 15A04802	409	2.2	2.2	2	2	-	-	-	-	-	-	2	2	2.5	2.5
62	RF Integrated Circuits- 15A04804	410	2	2	-	-	-	-	-	-	-	-	2	-	-	-
63	Comprehensive Viva	411	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5	2.6	2.6

	Voce- 15A04805															
64	Technical Seminar-15A04806	412	2.6	2.3	2.6	2	2.2	2	2	-	2.4	2.3	-	2	-	-
65	Project Work-15A04807	413	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5	-	-
	Average		2.17	2.16	2.12	2.09	2.28	2.00	2.30	2.50	2.40	2.14	1.89	2.05	2.01	2.03
	Average (%)		72.3	71.9	70.7	69.5	75.9	66.6	76.6	83.3	80.0	71.4	62.8	68.3	66.93	67.74
			8	4	9	2	5	7	7	3	0	8	6	1		

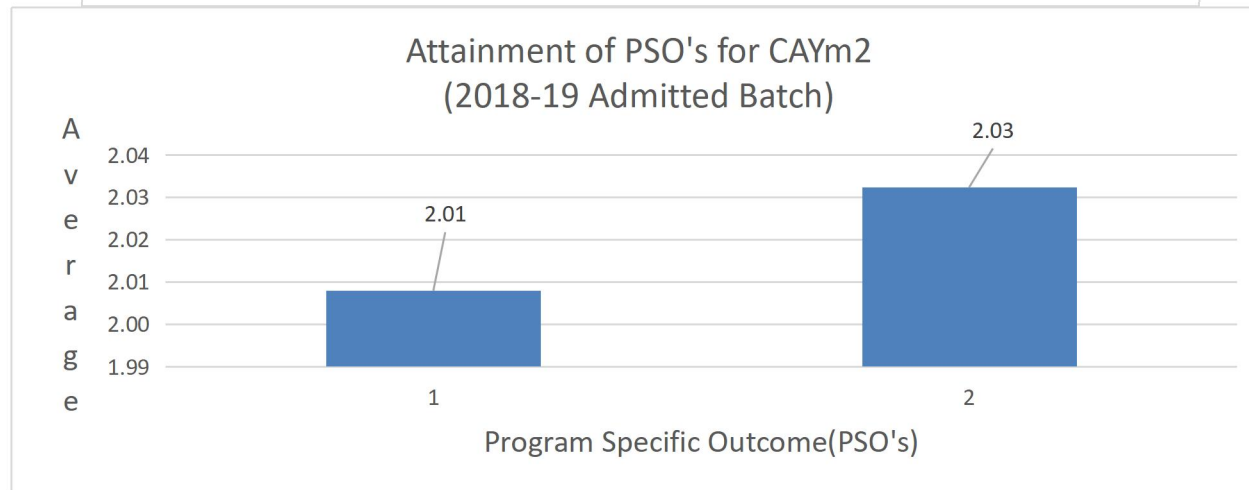
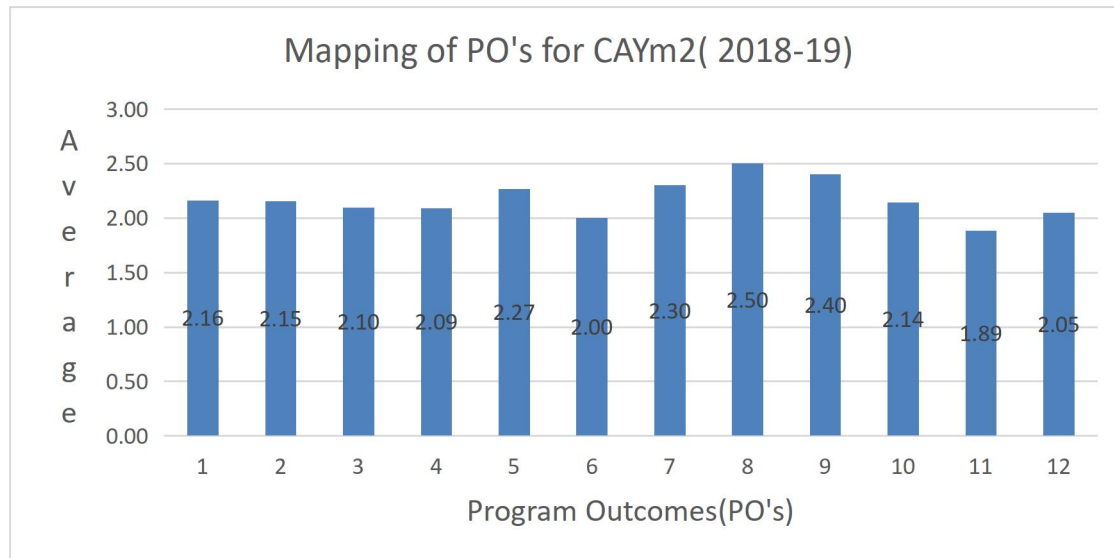


Fig 2.1.1 b: Program level course POs/PSOs Mapping R15

Program level course POs/PSOs Mapping Regulation : R15

1	Functional English- 15A52101	101	-	-	-	-	-	-	-	2	2.4	2.6	-	3		
2	Mathematics 1- 15A54101	102	2.6	2.6	2.6	2.6	2.8	-	-	-	-	-	-	2	-	2
3	Computer Programming- 15A05101	103	2.4	2.4	2.6	2.6	2.4	-	-	-	-	-	-	2	2	-
4	Engineering Chemistry- 15A51101	104	2.3	2	-	-	-	-	-	-	-	-	-	-	1.8	-
5	Environmental Studies- 15A01101	105	-	-	-	2	2	-	2.6	-	-	-	-	2	-	-
6	English Language Communication Skills Lab - 15A52101	106	-	-	-	-	2.4	-	-	-	2.6	2.4	-	2	-	-

7	Engineering Chemistry Lab- 15A51102	107	2	1.8	-	-	-	-	-	-	-	-	-	-	-	2
8	Computer Programming Lab 15A05102	108	1.6	2	2	-	-	-	-	-	-	-	2	2	-	-
9	English for Professional Communication- 15A52201	109	-	2.2	-	2	-	-	-	2.2	1.6	-	2	-	2	
10	Mathematics-II- 15A54201	110	2.6	2.6	2.6	2.6	2.8	-	-	-	-	-	-	2	-	-
11	Network Analysis- 15A04201	111	2	2	2	2	-	-	-	-	-	-	2	2	2	-
12	Engineering Physics- 15A56101	112	2.3	2	-	-	-	-	-	-	-	-	-	-	-	-

13	Engineering Drawing- 15A03101	112	1.8	2	2	-	-	-	-	-	-	-	-	-	-	1.6	-
14	Network Analysis Lab- 15A04202	113	2.2	2.2	2.3	2.3	-	-	-	-	-	-	-	-	-	2.3	-
15	Engineering Physics Lab- 15A56102	114	2	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Engineering and IT workshop -15A99201	115	2	2	2	-	-	-	-	-	-	-	2	2	-	1.6	-
17	Mathematics-III- 15A54301	201	2.3	2.2	-	2.3	-	-	-	-	-	-	-	-	-	2	-
18	Electronic Devices and circuits- 15A04301	202	2.2	2.2	2	-	-	2	-	-	-	-	-	-	-	2	-
19	Switching Theory and Logic Design- 15A04302	203	2	2.2	2	-	-	-	-	-	-	-	-	-	-	1.8	1.5

20	Signals and System- 15A04303	204	2	2.3	2	2	-	2	-	-	-	-	-	2	-	2
21	Probability Theory and Stochastic processes- 15A04304	205	2	2.2	2.2	2	-	-	-	-	-	-	-	-	2	2
22	Electrical Technology- 15A02306	206	2	2	1.5	-	2.2	-	-	-	-	-	-	-	-	-
23	Electronic Devices and circuits Lab- 15A04305	207	2	2.2	2	-	-	-	-	-	-	-	-	-	2.2	-
24	Electrical Technology and Basic Simulation Lab- 15A02307	208	2	2	1.5	-	2.2	-	-	-	-	-	-	-	2	2
25	Mathematics-IV-	209	2.2	2	2	2	-	-	-	-	-	-	-	-	2	1

	15A54402															
26	Electronic Circuit Analysis- 15A04401	210	2.2	2.2	2	-	-	-	-	-	-	-	-	-	2.3	2
27	Analog Communication System-15A04402	211	2	2.3	2.2	-	-	-	-	-	-	-	-	-	2	2
28	Electromagnetic Theory and Transmission Lines- 15A04403	212	2.2	2.3	2.4	-	-	-	-	-	-	-	-	-	1	-
29	Data Structures- 15A05201	213	2	-	-	-	2	-	-	-	-	-	-	2	2.3	2
30	Control System Engineering-	214	2	2.2	2	2	-	-	-	-	-	-	-	-	-	-

	15A02303															
31	Electronic Circuit Analysis Lab- 15A04404	215	2.2	2.3	2.2	-	-	-	-	-	-	-	-	-	2	1.8
32	Analog Communication System Lab- 15A04405	216	2.2	2.3	2.3	-	-	-	-	-	-	-	-	-	2	1.8
33	Comprehensive Online Examination I-15A04406	217	-	-	-	-	-	-	-	-	-	2	-	-	-	-
34	Computer Organization- 15A04511	301	2	2	2	-	-	-	-	-	-	-	-	-	2	-
35	Antennas and Wave Propagation-	302	2.2	2.3	2.3	-	-	2	-	-	-	-	-	-	2	-

	15A04501															
36	Digital Communication Systems-15A04502	303	2	2.2	2.2	2.2	-	-	-	-	-	-	-	1.8	2.2	2
37	Linear Integrated Circuits and Applications-15A04503	304	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-	2	-
38	Digital System Design- 15A04504	305	2.2	2.3	2.2	-	-	2	-	-	-	-	-	-	-	-
39	Linux Programming & Scripting - 15A04505	306	2	-	-	-	2	-	-	-	-	-	-	2	1	3
40	IC Applications Lab-15A04507	307	2.2	2.3	2.2	-	-	-	-	-	-	-	-	-	2	-
41	Digital	308	2.3	2.3	2	2	-	-	-	-	-	-	-	-	2.2	2.6

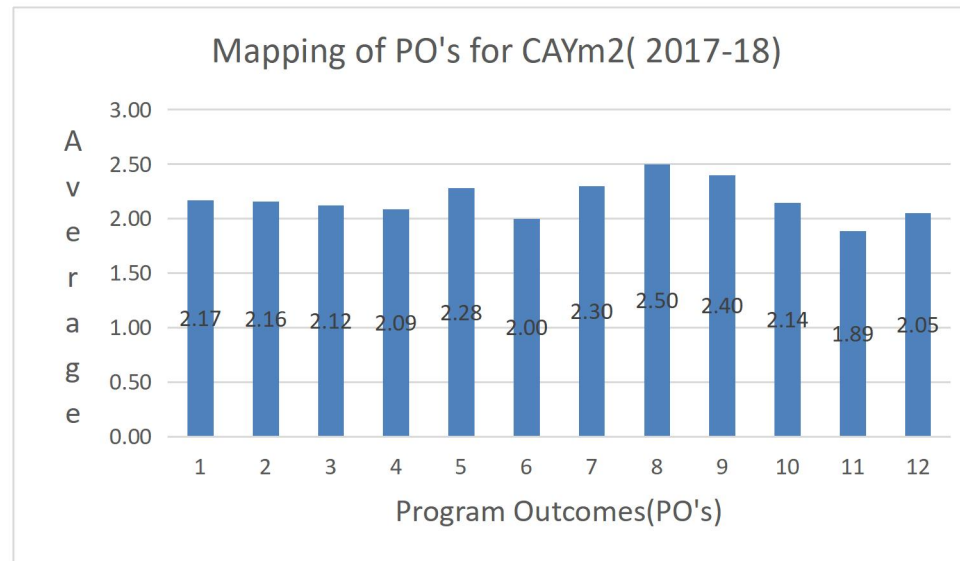
	Communication Systems Lab-15A04508															
42	Audit Course-Social values & Ethics-15A99501	309	-	-	-	-	-	-	-	3	-	2	-	2	2	2
43	Managerial Economics and Financial Analysis-15A52301	310	-	-	-	-	-	-	-	-	-	2	2	2	2	-
44	Microprocessors & Microcontrollers-15A04601	311	2.2	2	2.2	-	2	-	-	-	-	-	-	-	2.3	-
45	Electronic Measurements and Instrumentation-15A04602	312	2	2	-	-	-	-	-	-	-	-	-	-	-	2.2

46	Digital Signal Processing- 15A04603	313	2.3	2.3	2.3	2	-	-	-	-	-	-	-	-	2.2	1.8
47	VLSI Design-15A04604	314	2.2	2	2	2	-	-	-	-	-	-	-	1.6	2	1.8
48	MATLAB Programming- 15A04605	315	2	2	2	2	-	-	-	-	-	-	2	2	-	2
49	Microprocessors & Microcontrollers Lab- 15A04607	316	2.4	2	2.3	-	2.3	-	-	-	-	-	2	2	2.3	-
50	Digital Signal Processing Lab- 15A04608	317	2	2	1.5	1.5	2.2	-	-	-	-	-	-	-	2.2	2
51	Advanced English Language Communication (AELCS) Laboratory (Audit Course)- 15A52602	318	-	-	-	-	-	-	-	-	2.2	2.2	-	2	-	2.5

52	Comprehensive Online Examination-II-15A04609	319	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2.5
53	Optical Fiber Communication-15A04701	401	2.2	2	2	2	-	-	-	-	-	-	-	1.6	-	2	-
54	Embedded Systems-15A04702	402	2	2	2	-	2	2	-	-	-	-	-	-	2.33	2	-
55	Microwave Engineering-15A04703	403	2.2	2	2	-	-	-	-	-	-	-	-	1.6	-	-	-
56	Data Communications and Networking-15A04704	404	1.6	2	2.3	-	-	2	-	-	-	-	-	-	2	-	-
57	Radar Systems-15A04705	405	2.2	2.2	2.2	-	-	-	-	-	-	-	-	1.6	-	-	2
58	Cellular & Mobile Communication-	406	2.3	2	2	-	-	-	-	-	-	-	-	2	2	-	-

	15A04709																
59	Microwave and Optical Communication Laboratory- 15A04711	407	2.3	2	2	-	-	-	-	-	-	-	1.6	-	2	1.5	
60	VLSI & Embedded Systems Laboratory- 15A04712	408	2.2	2.2	2.2	2	-	-	-	-	-	-	2	2	2.3	2.3	
61	Low Power VLSI Circuits & Systems- 15A04802	409	2.2	2.2	2	2	-	-	-	-	-	-	2	2	2	2.3	
62	RF Integrated Circuits- 15A04804	410	2	2	-	-	-	-	-	-	-	-	2	-	-	-	
63	Comprehensive Viva Voce- 15A04805	411	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5	2.3	2	
64	Technical Seminar- 15A04806	412	2.6	2.3	2.6	2	2.2	2	2	-	2.4	2.3	-	2	-	-	

65	Project Work-15A04807	413	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5	-	-
	Average		2.17	2.16	2.12	2.09	2.28	2.00	2.30	2.50	2.40	2.14	1.89	2.05	2.01	2.01
	Average (%)		72.3	71.9	70.7	69.5	75.9	66.6	76.6	83.3	80.0	71.4	62.8	68.3	66.93	66.88
			8	4	9	2	5	7	7	3	0	8	6	1		



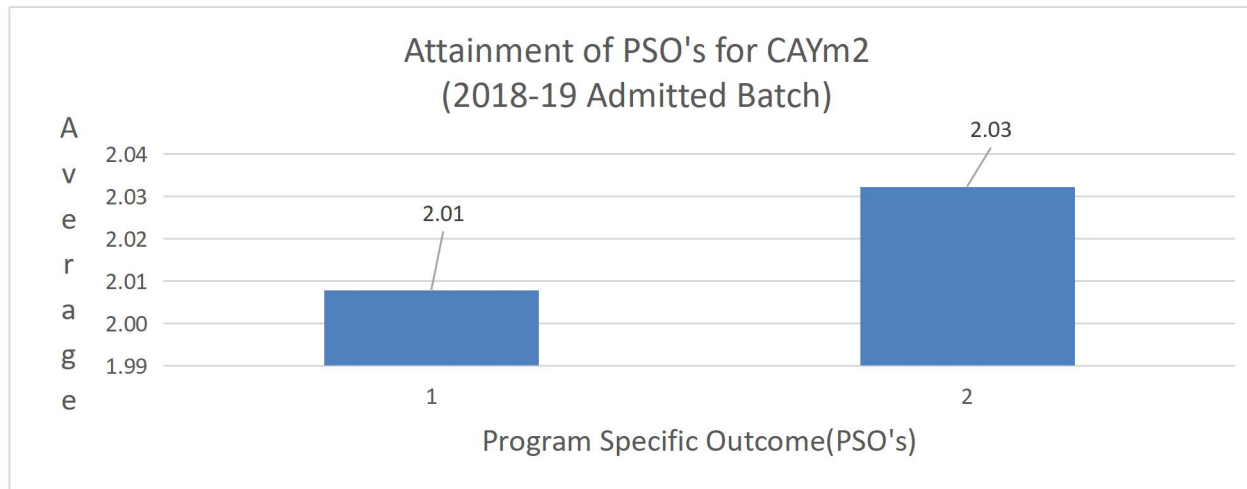


Fig 2.1.1.d: Program level course POs/PSOs mapping for R15

B. List the curricular gaps for the attainment of defined POs and PSOs Gap Identification Process: (4/4)

Courses are analyzed for the curriculum gaps using the following process.

- Curriculum Prescribed by JNTUA
- Mapping and validation of Course Outcomes with POs and PSOs.
- Department Academic Committee (DAC) checks the Gap and forwards to College Academic Committee (CAC).
- College Academic Committee (CAC) Recommends/Suggests to the Board of Studies for the inclusion in Curriculum input provided by the Teacher handling the Course.
- Feedback from Alumni.
- Feedback from Employer.
- Major Contents Identified gap are filled by workshops and Guest Lectures.

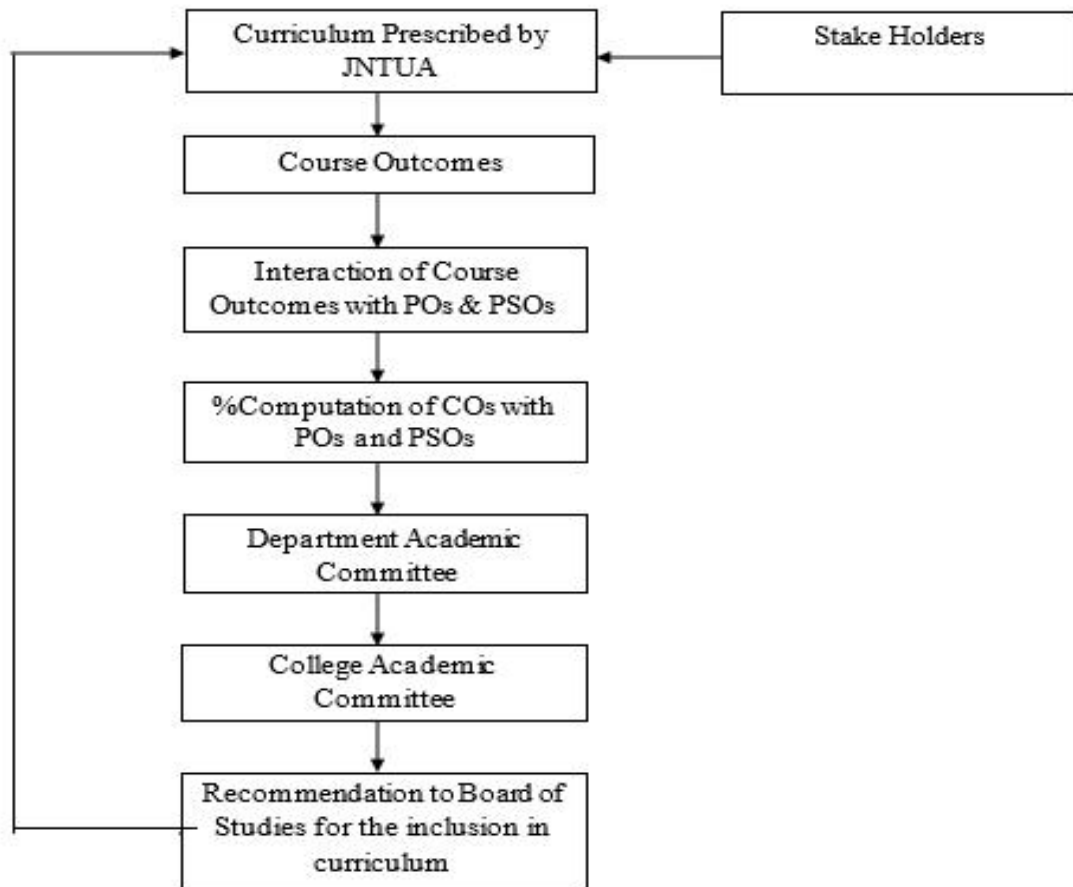


Fig.2.1.1. e: Methodology of Gap analysis

CAY(2022-23)

S.No	Course Name	Gaps Identified	Regulation
1	Electromagnetic Waves & Transmission Lines	3D-Coordinates System	R20
2	Computer Networks	To learn Network Security Devices	R20
3	Electronic Circuits & Designs	Hands-on Training PCB design & Fabrication	R20
4	VLSI Design	Perspectives And Future Scope of Embedded Systems & VLSI Design	R19
5	Cellular and Mobile Communications	UHF TV interference, coverage – Omni directional antennas, directional antennas for interference reduction	R19

Table 2.1.1.f: Gap Identified CAY:2022-23

CAYm3(2021-22)

S.No	Course Name	Gaps Identified	Regulation
1	Probability Theory & Stochastic Processes	Noise and types of Noise	R19
2	Cellular Mobile Communication	Advancement in Mobile Communication	R15
3	Signals & System	Hands on Sessions on MATLAB& Simulink for Engineering Applications	R15
4	Digital signal [processing	Design of Adaptive Filters using TMS 320C6713	R19
5	Embedded System Design	Design of IOT Modules Using Arduino Controller	R19

Table2.1.1.g: Gap IdentifiedCAY:2021-22

CAYm3(2020-21)

S.No	Course Name	Gaps Identified	Regulation
1	Radar Systems	Applications of Microwave Devices in Satellite & RADAR	R15
2	Analog	AM, DSB-SC, SSB-SC &	R19

	Communications	FM Transmitters	
3	VLSI Design	CMOS Sequential Circuits	R15
4	Communication Skills	Conducted classes on “Communication& Soft Skills”	R19

Table2.1.1.h: Gap IdentifiedCAY:2020-21

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

(Provide details of the additional course/learning material/content/laboratory experiments/projects etc., arising from the gaps identified in 2.1.1 in a tabular form in the format given below)

- The identified gaps in 2.1.1 are discussed and the required curriculum is prepared in consultation with subject experts by Department Academic Committee (DAC).
- The identified gaps then communicated to the University for necessary actions. The following are the methods used to identify extent of compliance of the University curriculum for attaining the Program Outcomes are:
 - Classroom instructions
 - Tutorials
 - Remedial Classes
 - Presentations (Still and Video)
 - NPTEL videos
 - Course materials

A. Steps taken to get identified gaps included in the curriculum.
(e.g., letter to university/DAC) (2/2)

- Suggestions from faculty members handling courses, feedback from Alumni, Industrial Experts and Academicians from renowned institutions are utilized to frame the activities.
- Suggestions from various bodies are collected and they are forwarded to Department Academic Committee (DAC) members and valid points are conveyed to College Academic Committee (CAC) members to represent them to the university.
- The details of execution of activities to fill the curricular gaps are listed.

B. Delivery details of content beyond syllabus (5/5)

The following activities are undertaken towards the attainment of curricular gap

Course Delivery Methods used in department	Tutorials
	Hands-on Sessions
	Seminars
	Guest lectures
	Workshops

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

The identified gap is mapped with the relevant POs and PSOs and the same is executed during CAY,CAYm1,CAYm2 and CAYm3 and is tabulated in 2.1.2.a, 2.1.2.b. 2.1.2.c. and 2.1.2.d

S.No.	Gap	Action Taken	Date	Resource Person with Designation	% of Students	Relevance to POs &PSOs
1	3D Coordinates System	Two-day Workshop	08-02-2023 To 09-02-2023	Mr. B. Ranjith Kumar, Mr. P. Nagaraj Asst. Prof./CSE	90% II EC E	PO1, PO2, PO3, PO4, PSO1
2	To learn Network Security Devices	Guest Lectures	23-12-2022 To 24-12-2022	Mr. Chinthala Ramesh, Assistant Director, BSNL	90% III&IVECE	PO1, PO6, PO8, PO9, PO12, PSO1

3	Hands on Training PCB design &Fabrication	Three- day Worksh op	04-09-2022 TO 06-08-2022	Mr. Md. Hameed Pasha, Associate Professor, JITS	93% II ECE	PO1, PO2, PSO1
4	Perspectives And Future Scope of Embedded Systems &VLSI Design	Two- day Worksh op	24-08-2022 To 25-08-2022	Mr. G. Praveen Embedded Engineer	95% IV ECE	PO1, PO2, PO3, PO5, PO9, PSO1
5	Concepts of VLSI and its Applications	Two Days Work shop	12-08-2022 To 13-08-2022	Mr.Sravan Techno Craft Solutions	90% III&IVECE	PO1,2,3,5, 12, PSO2
6	Concept of Multiprocessor, RISC,CISC	A one day Guest Lecture	04-08-2022	Dr.Sreeja Mole, Professor CJIT	90% IV ECE	PO1,2,3,6,12, PSO1
7	Internet of Things	Workshop	25-07-2022 TO	Mr.Srinivasa Raju Senior Execute	90% III& IV ECE	PO1,PO2,P03,P O4,P05,

			26-07-22	officer, APSSDC,Vijayawa da		PS01&PSO2
8	Application of Low nose Amplifier	Seminar	13-07-2022	Dr.K.V.Ramanaia h Assoc.Prof,Yogi Vemana University College of Engineering, Proddutur	70%II ECE	PO1,P02,P03 &PS01
9	Overview of Logic families	Seminar	06-07-22	Dr. K.Rajkumar Professor VIT Vellore	80 % II ECE	PO1,PO2,PO3,P SO1

Table 2.1.2.a: Content beyond syllabus CAY: 2022-23

Delivery details of the content beyond the syllabus–CAY:2021-22

S.No.	Gap	Action Taken	Date	Resource Person with Designation	%of Students	Relevance to Pos &PSOs
1	Noise and types of Noise	Guest Lectures	06-08-2021 to 07-08-2021	Mr. Venu Associate Professor KITS	90% II ECE	PO1, PO2, PO5, PO12, PSO1
2	Advancement in Mobile Communication	Three-Days Workshop	10-11-2021 to 12-11-21	Mr. Sravan Techno Craft Solutions	87% IV ECE	PO1, PO2, PO3, PO5, PO12, PSO2
3	Hands on Sessions on MATLAB & Simulink for Engineering	Two-Days Workshop	21-03-2022 to 22-03-2022	Mr. K. Kalyan Assistant Professor	82% II ECE	PO1, PO2, PO3, PO4, PO5, PO12, PSO1,

	Applications			SVSIT		PSO2
4	Digital signal processing	Two-Days Workshop	05-04-2022 to 06-04-2022	Mr.J.Sai Baba Associate Professor	82% III ECE	PO1, PO2, PO5, PO12, PSO1
5	Satellite image processing	seminar	16-04-2022	Dr,T.Rajendra Prasad Scientist SDSC- ISRO Sriharikota	90% IV ECE	PO1,PO2,PO 3. PO12, PSO2
6	CMOS Sequential circuits	seminar	23-04-21	Mr. Sravan Techno Craft Solutions	87% IV ECE	PO1, PO2, PO3, PO5, PO12, PSO2

Table 2.1.2. b: Content beyond syllabus CAY: 2021-22

S. No	Gap	Action Taken	Date	Resource Person with Designation	%of students	Relevance to Pos &PSOs
1	Applications of Microwave Devices in Satellite & RADAR	One Day Workshop	28-01-2021	Mr.G. SharavanKumar, Design Engineer, Techno Craft Solutions, Hyderabad	95% IV ECE	PO 1,2,3,4,5,10, 12, PSO2
2	AM, DSB-SC, SSB-SC & FM Transmitters	Two Days Workshop	11-03-2021 To 12-03-2021	Mr.B.Srinivas Reddy MTS, Hyderabad	90% IV ECE	PO1,2,3,1 1,12, PSO1
3	CMOS Sequential Circuits	Three Days Workshop	13-05-2021 To 15-05-2021	Mrs .S.Vaishali Assistant Professor ECE	90% III ECE	PO1,2,5, PSO1

4	Conducted classes on "Communication & Soft Skills"	Guest Lectures	31-08-2021	Dr, A,Suresh Professor SVP CET Puttur	90% IV ECE & III ECE	PO 1,2,3,4,5,10,12, PSO2
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Table 2.1.2.c : Content beyond syllabus CAY: 2020-21

2.2. Teaching-Learning Processes**(100/100)****2.2.1. Describe Processes followed to improve quality of Teaching & Learning (25/25)**

(Processes may include adherence to academic calendar and improving instruction methods using pedagogical initiatives such as real-world examples, collaborative learning, quality of laboratory experience with regard to conducting experiments, recording observations, analysis of dataset. encouraging bright students, assisting weak students etc. The implementation detail sand impact analysis needs to be documented)

The department is following meticulous teaching-learning methodologies for the students to learn the subjects by identifying and catering to their individual needs. Several delivery methods are used for the benefit of the students.

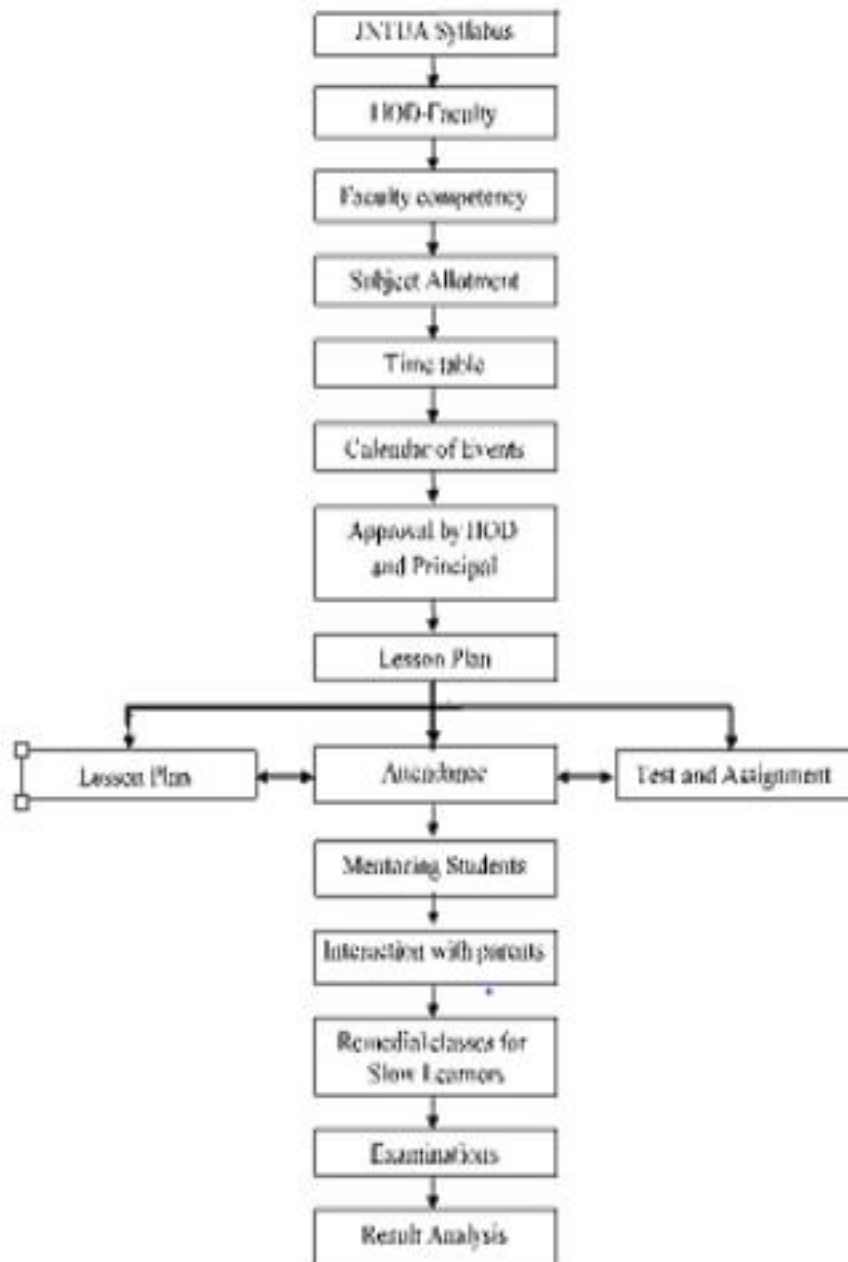



Fig.2.2.1. a: Teaching Learning Process

2.2.1(A) Adherence to Academic calendar:**(3/3)**

- The academic calendar will be issued by affiliated university (JNTUA) for every academic year before commencement of class work.
- Department academic calendar is prepared well in advance before the start of the semester
- The academic calendar includes Almanac, Internal & external examination
- Schedule, curricular, co-curricular activities, seminar schedules and Parent- Teacher meet.
- Academic calendar is posted in the college website.


JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR, ANANTHAPURAMU

ACADEMIC CALENDAR 2022-23

B.Tech IV Year I & II Semesters
(for 2019 admitted batch)

I Semester		
Industrial Training	10.08.2022 to 03.09.2022	(04 Weeks)
I Spell of Instructions:	05.09.2022 to 29.10.2022	(45 Days)
I Mid-term Examinations: (1 st Objective + 1 st descriptive)	31.10.2022 to 02.11.2022	(03 Days)
II Spell of Instructions:	03.11.2022 to 23.12.2022	(45 Days)
II Mid-term Examinations: (2 nd Objective + 2 nd descriptive)	24.12.2022 to 27.12.2022	(03 Days)
End laboratory Examinations:	28.12.2022 to 31.12.2022	(04 Days)
End Theory Examinations:	02.01.2023 to 16.01.2023	(12 Days)
Commencement of Class Work for IV Year B.Tech II semester	23.01.2023 (Monday)	
Declaration of results for IV-I	15.02.2022	

II Semester		
I Spell of Instructions including project work:	23.01.2023 to 09.03.2023	(45 Days)
I Mid-term Examinations: (1 st Objective + 1 st descriptive)	10.03.2023 to 11.03.2023	(02 Days)
II Spell of Instructions including project work:	13.03.2023 to 27.04.2023	(45 Days)
II Mid-term Examinations: (2 nd Objective + 2 nd descriptive)	28.04.2023 to 29.04.2023	(02 Days)
End Theory Examinations:	01.05.2023 to 03.05.2023	(03 Days)
Project work Viva Voce Examinations:	04.05.2023 to 06.05.2023	(03 Days)
Declaration of results for IV-II	15.05.2023	

Note:

- The Mid-term Examinations should be conducted and completed as per the schedule given.
- For slippage of working days due to any unavoidable reasons, compensation can be made by conducting class work on second Saturdays, Sundays and other holidays, except on National Holidays and important festivals.

Date: 08.08.2022



DIRECTOR OF EVALUATION

Fig.2.2.1.b.JNTUA Academic Calendar



VISWAM ENGINEERING COLLEGE

(Formerly Sir Vishweshwaraiah Institute of Science & Technology)
Madanapalle - 517 325

Department Of Electronics & Communication Engineering

Date: 02-07-2023

Academic Calendar for Year 2023-24(IV-I Semester)

S.NO	EVENT	DATE
1	Subject Allocation Process	20-08-2023
2	Time Table Preparation	21-08-2023
3	Course file preparation & Verification of Course Outcomes	24-08-2023
4	Commencement of I spell instructions	28-08-2023
5	Display of Course Outcomes in the class rooms	09-09-2023
6	First feedback on Faculties	15-09-2023
7	I- Midterm Question Papers Preparation	16-10-2023
8	Auditing of I- Midterm Question Papers	23-10-2023
9	End of I Spell Instructions	18-10-2023
10	Commencement of I - Midterm Examinations	19-10-2023 to 21-10-2023
11	Commencement of II spell of Instructions	22-10-2023
12	Display of I - Midterm Marks	26-10-2023
13	Mock Interviews	06-11-2023
14	National level Technical FEST (TECHNOPHILIO -2k23)	17-11-2023 to 18-11-2023
15	Guest Lecture on interview Skills	21-11-2023
16	Second Feedback on Faculties	24-11-2023
17	Course End Survey	28-11-2023
18	II- Midterm Question Papers Preparation	02-12-2023
19	Auditing of II- Midterm Question Papers	08-12-2023
20	End of II Spell of Instructions	13-12-2023
21	Commencement of II - Midterm Examinations	14-12-2023 to 16-12-2023
22	Commencement of Practical Examinations	18-12-2023 to 23-12-2023
23	Auditing of II Midterm Mid Marks	17-12-2023
24	Display of II - Midterm & Final Internal Marks	18-12-2023
25	End Examinations	26-12-2023 to 06-01-2024


HOD


Principal

Fig.2.2.1.c: Department Academic Calendar

**2.2.1. (B). Use of Various instructional methods and pedagogical initiatives
(3 /3)**

In order to cater to the needs as prescribed in OBE (Outcome Based Education), faculty follows the innovative teaching methods as given below:

- Making the students understand the concept/ principles/ theory/ problems during 50 minutes lecture in the classroom keeping in view the various cognitive levels of learning like remembering, understanding, applying, analyzing, synthesis, evaluation and creativity.
- Motivating the students by helping them to improve their personal management
- Skills like communication, collaborative learning, creativity and critical thinking.
- Using course wise NPTEL videos and open sources for improvised and effective delivery of course contents.
- The faculty use Chalk and Talk methods, audio visual aids in teaching.
- Students are encouraged to actively interact during lecture hour.
- The students are encouraged to make use of computational facility available in the department and learn the internet-based resources. This concept gains momentum during the project phase.
- The faculty of department adopts various innovative Teaching & Learning methodologies to create the best learning environment for the student.
- These methodologies include presentations, video lecturing and collaborative learning methods.

- The faculty is trained in imparting and in actively utilizing the Outcome Based Education (OBE) to the learning needs of students in an innovative way.

Pedagogical Initiatives

Following are some pedagogical initiatives taken by the department in addition to Chalk &Talk, Lecture and Assignments.

Course delivery methods used in our department are	Presentation
	Demonstration (Models &Videos)
	Simulation of Experiments
	E-Tutorials
	Group Discussion
	E- Learning facility through NPTEL
	Personality development training &soft
	Skill development training.
Spoken Tutorials sponsored by MHRD	

Table 2.2.1. a: Course Delivery methods



Fig.2.2.1. d: Pedagogical Learning



Fig.2.2.1 e: Pedagogical Learning



Fig.2.2.1. f: Pedagogical Learning

Faculty members are continuously evolving the teaching practices, by attending various faculty development programs, Guest lectures, Workshops & seminars.

S. No.	Events Attended	No. of Programs Attended			
		CAY 2023- 24	CAYm 2022- 23	CAYm 2021- 22	CAYm 2020- 21
1	Faculty Development Program	22	18	16	13
2	Seminars & Workshops	17	12	17	12
3	Conference	12	8	7	6

Table 2.2.1. b: List of programs attended by Faculty members

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

I. Guidelines to identify weak students and supporting activities:

S.No.	Identification Criteria	Actions taken
1	Students scoring less than 50% of marks in Mid Examinations	<ol style="list-style-type: none"> 1. Encouraging them to attend class work regularly 2. Interacting with parents. 3. Conduction of remedial classes.
2	Diploma students with less basics of Mathematics.	Bridge Course.

Table 2.2.1.c: Guidelines to identify weak students and supporting activities

Impact on Slow Learners

Faculty create positive mindset among slow learners in overcoming the inabilities and hurdles faced by them. In connection with this, teachers interact with parents and take their feedback. The following are the improvements observed after timely counselling the students.

- Improvement in attendance of the students.
- Active participation of the students in various programs.
- Active involvement of students in professional bodies.
- Better interaction between students, faculty and parents.
- Improvement in overall students' performance in scoring good marks.

II. Methodologies to encourage bright students:

S.No	Identification Criteria	Actions taken
1	Students who score 60% and above in Mid Examinations	<ol style="list-style-type: none"> 1. Involving them in Industrial projects. 2. Encouraging them to do self-learning. 3. Motivate them to attend more Certification Courses of NPTEL and Soft Skill Training Programs. 4. Motivating students to register for membership of Professional Bodies. 5. Training for Competitive exams. 6. Appreciation in the form of cash prize.
2	Students securing highest marks at University Examinations.	Awarding with medals and certificates.

Table2.2.1. d: Guidelines to identify Bright students and supporting activities

Impact Analysis

- Active participation by the students in Hackathons.
- Active participation by the students in various technical competitions and internships.
- Students received best project awards.

Co-curricular activities of the students:

Item	Academic Year			
	CAY 2 022- 23	CAYm 1 2021- 22	CAYm 2 2020- 21	
PCB Design Training Program	07		-	
International conferences	01		-	
Code Debugging	01		2	
Paper Presentation	05	5	10	
Webinars	04	-		
Workshop	8		6	
Total				

Table 2.2.1. e: List of programs attended by students

2.2.1. (D) Quality of classroom teaching: (3/3)

The following innovative teaching methods are adopted by the faculty:

- ICT tools used for teaching and internet facility are available to students and faculty.
- Classrooms are provided with LCD facility.
- Group Discussion and Quizzes
- Availability of various online journals through Digital Library
- Well-structured lesson plans are prepared / revised for all theory and practical courses on a period to period basis, scrutinized by HODs and made available in the website for students 'access.

2.2.1. (E) Conduct of experiments: (3/3)

- Student's carryout more than the required number of experiments.
- All laboratories have equipment, simulation tools and good infrastructure.
- Detailed instruction manuals are provided for all the experiments.
- The observation notes and record books are checked and verified by faculty from time to time.
- Two faculty member sand one instructor are assigned for each practical class.
- Viva-voce questions are prepared for all the experiments.
- The Laboratory experiments are evaluated by the faculty for 30 marks based on scheme of instruction of university.



INDEX

Name of the laboratory: **Digital Signal Processing**

PARTICULARS OF THE EXPERIMENTS PERFORMED					
CONTENTS					
Sl. No.	Topic	Experiment	Page No.	Grade	Mark
01	4/22	Generate the following signals 1. Impulse signal 2. Exponential signal 3. Sinusoidal signal	1-4	B	20/20
02	27/10	Auto Correlation and Cross Correlation	5-7	B	20/20
03	27/10	Circular Correlation and Periodic Correlation	8-9	B	20/20
04	27/10	Sum of two sinusoidal signals and its frequency response	10-11	B	20/20
05	27/10	11-point FFT of given sequence	15-16	A	20/20
06	27/10	Butterworth Lowpass filter	19-21	B	20/20
	27/10	Butterworth Highpass filter	20-21		
07	27/10	Chirp low Pass filter	22-24	B	20/20
08	27/10	Process for Interpolation and Decimation	25-28	B	20/20
09	27/10	12-point FFT of given sequence	27-28	A	20/20
10	27/10	128 filter using window	28-29	A	20/20

Fig.2.2.1. f: Conduct of Experiments

Impact analysis

- Improvement in analytical abilities of students leading to improvement in real time analysis which in turn helps in placements.
- Good results in laboratory examination.
- Conducive ambience is provided to the students to learn the concepts of co-curricular aspects.

2.2.1. (F)Continuous Assessment in the Laboratory: (3 /3)

2.2.2. Continuous internal assessment of students is based on their performance in the laboratory which includes evaluation of lab report and viva-voce examination. The external examination is conducted by two examiners viz., internal examiner from the college and external examiner appointed by the University. The internal assessment is for 30 marks and the evaluation of external examination is for 70 marks. For the internal assessment, the lab report is submitted by the students after the completion of each experiment. The lab report is evaluated in subsequent week. Continuous Assessment is done for laboratory

2.2.3. Courses.

- Continuous assessment system is also implemented for assessment of laboratory work.
- The assessment is done on the basis of submission of laboratory records, understanding of the experiment through viva-voce questions and executing the experiment.

Evaluation Method.

- Circuit Connections/ Program Writing
- Execution
- Experiment results
- Viva-voce
- Lab Record

Performance Record

SLNO	ROLL NUMBER	RECORD (20%)	QMS (20%)	RECORD (20%)	QMS (20%)	RECORD (20%)	QMS (20%)	RECORD (20%)	QMS (20%)	RECORD (20%)	QMS (20%)	RECORD (20%)	QMS (20%)	RECORD (20%)	QMS (20%)	RECORD (20%)	QMS (20%)	RECORD (20%)	QMS (20%)	RECORD (20%)	QMS (20%)		
1	1910510001	10	3	9	4	8	5	7	4	10	3	7	4	8	5	9	3	10	3	7	5	9	5
2	402	8	4	10	5	8	4	9	3	7	3	10	3	10	4	9	4	9	5	8	3	10	5
3	403	9	5	7	4	8	5	9	3	10	4	7	5	8	3	9	4	10	5	10	3	8	5
4	404	7	3	10	4	9	5	10	4	10	5	10	5	10	4	9	3	9	4	7	5	7	5
5	406	6	4	9	5	9	4	10	4	9	5	9	5	9	4	10	5	8	3	7	4	10	3
6	407	5	5	10	5	10	3	10	4	9	4	8	5	10	3	7	4	7	5	9	4	9	4
7	408	9	5	7	3	9	3	9	5	9	4	7	5	10	3	10	3	9	3	7	4	8	5
8	409	8	4	8	3	7	3	9	5	7	4	6	5	8	4	10	3	10	5	10	3	10	5
9	410	7	3	9	4	8	5	8	5	7	3	7	3	8	3	7	3	5	3	9	4	9	4
10	411	6	3	10	4	9	4	9	5	7	4	8	4	10	4	8	4	9	4	8	4	7	4
11	412	5	4	10	5	10	4	8	3	8	5	9	5	9	5	9	5	7	5	7	3	8	3
12	413	10	5	10	5	7	5	7	3	8	4	10	5	10	3	10	3	9	5	9	4	10	5
13	414	5	5	7	4	8	3	10	3	9	5	10	5	9	5	9	5	10	4	10	4	7	4
14	415	9	5	8	3	9	4	10	3	10	3	9	5	10	5	10	4	8	4	7	4	8	4
15	416	10	4	9	3	10	5	10	3	10	3	8	5	7	4	8	5	7	5	8	5	9	3
16	418	7	3	9	4	10	3	9	4	9	4	10	3	7	3	7	3	10	3	9	4	10	5
17	419	6	4	8	4	9	4	9	3	10	5	10	3	8	3	9	4	9	4	9	5	8	5
18	420	8	5	7	5	8	5	10	5	8	3	9	4	9	3	10	4	9	4	7	5	6	5
19	421	9	3	10	5	7	5	10	4	7	4	9	4	10	3	10	4	10	4	8	5	7	5
20	422	10	3	9	3	10	4	7	5	10	5	8	4	9	3	9	5	8	4	9	5	10	5
21	423	7	5	10	4	9	3	8	3	9	3	10	4	10	3	7	5	7	4	8	5	7	5
22	424	5	4	7	5	10	3	9	5	10	4	7	4	7	4	6	5	9	4	7	4	9	4
23	425	6	5	10	3	9	3	10	5	9	5	10	4	7	4	7	4	10	4	10	3	10	3
24	426	9	3	10	4	10	4	9	5	10	4	9	5	8	4	8	5	9	4	9	3	9	3
25	427	10	3	9	5	7	4	10	5	10	5	9	3	8	4	9	4	9	4	8	5	9	4
26	428	9	4	9	3	8	5	7	3	9	4	9	4	9	4	10	3	10	4	10	4	8	5


Fig.2.2.1. g: Continuous Assessment of Laboratory Experiment

2.2.1. (G) Student feedback of teaching-learning**process and actions taken: Student Feedback (6/6)**

HOD takes feedback from the students at regular intervals. Students give constructive comments to improve the quality of teaching and learning process.

Corrective Actions Taken

- Counselling is done by the HOD to those faculty members who have secured low grade in the feedback. This motivates them to improve their skills and abilities.
- If required, training & orientation programs are conducted by professional experts to master the skills of the faculty members, thus improving the efficiency of teaching-learning process.
- Faculty are deputed to various seminars, conferences, trainings & workshops for upgrading their knowledge and extend their services to students effectively.
- Refresher courses in core subjects are organized to improve their teaching skills. Faculty are trained on Modern tools by industrial experienced personnel. Faculty interaction sessions are also planned on latest technologies with outside subject experts for exchange of ideas in curriculum, evaluation and teaching – learning-processes.



VISWAM ENGINEERING COLLEGE

(Formerly Sir Vishveshwaraiah Institute of Science & Technology)

Madanapalle - 517 325

College
Date
W5

STUDENT FEEDBACK FORM

ON COURSE, FACILITIES, OF THE DEPT

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Academic Year: 2022-23 Date: 16-10-2022

Name: P. Hemalatha H.T No

Program (B.Tech) Year (I/II/III/IV) SEMESTER (I/II)

Address: #10 A. Surendra Kantavipale CV, Kurabakurthi CM, Annapurthi

Mobile: 8688440641 E-Mail: asanapuramhema@gmail.com

1. Overall effectiveness of teacher is

1) Excellent	2) Very Good	3) Good	4) Satisfactory	5) Inadequate
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1 (a) THEORY COURSES

Contents	MWF OC	VLSI Design	SC	NPVC	M+S
Name of the faculty	M. Hemalatha	B. Ravithi	S. D. V.R	S. Hanitha	S. Jayashree
Technical Content	1	1	2	1	1
Communication Skills	1	1	2	2	2
Usage of Teaching aids/ Methodology	1	1	3	2	1
Content coverage beyond the syllabus	1	2	2	2	2
Course delivery and its relevance to industry	1	1	1	2	1
Encouraging student participation in the class/group activities	2	1	2	1	1
Assignments and sessional papers are discussed in the class	1	2	1	1	2
Syllabus coverage	2	2	2	1	2
Is the teacher encouraging extracurricular and cocurricular activities	1	1	1	2	2



Viswam Engineering College

Approved by AICTE, New Delhi & Affiliated to JNTUA, Anantapur
 Accredited by NAAC with A Grade
 Recognized under 24B UGC ACT - An ISO 9001:2015 Certified Institution
 Angalla, Madanapalle-517325, Anantapur District, A.P.

DEPARTMENT OF CBE/A

STUDENTS FEEDBACK FORM

Year & Sem

I & I

- To be filled by the students for teaching evaluation by the students. This will help teachers to improve their skills.
- Feedback given by students according to your assessment of teachers performance on the five point scale given below.
- Excellent-05, Very Good-04, Good-03, Fair-02, Poor-01

1 Preparation:

Parameters	CI	CH	LAC	BC&M	IP	CE Lab	CH Lab	CP Lab	TWS
a. Teacher comes to class on time	05	05	05	05	05	05	05	05	05
b. Teaching is well planned	05	05	05	05	05	05	05	05	05
c. A well program made clear	05	05	05	05	05	05	05	05	05
d. Subject matter organized in logical sequence	05	04	05	04	04	05	05	05	05
e. Teacher comes well prepared in the subject	05	05	05	04	04	05	05	04	05
TOTAL	45	44	45	43	43	45	45	44	45

2 Presentation & Communication:

Parameters	CI	CH	LAC	BC&M	IP	CE Lab	CH Lab	CP Lab	TWS
a. Teacher speaks clearly & audibly	05	05	05	05	04	05	05	05	05
b. Teaching notes & draws legibly	05	05	05	05	05	05	05	05	05
c. Teacher gives examples of concepts / prac	04	04	05	05	04	05	04	04	05
d. Teacher's pace & level of difficulty suitable	05	05	05	05	05	05	05	05	05
e. Teacher offers assistance & counseling to the needy students	05	05	05	05	04	05	05	05	05
TOTAL	34	34	35	35	32	35	34	34	35

3 Student's participation :

Parameters	CI	CH	LAC	BC&M	IP	CE Lab	CH Lab	CP Lab	TWS
a. Teacher asks questions to promote interaction & intellectual thinking	05	05	05	05	05	05	05	05	05
b. Teacher encourages questioning / raising doubts by the students & answers them well	05	05	05	05	05	05	05	05	05
c. Teachers organize learner activity and problem solving activity designed by the students	04	04	04	03	03	04	04	04	04
d. Teacher encourages compliments & praises cogently and creativity displayed by the students	05	05	05	05	05	05	05	05	05
e. Teacher is courteous & respectful in dealing with the students	05	05	05	05	05	05	05	05	05
TOTAL	34	34	34	33	33	34	34	34	34

4 Class Management / Assessment of Students:

Parameters	CI	CH	LAC	BC&M	IP	CE Lab	CH Lab	CP Lab	TWS
a. Teacher enforces classes regularly & maintains discipline	05	05	05	05	04	05	05	05	05
b. Teaching covers the syllabus & at appropriate pace	05	05	05	04	04	05	05	05	05
c. Teacher holds tests regularly which are helpful to students in building up confidence in their & application of knowledge	05	05	05	05	05	05	05	05	05
d. Teachers marking of answer scripts is fair & impartial	05	04	05	05	05	05	05	05	05
e. Teacher is prompt in submitting & returning the answer scripts & giving feedback on performance	05	05	05	05	05	05	05	05	05
TOTAL	35	34	35	34	33	35	35	35	35

Total Score (Out of 100)

98 98 97 95 91 99 98 97 99

Comments of HOD

She maintains very disciplinary and strictly it was good

Comments of Principal

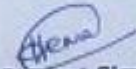
He supports to students very good

Comments of the students

If you see to all in dress code then great

Bj Laboratory Courses

CONTENTS	EDC	CS	LICA	MATLAB
NAME OF THE FACULTY	Y.REDDIRANI	B.KEERTHI	N.MAGENDRA	J.MAHESWAR REDDY
Faculty clearly explain and demonstrates experimental concepts	1	1	1	2
Faculty experience contributes to my over all subject understanding	1	1	1	1
Faculty training contributes to my understanding to individually	2	1	1	1
Faculty current laboratory observation and record in time	2	2	2	1
Faculty uses models ,charts and proto types to explain experiments	2	1	1	1
Correlating lab knowledge with concerned subject knowledge	3	1	1	2
Extra experiments are given beyond syllabus content	2	1	2	1

Student Signature: 

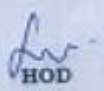
HOD: 

Fig.2.2.1.h: Feedback Report

Faculty Feedback (Every Semester):

Academic year	No. of faculty	No. of faculty who got <75% of feedback	Action Taken
2023-24			Recommended to Attend the
2022-23	26	3	

2021-22	21	4	FDP, Workshop, Seminars, Guest Lectures
2020-21	22	3	

Table2.2.1. f: List of Faculty Feedback

2.2.2 Quality of Internal Semester Question Papers, Assignments and Evaluation (20/20)

(Mention the initiatives, implementation details and analysis of learning levels related to quality of semester question papers, assignments and evaluation)

A. Process for Internal Semester Question Paper setting and evaluation and effective process implementation: (5/5)

- Scheme of instructions is decided by Board of studies of affiliating University, in consultation with Principal/Heads of the Department of respective affiliating colleges, who in turn take feedback from subject experts of the respective departments.
- The syllabus for each course is designed for 5 units. Each unit is elaborated on the topics to be taught to students.
- As per the academic schedule given by the affiliating university, the affiliated colleges have to conduct two internal examinations and two assignments.
- The first internal examination is conducted after 8 weeks of the commencement of the semester. Teacher ensures that the syllabus of 2.5 units is covered for I Internal Examination.
- The second internal examination is conducted after 16 Weeks of the commencement of the semester. The teacher ensures that the syllabus of remaining 2.5 units is covered for II Internal Examination.
- The faculty maps the questions to COs and to Bloom's Taxonomy

Levels.

- The faculty defines scheme of evaluation for each question and evaluates the answer scripts based on scheme.

B. Process to ensure questions from outcomes/learning level perspectives (5/5)

- A couple of days prior to the commencement of internal examinations, HOD along with Internal Exam in-charges checks the quality of internal question papers and ensures that the questions are as per Bloom's Taxonomy.
- The Bloom's taxonomy levels are described.

The relevant description is mentioned in below Table 2.2.2.a.

Bloom's Taxonomy Levels (BTLs)

Taxonomy Level (from lower order thinking skill to higher order thinking skill)	Title of Level	Description of Level
1	Remember	Exhibit memory of previously learned material by recalling facts, terms, basic concepts and answers.
2	Understand	Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions and stating main ideas.

3	Apply	Solve problems of new situations by applying acquired knowledge, facts, techniques and rules in a different way.
4	Analyze	Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.
5	Evaluate	Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a certain criterion.
6	Create	Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions

Table2.2.2. a: Bloom's Taxonomy Levels

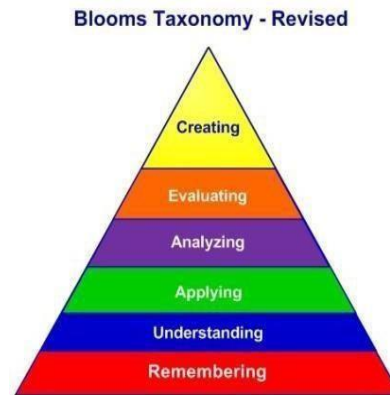


Fig.2.2.2.a: Blooms Taxonomy– Revised level

C. Evidence of Cos Coverage in class test/Mid-term tests: (5/5)

Question paper is prepared using Blooms Taxonomy with Course Outcomes and levels. All the five units are covered in two midterm exams.

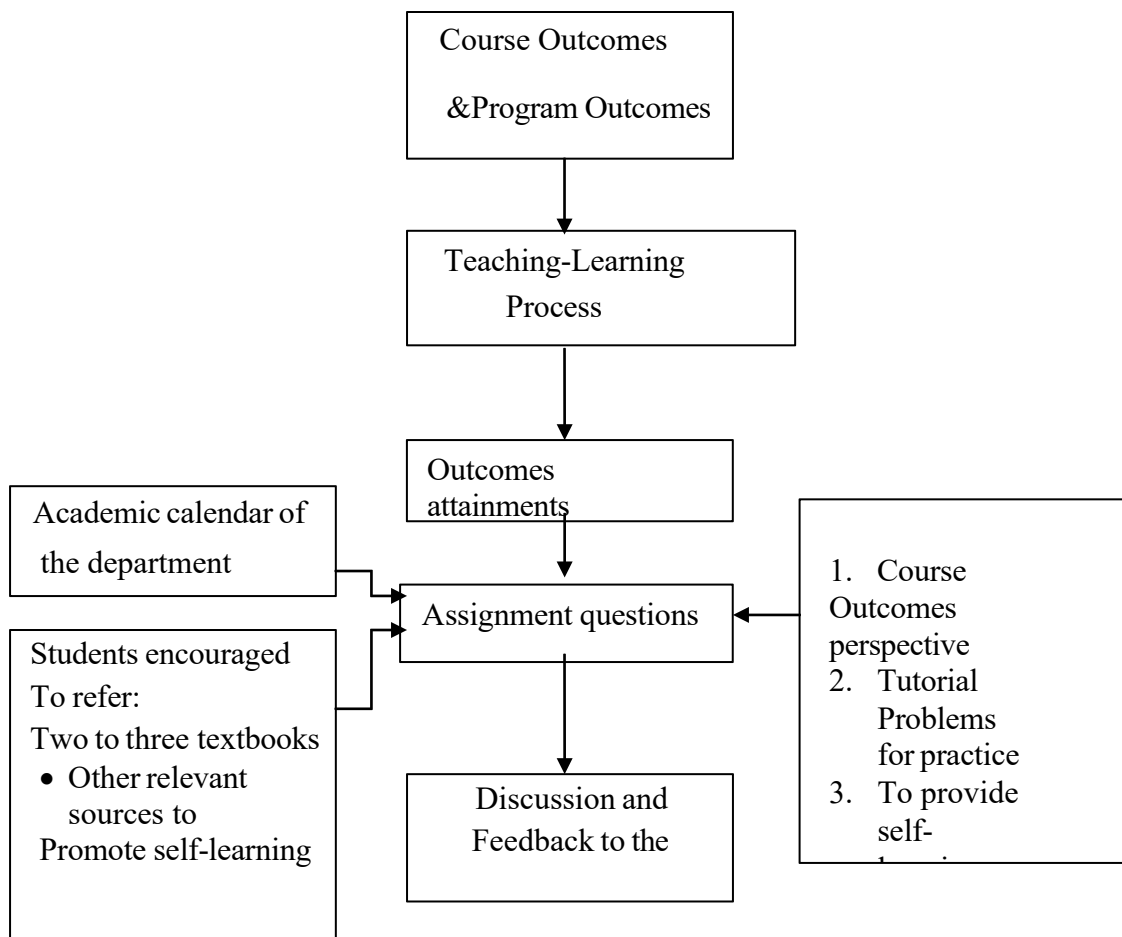


Fig.2.2.2.b: Evidence of COs

Quality of Internal Question Paper:

- While setting the question paper, the faculty addresses Blooms Taxonomy (BT) levels.
- The faculty is responsible to set the question paper by analyzing the quality and pattern of question paper.
- The scheme and solution of question paper is maintained by faculty.
- The DAC verifies the question paper.

Q. No		Answer All the Units (10X3=30 Marks)	Marks	CO	BL	PO
UNIT-I/II						
1	(a)	Derive the Radar range equation?	3	1	L3	3
	(b)	Define Minimum detectable signal.	3	1	L2	1
(OR)						
2	(a)	Write the applications of CW Radar.	5	1	L2	2
	(b)	Write the Advantages and Disadvantages of CW Radar.	5	1	L4	1
UNIT-III						
3	(a)	Distinguish between Pre-integration and Post-integration detection.	3	2	L2	2
	(b)	Write about Radar system losses.	3	3	L2	2
(OR)						
4	(a)	What is meant by Doppler effect?	3	1	L2	2
	(b)	Explain CW Radar block diagram and its operation.	3	3	L4	3
UNIT-IV						
5	(a)	Explain the operation of typical Radar system with help of block diagram.	5	1	L2	2
	(b)	Discuss the Radar frequencies and list out the applications of radar.	3	1	L2	2
(OR)						
6	(a)	Draw the block diagram of a FMCW Radar with operation.	3	2	L4	3
	(b)	Explain the Range and Doppler Measurement.	5	3	L3	3

* BL - Blooms Level: L1-Remembering, L2-Understanding, L3-Applying, L4-Analyzing, L5-Evaluating, L6-Creating
* PO - Programme Outcome

Fig.2.2.2.c: Sample of Internal Exam Question Papers

Q. No		Answer All the Units (10X3=30 Marks)	Marks	CO	BL	PO
UNIT-I/II						
1	(a)	Distinguish between Pre-integration and Post-integration detection	5	1	L3	3
	(b)	Define Minimum detectable signal.	5	1	L2	3
(OR)						
2	(a)	Draw the block diagram of a FMCW Radar with operation.	3	1	L2	2
	(b)	Explain the Range and Doppler Measurement.	3	1	L2	3
UNIT-III						
3	(a)	Discuss the Radar frequencies and list out the applications of radar	5	2	L2	2
	(b)	Certain radar has PRF of 1250 pulses per second. What is the maximum unambiguous range?	5	3	L2	2
(OR)						
4	(a)	What is meant by Doppler effect? And explain its CW Radar block diagram	3	1	L2	2
	(b)	Write the Applications, Advantages and Disadvantages of CW Radar.	3	2	L4	3
UNIT-III						
5	(a)	Derive the Radar range equation?	3	1	L2	2
	(b)	Calculate the maximum range of Radar for the following specifications. Peak power transmitted by the radar, $P_t = 250 \text{ KW}$, Gain of transmitting Antenna, $G = 4000$, Effective aperture of the receiving Antenna, $A_e = 4 \text{ m}^2$ Power of minimum detectable signal, $S_{min} = 10^{-12} \text{ W}$.	3	1	L2	3
(OR)						
6	(a)	Draw the block diagram of a FM-CW Altimeter with its operation.	3	2	2	L4
	(b)	Determine the Range and Doppler velocity of an approaching target using a triangular modulation FMCW Radar. Given : Beat frequency $f_b(\text{up}) = 15 \text{ KHz}$ and $f_b(\text{down}) = 25 \text{ KHz}$, modulating frequency : 1 MHz , Δf : 1 KHz and Operating frequency : 3 GHz .	3	3	3	L3

* BL- Blooms Level: L1-Remembering, L2-Understanding, L3-Applying, L4-Analyzing, L5-Evaluating, L6-Creating
 * PO- Programme Outcome
 * CO-Course Outcomes

Paper Set by: Mrs R Haritha

Fig.2.2.2.c: Sample of Internal Exam Question Papers

Evaluation Procedure (R19)

Assessment		Frequency/ Semester	Theory	Practical exam	Project	Total
Written exam	Midexam-1&2	2	15	-	-	30
	Objective-1&2	2	10	-	-	
	Assignment-1&2	2	5	-	-	
Practical exam	Internal exam					30
	Experimentation	1/experiment		15	-	
	Record, viva and observation, demonstration	1/experiment		15	-	
	External exam					100
	Theory (Procedure)	1/experiment	-	30	-	
	Exp. conduction	1/experiment	-	30	-	

	Viva voice	1/experimen t	-	10	-	
Project Work	Seminar	1	-	-	50	3 5 0
	Major project	1	-	-	200	
	Comprehensi ve viva	1	-	-	100	

Table 2.2.2.b: Evaluation Procedure

D. Quality of assignment and its relevance to COs: (5/5)

Two assignments are given to students before the schedule of internal examinations.

- The respective subject faculty prepares the assignments such that the students can improve their Self-learning capability.
- The assignments are returned to students after evaluation for their reference to final external examinations.
- Assignment questions are set using Bloom's Taxonomy and cognitive levels. Each question is mapped with the Course Outcome of the respective topic.



VISWAM ENGINEERING COLLEGE

(Formerly Sir Vishveshwaraiah Institute of Science & Technology)

Madanapalle - 517 325

ASSIGNMENT FORMAT

Course Name: B.Tech, Branch: ECE,

Year & Sem: 4-1

Subject & Code: Radar Engineering &20A04702C

Q.No	Questions	Marks	Level of Bloom Taxonomy	CO
1	Derive the Radar range equation?	5	Analyze &Apply(L4&L3)	1
2	Certain radar has PRF of 1250 pulses per second. What is the maximum unambiguous range?	5	Analyze &Apply(L4&L3)	1
3	Explain the operation of typical Radar system with help of block diagram.	5	Understand(L2)	1
4	Discuss the Radar frequencies and list out the applications of radar.	5	Understand(L2)	1
5	Write about Radar system losses.	5	Understand(L2)	1


Prepared by

Mrs.R Haritha

Fig.2.2.2.d: Sample Assignment Question Paper

2.2.3 Quality of student projects**(25 /25)**

(Quality of the project is measured in terms of consideration to factors including, but not limited to, environment, safety, ethics, cost, type (application, product, research, review etc.) and standards. Processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing the relevance of projects. Mention Implementation details including details of POs and PSOs addressed through the projects with justification)

Students have to complete two projects during their course. Each student is assigned a Mini and Major project at the end of the third year second semester and fourth year. Execution of these projects by the students under the supervision of the guide inculcates creativity and innovative thinking and finding solution to problem.

2.2.3.A. Identification of projects and allocation methodology to Faculty Members (3/3)

The student's projects are selected in line with department Vision, Mission and Program outcomes. Students are provided with brief idea of various fields for selecting the project. The list of previous year projects is displayed in notice board which ensures no repetition of project and also encourages students to enhance the previous works. Project titles selected by students are displayed and get the acceptance letter from the respective faculty guides. The guides encourage the students to carryout in-house projects and support them whenever required.

Processes related to students projects

Process	Description of Process
Formation of project batches	<ul style="list-style-type: none"> ➤ Students are formed into batches with batch Size of 4to 5 students.
Project Identification	<ul style="list-style-type: none"> ➤ Students are given ideas on various fields ➤ List of previous year project is displayed to ensure no repetition.
Guide & Project Allotment	<ul style="list-style-type: none"> ➤ Students select project titles on their own. ➤ Students approach the Staff members for their willingness as guide based on their Project Domains. ➤ If Staff member expresses his willingness to
	<p>Guide the Students batch, students of that batch are allocated to concerned project guide, who issues acceptance letter.</p> <ul style="list-style-type: none"> ➤ The allocation of the project for each group is completed within two weeks from the commencement of final year 1st semester by

	The project Coordinator.
Preparing of project seminar Schedules	➤ Project seminar schedule is prepared and Informed to the students.

Table2.2.3.c: Project Identification and Guide Allocation Process

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

The project coordinator instructs the students to identify the project titles and submit the synopsis adhering to the time lines decided by the HOD.

Some of the areas identified by the project coordinator are:

1. VLSI
2. Embedded Systems
3. Image processing
4. Networking
5. Communication

The project coordinator classifies the projects into application, product, research and review and maps the POs and PSOs considering the factors such as environment, safety, ethics, cost and standards. Based on the student's chosen area, competency of faculty in relevant area, guides are allotted to students.

Summary Report of Projects Mapped with POs and PSOs for the CAYm 2022-23

Project Mapping with POs & PSOs																
S.No	Name of the Project	Project Guide	Outcomes													
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1	PO1	PO1	PSO1	PSO
1	Plant disease detection using machine learning technique	Mrs B.Keerthi	3	2	3	2	2	1	1	-	2	2	3	2	3	-
2	Home Automation based on IOT using Raspberry pi	Mrs.P.Hemalatha	2	3	2	3	3	2	2	-	3	1	1	3	2	-

Table 2.2.3.d: Project Outcomes-POs & PSOs mapping table CAYm1: 2022-23

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

Summary Report of Projects Mapped with POs and PSOs for the CAYm 2021-22

Project Mapping with POs& PSOs																
S.No	Name of the Project	Project Guide	Outcomes													
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	Driver Drowsiness Detection Using Machine Learning Techniques For ADAS	Dr S Giriprasad	2	3	2	3	3	2	2	-	3	2	1	3	3	-
2	Automatic Engine Locking system for Home Automation	Mrs T.Reddi Rani	3	2	3	2	2	1	1	-	2	1	2	2	2	-

Table 2.2.3.e: Project Outcomes-POs & PSOs mapping table CAYm2: 2021-22 :

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

Summary Report of Projects Mapped with POs and PSOs for the CAYm2020-2021

Project Mapping with POs& PSOs																
S.No.	Name of the Project	Project Guide	Outcomes													
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	Controlling Of PC by Using Hand Gestures	Dr.S.Giriprasad	2	3	3	2	3	2	1	-	2	2	2	2	3	-
2	Moving Shadows Detection Algorithm and Implementation Based on Dual Background Modeling	Mrs.T.Reddy Rani	2	2	2	1	2	1	2	-	3	1	1	3	2	-

Table 2.2.3.f: Project Outcomes-POs & PSOs mapping table CAYm1: 2020-21

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

2.2.3. C Process of monitoring and evaluation**(5 /5)**

A project coordinator is appointed by the Head of the department who is responsible for planning, scheduling and execution of all the activities related to the student Project work.

Time Line	Task	Particulars
IV- I Sem		
12 th Week	Call for project batch	Batches are formed based on academic Performance up to III B.Tech II Sem by project Coordinator of the department.
14 th Week	Synopsis	The submitted project titles are reviewed by Project Review Committee (PRC).
IV- II Sem		
1 st Week	Guide Allotment	Guide is allotted based on areas of interest.
4 th Week	First Review	Students are instructed to submit requirement specification and give a PowerPoint presentation for the project. (Evaluation phase I by a team of faculty)
8 th Week	Second Review	Students are instructed to submit Design document of the project and give a Power Point presentation for the project. (Evaluation phase II

		By a team of faculty)
12 th Week	Final Demonstration	Students are instructed to submit complete project report with university compliance and give a Power Point presentation for the project. (Evaluation phase III by a team of faculty)
14 th Week	Project Internal Marks Announcement	The marks for the project work are displayed and processed according to the university regulations.

Table 2.2.3. g: Process of Monitoring and Evaluation of Project

Process	Description of process
Continuous monitoring and evaluation	<ul style="list-style-type: none"> ➤ For the review of the project work, the student is required to give power point presentation. Project guide is required to monitor the progress of the project work being carried out regularly and to get evaluated.
Demonstration of project	<ul style="list-style-type: none"> ➤ The progress made by the students and the demonstration is evaluated by a committee consisting of senior faculty members of the department. The quality of the work is monitored by guide, Project Coordinator and Department committee.
Project Evaluation	<ul style="list-style-type: none"> ➤ Projects are evaluated for 50 marks as internal assessment by the project review committee and for 150 marks as external assessment by an external examiner allotted by university.

Table 2.2.3.h: Rubrics for Project

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

The individual performance in communication, report writing skills, individual contribution and technical knowledge in the specialized topic is evaluated by committee through power point presentation. The team performance is evaluated through collection of information on team contribution to the project, organization of the project report, presentation of results and drawing the suitable conclusions and on the basis of creativity, cost effective and environmental friendly aspects.

Summary of Rubrics followed for project evaluation is shown in Table

Project Quality Assessment Sheet:

Rubric	Agenda	Marks
Rubric1	Project Identification & Literature	20
Rubric2	Methodology	30
Rubric3	Viva & Presentation	10
Total Marks		60

Table2.2.3.h: Rubrics

Rubric: Internal Evaluation

Parameters	Allocated Marks	High	Medium	Low
Project Identification & Literature (20M)	20	Division of problem into modules and identifying the problem	Division of problem into modules, solving Methodology not defined.	Modular approach not adopted, Solving methodology not defined
Methodology (20M)	30	All objectives of the proposed work are well defined; Steps to be followed to solve the defined problem are clearly specified	Average justification to the objectives proposed; Steps are mentioned but unclear; with out justification to objectives	Objectives of the proposed work are either not identified or not well defined; Incomplete and improper specification

<p style="text-align: center;">Viva & Presentation (10M)</p>	<p style="text-align: center;">10</p>	<ul style="list-style-type: none"> • All defined objectives are achieved, all modules working well and integrated, project properly demonstrated • Contents of presentation are appropriate and well delivered. Proper eye contact with audience and clear voice with good language 	<ul style="list-style-type: none"> • Some of the defined Objectives are achieved, all modules working well and modules are not properly integrated • Contents of Presentation are appropriate but not well delivered. Eye contact with few people and unclear voice 	<ul style="list-style-type: none"> • Defined objectives not achieved ,modules are not in proper working form that leads to failure of integrated system • Contents of presentation are not appropriate and not well delivered. Poor delivery of presentation
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Table 2.2.3.i: Rubrics of Internal Evaluation High: 51-60Marks

Medium:49-50 Marks

Low:0-30Marks

Rubric: Internal Evaluation

Roll no	Project identification & literature(20 M)	Methodology (30M)	Viva & Presentation (10M)	Total marks (60M)
19W51A0401	20	29	9	58
19W51A0402	19	29	10	58
19W51A0407	19	29	9	57
19W51A0410	19	30	10	59
19W51A0432	18	28	8	54
19W51A0444	20	29	19	58

Table2.2.3.j:Rubrics of Sample Mark Statement

2.2.3.E.Quality of completed projects and working prototypes (5/5)

The quality of projects is assessed by the Project Review Committee considering the factors like relevance of the title to research and development, scope of work carried out, extent of literature review, methodology adopted, use of experimentation results obtained and conclusions drawn, report writing and innovative ideas. The project evaluation sheet is used for evaluation of projects. The Best projects are identified considering the above factors.

Best Project Evaluations Scheme:

S.No	Performance Indicator	Marks
1	Project Identification & Literature	20
2	Methodology	30
3	Viva & Presentation	10

Table2.2.3.k:Best Project Evaluations Scheme



PROJECT QUALITY ASSESSMENT SHEET

Academic Year: 2022-23

Class: IX ECE

Title of the Project: Kidney stone detection using Fuzzy C-Means Algorithm

Hall Tickets No's: 19W51A0410, 19W51A0413, 19W51A0424, 19W51A0435, 19W51A0437

Name of the Guide: Dr S. Ganapathi

Type		Application/Product Development/Review					score
S.NO	Focus area	criteria	Excellent (3)	Good (2)	Satisfactory (1)	Unsatisfactory (0)	
1	Definition and background	Identify/Define Problem: Ability to identify a suitable problem and define the project objectives. Collection of background information. Define scope of the problem considering the aspect on safety and environment with concerned viability/research scope.	3	-	-	-	3
2	Design	Understanding the design process and problem solving. Needs, specifications, concept and methodology to solve.	3	-	-	-	3
3	Software execution/Hardware Implementation	Implementing Design Strategy and evaluating. Good design using appropriate hardware and software tools.	3	-	-	-	3
4	Debug/Results	Confirm the functioning of the final design to deploy the project on the target environment.	3	-	-	-	3
5	Environment, safety and safety	Consideration of Environmental, Safety and security Aspects.	-	-	1	-	1
6	Ethical Responsibility	Recognize, Understand and apply proper ethical use of intellectual property, copyrights and research.	-	-	1	-	1
7	Project Presentation	Technical Writing Skills: Communicate the results with clarity and professionalism skill.	3	-	-	-	3
8	Cost & Project Management	Monitoring and Controlling the Project	3	-	-	-	3
Total							20

Head, Dept of ECE

Project Co-ordinator

Fig.2.2.3.a: Process Quality Assessment sheet

Best Projects CAYm1:2022-23

S.No	Title of the Project	Students	Project Guide
1	Whether monitoring using Raspberry PI over Internet of Things	19W51A0410 19W51A0411 19W51A0415 19W51A0421 198P1A0450	Dr.B.D.Venka tra mana Reddy
2	Online Smart Voting System using BIO – Metrics based Facial and Fingerprint Detection on Image Processing and CNN	19W51A0447 19W51A0441 19W51A0432 20W55A0405	Mr. J Maheswar Reddy

Table2.2.3. 1: Best Project CAYm1:2019-23

Best Projects CAYm2: 2021-22

S.No	Title of the Project	Students	Project Guide
1	Arduino based Accident alert system using GSM, GPS and MEMS Accelerometer	18W510474 18W510402 18W510451 18W510470 18W510460	Dr.B.D.Venkata mana Reddy
2	Plant Disease Detection Using Convolution Neural network	18W51A0407 18W51A0415 18W51A0417 18W51A0427 18W51A0443	Mrs.W.J.Hima bindu

Table2.2.3.m: Best Project CAYm1:2018-22

Best Projects CAYm3: 2020-21

S.No	Title of the Project	Students	Project Guide
1	Reduction of Sidelobes in	17W51A0476	Dr.B.D.Venkatr ama na Reddy
	Antenna Arrays using MATLAB Applications	17W51A0403 17W51A0447	
	Reduction of	17W51A0473	

	Sidelobes in		
2	Design of Approximate Multipliers using Approximate Adders	17W51A0409 17W51A0471 17W51A0472 17W51A0449 17W51A0445	Mr C.Manoj kumar

Table.2.2.3.n: Best Project CAYm1:2017-2021

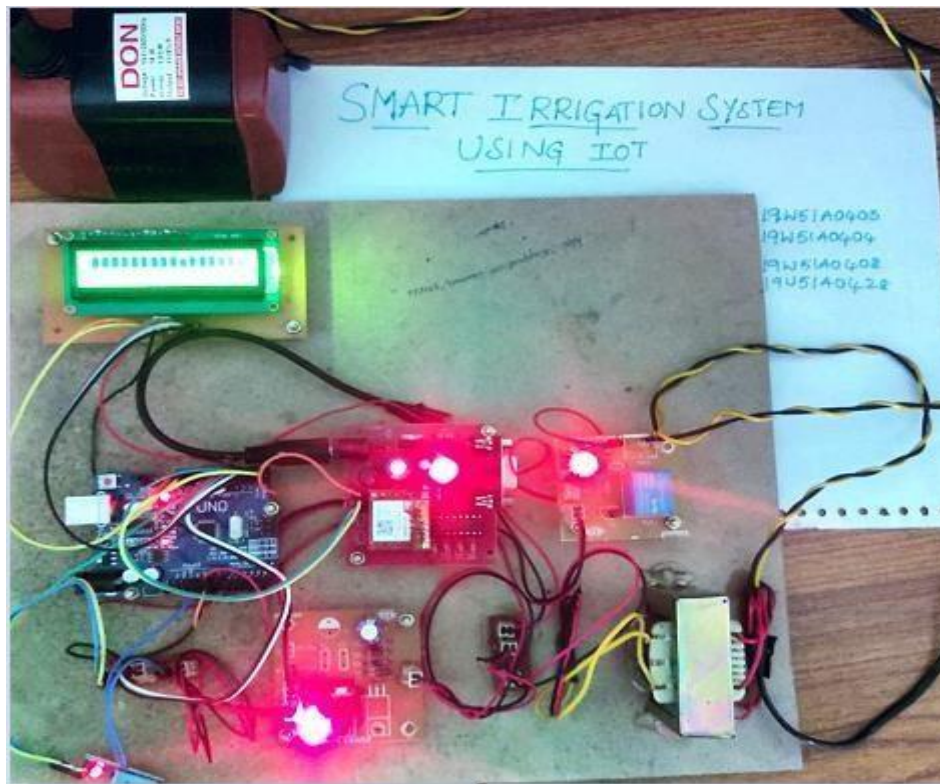


Fig.2.2.3.b: Sample project kit

2.2.3. F. Evidences of papers published/Awards received by projects etc (5/5)

- The internal guide helps the students to publish their work in national conference and journal.

- The Department organizes Project Expo every year and the best project is awarded.

2.2.4. Initiatives related to industry interaction (15/15)

(Give details of the industry involvement in the program such as industry- attached laboratories, partial delivery of appropriate courses by industry

experts etc. Mention the initiatives, implementation details and impact analysis)

2.2.4.A. Industry supported laboratories (5/5)

- The department of ECE has MOU with TASK ,Match well Technology, Swecha, COIGN Consultant and Techno crafts to conduct various certification courses in our college.
- The department has initiated the process of signing MOU with Central Institute of Tool Design, Hyderabad for establishing Incubation Centre.

S.No.	Organisation with which MOU issigned	Name of the Institution /Industry/ Corporate house	Year of Signing MOU	Duration	List the actual Activities Under each MOU Year wise	Location	Number of Student participated Under MOU
	Trainings , Internships, Projects, Workshops, FDPs, Seminars	Sri Vency Technologies		3 years	Project Training	Tirupathi	55

1	Industry Speaks,iiowa H! Hackathons, Summer Internship,IITM Research Park Visit,Lab to Market Activities	PALS	2023	indefinite	Summer Internship	Chennai	30
	Campaign Setup	College Dhekh o		1 year	Training	Gurgaon	45
	Branding and lead generation Campaign	College Dunia		1 year	Training	New Delhi	55

2	Internships, Industrial Visits	Sangamesw ara Electricals	2022	Indefinite	Internship	Madanapa lli	50
	Internships, Joint Research Activities, Exchange of Technology, Training Programs	Sorting Hat Technologi es Pvt Ltd		1 year	Internship	Bangalore	40
3	Internships, Industrial Visits, Training Programs	Sree Bhalaji Industies PVT LTD		Indefinite	Project Training	Madanapa lli	45

	Joint Research Activities, Technology Exchange, Organise symposia, Seminars and FDP	RJS International Multidisciplinary Research Foundation	2021	Indefinite	Training	Bangalore	60
4	Internships, Industrial Visits, Joint Research Activities, Exchange of Technology, Training Programs	Sunrise Industries	2020	Indefinite	Project Training	Madanapalle	30

Table 2.2.4.a: MOU with Industries

2.2.4.B. Industry involvement in the program design and partial delivery of regular courses for students: (5/5)**Initiatives related to industry interaction MOUs with Industries**

MOUs were signed with industries to emphasize on

- Industry trainings.
- Industry Expert lectures.
- Project Workshop for Students
- Industry projects.
- Industrial visits are regularly arranged to Radio station, Doordarshan(DD), CITD,RTTC, NRSC, CETE, and ElectricLocoshed.

Effectiveness: Feedback from students about industrial visit and training is collected and the impact of such interventions is assessed. Based on the assessment corrective actions are taken.

Corrective action points:

- Report on training of the student is collected and analyzed for positive impact.
- Student feedback is utilized for exposure to better industries. Students are exposed to the real working environment in the industry.
- Students are required to deliver presentation about their industrial visit and training. Feedback from industries, where the internship is conducted, is also obtained from students and from industry.
- Based on above feedback, corrective action is taken to streamline the internship and training for subsequent batches. Care is taken such that Pos and PSOs are met through these activities.

2.2.4.C. Impact analysis of industry institute interaction and action taken there of: (5/5)

- The effectiveness of this practice is gauged by the response of the participants of the workshops.
- Students are identified based on what they learnt at the workshops to implement their own mini and major projects.

**2.2.5. Initiatives related to industry internship/summer training
(15/15)**

(Mention the initiatives, implementation details and impact analysis)

- The students are encouraged to take internship program during their semester break. Faculty members give guidelines, suggestions and contact details of organizations providing internships.
- This help the students in interacting with the industrial experts, provide the students with the recommendation letters and other necessary support. The alumni coordinator constantly interacts with alumni who are working in the industries and request them to provide necessary help and guidelines.

2.2.5 (A) Industry Training/Tours for students. (3/3)

- Industrial visit has its own importance in a career of a student who is pursuing a professional degree. It is considered as a part of college curriculum, mainly seen in engineering courses.
- Objectives of industrial visit are to provide students an insight regarding internal working of companies. The theoretical knowledge is not enough for making a good professional career. With an aim to go beyond academics, industrial visit provides student a practical perspective on the world of work.
- It provides students with an opportunity to learn practically through interaction, working methods and employment practices.

Industrial Visits:

- Industrial visits are planned in every semester for II, III and IV year students to make them conversant with the various design and manufacturing processes in the industry.

- The visits are planned to such industries where the ongoing processes and design methods concepts are already covered in the curriculum. Industrial visits are planned and executed as per the schedule prepared in academic calendar.



Fig.2.2.5.a: Radio Astronomy centre 30/11/23



Fig.2.2.5.b:
Trivendrun on
01.12.2023

IndustrialVisitsCAY:2023-24

S. No.	Name of the students	Name of The Organization	Date / Period	Number of students attended	POs & PSOs Covered
1.	III Year ECE	Radio Astronomy Centre.Ooty	30/11/2023	40	PO1,2,6,9,11,12
2.	IV	C-DAC Trivendr	01-12-		PO1,2,6

	Year	u m	2023	46	,9,11,12
	EC				
	E				

Table2.2.5. a: Industrial Visit by Students CAY: 2023-24

Industrial Visits CAYm1:2022-23

S. No.	Name of the students	Name of the Organization	Date/Period	No. of students attended	POs & PSOs Covered
1	II Year ECE	SHAR, Sriharikota	22-04-2023	49	PO1,2,6, 9
2	IV Year,EC E	Kaynes Technology	07-11-2022	32	PO1,2, 9, 11,12, PSO1, 2

Table2.2.5. b: Industrial Visit by Students CAYm1:2022-23

2.2.5(B). Industry/Internship/summer training of more than two weeks and post training assessment. (4/4)**Internship Goals and Objectives:**

- Apply knowledge of computing, mathematics, science, and engineering appropriate to the discipline
- Use the techniques, skills, and modern engineering tools necessary for engineering practice.
- Communicate effectively with a range of audiences.
- Understand the professional, ethical, legal, security and social issues and responsibilities.
- Think critically and creatively to solve local or global problems and become lifelong learners and contributors to society.
- Recognize the need for and an ability to engage in continuing professional development and lifelong learning.
- Identify, formulate and solve engineering problems.
- Design a system, component, or process to meet desired needs with in realistic constraints
- .
- Attain knowledge of contemporary issues.

Internship Program Details

Academic Year	Organization Name	Duration	Number of Students Participants	Location
2023-24	NPTEL online course	8-12 weeks	70	online
2022-23	NPTEL online course	8-12weeks	8	online
2022-23	Suven-Consultants And Technology Pvt;Ltd	16/04/23 to 14/05/23	8	ONLINE
	ODCET	16/04/23 to 14/05/23	1	Online

Table 2.2.5. b: Summer/Winter Training Program CAY: 2022-24

Implementation Details

The College placement cell facilitates and monitors the student internship program. The placement cell strongly encourages students to undergo Internship during vacation. The students have to submit an internship report to the department. In case the student makes any patents/copyrights, royalty is shared among all (Industry side, college side).

2.2.5.C. Impact analysis of industrial training: (4/4)

Students are trained on latest technologies so that they get real time exposure and gain knowledge in terms of real-world experience. With leading-edge technologies new skills are added to their knowledge base to gain confidence in their abilities. Students gain knowledge in terms of

- Acquired new technical skills
- Hands-On Session on modern tools.
- Learnt various applications.
- Students learn how to integrate theoretical concepts with practical work in engineering environment.
- Gain additional skills in areas such as communication, team building, problem solving and analytical reasoning.
- Build valuable networks and contacts for professional development.
- Gain insights into career options to support choice of specialized field area to build and develop one's career.
- Students experience significant improvement in Communication skill, Critical thinking, Problem Solving skills, Team work, Moral and Professional Ethics after their industrial training.

Impact Analysis of Industrial visits

Industrial visit helped students to gain the information regarding functioning of the industry. It also provides an opportunity to plan, organize and engage in active learning experiences both inside and outside classroom. It helps students understand Do's and Don'ts of the industrial practices.

Impact Analysis of Student Internship

Students gain knowledge in terms of

- Real-time experience with leading-edge technologies.
- New skills are added to their knowledge base while gaining confidence in their abilities.
- They get an opportunity to work with a team in the industry.
- They acquire professional ethics.

Impact Analysis of Summer Training Students are trained by well experienced industry people so that they gain knowledge in terms of

- Working on modern tools help in understanding the applications.
- They get an opportunity to work with teams from different colleges and industry.
- They gain professional ethics.

2.2.5.D. Student feedback on initiative.**(4/4)**

The impact on POs and PSOs from industry interaction is quantified using feedback taken from the students who have undergone industrial training, internship and participated in industrial visits.



DEPT. OF ELECTRONICS & COMMUNICATION ENGINEERING

FEEDBACK ON INDUSTRIAL VISIT

Date: 21-11-22

Name of the student: K. Chakrapani class: 15 ECE A.Y & SEM: 2022-23 / I
 Place of visit: Mysore organization: Kaynes Technology

S.No	Question	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)
1	How do you rate the explanation given by the guide at the time of visit		4			
2	How do you rate the visit in relation to the real life applications?	5				
3	To what extent, the visit fills the gap between theory and applications		4			
4	Relevance of the visit to meet the job requirement	5				
5	How do you rate the visit in relation to the technological improvements?	5				
6	How do you rate the visit towards the practical exposure?		4			
7	Rate simulation of the visit towards higher education		4			
8	Overall rating	5				

HOD - E.C.E

[Signature]

Fig.2.2.5.c: Students Feedback form

Criterion 3**Course Outcomes and Program Outcomes****120/120**

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

(Program Outcomes as mentioned in Annexure I and Program Specific Outcomes as defined by the Program)

Course Outcomes (COs) are the resultant knowledge and skills the student acquires at the end of the course. Each CO may lead to attainment of one or more Program Outcomes (POs) and program specific outcomes (PSOs).

Program Outcomes (POs) represent the knowledge, skills and attitude at the end of four years engineering Program.

Program Specific Outcomes (PSOs) represent the knowledge, skills and attitude at the end of four years engineering Program. The PSOs are expected to be addressed by the curriculum. **Procedure adopted for defining POs**

The course outcomes for a course are defined by the concerned faculty member using action Verbs of learning levels as suggested in Blooms Taxonomy. The proposed COs are submitted to Program Assessment Committee (PAC) for revision and approval. Based on the suggestions by the PAC, the faculty modifies the proposed COs.

Program Outcomes (POs) and Program Specific Outcomes (PSOs) of B.Tech. - **Electronics and Communication Engineering** are

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

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

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

engineering sciences.

3. **PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with

appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

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

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

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

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

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

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

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

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

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

PROGRAM SPECIFIC OUTCOMES (PSOs):

PSO1: Analyze, design, synthesize and develop solutions by applying the foundational concepts of electronics and communication engineering.

PSO2: Emerge as ethical leaders, engage in lifelong learning, pursue entrepreneurship and contribute in the field of Electronics and Communication Engineering.

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) (5/5)

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

Course Name: Ciii Year of Study: YYYY – YY; for ex. C202 Year of study 2019-20

CAYm1 (2019-20 Admitted Batch)

II Year, I SEM	
Course Name: C202(Signals & Systems– 19A04301)	Year of Study: 2020- 21
After completion of course the student will be able to	
C202.1	Understand the basic idea of signal and system analysis and its

	characterization in time and frequency domains.
C202.2	Understand Present Fourier tools through the analogy between vectors and signals.
C202.3	Calculate sampling and reconstruction of signals.
C202.4	Analyze characteristics of linear systems in time and frequency domains.
C202.5	Understand Laplace and z-transforms as mathematical tool to analyze continuous and discrete-time signals and systems.

II Year, II SEM

Course Name: C211(Electromagnetic Waves and Transmission lines - 19A04401)

Year of Study: 2020-21

After completion of course the student will be able to

C211.1	Understand fundamentals of static and time varying electromagnetic fields.
C211.2	Understand Problem solving in Electromagnetic fields using vector calculus.
C211.3	Analyze wave concept with the help of Maxwell's equations.
C211.4	Understand concepts of polarization and fundamental theory of electromagnetic waves in transmission lines and Calculate their practical

	applications.
C211.5	Analyze reflection and refraction of electromagnetic waves propagated in normal and oblique incidences.

III Year, I SEM	
Course Name: C302 (Antennas and Wave Propagation – 19A04502)	Year of Study: 2021-22
After completion of course the student will be able to	
C302.1	Understand radiation mechanisms and basic characteristics of antennas.
C302.2	Derive mathematical expressions and their application for complete design of antennas.
C302.3	Demonstrate various modes of EM wave propagation.
C302.4	Explain measurement of antenna parameters.
C302.5	Design concepts of various types of antennas including micro strip antenna.

III Year, II SEM	
Course Name: C313(Digital Signal Processing – 19A04602T)	Year of Study: 2021-22
After completion of course the student will be able to	
C313.1	Understand fundamental material for the analysis and processing of digital signals.
C313.2	Distinguish the relationships between continuous-time and discrete time signals and systems.
C313.3	Understand fundamentals of time, frequency and Z-plane analysis and to discuss the inter-relationships of these analytic method.
C313.4 ^a	Design of digital (IIR and FIR) filters from analysis to synthesis for given specifications.
C313.5	Understand few real-world signal processing applications.

IV Year, I SEM	
Course Name: C403(Satellite Communications - 19A04703a)	Year of Study: 2022-23
After completion of course the student will be able to	
C403.1	Understand the basic concepts of satellite communications, orbital mechanics and launchers.
C403.2	Apply reliability techniques to check the reliability for space qualification of equipment.
C403.3	Apply frequency allocation standards, reliability techniques, multiple access techniques.
C403.4	Understand various subsystems of an earth station.
C403.5	Analyze satellite navigation and global positioning system.

IV Year, II SEM	
Course Name: C409(Introduction to Internet of Things - 19A04801b)	Year of Study: 2022-23
After completion of course the student will be able to	
C409.1	Understand interconnection and integration of the physical world and the cyber space.

C409.2	Design applications of Internet of Things.
C409.3	Identify various building blocks and characteristics of Internet of Things.
C409.4	Explain communication protocols used in Internet of Things.
C409.5	Impart knowledge on design & develop IoT devices.

CAYm2 (2018-19 Admitted Batch)

II Year, I SEM	
Course Name: C204(Signals & Systems– 15A04303)	Year of Study: 2019- 20
After completion of course the student will be able to	
C203. 1	Understand the basic idea of signal and system analysis and its characterization in time and frequency domains.
C203. 2	Understand Present Fourier tools through the analogy between vectors and signals.
C203. 3	Calculate sampling and reconstruction of signals.
C203. 4	Analyze characteristics of linear systems in time and frequency domains.
C203. 5	Understand Laplace and z-transforms as mathematical tool to analyze continuous and discrete-time signals and systems.

II Year, II SEM	
Course Name: C212(Electromagnetic Waves and Transmission lines - 15A04403)	
Year of Study: 2019-20	
After completion of course the student will be able to	
C212. 1	Understand fundamentals of static and time varying electromagnetic fields.
C212. 2	Understand Problem solving in Electromagnetic fields using vector calculus.
C212. 3	Analyze wave concept with the help of Maxwell's equations.
C212. 4	Understand concepts of polarization and fundamental theory of electromagnetic waves in transmission lines and Calculate their practical applications.
C212. 5	Analyze reflection and refraction of electromagnetic waves propagated in normal and oblique incidences.

III Year, I SEM	
Course Name: C302 (Antennas and Wave Propagation - 15A04501)	
Year of Study: 2020-21	

After completion of course the student will be able to	
C302.1	Understand radiation mechanisms and basic characteristics of antennas.
C302.2	Derive mathematical expressions and their application for complete design of antennas.
C302.3	Demonstrate various modes of EM wave propagation.
C302.4	Explain measurement of antenna parameters.
C302.5	Design concepts of various types of antennas including micro strip antenna.

III Year, II SEM	
Course Name: C313(Digital Signal Processing – 15A04603)	Year of Study: 2020-21
After completion of course the student will be able to	
C313.1	Understand fundamental material for the analysis and processing of digital signals.
C313.2	Distinguish the relationships between continuous-time and discrete time signals and systems.
C313.3	Understand fundamentals of time, frequency and Z-plane analysis and to discuss the

	inter-relationships of these analytic method.
C313.4 ^a	Design of digital (IIR and FIR) filters from analysis to synthesis for given specifications.
C313.5	Understand few real-world signal processing applications.

IV Year, I SEM	
Course Name: C402(Embedded Systems - 15A04702)	Year of Study: 2021-22
After completion of course the student will be able to	
C402.1	Interpret the concepts of embedded systems.
C402.2	Build fundamental embedded systems which includes sensors, actuators, converters, processors
C402.3	Summarize embedded firmware design approaches.
C402.4	Distinguish between Inter Process Communication & Inter Process Synchronization.
C402.5	Discuss operating system concepts, types and choosing RTOS.

CAYm3 (2017-18 Admitted Batch)

IV Year, II SEM	
Course Name: C409(Low Power VLSI Circuits & Systems - 15A04802)	Year of Study: 2021-22
After completion of course the student will be able to	
C409.1	Understand the concepts of velocity saturation, Impact Ionization and Hot Electron Effect
C409.2	Implement Low power design approaches for system level and circuit level measures.
C409.3	Design low power adders, multipliers and memories for efficient design of systems.
C409.4	Understand the usage of minimizing switched capacitance
C409.5	Understand how to Minimizing Leakage Power

II Year, I SEM	
Course Name: C204(Signals & Systems- 15A04303)	Year of Study: 2018-19
After completion of course the student will be able to	

C203. 1	Understand the basic idea of signal and system analysis and its characterization in time and frequency domains.
C203. 2	Understand Present Fourier tools through the analogy between vectors and signals.
C203. 3	Calculate sampling and reconstruction of signals.
C203. 4	Analyze characteristics of linear systems in time and frequency domains.
C203. 5	Understand Laplace and z-transforms as mathematical tool to analyze continuous and discrete-time signals and systems.

II Year, II SEM	
Course Name: C212(Electromagnetic Waves and Transmission lines - 15A04403)	Year of Study: 2018-19
After completion of course the student will be able to	
C212. 1	Understand fundamentals of static and time varying electromagnetic fields.
C212. 2	Understand Problem solving in Electromagnetic fields using vector calculus.
C212.	Analyze wave concept with the help of Maxwell's equations.

3	
C212.4	Understand concepts of polarization and fundamental theory of electromagnetic waves in transmission lines and Calculate their practical applications.
C212.5	Analyze reflection and refraction of electromagnetic waves propagated in normal and oblique incidences.

III Year, I SEM	
Course Name: C302 (Antennas and Wave Propagation - 15A04501)	Year of Study: 2019-20
After completion of course the student will be able to	
C302.1	Understand radiation mechanisms and basic characteristics of antennas.
C302.2	Derive mathematical expressions and their application for complete design of antennas.
C302.3	Demonstrate various modes of EM wave propagation.
C302.4	Explain measurement of antenna parameters.

C302.5	Design concepts of various types of antennas including micro strip antenna.
--------	--

III Year, II SEM	
Course Name: C313(Digital Signal Processing – 15A04603)	Year of Study: 2019-20
After completion of course the student will be able to	
C313.1	Understand fundamental material for the analysis and processing of digital signals.
C313.2	Distinguish the relationships between continuous-time and discrete time signals and systems.
C313.3	Understand fundamentals of time, frequency and Z-plane analysis and to discuss the inter-relationships of these analytic method.
C313.4 ^a	Design of digital (IIR and FIR) filters from analysis to synthesis for given specifications.
C313.5	Understand few real-world signal processing applications.

IV Year, I SEM	
Course Name: C402(Embedded Systems - 15A04702)	Year of Study: 2020-21
After completion of course the student will be able to	
C402.1	Interpret the concepts of embedded systems.
C402.2	Build fundamental embedded systems which includes sensors, actuators, converters, processors
C402.3	Summarize embedded firmware design approaches.
C402.4	Distinguish between Inter Process Communication & Inter Process Synchronization.
C402.5	Discuss operating system concepts, types and choosing RTOS.

IV Year, II SEM	
Course Name: C409(Low Power VLSI Circuits & Systems - 15A04802)	Year of Study: 2020-21
After completion of course the student will be able to	
C409.1	Understand the concepts of velocity saturation, Impact Ionization

	and Hot Electron Effect
C409.2	Implement Low power design approaches for system level and circuit level measures.
C409.3	Design low power adders, multipliers and memories for efficient design of systems.
C409.4	Understand the usage of minimizing switched capacitance
C409.5	Understand how to Minimizing Leakage Power

Table 3.1.1: Course Outcomes

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

CAYm1 (2019-20 Admitted Batch)

II Year, I SEM												
Course Name: C202(Signals & Systems- 19A04301)									Year of Study: 2020-21			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C202.1	3	-	-	-	-	2	-	-	-	-	-	2
C202.2	2	-	-	-	-	2	-	-	-	-	-	2
C202.3	2	2	1	1	-		-	-	-	-	-	-

C202.4	1	3	3	3	-	2	-	-	-	-	-	-
C202.5	2	2	2	2								
Average	2.0	2.33	2.0	2.0	-	2.0	-	-	-	-	-	2.0

II Year, II SEM												
Course Name: C211(Electromagnetic Waves and Transmission lines - 19A04401)									Year of Study: 2020-21			
CO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO
	1	2	3	4	5	6	7	8	9	10	11	12
C211.1	3	-	-	-	-	-	-	-	-	-	-	-
C211.2	2	-	-	-	-	-	-	-	-	-	-	-
C211.3	-	3	3	2	-	-	-	-	-	-	-	-
C211.4	2	-	-	-	-	-	-	-	-	-	-	-
C211.5	-	2	2	2								
Average	2.33	2.5	2.5	2.0	-	-	-	-	-	-	-	-

III Year, I SEM												
Course Name: C302 (Antennas and Wave Propagation - 19A04502)									Year of Study: 2021-22			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C302.1	1	-	-	-	-	-	-	-	-	-	-	-
C302.2	3	-	-	-	-	-	-	-	-	-	-	-
C302.3	2	2	2	-	-	-	-	-	-	-	-	-
C302.4	3	-	-	-	-	2	1	-	-	-	-	1
C302.5	2	3	3	-	-	-	-	-	-	-	-	-
Average	2.2	2.5	2.5	-	-	2.0	1.0	-	-	-	-	1.0

III Year, II SEM												
Course Name: C313(Digital Signal Processing - 19A04602T)									Year of Study: 2021-22			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C313.1	1	-	-	-	-	-	-	-	-	-	-	-
C313.2	-	2	2	-	-	-	-	-	-	-	-	-

C313.3	2	2	2	-	-	-	-	-	-	-	-	-
C313.4	3	3	3	2	-	-	-	-	-	-	-	-
C313.5	3	-	-	-								
Average	2.3	2.3	2.3	2.0	-	-	-	-	-	-	-	-

IV Year, I SEM												
Course Name: C403(Satellite Communications - 19A04703a)										Year of Study: 2022-23		
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C403.1	-	-	-	-	-	2	-	-	-	-	-	2
C403.2	2	1	-	-	-	-	-	-	-	-	-	-
C403.3	2	-	-	-	-	-	-	-	-	-	-	2
C403.4	-	-	-	-	-	-	-	-	-	-	-	-
C403.5	3	3	-	-	-	2						-
Average	2.3	2.00	-	-	-	2.0	-	-	-	-	-	2.00

IV Year, II SEM												
Course Name: C409(Introduction to Internet of Things - 19A04801b)									Year of Study: 2022-23			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C409.1	2	-	-	-	-	-	-	-	-	-	-	-
C409.2	3	3	3	-	2	-	-	-	-	-	-	2
C409.3	-	-	-	-	-	-	-	-	-	-	-	-
C409.4	1	-	-	-	-	-	-	-	-	-	-	-
C409.5	3	2	2	-	3	-	-	-	-	-	-	2
Average	2.25	2.50	2.50	-	2.50	-	-	-	-	-	-	2.0

CAYm2 (2018-19 Admitted Batch)

II Year, I SEM												
Course Name: C204(Signals & Systems-15A04303)									Year of Study: 2019-20			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12

C204.1	2	-	-	-	-	2	-	-	-	-	-	2
C204.2	2	-	-	-	-	2	-	-	-	-	-	2
C204.3	2	1	1	1	-		-	-	-	-	-	-
C204.4	1	3	3	3	-	2	-	-	-	-	-	-
C204.5	2	2	2	2								
Average	1.8	2.0	2.0	2.0	-	2.0	-	-	-	-	-	2.0

II Year, II SEM												
Course Name: C212(Electromagnetic Waves and Transmission lines - 15A04403)									Year of Study: 2019-20			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C212.1	2	-	-	-	-	-	-	-	-	-	-	-
C212.2	2	-	-	-	-	-	-	-	-	-	-	-
C212.3	-	2	3	2	-	-	-	-	-	-	-	-
C212.4	2	-	-	-	-	-	-	-	-	-	-	-
C212.5	-	2	2	2								
Average	2.0	2.0	2.5	2.0	-	-	-	-	-	-	-	-

III Year, I SEM												
Course Name: C302 (Antennas and Wave Propagation - 15A04501)										Year of Study: 2020-21		
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C302.1	1	-	-	-	-	-	-	-	-	-	-	-
C302.2	2	-	-	-	-	-	-	-	-	-	-	-
C302.3	2	2	2	-	-	-	-	-	-	-	-	-
C302.4	3	-	-	-	-	2	1	-	-	-	-	1
C302.5	2	3	2	-	-	-	-	-	-	-	-	-
Average	2.0	2.5	2.0	-	-	2.0	1.0	-	-	-	-	1.0

III Year, II SEM												
Course Name: C313(Digital Signal Processing - 15A04603)										Year of Study: 2020-21		
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C313.1	1	-	-	-	-	-	-	-	-	-	-	-
C313.2	-	2	2	-	-	-	-	-	-	-	-	-

C313.3	2	2	2	-	-	-	-	-	-	-	-	-
C313.4	2	3	2	2	-	-	-	-	-	-	-	-
C313.5	3	-	-	-								
Average	2.0	2.33	2.0	2.0	-	-	-	-	-	-	-	-

IV Year, I SEM												
Course Name: C402(Embedded Systems - 15A04702)									Year of Study: 2021-22			
CO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO
	1	2	3	4	5	6	7	8	9	10	11	12
C402.1	2	2	2	-	3	2	-	-	-	-	-	3
C402.2	2	2	2	-	2	2	-	-	-	-	-	2
C402.3	2	2	2	-	2	-	-	-	-	-	-	2
C402.4	-	-	-	-	1	-	-	-	-	-	-	-
C402.5	-	-	-	-	-							-
Average	2.0	2.0	2.0	-	2.0	2.0	-	-	-	-	-	2.33

IV Year, II SEM												
Course Name: C409(Low Power VLSI Circuits & Systems - 15A04802)									Year of Study: 2021-22			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C409.1	1	-	-	-	-	-	-	-	-	-	-	-
C409.2	3	2	2	2	-	-	-	-	-	-	-	-
C409.3	3	3	3	2	-	-	-	-	-	-	-	-
C409.4	2	-	-	-	-	-	-	-	-	-	-	-
C409.5	2	-	-	-	-	-	-	-	-	-	-	-
Average	2.2	2.5	2.5	-	-	-	-	-	-	-	-	-

CAYm3 (2017-18 Admitted Batch)

II Year, I SEM												
Course Name: C204(Signals & Systems-15A04303)									Year of Study: 2018-19			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C204.1	2	-	-	-	-	2	-	-	-	-	-	2

C204.2	2	-	-	-	-	2	-	-	-	-	-	2
C204.3	2	1	1	1	-		-	-	-	-	-	-
C204.4	1	3	3	3	-	2	-	-	-	-	-	-
C204.5	2	2	2	2								
Average	1.8	2.0	2.0	2.0	-	2.0	-	-	-	-	-	2.0

II Year, II SEM												
Course Name: C212(Electromagnetic Waves and Transmission lines - 15A04403)									Year of Study: 2018-19			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C212.1	2	-	-	-	-	-	-	-	-	-	-	-
C212.2	2	-	-	-	-	-	-	-	-	-	-	-
C212.3	-	2	3	2	-	-	-	-	-	-	-	-
C212.4	2	-	-	-	-	-	-	-	-	-	-	-
C212.5	-	2	2	2								
Average	2.0	2.0	2.5	2.0	-	-	-	-	-	-	-	-

III Year, I SEM												
Course Name: C302 (Antennas and Wave Propagation - 15A04501)									Year of Study: 2019-20			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C302.1	1	-	-	-	-	-	-	-	-	-	-	-
C302.2	2	-	-	-	-	-	-	-	-	-	-	-
C302.3	2	2	2	-	-	-	-	-	-	-	-	-
C302.4	3	-	-	-	-	2	1	-	-	-	-	1
C302.5	2	3	2	-	-	-	-	-	-	-	-	-
Average	2.0	2.5	2.0	-	-	2.0	1.0	-	-	-	-	1.0

III Year, II SEM												
Course Name: C313(Digital Signal Processing - 15A04603)									Year of Study: 2019-20			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C313.1	1	-	-	-	-	-	-	-	-	-	-	-

C313.2	-	2	2	-	-	-	-	-	-	-	-	-
C313.3	2	2	2	-	-	-	-	-	-	-	-	-
C313.4	2	3	2	2	-	-	-	-	-	-	-	-
C313.5	3	-	-	-								
Average	2.0	2.33	2.0	2.0	-	-	-	-	-	-	-	-

IV Year, I SEM												
Course Name: C402(Embedded Systems - 15A04702)										Year of Study: 2020-21		
CO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO
	1	2	3	4	5	6	7	8	9	10	11	12
C402.1	2	2	2	-	3	2	-	-	-	-	-	3
C402.2	2	2	2	-	2	2	-	-	-	-	-	2
C402.3	2	2	2	-	2	-	-	-	-	-	-	2
C402.4	-	-	-	-	1	-	-	-	-	-	-	-
C402.5	-	-	-	-	-							-
Average	2.0	2.0	2.0	-	2.0	2.0	-	-	-	-	-	2.33

IV Year, II SEM												
Course Name: C409(Low Power VLSI Circuits & Systems - 15A04802)									Year of Study: 2020-21			
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
C409.1	1	-	-	-	-	-	-	-	-	-	-	-
C409.2	3	2	2	2	-	-	-	-	-	-	-	-
C409.3	3	3	3	2	-	-	-	-	-	-	-	-
C409.4	2	-	-	-	-	-	-	-	-	-	-	-
C409.5	2	-	-	-	-	-	-	-	-	-	-	-
Average	2.2	2.5	2.5	-	-	-	-	-	-	-	-	-

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

“-” : No Correlation

Table 3.1.2: CO-PO Matrices

3.1.2. CO-PSO matrices of courses selected in 3.1.1 (5/5)

CAYm1 (2019-20 Admitted Batch)

II Year, I SEM		
Course Name: C202(Signals & Systems- 19A04301)		
Year of Study: 2020-21		
CO	PSO1	PSO2
C202.1	-	-
C202.2	-	-
C202.3	-	-
C202.4	2	1
C202.5	-	-
Average	2	1

II Year, II SEM		
Course Name: C211(Electromagnetic Waves and Transmission lines - 19A04401)		
Year of Study: 2020-21		
CO	PSO1	PSO2
C211.1	-	-

C211.2	-	-
C211.3	2	1
C211.4	-	-
C211.5	2	1
Average	2	1

III Year, I SEM		
Course Name: C302 (Antennas and Wave Propagation - 19A04502)		
Year of Study: 2021-22		
CO	PSO1	PSO2
C302.1	-	-
C302.2	-	-
C302.3	1	1
C302.4	-	-
C302.5	3	1
Average	2	1

III Year, II SEM		
Course Name: C313(Digital Signal Processing - 19A04602T)		
Year of Study: 2021-22		
CO	PSO1	PSO2
C313.1	-	-
C313.2	1	1
C313.3	-	-
C313.4	3	1
C313.5	-	-
Average	2	1

IV Year, I SEM		
Course Name: C403(Satellite Communications - 19A04703a)		
Year of Study: 2022-23		
CO	PSO1	PSO2
C403.1	-	-
C403.2	-	-

C403.3	-	-
C403.4	-	-
C403.5	-	-
Average	-	-

IV Year, II SEM		
Course Name: C409(Introduction to Internet of Things - 19A04801b)		
Year of Study: 2022-23		
CO	PSO1	PSO2
C409.1	-	-
C409.2	-	-
C409.3	3	2
C409.4	2	-
C409.5	3	2
Average	2.67	2

CAYm2 (2018-19 Admitted Batch)

II Year, I SEM		
Course Name: C204(Signals & Systems-15A04303)		
Year of Study: 2019-20		
CO	PSO1	PSO2
C204.1	-	-
C204.2	-	-
C204.3	-	-
C204.4	2	1
C204.5	-	-
Average	2	1

II Year, II SEM		
Course Name: C212(Electromagnetic Waves and Transmission lines - 15A04403)		
Year of Study: 2019-20		
CO	PSO1	PSO2
C212.1	-	-

C212.2	-	-
C212.3	2	1
C212.4	-	-
C212.5	2	1
Average	2	1

III Year, I SEM		
Course Name: C302 (Antennas and Wave Propagation - 15A04501)		
Year of Study: 2020-21		
CO	PSO1	PSO2
C302.1	-	-
C302.2	-	-
C302.3	1	1
C302.4	-	-
C302.5	3	1
Average	2	1

III Year, II SEM		
Course Name: C313(Digital Signal Processing - 15A04603)		
Year of Study: 2020-21		
CO	PSO1	PSO2
C313.1	-	-
C313.2	1	1
C313.3	-	-
C313.4	3	1
C313.5	-	-
Average	2	1

IV Year, I SEM		
Course Name: C402(Embedded Systems - 15A04702)		
Year of Study: 2021-22		
CO	PSO1	PSO2
C402.1	-	-
C402.2	2	2

C402.3	-	-
C402.4	1	2
C402.5	-	-
Average	1.5	2

IV Year, II SEM		
Course Name: C409(Low Power VLSI Circuits & Systems - 15A04802)		
Year of Study: 2021-22		
CO	PSO1	PSO2
C409.1	-	-
C409.2	2	2
C409.3	3	2
C409.4	-	-
C409.5	-	-
Average	2.5	2

CAYm3 (2017-18 Admitted Batch)

II Year, I SEM		
Course Name: C204(Signals & Systems-15A04303)		
Year of Study: 2018-19		
CO	PSO1	PSO2
C204.1	-	-
C204.2	-	-
C204.3	-	-
C204.4	2	1
C204.5	-	-
Average	2	1

II Year, II SEM		
Course Name: C212(Electromagnetic Waves and Transmission lines - 15A04403)		
Year of Study: 2018-19		
CO	PSO1	PSO2
C212.1	-	-

C212.2	-	-
C212.3	2	1
C212.4	-	-
C212.5	2	1
Average	2	1

III Year, I SEM		
Course Name: C302 (Antennas and Wave Propagation - 15A04501)		
Year of Study: 2019-20		
CO	PSO1	PSO2
C302.1	-	-
C302.2	-	-
C302.3	1	1
C302.4	-	-
C302.5	3	1
Average	2	1

III Year, II SEM		
Course Name: C313(Digital Signal Processing - 15A04603)		
Year of Study: 2019-20		
CO	PSO1	PSO2
C313.1	-	-
C313.2	1	1
C313.3	-	-
C313.4	3	1
C313.5	-	-
Average	2	1

IV Year, I SEM		
Course Name: C402(Embedded Systems - 15A04702)		
Year of Study: 2020-21		
CO	PSO1	PSO2
C402.1	-	-
C402.2	1	1

C402.3	-	-
C402.4	1	2
C402.5	-	-
Average	1	1.5

IV Year, II SEM		
Course Name: C409(Low Power VLSI Circuits & Systems - 15A04802)		
Year of Study: 2020-21		
CO	PSO1	PSO2
C409.1	-	-
C409.2	2	2
C409.3	3	2
C409.4	-	-
C409.5	-	-
Average	2.5	2

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

“-” : No Correlation

Table 3.1.3: CO-PSO Matrices

3.1.3. Program level Course-PO matrix of all courses including first year courses (10/10)

CAYm1 (2019-20 Admitted Batch)														
Name of the Subject	Course	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	P O
	Cod e	1	2	3	4	5	6	7	8	9	10	11	1 2	
I Year I sem														
Algebra & Calculus - 19A54101	C10 1	2. 6	2. 4	2. 2	2	-	-	-	-	-	-	-	2	2
Applied Physics- 19A56101T	C10 2	2. 4	2. 4	2. 2	-	-	-	-	-	-	-	-	-	-
Problem Solving & Programming - 19A05101T	C10 3	2. 4	2. 2	2	-	-	-	-	-	-	-	-	2	2
Communicative English 1- 19A52101T	C10 4	-	-	-	-	-	-	-	2	2. 4	2. 6	-	3	
Electronics & Communication	C10 5	2. 6	2	-	-	-	-	-	-	-	-	-	-	2

Engineering Workshop-19A04101													
Applied Physics Lab - 19A56101P	C106	2.6	2.6	2.2	-	-	-	-	-	-	-	-	-
Problem Solving & Programming Lab - 19A05101P	C107	2.4	2.2	2	-	-	-	-	-	-	-	2	2
Communicative English 1 Lab - 19A52101P	C108	-	-	-	-	-	-	-	2	2.4	2.6	-	3
I Year II sem													
Network Theory - 19A04201T	C109	2.4	2.2	2	2	-	-	-	-	-	-	-	2
Differential Equations and Vector Calculus - 19A54201	C110	2.6	2.4	2	2	-	-	-	-	-	-	-	2
Chemistry- 19A51102T	C111	2.3	2	-	-	-	-	-	-	-	-	-	-

Data Structures - 19A05201T	C11 2	2. 4	2	2	-	-	-	-	-	-	-	2.4	2
Engineering Workshop - 19A03101	C11 3	2. 4	2. 2	2	2	-	-	-	-	-	-	2	-
Engineering Graphics Lab - 19A03102	C11 4	2. 4	2	2	2	-	-	-	-	-	-	-	-
Network Theory Lab - 19A04201P	C11 5	2. 4	2. 2	2	2	-	-	-	-	-	-	-	2
Chemistry Lab - 19A51102P	C11 6	2. 3	2	-	-	-	-	-	-	-	-	-	-
Data Structures Lab- 19A05201P	C11 7	2. 4	2	2	-	-	-	-	-	-	-	2.4	2
II Year I Sem													
Complex Variables and Transforms- 19A54302	C20 1	2.4	2.3	-	2.5	-	-	-	-	-	-	-	-

Signals & Systems - 19A04301	C20 2	2	2.3 3	2	2	-	-	-	-	-	-	-	2
Electronic Devices and Circuits - 19A04302T	C20 3	2.3	2.2	2	-	-	2	-	-	-	-	-	-
Probability Theory and Stochastic Processes- 19A04303	C20 4	2.4	2.3	2.2	2	-	-	-	-	-	-	-	-
Digital Electronics and Logic Design- 19A04304	C20 5	2	2.2	2.2	-	-	-	-	-	-	-	-	-
Electrical Technology- 19A02304T	C20 6	2	2	1.5	-	2.2	-	-	-	-	-	-	-
Electronic Devices and Circuits Lab - 19A04302P	C20 7	2	2.2	2	-	-	-	-	-	-	-	-	-
Basic Simulation	C20 8	2.3	2	-	-	2.3	2	-	-	-	-	-	2

Lab - 19A04305													
Electrical Technology Lab - 19A02304P	C20 9	2	2.2	1.5	-	2.2	-	-	-	-	-	-	2
Biology For Engineers - 19A99302	C21 0	-	2	-	-	-	-	2	-	-	-	-	2
II Year II Sem													
Electromagne tic Waves and Transmission lines- 19A04401	C21 1	2.3	2.5	2.5	-	-	-	-	-	-	-	-	-
Electronic Circuits – Analysis and Design - 19A19A0440 2T	C21 2	2.3	2.2	2	-	-	-	-	-	-	-	-	-
Control Systems- 19A02404	C21 3	2	2.3	2	2	-	-	-	-	-	-	-	-
Analog	C21	2.2	2.3	2.4	-	-	-	-	-	-	-	-	-

Communications - 19A04403T	4												
Python Programming - 19A05304T	C215	2	-	1.8	-	2	-	-	-	-	-	-	2
Computer Architecture and Organization- 19A04404	C216	2	2.2	2	-	-	-	-	-	-	-	-	-
Universal Human Values- 52301	C217	-	-	-	-	-	-	-	2.6	-	2	-	2
Electronic Circuits – Analysis and Design Lab - 19A04402P	C218	2.3	2.6	2.2	-	2	-	-	-	-	-	-	-
Analog Communications Lab - 19A04403P	C219	2.2	2.3	2.6	-	-	-	-	-	-	-	-	-
Environmental Science -	C220	-	-	-	2	2	-	2.6	-	-	-	-	2

19A99301													
III Year I Sem													
Integrated Circuits and Applications- 19A54302	C30 1	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-
Antennas and Wave Propagation - 19A04502	C30 2	2.2	2.5	2.5	-	-	2	-	-	-	-	-	1
English Language Skills - 19A52601T	C30 3	-	2.2	-	2	-	-	-	-	2.2	1.6	-	2
Digital Communication- 19A52601T	C30 4	2.2	2.3	2.2	2.3	-	-	-	-	-	-	-	1.8
Data Communications and Networks - 19A04504a	C30 5	1.6	2	2.3	-	-	2	-	-	-	-	-	2
Technical Communication and	C30 6	-	2.2	-	2	-	-	-	-	2.3	1.8	-	2

Presentation Skills- 19A 2506a													
Integrated Circuits and Applications Lab- 19A04501P	C307	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-
English Language Skills Lab - 19A 52601P	C308	-	-	-	-	-	-	-	-	2.2	1.6	-	2
Digital Communications Lab - 19A 04503P	C309	2.3	2.3	2	2	-	-	-	-	-	-	-	1.6
Socially Relevant Project - 19A04507	C310	-	2	2.2	-	2	2.2	2	2	2.3	2	2	2
Research Methodology - 19A99601	C311	-	2	-	-	-	-	-	2	-	-	-	2
III Year II Sem													
Microprocessors and	C312	2.3	2	2.2	-	2.2	-	-	-	-	-	-	-

Microcontrollers - 19A04601T													
Digital Signal Processing - 19A04602T	C31 3	2.3	2.3	2.3	2	-	-	-	-	-	-	-	-
Digital System Design through VHDL- 19A04603	C31 4	2.2	2.3	2.2	-	-	2	-	-	-	-	-	-
Electrical Measurement and Electronic Instruments - 19A04605d	C31 5	2	2.3	-	-	-	-	-	-	-	-	-	-
Industrial waste and wastewater management - 19A01604a	C31 6	2	2	-	-	-	-	2.3	2	2	-	-	2
Business Ethics and Corporate Governance -	C31 7	-	-	-	-	-	-	-	2.3	2	-	2	2

19A52602c													
Digital Signal Processing Lab – 19A04602P	C318	2	2	1.5	1.5	2.2	-	-	-	-	-	-	-
Microprocessors and Microcontrollers Lab– 19A04601P	C319	2.4	2	2.3	-	2.3	-	-	-	-	-	2	2
Socially Relevant Project– 19A04606	C320	-	2	2.2	-	2	2.2	2	2	2.3	2	2	2
Constitution of India – 19A99501	C321	-	-	-	-	-	-	-	-	2	-	-	2
Industrial Training/Skill development /Research Project - 19A04607	C322	2.4	2.2	2.4	2	2.5	2	2	-	2.4	2.4	2.5	2.5
IV Year I Sem													
Microwave	C40	2.2	2.2	2	-	-	-	-	-	-	-	1.6	-

Engineering and Optical Communications-04701T	1												
VLSI Design -19A04702T	C40 2	2.2	2	2	2	-	-	-	-	-	-	-	1 . 6
Satellite Communications - 19A04703a	C40 3	2.3	2	-	-	-	2	-	-	-	-	-	2
Air pollution and control-19A01704a	C40 4	-	-	2	-	-	-	-	-	-	-	1	1
Management Science-19A52701b	C40 5	-	2	2	2	-	2	2	2	2	2	2	-
Microwave and Optical Communications Lab-04701P	C40 6	2.3	2	2	-	-	-	-	-	-	-	1.6	-
VLSI Design Lab -04702P	C40 7	2.2	2.2	2.2	2	-	-	-	-	-	-	2	2
Industrial Training/Skil	C40 8	2.4	2.2	2.4	2	2.5	2	2	-	2.4	2.4	2.5	2 .

1 Development /Research Project – 19A04705													5
IV Year II Sem													
Introduction to Internet of Things – 19A04801b	C40 9	2.2 5	2.5	2.5	-	2.5	-	-	-	-	-	-	2
Global Warming and climate changes– 19A01802b	C41 0	-	2	-	-	-	-	2	-	-	-	-	2
Project – 19A04803	C41 1	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2 .5
Average		2. 27	2. 19	2. 13	2. 01	2. 23	2. 03	2. 09	2. 10	2. 25	2. 13	2.0 0	2 .0 1
Average (%)		75 .5 9	73 .1 3	70 .8 7	67 .1 0	74 .4 4	67 .7 8	69 .6 7	70 .0 0	75 .0 0	70 .8 3	66. 67	6 7 .0

CAYm2 (2018-19 Admitted Batch)													
Name of the Subject	Course	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO
	Code	1	2	3	4	5	6	7	8	9	10	11	12
I Year I sem													
Functional English - 15A52101	C101	-	-	-	-	-	-	-	2	2.4	2.6	-	3
Mathematics-I - 15A54101	C102	2.6	2.6	2.6	2.6	2.8	-	-	-	-	-	-	2
Mathematical Methods - 15A05101	C103	2.4	2.4	2.6	2.6	2.4	-	-	-	-	-	-	2
Engineering Chemistry- 15A51101	C104	2.3	2	-	-	-	-	-	-	-	-	-	-
Environmental Studies- 15A01101	C105	-	-	-	2	2	-	2.6	-	-	-	-	2
English Language Communication Skills Lab	C106	-	-	-	-	2.4	-	-	-	2.6	2.4	-	2

- 15A52102													
Engineering Chemistry Lab- 15A51102	C1 07	2	1.8	-	-	-	-	-	-	-	-	-	-
Computer Programming Lab- 15A05102	C1 08	1.6	2	2	-	-	-	-	-	-	-	2	2
I Year II sem													
English for Professional Communication- 15A52201	C1 09	-	2.2	-	2		-	-	-	2.2	1.6	-	2
Mathematics – II- 15A54201	C1 10	2.6	2.6	2.6	2.6	2.8	-	-	-	-	-	-	2
Network Analysis- 15A04201	C1 11	2	2	2	2	-	-	-	-	-	-	2	2
Engineering Physics - 15A56101	C1 12	2.3	2	-	-	-	-	-	-	-	-	-	-
Engineering Drawing -	C1 13	1.8	2	2	-	-	-	-	-	-	-	-	-

15A03101													
Network Analysis Lab - 15A04202	C1 14	2.2	2.2	2.3	2.3	-	-	-	-	-	-	-	-
Engineering Physics Lab - 15A56102	C1 15	2	1.8	-	-	-	-	-	-	-	-	-	-
Engineering and IT Workshop - 15A99201	C1 16	2	2	2	-	-	-	-	-	-	-	2	2
II Year I Sem													
Mathematics- III- 15A54301	C2 01	2.3	2.2	-	2.3	-	-	-	-	-	-	-	-
Electronic Devices and Circuits- 15A04301	C2 02	2.2	2.2	2	-	-	2	-	-	-	-	-	-
Switching Theory and Logic Design - 15A04302	C2 03	2	2.2	2	-	-	-	-	-	-	-	-	-
Signals and Systems- 15A04303	C2 04	2	2.3	2	2	-	2	-	-	-	-	-	2

Probability Theory and Stochastic Processes- 15A04304	C2 05	2	2.2	2.2	2	-	-	-	-	-	-	-	-
Electrical Technology- 15A02306	C2 06	2	2	1.5	-	2.2	-	-	-	-	-	-	-
Electronic Devices and Circuits Lab - 15A04305	C2 07	2	2.2	2	-	-	-	-	-	-	-	-	-
Electrical Technology and Basic Simulation Laboratory - 15A02307	C2 08	2	2	1.5	-	2.2	-	-	-	-	-	-	-
II Year II Sem													
Mathematics-IV- 15A54402	C2 09	2.2	2	2	2	-	-	-	-	-	-	-	-
Electronic Circuit Analysis - 15A04401	C2 10	2.2	2.2	2	-	-	-	-	-	-	-	-	-
Analog	C2	2	2.3	2.2	-	-	-	-	-	-	-	-	-

Communication Systems- 15A04402	11												
Electromagnetic Theory and Transmission Lines - 15A04403	C2 12	2.2	2.3	2.4	-	-	-	-	-	-	-	-	-
Data Structures- 15A05201	C2 13	2	-	-	-	2	-	-	-	-	-	-	2
Control Systems Engineering- 15A02303	C2 14	2	2.2	2	2	-	-	-	-	-	-	-	-
Electronic Circuit Analysis Laboratory- 15A04404	C2 15	2.2	2.3	2.2	-	-	-	-	-	-	-	-	-
Analog Communication Systems Laboratory - 15A04405	C2 16	2.2	2.3	2.3	-	-	-	-	-	-	-	-	-
Comprehensive Online	C2	-	-	-	-	-	-	-	-	-	2	-	-

Examination-I - 15A04406	17													
III Year I Sem														
Computer Organization- 15A04511	C3 01	2	2	2	-	-	-	-	-	-	-	-	-	-
Antennas and Wave Propagation - 15A04501	C3 02	2.2	2.3	2.3	-	-	2	-	-	-	-	-	-	-
Digital Communicati on Systems - 15A04502	C3 03	2	2.2	2.2	2.2	-	-	-	-	-	-	-	-	1.8
Linear Integrated Circuits and Applications- 15A04503	C3 04	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-	-
Digital System Design - 15A04504	C3 05	2.2	2.3	2.2	-	-	2	-	-	-	-	-	-	-
Linux Programming & Scripting-	C3 06	2	-	-	-	2	-	-	-	-	-	-	-	2

15A04505													
IC Applications Laboratory- 15A04507	C3 07	2.2	2.3	2.2	-	-	-	-	-	-	-	-	-
Digital Communication Systems Laboratory - 15A04508	C3 08	2.3	2.3	2	2	-	-	-	-	-	-	-	-
Audit course – Social Values & Ethics - 15A99501	C3 09	-	-	-	-	-	-	-	3	-	2	-	2
III Year II Sem													
Managerial Economics and Financial Analysis - 15A52301	C3 10	-	-	-	-	-	-	-	-	-	2	2	2
Microprocessors & Microcontrollers - 15A04601	C3 11	2.2	2	2.2	-	2	-	-	-	-	-	-	-
Electronic Measurement	C3 12	2	2	-	-	-	-	-	-	-	-	-	-

s and Instrumentation- 15A04602													
Digital Signal Processing – 15A04603	C3 13	2.3	2.3	2.3	2	-	-	-	-	-	-	-	-
VLSI Design – 15A04604	C3 14	2.2	2	2	2	-	-	-	-	-	-	-	1.6
MATLAB Programming - 15A04605	C3 15	2	2	2	2	-	-	-	-	-	-	2	2
Microprocessors & Microcontrollers Laboratory –15A04607	C3 16	2.4	2	2.3	-	2.3	-	-	-	-	-	2	2
Digital Signal Processing Laboratory– 15A04608	C3 17	2	2	1.5	1.5	2.2	-	-	-	-	-	-	-
Advanced English Language Communication Skills Lab–	C3 18	-	-	-	-	-	-	-	-	2.2	2.2	-	2

15A52602														
Comprehensive Online Examination-II- 15A04609	C3 19	-	-	-	-	-	-	-	-	-	-	2	-	-
IV Year I Sem														
Optical Fiber Communication-15A04701	C4 01	2.2	2	2	2	-	-	-	-	-	-	-	1.6	-
Embedded Systems – 15A04702	C4 02	2	2	2	-	2	2	-	-	-	-	-	-	2.3 3
Microwave Engineering - 15A04703	C4 03	2.2	2	2	-	-	-	-	-	-	-	-	1.6	-
Data Communications and Networking – 15A04704	C4 04	1.6	2	2.3	-	-	2	-	-	-	-	-	-	2
Radar Systems– 15A04705	C4 05	2.2	2.2	2.2	-	-	-	-	-	-	-	-	1.6	-
Digital Image Processing–	C4 06	2.3	2	2	-	-	-	-	-	-	-	-	2	2

15A04708													
Microwave and Optical Communication Laboratory –15A04711	C407	2.3	2	2	-	-	-	-	-	-	-	1.6	-
VLSI & Embedded Systems Laboratory – 15A04712	C408	2.2	2.2	2.2	2	-	-	-	-	-	-	2	2
IV Year II Sem													
Low Power VLSI Circuits & Systems – 15A04802	C409	2.2	2.2	2	2	-	-	-	-	-	-	2	2
RF Integrated Circuits– 15A04804	C410	2	2	-	-	-	-	-	-	-	-	2	-
Comprehensive Viva Voce – 15A04805	C411	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5
Technical Seminar - 15A04806	C412	2.6	2.3	2.6	2	2.2	2	2	-	2.4	2.3	-	2

Project Work - 15A04807	C4 13	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5
Average		2. 17	2. 16	2. 12	2. 09	2. 28	2. 00	2. 30	2. 50	2. 40	2. 14	1. 89	2. 05
Average (%)		72 .3 8	71 .9 4	70 .7 9	69 .5 2	75 .9 5	66 .6 7	76 .6 7	83 .3 3	80 .0 0	71 .4 8	62 .8 6	68 .3 1

Table 3.1.5: Course-PO Matrix

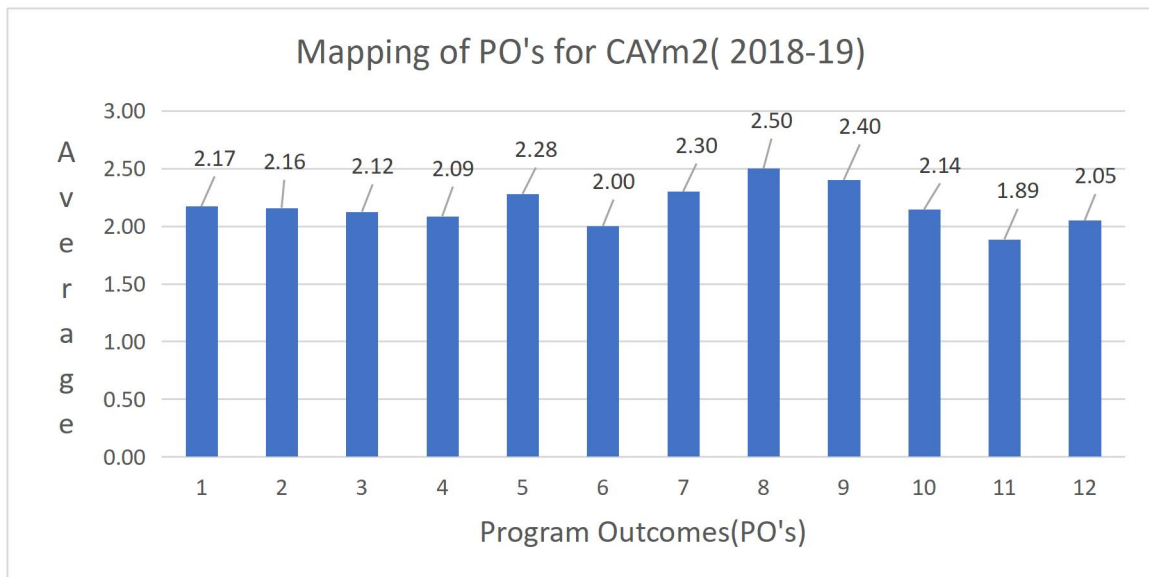


Fig 3.1.2 : Course-PO Matrix

CAYm3 (2017-18 Admitted Batch)													
Name of the Subject	Course	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO
	Code	1	2	3	4	5	6	7	8	9	10	11	12
I Year I sem													
Functional English - 15A52101	C101	-	-	-	-	-	-	-	2	2.4	2.6	-	3
Mathematics-I - 15A54101	C102	2.6	2.6	2.6	2.6	2.8	-	-	-	-	-	-	2
Mathematical Methods - 15A05101	C103	2.4	2.4	2.6	2.6	2.4	-	-	-	-	-	-	2
Engineering Chemistry- 15A51101	C104	2.3	2	-	-	-	-	-	-	-	-	-	-
Environmental Studies- 15A01101	C105	-	-	-	2	2	-	2.6	-	-	-	-	2
English Language Communicati	C106	-	-	-	-	2.4	-	-	-	2.6	2.4	-	2

on Skills Lab - 15A52102													
Engineering Chemistry Lab- 15A51102	C1 07	2	1.8	-	-	-	-	-	-	-	-	-	-
Computer Programming Lab- 15A05102	C1 08	1.6	2	2	-	-	-	-	-	-	-	2	2
I Year II sem													
English for Professional Communicati on- 15A52201	C1 09	-	2.2	-	2		-	-	-	2.2	1.6	-	2
Mathematics - II- 15A54201	C1 10	2.6	2.6	2.6	2.6	2.8	-	-	-	-	-	-	2
Network Analysis- 15A04201	C1 11	2	2	2	2	-	-	-	-	-	-	2	2
Engineering Physics - 15A56101	C1 12	2.3	2	-	-	-	-	-	-	-	-	-	-
Engineering Drawing -	C1	1.8	2	2	-	-	-	-	-	-	-	-	-

15A03101	13												
Network Analysis Lab - 15A04202	C1 14	2.2	2.2	2.3	2.3	-	-	-	-	-	-	-	-
Engineering Physics Lab - 15A56102	C1 15	2	1.8	-	-	-	-	-	-	-	-	-	-
Engineering and IT Workshop - 15A99201	C1 16	2	2	2	-	-	-	-	-	-	-	2	2
II Year I Sem													
Mathematics- III- 15A54301	C2 01	2.3	2.2	-	2.3	-	-	-	-	-	-	-	-
Electronic Devices and Circuits- 15A04301	C2 02	2.2	2.2	2	-	-	2	-	-	-	-	-	-
Switching Theory and Logic Design - 15A04302	C2 03	2	2.2	2	-	-	-	-	-	-	-	-	-
Signals and Systems- 15A04303	C2 04	2	2.3	2	2	-	2	-	-	-	-	-	2

Probability Theory and Stochastic Processes- 15A04304	C2 05	2	2.2	2.2	2	-	-	-	-	-	-	-	-
Electrical Technology- 15A02306	C2 06	2	2	1.5	-	2.2	-	-	-	-	-	-	-
Electronic Devices and Circuits Lab - 15A04305	C2 07	2	2.2	2	-	-	-	-	-	-	-	-	-
Electrical Technology and Basic Simulation Laboratory - 15A02307	C2 08	2	2	1.5	-	2.2	-	-	-	-	-	-	-
II Year II Sem													
Mathematics-IV- 15A54402	C2 09	2.2	2	2	2	-	-	-	-	-	-	-	-
Electronic Circuit Analysis - 15A04401	C2 10	2.2	2.2	2	-	-	-	-	-	-	-	-	-
Analog	C2	2	2.3	2.2	-	-	-	-	-	-	-	-	-

Communication Systems- 15A04402	11												
Electromagnetic Theory and Transmission Lines - 15A04403	C2 12	2.2	2.3	2.4	-	-	-	-	-	-	-	-	-
Data Structures- 15A05201	C2 13	2	-	-	-	2	-	-	-	-	-	-	2
Control Systems Engineering- 15A02303	C2 14	2	2.2	2	2	-	-	-	-	-	-	-	-
Electronic Circuit Analysis Laboratory- 15A04404	C2 15	2.2	2.3	2.2	-	-	-	-	-	-	-	-	-
Analog Communication Systems Laboratory - 15A04405	C2 16	2.2	2.3	2.3	-	-	-	-	-	-	-	-	-
Comprehensive Online	C2	-	-	-	-	-	-	-	-	-	2	-	-

Examination-I - 15A04406	17												
III Year I Sem													
Computer Organization- 15A04511	C3 01	2	2	2	-	-	-	-	-	-	-	-	-
Antennas and Wave Propagation - 15A04501	C3 02	2.2	2.3	2.3	-	-	2	-	-	-	-	-	-
Digital Communicati on Systems - 15A04502	C3 03	2	2.2	2.2	2.2	-	-	-	-	-	-	-	1.8
Linear Integrated Circuits and Applications- 15A04503	C3 04	2.2	2.4	2.2	-	-	-	-	-	-	-	-	-
Digital System Design - 15A04504	C3 05	2.2	2.3	2.2	-	-	2	-	-	-	-	-	-
Linux Programming & Scripting-	C3 06	2	-	-	-	2	-	-	-	-	-	-	2

15A04505													
IC Applications Laboratory- 15A04507	C3 07	2.2	2.3	2.2	-	-	-	-	-	-	-	-	-
Digital Communication Systems Laboratory - 15A04508	C3 08	2.3	2.3	2	2	-	-	-	-	-	-	-	-
Audit course – Social Values & Ethics - 15A99501	C3 09	-	-	-	-	-	-	-	3	-	2	-	2
III Year II Sem													
Managerial Economics and Financial Analysis - 15A52301	C3 10	-	-	-	-	-	-	-	-	-	2	2	2
Microprocessors & Microcontrollers - 15A04601	C3 11	2.2	2	2.2	-	2	-	-	-	-	-	-	-
Electronic Measurement	C3 12	2	2	-	-	-	-	-	-	-	-	-	-

s and Instrumentation- 15A04602													
Digital Signal Processing – 15A04603	C3 13	2.3	2.3	2.3	2	-	-	-	-	-	-	-	-
VLSI Design – 15A04604	C3 14	2.2	2	2	2	-	-	-	-	-	-	-	1.6
MATLAB Programming - 15A04605	C3 15	2	2	2	2	-	-	-	-	-	-	2	2
Microprocessors & Microcontrollers Laboratory –15A04607	C3 16	2.4	2	2.3	-	2.3	-	-	-	-	-	2	2
Digital Signal Processing Laboratory– 15A04608	C3 17	2	2	1.5	1.5	2.2	-	-	-	-	-	-	-
Advanced English Language Communication Skills Lab–	C3 18	-	-	-	-	-	-	-	-	2.2	2.2	-	2

15A52602														
Comprehensive Online Examination-II- 15A04609	C3 19	-	-	-	-	-	-	-	-	-	-	2	-	-
IV Year I Sem														
Optical Fiber Communication-15A04701	C4 01	2.2	2	2	2	-	-	-	-	-	-	-	1.6	-
Embedded Systems – 15A04702	C4 02	2	2	2	-	2	2	-	-	-	-	-	-	2.3 3
Microwave Engineering - 15A04703	C4 03	2.2	2	2	-	-	-	-	-	-	-	-	1.6	-
Data Communications and Networking – 15A04704	C4 04	1.6	2	2.3	-	-	2	-	-	-	-	-	-	2
Radar Systems– 15A04705	C4 05	2.2	2.2	2.2	-	-	-	-	-	-	-	-	1.6	-
Digital Image Processing–	C4 06	2.3	2	2	-	-	-	-	-	-	-	-	2	2

15A04708													
Microwave and Optical Communication Laboratory –15A04711	C407	2.3	2	2	-	-	-	-	-	-	-	1.6	-
VLSI & Embedded Systems Laboratory – 15A04712	C408	2.2	2.2	2.2	2	-	-	-	-	-	-	2	2
IV Year II Sem													
Low Power VLSI Circuits & Systems – 15A04802	C409	2.2	2.2	2	2	-	-	-	-	-	-	2	2
RF Integrated Circuits– 15A04804	C410	2	2	-	-	-	-	-	-	-	-	2	-
Comprehensive Viva Voce – 15A04805	C411	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5
Technical Seminar - 15A04806	C412	2.6	2.3	2.6	2	2.2	2	2	-	2.4	2.3	-	2

Project Work - 15A04807	C4 13	3	2.4	3	2	2.6	2	2	-	2.6	2.5	2	2.5
Average		2. 17	2. 16	2. 12	2. 09	2. 28	2. 00	2. 30	2. 50	2. 40	2. 14	1. 89	2. 05
Average (%)		72 .3 8	71 .9 4	70 .7 9	69 .5 2	75 .9 5	66 .6 7	76 .6 7	83 .3 3	80 .0 0	71 .4 8	62 .8 6	68 .3 1

Table 3.1.6: Course- PO Matrix

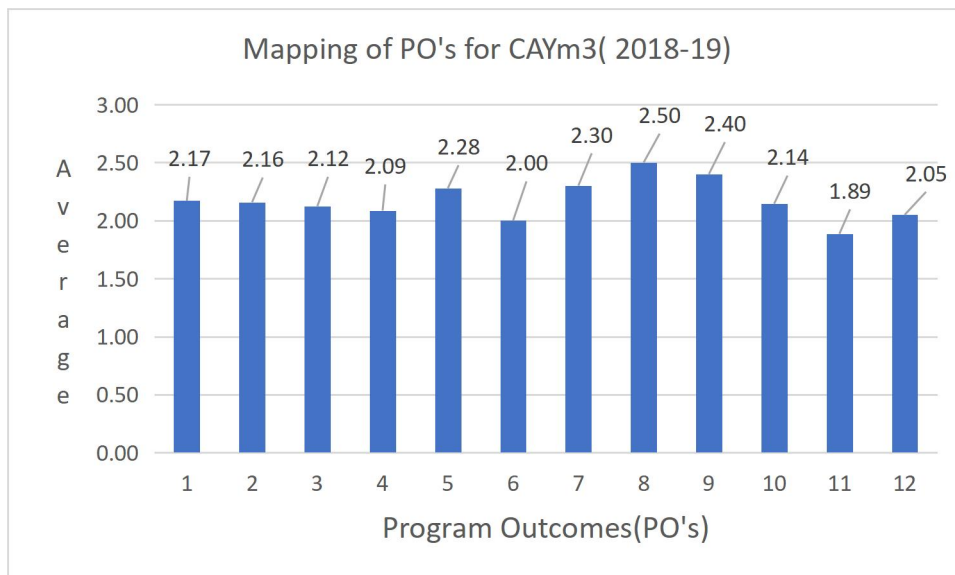


Fig 3.1.3 : Course-PO Matrix

3.1.3. Program level Course-PSO matrix of all courses including first year courses (10/10)

CAYm1(2019-20 Admitted Batch)

Year	Name of the subject	Course Code	PSO1	PSO2
I Year I sem	Algebra & Calculus - 19A54101	C101	2.2	-
	Applied Physics- 19A56101T	C102	-	-
	Problem Solving & Programming- 19A05101T	C103	2.2	1.5
	Communicative English 1- 19A52101T	C104	-	2
	Electronics & Communication Engineering Workshop- 19A04101	C105	2.4	-
	Applied Physics Lab - 19A56101P	C106	-	-
	Problem Solving & Programming Lab - 19A05101P	C107	2.3	2
	Communicative English 1 Lab - 19A52101P	C108	-	2.6
I Year II sem	Network Theory - 19A04201T	C109	-	-
	Differential Equations and Vector Calculus - 19A54201	C110	2	-
	Chemistry- 19A51102T	C111	-	-
	Data Structures - 19A05201T	C112	-	-

	Engineering Workshop - 19A03101	C113	2.4	2.3
	Engineering Graphics Lab - 19A03102	C114	-	-
	Network Theory Lab - 19A04201P	C115	-	-
	Chemistry Lab - 19A51102P	C116	-	-
	Data Structures Lab- 19A05201P	C117	2	-
II Year, I Sem	Complex Variables and Transforms- 19A54302	C201	2.2	2
	Signals & Systems - 19A04301	C202	2	1
	Electronic Devices and Circuits - 19A04302T	C203	2	1.5
	Probability Theory and Stochastic Processes- 19A04303	C204	-	2
	Digital Electronics and Logic Design- 19A04304	C205	2.2	2
	Electrical Technology- 19A02304T	C206	-	-
	Electronic Devices and Circuits Lab - 19A04302P	C207	2.5	2
	Basic Simulation Lab - 19A04305	C208	2	2.5
	Electrical Technology Lab - 19A02304P	C209	-	-
	Biology For Engineers - 19A99302	C210	-	-
II Year, II Sem	Electromagnetic Waves and Transmission lines- 19A04401	C211	2	1

	Electronic Circuits – Analysis and Design - 19A19A04402T	C212	3	2
	Control Systems- 19A02404	C213	3	2
	Analog Communications - 19A04403T	C214	1	1
	Python Programming- 19A05304T	C215	3	2
	Computer Architecture and Organization- 19A04404	C216	-	-
	Universal Human Values-19A52301	C217	-	2
	Electronic Circuits – Analysis and Design Lab - 19A04402P	C218	2	2
	Analog Communications Lab - 19A04403P	C219	-	-
	Environmental Science - 19A99301	C220	-	-
III Year, I Sem	Integrated Circuits and Applications- 19A54302	C301	2	-
	Antennas and Wave Propagation - 19A04502	C302	2	1
	English Language Skills - 19A52601T	C303	-	2.2
	Digital Communication- 19A 52601T	C304	1.5	-
	Data Communications and Networks - 19A04504a	C305	-	-
	Technical Communication and Presentation Skills- 19A2506a	C306	-	3

	Integrated Circuits and Applications Lab- 19A04501P	C307	2	-
	English Language Skills Lab - 19A 52601P	C308	-	3
	Digital Communications Lab - 19A 04503P	C309	2	2
	Socially Relevant Project - 19A04507	C310	2.3	3
	Research Methodology - 19A99601	C311	2.2	3
III Year, II Sem	Microprocessors and Microcontrollers - 19A04601T	C312	2	-
	Digital Signal Processing - 19A04602T	C313	2.5	-
	Digital System Design through VHDL- 19A04603	C314	2	2.5
	Electrical Measurement and Electronic Instruments – 19A04605d	C315	-	-
	Industrial waste and wastewater management – 19A01604a	C316	-	-
	Business Ethics and Corporate Governance - 19A52602c	C317	-	-
	Digital Signal Processing Lab –19A04602P	C318	2.3	-
	Microprocessors and Microcontrollers Lab- 19A04601P	C319	2	-
	Socially Relevant Project–19A04606	C320	-	2.5

	Constitution of India – 19A99501	C321	-	2.5
	Industrial Training/Skill development/Research Project -19A04607	C322	2.5	2.6
IV Year, I Sem	Microwave Engineering and Optical Communications–19A04701T	C401	2	-
	VLSI Design –19A04702T	C402	2	-
	Satellite Communications - 19A04703a	C403	-	-
	Air pollution and control–19A01704a	C404	-	-
	Management Science–19A52701b	C405	-	2
	Microwave and Optical Communications Lab–04701P	C406	-	-
	VLSI Design Lab –04702P	C407	2	1.5
	Industrial Training/Skill Development/Research Project –19A04705	C408	2.3	2.3
IV Year, II Sem	Introduction to Internet of Things – 19A04801b	C409	2.5	2.5
	Global Warming and climate changes– 19A01802b	C410	-	-
	Project –19A04803	C411	2.6	2.6
Average			2.19	2.14
Average (%)			72.89	71.18

Table 3.1.7: Course- PSO Matrix

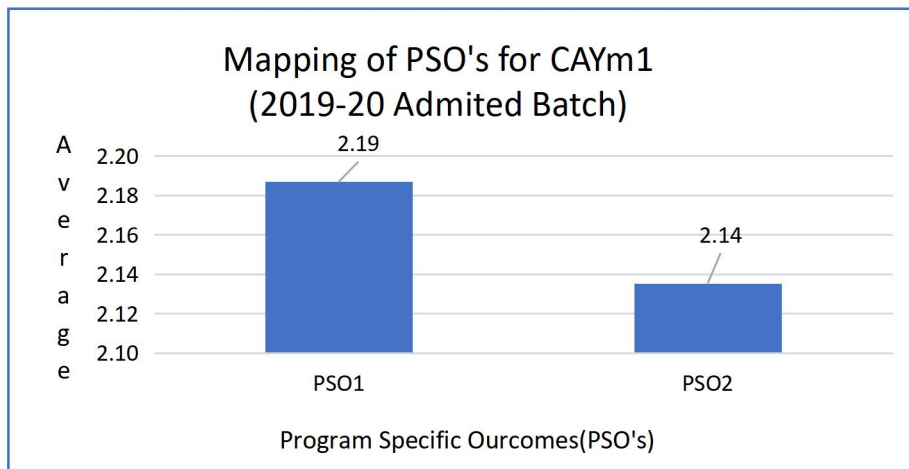


Fig. 3.1.4: Course- PSO Matrix

CAYm2(2018-19 Admitted Batch)

Year	Name of the subject	Course Code	PSO1	PSO2
I Year I sem	Functional English - 15A52101	C101	-	2
	Mathematics-I - 15A54101	C102	2	-
	Mathematical Methods - 15A05101	C103	1.8	-
	Engineering Chemistry- 15A51101	C104	-	-
	Environmental Studies- 15A01101	C105	-	-
	English Language Communication Skills Lab - 15A52102	C106	-	2
	Engineering Chemistry Lab- 15A51102	C107	-	-
	Computer Programming Lab- 15A05102	C108	-	2
I Year II sem	English for Professional Communication- 15A52201	C109	-	2
	Mathematics – II- 15A54201	C110	-	-
	Network Analysis- 15A04201	C111	2	-
	Engineering Physics - 15A56101	C112	-	-
	Engineering Drawing -15A03101	C113	1.6	-
	Network Analysis Lab - 15A04202	C114	2.3	-
	Engineering Physics Lab - 15A56102	C115	-	-

	Engineering and IT Workshop - 15A99201	C116	-	1.6
II Year, I Sem	Mathematics-III- 15A54301	C201	2	-
	Electronic Devices and Circuits- 15A04301	C202	2	-
	Switching Theory and Logic Design - 15A04302	C203	1.8	1.5
	Signals and Systems-15A04303	C204	2	2
	Probability Theory and Stochastic Processes- 15A04304	C205	2	2
	Electrical Technology- 15A02306	C206	-	-
	Electronic Devices and Circuits Lab - 15A04305	C207	2.2	-
	Electrical Technology and Basic Simulation Laboratory - 15A02307	C208	2	2
II Year, II Sem	Mathematics-IV- 15A54402	C209	2	1
	Electronic Circuit Analysis - 15A04401	C210	2.3	2
	Analog Communication Systems- 15A04402	C211	2	2
	Electromagnetic Theory and Transmission Lines - 15A04403	C212	1	-
	Data Structures- 15A05201	C213	2.6	2
	Control Systems Engineering- 15A02303	C214	-	-
	Electronic Circuit Analysis Laboratory-15A04404	C215	2	1.8
	Analog Communication Systems Laboratory -	C216	2	1.8

	15A04405			
	Comprehensive Online Examination-I - 15A04406	C217	-	-
III Year, I Sem	Computer Organization- 15A04511	C301	2	-
	Antennas and Wave Propagation - 15A04501	C302	2	-
	Digital Communication Systems - 15A04502	C303	2.2	2
	Linear Integrated Circuits and Applications- 15A04503	C304	1.5	-
	Digital System Design - 15A04504	C305	-	-
	Linux Programming & Scripting- 15A04505	C306	1	3
	IC Applications Laboratory- 15A04507	C307	2	-
	Digital Communication Systems Laboratory - 15A04508	C308	2.2	2.6
	Audit course – Social Values & Ethics - 15A99501	C309	2	2
III Year, II Sem	Managerial Economics and Financial Analysis - 15A52301	C310	2	-
	Microprocessors & Microcontrollers - 15A04601	C311	2.3	-
	Electronic Measurements and Instrumentation- 15A04602	C312	-	2.2
	Digital Signal Processing – 15A04603	C313	2.2	1.8
	VLSI Design –15A04604	C314	2	1.8
	MATLAB Programming - 15A04605	C315	-	2

	Microprocessors & Microcontrollers Laboratory – 15A04607	C316	2.3	-
	Digital Signal Processing Laboratory–15A04608	C317	2	2
	Advanced English Language Communication Skills Lab–15A52602	C318	-	2.5
	Comprehensive Online Examination-II– 15A04609	C319	-	2.5
IV Year, I Sem	Optical Fiber Communication–15A04701	C401	1.8	-
	Embedded Systems –15A04702	C402	2	-
	Microwave Engineering - 15A04703	C403	-	-
	Data Communications and Networking – 15A04704	C404	-	-
	Radar Systems–15A04705	C405	-	2
	Digital Image Processing–15A04708	C406	-	-
	Microwave and Optical Communication Laboratory –15A04711	C407	2	1.5
	VLSI & Embedded Systems Laboratory – 15A04712	C408	2.3	2.3
IV Year, II Sem	Low Power VLSI Circuits & Systems – 15A04802	C409	2.5	2.5
	RF Integrated Circuits–15A04804	C410	-	-
	Comprehensive Viva Voce –15A04805	C411	2.6	2.6
	Technical Seminar - 15A04806	C412	-	-

	Project Work - 15A04807	C413	-	-
Average			2.024	2.054
Average (%)			67.47	68.46

Table 3.1.8: Course- PSO Matrix

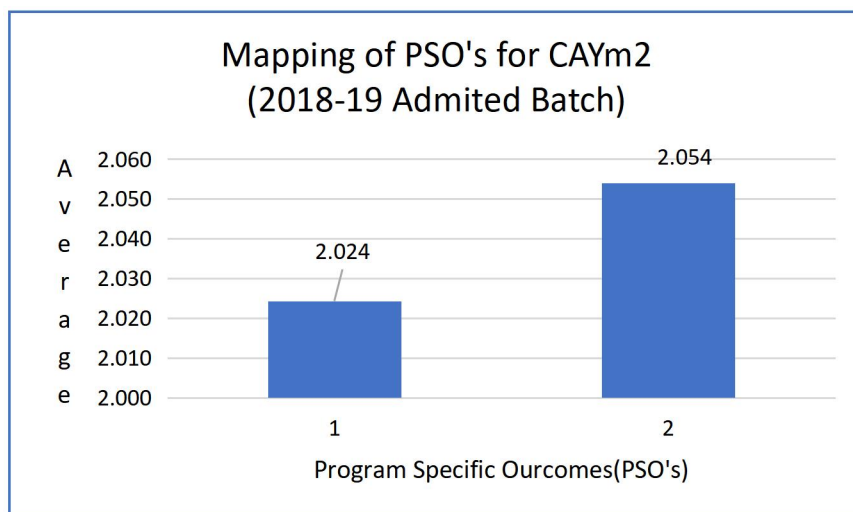


Fig 3.1.5: Course- PSO Matrix

CAYm3(2017-18 Admitted Batch)

Year	Name of the subject	Course Code	PSO 1	PSO 2
I Year I sem	Functional English - 15A52101	C101	-	2
	Mathematics-I - 15A54101	C102	2	-
	Mathematical Methods - 15A05101	C103	1.8	-
	Engineering Chemistry- 15A51101	C104	-	-
	Environmental Studies- 15A01101	C105	-	-
	English Language Communication Skills Lab - 15A52102	C106	-	2
	Engineering Chemistry Lab- 15A51102	C107	-	-
	Computer Programming Lab- 15A05102	C108	-	2
I Year II sem	English for Professional Communication- 15A52201	C109	-	2
	Mathematics – II- 15A54201	C110	-	-
	Network Analysis- 15A04201	C111	2	-
	Engineering Physics - 15A56101	C112	-	-
	Engineering Drawing -15A03101	C113	1.6	-
	Network Analysis Lab - 15A04202	C114	2.3	-
	Engineering Physics Lab - 15A56102	C115	-	-

	Engineering and IT Workshop - 15A99201	C116	-	1.6
II Year, I Sem	Mathematics-III- 15A54301	C201	2	-
	Electronic Devices and Circuits- 15A04301	C202	2	-
	Switching Theory and Logic Design - 15A04302	C203	1.8	1.5
	Signals and Systems-15A04303	C204	2.2	2
	Probability Theory and Stochastic Processes- 15A04304	C205	2	2
	Electrical Technology- 15A02306	C206	-	-
	Electronic Devices and Circuits Lab - 15A04305	C207	2.2	-
	Electrical Technology and Basic Simulation Laboratory - 15A02307	C208	2	2
II Year, II Sem	Mathematics-IV- 15A54402	C209	2	1
	Electronic Circuit Analysis - 15A04401	C210	2.3	2
	Analog Communication Systems- 15A04402	C211	2	2
	Electromagnetic Theory and Transmission Lines - 15A04403	C212	1	-
	Data Structures- 15A05201	C213	2.3	2
	Control Systems Engineering- 15A02303	C214	-	-
	Electronic Circuit Analysis Laboratory-15A04404	C215	2	1.8
	Analog Communication Systems Laboratory -	C216	2	1.8

	15A04405			
	Comprehensive Online Examination-I - 15A04406	C217	-	-
III Year, I Sem	Computer Organization- 15A04511	C301	2	-
	Antennas and Wave Propagation - 15A04501	C302	2	-
	Digital Communication Systems - 15A04502	C303	2.2	2
	Linear Integrated Circuits and Applications- 15A04503	C304	1.5	-
	Digital System Design - 15A04504	C305	-	-
	Linux Programming & Scripting- 15A04505	C306	1	3
	IC Applications Laboratory- 15A04507	C307	2	-
	Digital Communication Systems Laboratory - 15A04508	C308	2.2	2.6
	Audit course – Social Values & Ethics - 15A99501	C309	2	2
III Year, II Sem	Managerial Economics and Financial Analysis - 15A52301	C310	2	-
	Microprocessors & Microcontrollers - 15A04601	C311	2.3	-
	Electronic Measurements and Instrumentation- 15A04602	C312	-	2.2
	Digital Signal Processing – 15A04603	C313	2.2	1.8
	VLSI Design –15A04604	C314	2	1.8
	MATLAB Programming - 15A04605	C315	-	2

	Microprocessors & Microcontrollers Laboratory – 15A04607	C316	2.3	-
	Digital Signal Processing Laboratory–15A04608	C317	2	2
	Advanced English Language Communication Skills Lab–15A52602	C318	-	2.5
	Comprehensive Online Examination-II– 15A04609	C319	-	2.5
IV Year, I Sem	Optical Fiber Communication–15A04701	C401	1.8	-
	Embedded Systems –15A04702	C402	2	-
	Microwave Engineering - 15A04703	C403	-	-
	Data Communications and Networking – 15A04704	C404	-	-
	Radar Systems–15A04705	C405	-	2
	Digital Image Processing–15A04708	C406	-	-
	Microwave and Optical Communication Laboratory –15A04711	C407	2	1.5
	VLSI & Embedded Systems Laboratory –15A04712	C408	2.3	2.3
IV Year, II Sem	Low Power VLSI Circuits & Systems – 15A04802	C409	2.2	2.2
	RF Integrated Circuits–15A04804	C410	-	-
	Comprehensive Viva Voce –15A04805	C411	2.4	2.4
	Technical Seminar - 15A04806	C412	-	-

Project Work - 15A04807	C413	-	-
Average		2.00 0	2.03 5
Average (%)		66.6 7	67.8 2

Table 3.1.9: Course- PSO Matrix

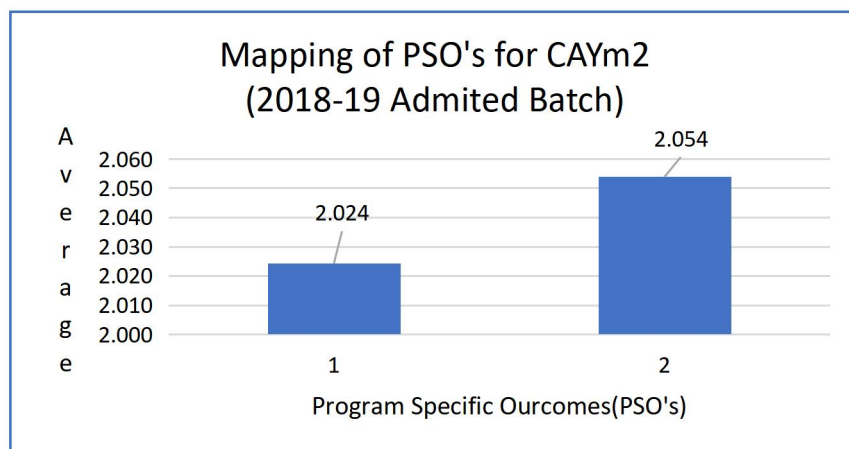


Fig. 3.1.6: Course- PSO Matrix

3.2. Attainment of Course Outcomes (50/50)

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

(Examples of data collection processes may include, but are not limited to, specific exam/tutorial questions, assignments, laboratory tests, project evaluation, student portfolios (A portfolio is a collection of artifacts that demonstrate skills, personal characteristics and accomplishments created by the student during study period), internally developed assessment exams, project presentations, oral exams etc.)

Course Outcomes are the basic units of Outcome Based Education (OBE) Evaluation System. Having formulated the course outcomes, the next step is to devise a plan for assessing their attainment. Assessment refers to a wide variety of methods or tools used to evaluate, measure and document the academic preparedness, learning Progress, skill acquisition of students.

3.2.1 PROCESS OUTLINE:

The assessment process is a systematic approach implemented to attain course outcomes. The process is indicated through a step-by-step process. It includes Direct and Indirect assessment processes.

I. Direct Assessment Process:

3.2.1.(a) Assessment Methods

The assessment tools required for each category of courses like- theory, lab, projects and seminars are identified respectively to assess each course outcome using the following methods:

Continuous Internal Evaluation (CIE) is done by the department and hence performance of each student in individual COs is available. CIE involves internal exams, assignments for theory and internal exams for a lab course.

Semester End Examination (SEE) for theory courses is conducted and

evaluated by the affiliating university. The department is provided with information regarding the marks obtained by each student in every course of the semester. SEE lab exam is conducted by the university at the institution level and the evaluation is done by an external examiner appointed by the university.

The assessment is carried through continuous internal Evaluation and Semester End Examination with the following proportions:

- Proportional weightages of CIE: SEE is 30:70 for the Theory Courses
- Proportional weightages of CIE: SEE is 30:70 for the Laboratory Courses

The Table 3.2.1 shows the category of courses and their respective assessment tools

Category of course	Assessment tools used
Theory Courses	CIE - Internal examinations ,assignments SEE-University examination
Laboratory Courses	CIE – continuous evaluation, circuit design and validation / program development as per specifications, testing and debugging, observation table graphs. SEE- external lab examination, viva voce.
Industry Oriented Mini project	SEE -abstract, literature survey, software/ Hardware requirement specification and design, implementation, project demonstration, presentation, project report and team

	effort.
Seminar	CIE - abstract, literature survey, seminar and seminar report.
Major Project	CIE&SEE - abstract, literature survey, software/ Hardware requirements specification and design, implementation, project demonstration, presentation, project report and team effort.

Table 3.2.1: CO-PSO**Assessment Tools****3.2.1.b) Marks Division:**

The division of marks prescribed by the university and the weightages arriving at the attainment of CO are given in the below Table 3.2.2.

Type Of Course	Internal Marks CIE	External Marks SEE	Total Marks	Final attainment level as per weightage
Theory Courses	30	70	100	0.3*(Internal attainment) + 0.7*(External attainment)
Laboratory Courses	30	70	100	0.3*(Internal attainment) +

				0.7*(External attainment)
Seminar	30	-	30	CIE Level

Category of course	Assessment Tools Used			Frequency of Data Collected
Theory	CIE - Internal examinations, assignments			CIE- Twice per Semester SEE- Once in a semester
Industry Oriented Mini Project/Internship	50	-	50	CIE Level
Major Project	60	140	200	0.3*(Internal attainment) + 0.7*(External attainment)

Table 3.2.2: Marks Division

3.2.1. c) Frequency of data collection:

The data required for assessing CO is gathered. Each course instructor maintains the data required like- internal marks, lab continuous evaluation marks, assignment marks, seminar marks, project review marks for assessing COs for respective course. The frequency of data collection for each assessment tool is given in below Table 3.2.3.

Courses	SEE-University examination	
Laboratory Courses	CIE – continuous evaluation, circuit design and validation / program development as per specifications, testing and debugging, observation table/graphs. SEE- external lab examination, viva voce.	Continuous Evaluation conducted once in a week Internal exam once in a semester SEE-once in a semester
Industry Oriented Mini project/Internship	CIE -abstract, literature survey, software/ Hardware requirement specification and design, implementation, project demonstration, presentation, project report and team effort.	CIE- Once in Final Year First Semester
Seminar	CIE - abstract, literature survey, seminar and seminar report.	CIE- Once in Final Year Second Semester
Major Project	CIE&SEE - abstract, literature survey, software/ Hardware requirement specification and design, implementation, project demonstration, presentation, project report and team effort.	CIE & SEE- Once in Final Year Second Semester

Table 3.2.3: Frequency of data Collection

3.2.1. D) Identifying of Set Level for Each CO:

- The set value for each CO for any given subject is the average of all course outcomes attainment in the Academic Year 2019-20.
- For the subsequent academic year, the same set value is carried for the same subject if the syllabus is unchanged.
- If the CO attainment is “MET” Twice, then the set value is to be increased by 10% otherwise same set value is carried.
- If a new subject is introduced in the subsequent academic year then the set value is the average of COs attainment.

3.2.1. E) Analyzing of Results:

Levels of attainment are decided upon the percentage of students of the class who have more than Average mark allotted for the course outcome in the final Examination (CIE/SEE).

The attainment level is assigned as follows.

CO Attainment	Level
$x \geq 60\%$	3
$50\% \leq x < 60\%$	2
$40\% \leq x < 50\%$	1
$x \leq 40\%$	0

Table 3.2.4: Attainment levels

Attainment Level 1: If **40%** students scoring more than University average / class Average percentage of marks.

Attainment Level 2: If **50%** students scoring more than University average

/ class Averagepercentage of marks.

Attainment Level 3: If 60% students scoring more than University average / class Averagepercentage of marks.

II. Indirect Assessment Process:

Course End Survey the Course End Survey is carried out for each course at the end of the semester by the concerned course coordinator. The objective of course end survey is to verify the level of understanding of each course outcome by the student. Each course is mapped to its corresponding PO. The course exit survey gives CO attainment levels which are mapped to POs. The Sample Course End Survey form is presented in Fig. 3.2.1 and 3.2.2



VISWAM ENGINEERING COLLEGE

(Formerly Sir Vishveshwaraiah Institute of Science & Technology)

Madanapalle - 517 325

COURSE END SURVEY

The purpose of Course end survey is to obtain input from the graduating students on the quality of education you received and level of preparation you had. The course end survey is also meant to assess the achievement of course outcomes in academic program in Electronics & Communication Engineering at VISWAM Engineering College. We seek your help in completing this survey.

Your response and participation is a key part of our continuous improvement process and is greatly appreciated.

General Information

Name of the student: A. Vinod Kumar

Hall ticket number: 20WS1A0104

Year & Sem: III - 2

Please rate the extent in the appropriate box to indicate your degree of satisfaction

3* -Excellent 2*-Good 1* -Average 0* - Poor

Course Name: Integrated Circuits and Applications- 19A54302 Year of Study: 2022-23		Rating
1	Explain ideal differentiator circuit and obtain output voltage expression?	2
2	Design a practical differentiator circuit with input signal frequency 5 kHz? Assume necessary parameters?	3
3	Draw the schematic of 3 Op-amp Instrumentation amplifier and derive output voltage expression?	2
4	Draw the circuit of three input inverting type summing amplifier and derive the expression for output voltage.	3
Course Name: Antennas and Wave Propagation - 19A04502 Year of Study: 2022-23		
1	Estimate the fundamental properties of antennas in order to construct a wireless communication link.	2
2	Design and develop antennas required in various wireless communication systems for different frequency bands.	3
3	Analyze the radiation characteristics of various antenna array configurations and demonstrate the bench setup for antenna parameter measurement of testing.	2

Fig. 3.2.1: Course end Survey

(Page 1 / 2)

4	Interpret the problems associated with radio wave propagation in the atmosphere.	3
Course Name: English Language Skills - 19A52601 Year of Study: 2022-23		
1	Briefly explain Jagadish Chandra Bose's contribution to research.	2
2	Why does C.V.Raman consider water as the true elixir of life?	3
3	Describe the feelings of the narrator in 'The Woodrose,' in leading her retired life in son's house?	2
4	Draft an E-mail letter to a manufacturing company of Mobile phones, requesting them to send you the catalogue of latest mobile phones.	2
Course Name: Digital Communication- 19A 52601 Year of Study: 2022-23		
1	A discrete memory less source has an alphabet of seven symbols with probabilities [0.25, 0.0625, 0.0625, 0.25, 0.125, 0.125, 0.125]. Compute the Huffman code for this source, moving a combined symbol as high as possible. Compute the efficiency of the code.	3
2	Draw the delta modulation circuit and explain its operation.	2
3	State and Prove Nyquist criterion for distortion less transmission.	2
4	Derive the bit error rate for binary frequency shift keying modulation scheme.	3
Course Name: Data Communications and Networks - 19A04504a Year of Study: 2022-23		
1	Briefly explain Quadrature Amplitude Modulation (QAM). What are the limitations in other types of digital to analog conversion techniques and how these limitations overcome by QAM?	2
2	Draw the diagram of the following bit pattern by using HDB3 Scrambling technique	3
3	Briefly explains the Network and Transport layer of Internet protocol suit	2
4	Assume that a voice channel occupies a bandwidth of 4KHZ, we need to multiplex voice channels with guard bands of 500Hz using FDM. Calculate the required bandwidth.	3
Course Name: Technical Communication and Presentation Skills- 19A 2506a Year of Study: 2022-23		
1	Present the detailed account of the things, which distracts the effective communication.	3
2	When communicating with people from different cultures / regions, what can you do to reduce misunderstandings?	2
3	What is frame of reference? Give examples.	3
4	Explain the characteristics of formal and informal conversation with examples.	2

A. Vinod Kumar
Signature of the Student 24/11/22

Fig. 3.2.1: Course end Survey

(Page2/2)

III. Course Outcome Attainment:**For example:**Attainment through University Examination: **2.2**Attainment through Internal Assessment: **2.4**

70% weightage to university examination and 30% weightage to Internal assessment, the attainment calculations will be (70% of university level) + (30% of Internal level) i.e., 70% of 2.2 + 30% of 2.4 = 1.54 + 0.72 = 2.26

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

Program shall have set Course Outcome attainment levels for all courses.

(The attainment levels shall be set considering average performance levels in the university examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect to the Course Outcomes of a course in addition to the performance in the University examination)

Measuring Course Outcomes attained through University Examinations

Target may be stated in terms of percentage of students getting more than the university average marks or more as selected by the Program in the final examination. For cases where the university does not provide useful indicators like average or median marks etc., the program may choose an attainment level on its own with justification.

Example related to attainment levels Vs. targets: (The examples indicated are for reference only. Program may appropriately define levels)

Attainment Level 1: **60%** students scoring more than University average percentage marks or set attainment level in the final examination.

Attainment Level 2: **70%** students scoring more than University average percentage marks or set attainment level in the final examination.

Attainment Level 3: **80%** students scoring more than University average percentage marks or set attainment level in the final examination.

Attainment is measured in terms of actual percentage of students getting set percentage of marks.

If targets are achieved then all the course outcomes are attained for that year. Program is expected to set higher targets for the following years as a part of continuous improvement.

If targets are not achieved the program should put in place an action plan to attain the target in subsequent years.

Measuring CO attainment through Internal Assessments: (The examples indicated are for reference only. Program may appropriately define levels)

Target may be stated in terms of percentage of students getting more than class average marks or set by the program in each of the associated COs in the assessment instruments (midterm tests, assignments, mini projects, reports and presentations etc. as mapped with the COs)

Example

Mid-term test 1 addresses C202.1 and C202.2. Out of the maximum 30 marks for this test 15 marks are associated with C202.1 and 15 marks are associated with C202.2.

Examples related to attainment levels Vs. targets:

*Attainment Level 1: **60%** students scoring more than 60% marks out of the relevant maximum marks.*

*Attainment Level 2: **70%** students scoring more than 60% marks out of the relevant maximum marks.*

*Attainment Level 3: **80%** students scoring more than 60% marks out of the relevant maximum marks.*

Attainment is measured in terms of actual percentage of students getting set percentage of marks.

If targets are achieved then the C202.1 and C202.2 are attained for that year. Program is expected to set higher targets for the following years as a part of continuous improvement.

If targets are not achieved the program should put in place an action plan to attain the target in subsequent years.

Similar targets and achievement are to be stated for the other midterm tests/internal assessment instruments

Course Outcome Attainment:

For example:

Attainment through University Examination:

Substantial i.e. 3 Attainment through Internal

Assessment: Moderate i.e. 2

Assuming 80% weightage to university examination and 20% weightage to Internal assessment, the attainment calculations will be (80% of university level) + (20% of Internal level) i.e. 80% of 3 + 20% of 2 = 2.4 + 0.4 = 2.8

Note: Weightage of 80% to university exams is only an example. Programs may decide weightages appropriately for university exams and internal assessment with due justification.

CAYm1 (2019-20 Admitted Batch) Attainment Process for all Subjects

CAYm2 (2018-19 Admitted Batch) Attainment Process for all Subjects

CAYm3 (2017-18 Admitted Batch) Attainment Process for all Subjects

CAYm1 (2019-20 Admitted Batch)														
Ye ar	S. No .	The ory /La b	Cour se Code	Name of the Subject	CO1		CO2		CO3		CO4		CO5	
					S V	A V	S V	A V	S V	A V	S V	A V	S V	A V
I Year I sem	1	The ory	C101	Algebra & Calculus - 19A54101	2. 08	2. 02	2. 18	1. 97	2. 16	2. 07	2. 25	2. 07	2. 38	2. 28
	2	The ory	C102	Applied Physics- 19A56101T	1. 92	1. 86	2. 18	1. 97	2. 16	2. 07	2. 25	2. 07	2. 18	2. 09
	3	The ory	C103	Problem Solving & Programmin g- 19A05101T	1. 92	1. 76	2. 00	1. 80	1. 96	1. 88	2. 06	1. 89	2. 18	2. 09
	4	The ory	C104	Communicat ive English 1- 19A52101T	1. 92	1. 76	2. 00	1. 80	2. 16	2. 07	2. 06	1. 89	2. 18	2. 09

	5	Theory	C105	Electronics & Communication Engineering Workshop-19A04101	2.08	2.00	1.82	1.64	2.45	2.35	1.86	1.71	2.38	2.28
	6	Lab	C106	Applied Physics Lab - 19A56101P	2.08	2.00	2.37	2.13	2.16	2.07	2.45	2.25	2.38	2.28
	7	Lab	C107	Problem Solving & Programming Lab - 19A05101P	1.92	1.76	2.00	1.80	1.96	1.88	2.06	1.89	2.18	2.09
	8	Lab	C108	Communicative English 1 Lab - 19A52101P	2.08	2.00	2.28	2.05	1.96	1.88	2.35	2.16	2.38	2.28
I Year II sem	9	Theory	C109	Network Theory - 19A04201T	1.92	1.80	2.00	1.80	1.96	1.88	2.06	1.89	2.18	2.09
	10	Theory	C110	Differential Equations and Vector Calculus -	2.08	1.96	2.18	1.97	1.96	1.88	2.25	2.07	2.38	2.28

				19A54201										
	11	Theory	C111	Chemistry- 19A51102T	1.84	1.73	1.82	1.64	2.55	2.45	1.86	1.71	2.08	2.00
	12	Theory	C112	Data Structures - 19A05201T	1.92	1.80	1.82	1.64	1.96	1.88	1.86	1.71	2.18	2.09
	13	Theory	C113	Engineering Workshop - 19A03101	1.92	1.80	2.00	1.80	1.96	1.88	2.06	1.96	2.18	2.09
	14	Lab	C114	Engineering Graphics Lab - 19A03102	1.92	1.80	1.82	1.64	1.96	1.88	1.86	1.77	2.18	2.09
	15	Lab	C115	Network Theory Lab - 19A04201P	1.92	1.80	2.00	1.80	1.96	1.88	2.06	1.96	2.18	2.13
	16	Lab	C116	Chemistry Lab - 19A51102P	1.84	1.71	1.82	1.64	2.25	2.16	1.86	1.77	2.08	2.04
	17	Lab	C117	Data Structures Lab- 19A05201P	1.92	1.79	1.82	1.64	1.96	1.88	1.86	1.77	2.18	2.13
U I C A T I O N	Sem 18	Theory	C201	Complex Variables	1.92	1.79	2.09	1.95	2.55	2.01	2.16	2.05	2.18	2.13

			and Transforms- 19A54302											
19	Theory	C202	Signals & Systems - 19A04301	1. 60	1. 49	2. 12	1. 97	1. 96	1. 55	2. 19	2. 08	1. 78	1. 75	
20	Theory	C203	Electronic Devices and Circuits - 19A04302T	1. 84	1. 64	2. 00	1. 86	1. 96	1. 55	2. 06	1. 93	2. 08	2. 04	
21	Theory	C204	Probability Theory and Stochastic Processes- 19A04303	1. 92	1. 71	2. 09	1. 95	2. 16	1. 70	2. 16	2. 03	2. 18	2. 13	
22	Theory	C205	Digital Electronics and Logic Design- 19A04304	1. 60	1. 42	2. 00	1. 86	2. 16	1. 70	2. 06	1. 93	1. 78	1. 75	
23	Theory	C206	Electrical Technology- 19A02304T	1. 60	1. 42	1. 82	1. 69	1. 47	1. 16	1. 86	1. 75	1. 78	1. 75	
24	Lab	C207	Electronic Devices and Circuits Lab	1. 60	1. 42	2. 00	1. 86	1. 96	1. 55	2. 06	1. 93	1. 78	1. 75	

				- 19A04302P										
	25	Lab	C208	Basic Simulation Lab - 19A04305	1. 84	1. 64	1. 82	1. 69	2. 35	1. 86	1. 86	1. 75	2. 08	2. 04
	26	Lab	C209	Electrical Technology Lab - 19A02304P	1. 60	1. 42	2. 00	1. 86	1. 47	1. 16	2. 06	1. 93	1. 78	1. 75
	27	Lab	C210	Biology For Engineers - 19A99302	2. 08	1. 85	1. 82	1. 69	2. 35	1. 86	1. 86	1. 75	2. 38	2. 28
II Year II Sem	28	The ory	C211	Electromagn etic Waves and Transmissio n lines- 19A04401	1. 84	1. 75	2. 28	2. 12	2. 45	2. 08	2. 35	2. 21	2. 08	2. 00
	29	The ory	C212	Electronic Circuits - Analysis and Design - 19A19A0440 2T	1. 84	1. 75	2. 00	1. 86	1. 96	1. 67	2. 06	1. 93	2. 08	2. 00
	30	The ory	C213	Control Systems-	1. 60	1. 52	2. 09	1. 95	1. 96	1. 67	2. 16	2. 03	1. 78	1. 71

			19A02404											
31	Theory	C214	Analog Communications - 19A04403T	1.76	1.67	2.09	1.95	2.35	2.00	2.16	2.03	1.98	1.90	
32	Theory	C215	Python Programming- 19A05304T	1.60	1.52	2.18	2.03	1.76	1.50	2.25	2.21	1.78	1.71	
33	Theory	C216	Computer Architecture and Organization - 19A04404	1.60	1.52	2.00	1.86	1.96	1.67	2.06	2.02	1.78	1.71	
34	Theory	C217	Universal Human Values- 52301	2.08	1.98	2.55	2.50	2.35	2.00	2.65	2.59	2.38	2.28	
35	Lab	C218	Electronic Circuits – Analysis and Design Lab - 19A04402P	1.84	1.75	2.37	2.32	2.16	1.83	2.45	2.40	2.08	2.00	
36	Lab	C219	Analog Communications Lab -	1.76	1.67	2.09	2.05	2.55	2.17	2.16	2.11	1.98	1.90	

				19A04403P										
	37	Lab	C220	Environment al Science - 19A99301	2. 08	1. 98	2. 37	2. 32	2. 35	2. 00	2. 45	2. 40	2. 38	2. 28
III Year I Sem	38	The ory	C301	Integrated Circuits and Applications- 19A54302	1. 76	1. 67	2. 18	2. 14	2. 16	1. 83	2. 25	2. 21	1. 98	1. 90
	39	The ory	C302	Antennas and Wave Propagation - 19A04502	1. 76	1. 67	2. 28	2. 23	2. 45	2. 08	2. 35	2. 30	1. 98	1. 90
	40	The ory	C303	English Language Skills - 19A52601T	1. 92	1. 82	2. 00	1. 96	2. 35	2. 05	2. 06	2. 02	2. 18	2. 09
	41	The ory	C304	Digital Communicat ion- 19A 52601T	1. 76	1. 67	2. 09	2. 05	2. 16	1. 88	2. 16	2. 11	1. 98	1. 90
	42	The ory	C305	Data Communicat ions and Networks - 19A04504a	1. 28	1. 22	1. 82	1. 78	2. 25	1. 96	1. 86	1. 82	1. 39	1. 33

43	Theory	C306	Technical Communication and Presentation Skills- 19A2506a	2.00	1.90	2.00	1.96	2.45	2.13	2.06	2.02	2.28	2.19
44	Lab	C307	Integrated Circuits and Applications Lab- 19A04501P	1.76	1.67	2.18	2.14	2.16	1.88	2.25	2.21	1.98	1.90
45	Lab	C308	English Language Skills Lab - 19A 52601P	1.92	1.82	2.46	2.16	2.55	2.22	2.55	2.40	2.18	2.09
46	Lab	C309	Digital Communications Lab - 19A 04503P	1.84	1.75	2.09	1.84	1.96	1.71	2.16	2.03	2.08	2.00
47	Lab	C310	Socially Relevant Project - 19A04507	2.16	2.05	1.82	1.60	2.16	1.88	1.86	1.75	2.48	2.38
48	Lab	C311	Research Methodology - 19A99601	2.24	2.13	1.82	1.60	2.74	2.39	1.86	1.75	2.57	2.47

III Year II Sem	49	Theory	C312	Microprocessors and Microcontrollers - 19A04601T	1.84	1.75	1.82	1.60	2.16	1.88	1.86	1.75	2.08	2.00
	50	Theory	C313	Digital Signal Processing - 19A04602T	1.84	1.75	2.09	1.84	2.25	2.07	2.16	2.03	2.08	2.00
	51	Theory	C314	Digital System Design through VHDL- 19A04603	1.76	1.67	2.09	1.84	2.16	1.98	2.16	2.03	1.98	1.90
	52	Theory	C315	Electrical Measurement and Electronic Instruments - 19A04605d	1.60	1.52	2.09	1.84	2.60	2.39	2.16	2.03	1.78	1.71
	53	Theory	C316	Industrial waste and wastewater management - 19A01604a	1.60	1.52	1.82	1.60	2.74	2.52	1.86	1.75	1.78	1.71

54	Theory	C317	Business Ethics and Corporate Governance - 19A52602c	2.08	1.98	2.18	1.70	2.55	2.34	2.25	2.12	2.38	2.28
55	Lab	C318	Digital Signal Processing Lab – 19A04602P	1.60	1.52	1.82	1.42	1.47	1.35	1.86	1.75	1.78	1.71
56	Lab	C319	Microprocessors and Microcontrollers Lab– 19A04601P	1.92	1.82	1.82	1.42	2.25	2.07	1.86	1.75	2.18	2.09
57	Lab	C320	Socially Relevant Project– 19A04606	2.24	2.13	1.82	1.42	2.16	1.98	1.86	1.75	2.57	2.47
58	Lab	C321	Constitution of India – 19A99501	2.08	1.98	2.18	1.70	2.55	2.34	2.25	2.12	2.38	2.28
59	Lab	C322	Industrial Training/Skill development	1.92	1.82	2.00	1.56	2.35	2.16	2.06	1.81	2.18	2.09

				/Research Project - 19A04607										
IV Year I Sem	60	Theory	C401	Microwave Engineering and Optical Communications-04701T	1.76	1.67	2.00	1.56	1.96	1.80	2.06	1.81	1.98	1.90
	61	Theory	C402	VLSI Design -19A04702T	1.76	1.67	1.82	1.42	1.96	1.80	1.86	1.64	1.98	1.90
	62	Theory	C403	Satellite Communications - 19A04703a	1.84	1.75	1.82	1.42	2.74	2.55	1.86	1.64	2.08	2.00
	63	Theory	C404	Air pollution and control-19A01704a	2.08	1.98	2.37	1.85	1.96	1.82	2.45	2.16	2.38	2.28
	64	Theory	C405	Management Science-19A52701b	1.92	1.82	1.82	1.42	1.96	1.82	1.86	1.64	2.18	2.09
	65	Lab	C406	Microwave and Optical Communications Lab-04701P	1.84	1.75	1.82	1.42	1.96	1.82	1.86	1.64	2.08	2.00

	66	Lab	C407	VLSI Design Lab -04702P	1. 76	1. 67	2. 00	1. 56	2. 16	2. 01	2. 06	1. 81	1. 98	1. 90
	67	Lab	C408	Industrial Training/Ski ll Development /Research Project - 19A04705	1. 92	1. 82	2. 00	1. 56	2. 35	2. 19	2. 06	1. 81	2. 18	2. 09
IV Year II Sem	68	The ory	C409	Introduction to Internet of Things - 19A04801b	1. 80	1. 71	2. 28	1. 77	2. 45	2. 28	2. 35	2. 07	2. 03	1. 95
	69	The ory	C410	Global Warming and climate changes- 19A01802b	2. 08	1. 98	1. 82	1. 42	2. 55	2. 37	1. 86	1. 64	2. 38	2. 28
	70	Lab	C411	Project - 19A04803	2. 40	2. 28	2. 18	1. 70	2. 94	2. 73	2. 25	1. 98	2. 77	2. 66

Table 3.2.5: Set Values and attainment values of Co's**SV:** Set Value**AV:** Attain Value

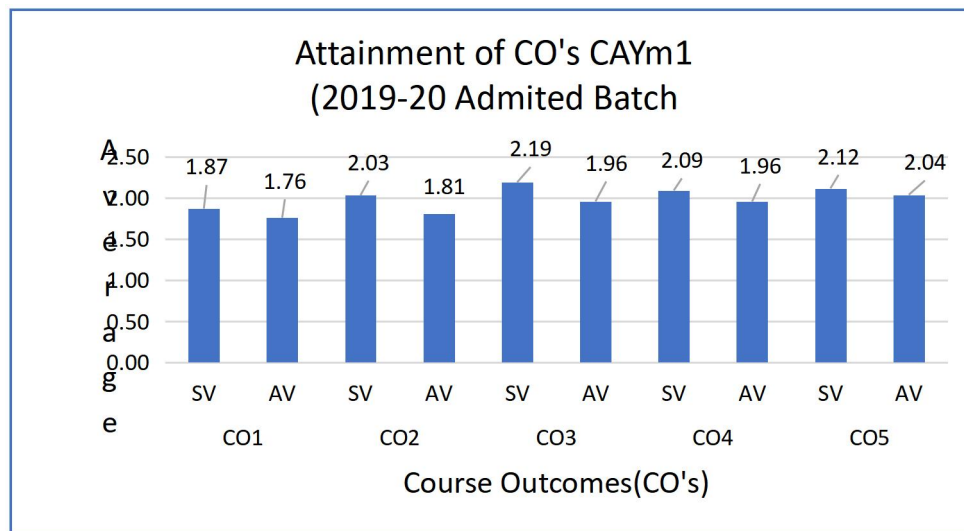


Fig. 3.2.3: Attainment of CO's

CAYm2 (2018-19 Admitted Batch)														
Year	S.No.	Theory /Lab	Course Code	Name of the Subject	CO1		CO2		CO3		CO4		CO5	
					SV	AV	SV	AV	SV	AV	SV	AV	SV	AV
I Year I sem	1	Theory	C101	Functional English - 15A52101	2.08	2.00	1.98	1.90	2.21	1.99	1.85	1.81	1.92	1.71
	2	Theory	C102	Mathematics-I - 15A54101	2.08	2.00	1.98	1.90	2.21	1.99	1.85	1.81	1.92	1.71
	3	Theory	C103	Mathematical Methods - 15A05101	1.92	1.84	1.82	1.75	2.21	1.99	1.70	1.67	1.92	1.71
	4	Theory	C104	Engineering Chemistry- 15A51101	1.84	1.77	1.98	1.90	2.13	1.91	1.85	1.81	1.84	1.64

5	Theory	C105	Environmental Studies-15A01101	2.08	2.00	2.13	2.04	2.04	1.84	2.00	1.96	1.76	1.57
6	Lab	C106	English Language Communication Skills Lab - 15A52102	1.92	1.84	2.13	2.04	2.21	1.99	2.00	1.96	1.92	1.71
7	Lab	C107	Engineering Chemistry Lab-15A51102	1.92	1.84	1.98	1.90	2.13	1.91	1.85	1.81	1.84	1.64
8	Lab	C108	Computer Programming Lab-15A05102	2.08	2.00	1.90	1.82	2.21	1.99	1.78	1.74	1.92	1.71

I Year II sem	9	Theory	C109	English for Professional Communication-15A52201	2.08	2.00	1.98	1.90	2.38	2.14	1.85	1.81	2.08	1.85
	10	Theory	C110	Mathematics – II-15A54201	2.08	2.00	1.98	1.90	2.21	1.99	1.85	1.81	1.92	1.71
	11	Theory	C111	Network Analysis-15A04201	1.60	1.58	1.52	1.46	1.70	1.53	1.41	1.38	1.44	1.28
	12	Theory	C112	Engineering Physics -15A56101	1.84	1.82	1.52	1.46	2.17	1.95	1.41	1.38	1.88	1.67
	13	Theory	C113	Engineering Drawing -15A0310	1.92	1.90	1.82	1.75	2.21	1.99	1.70	1.67	1.92	1.71

				1										
	14	Lab	C114	Network Analysis Lab - 15A0420 2	1.8 4	1. 82	1. 98	1. 90	2. 13	1. 91	1. 85	1. 81	1. 84	1. 64
	15	Lab	C115	Engineer ing Physics Lab - 15A5610 2	2.0 8	2. 06	2. 13	2. 04	2. 04	1. 84	2. 00	1. 96	1. 76	1. 57
	16	Lab	C116	Engineer ing and IT Worksho p - 15A9920 1	1.9 2	1. 90	2. 13	2. 04	2. 21	1. 99	2. 00	1. 96	1. 92	1. 71
II Year I Sem	17	Theo ry	C201	Mathem atics-III- 15A5430 1	1.8 4	1. 82	1. 67	1. 61	2. 21	1. 99	1. 55	1. 52	1. 92	1. 71
	18	Theo ry	C202	Electroni c Devices and	1.7 6	1. 74	1. 67	1. 61	1. 70	1. 53	1. 55	1. 52	1. 44	1. 28

				Circuits- 15A0430 1										
19	Theory	C203	Switching Theory and Logic Design - 15A0430 2	2.08	2.06	1.98	1.90	2.21	1.99	1.85	1.81	1.92	1.71	
20	Theory	C204	Signals and Systems- 15A0430 3	1.60	1.58	1.52	1.46	1.70	1.53	1.41	1.38	1.44	1.28	
21	Theory	C205	Probability Theory and Stochastic Processes- 15A0430 4	1.84	1.82	1.52	1.46	2.17	1.95	1.41	1.38	1.88	1.67	
22	Theory	C206	Electrical	1.92	1.90	1.82	1.75	2.21	1.99	1.70	1.67	1.92	1.71	

				Technolo gy- 15A0230 6										
	23	Lab	C207	Electroni c Devices and Circuits Lab - 15A0430 5	1.8 4	1. 82	1. 98	1. 90	2. 13	1. 91	1. 85	1. 81	1. 84	1. 64
	24	Lab	C208	Electrica l Technolo gy and Basic Simulati on Laborato ry - 15A0230 7	2.0 8	2. 06	2. 13	2. 04	2. 04	1. 84	2. 00	1. 96	1. 76	1. 57
II Year II Sem	25	Theo ry	C209	Mathem atics-IV- 15A5440 2	1.7 6	1. 74	1. 52	1. 46	1. 70	1. 53	1. 41	1. 38	1. 44	1. 28

26	Theory	C210	Electronic Circuit Analysis - 15A04401	1.76	1.74	1.67	1.61	1.70	1.53	1.55	1.52	1.44	1.28
27	Theory	C211	Analog Communication Systems- 15A04402	1.92	1.90	1.82	1.75	2.21	1.99	1.70	1.67	1.92	1.71
28	Theory	C212	Electromagnetic Theory and Transmission Lines - 15A04403	1.84	1.82	1.98	1.90	2.13	1.91	1.85	1.81	1.84	1.64
29	Theory	C213	Data Structures- 15A05201	2.08	2.06	2.13	2.04	2.04	1.84	2.00	1.96	1.76	1.57

30	Theory	C214	Control Systems Engineering-15A02303	1.92	1.90	2.13	2.04	2.21	1.99	2.00	1.96	1.92	1.71
31	Lab	C215	Electronic Circuit Analysis Laboratory-15A04404	1.92	1.90	1.82	1.75	2.21	1.99	1.70	1.67	1.92	1.71
32	Lab	C216	Analog Communication Systems Laboratory -15A04405	1.84	1.82	1.98	1.90	2.13	1.91	1.85	1.81	1.84	1.64
33	Lab	C217	Comprehensive Online Examination-I -15A0440	2.08	2.06	2.13	2.04	2.04	1.84	2.00	1.96	1.76	1.57

				6										
III Year I Sem	34	Theory	C301	Computer Organization-15A04511	1.92	1.90	2.13	2.04	2.21	1.99	2.00	1.96	1.92	1.71
	35	Theory	C302	Antennas and Wave Propagation -15A04501	1.84	1.82	1.98	1.90	2.13	1.91	1.85	1.81	1.84	1.64
	36	Theory	C303	Digital Communication Systems -15A04502	2.08	2.06	2.13	2.04	2.04	1.84	2.00	1.96	1.76	1.57
	37	Theory	C304	Linear Integrated Circuits and Applicati	1.92	1.90	2.13	2.04	2.21	1.99	2.00	1.96	1.92	1.71

				ons- 15A0450 3										
38	Theo ry	C305	Digital System Design - 15A0450 4	1.9 2	1. 90	1. 82	1. 75	2. 21	1. 99	1. 70	1. 67	1. 92	1. 71	
39	Theo ry	C306	Linux Program ming & Scripting - 15A0450 5	1.9 2	1. 90	1. 52	1. 46	1. 96	1. 76	1. 41	1. 38	1. 68	1. 50	
40	Lab	C307	IC Applicati ons Laborato ry- 15A0450 7	1.7 6	1. 74	1. 75	1. 68	1. 87	1. 68	1. 63	1. 60	1. 60	1. 42	
41	Lab	C308	Digital Commu nication Systems Laborato	1.8 4	1. 82	1. 75	1. 68	1. 70	1. 53	1. 63	1. 60	1. 44	1. 28	

				ry - 15A0450 8										
	42	Lab	C309	Audit course – Social Values & Ethics - 15A9950 1	1.9 2	1. 90	1. 52	1. 46	1. 96	1. 76	1. 41	1. 38	1. 68	1. 50
III Year II Sem	43	Theo ry	C310	Manager ial Economi cs and Financia l Analysis - 15A5230 1	1.9 2	1. 90	1. 52	1. 46	1. 96	1. 76	1. 41	1. 38	1. 68	1. 50
	44	Theo ry	C311	Micropro cessors & Microcon trollers - 15A0460 1	1.8 4	1. 82	1. 98	1. 90	2. 13	1. 91	1. 85	1. 81	1. 84	1. 64

45	Theory	C312	Electronic Measurements and Instrumentation-15A04602	2.08	2.06	2.13	2.04	2.04	1.84	2.00	1.96	1.76	1.57
46	Theory	C313	Digital Signal Processing – 15A04603	1.92	1.90	2.13	2.04	2.21	1.99	2.00	1.96	1.92	1.71
47	Theory	C314	VLSI Design – 15A04604	1.92	1.90	1.82	1.75	2.21	1.99	1.70	1.67	1.92	1.71
48	Theory	C315	MATLAB Programming - 15A04605	1.60	1.58	1.52	1.46	1.70	1.53	1.41	1.38	1.44	1.28
49	Lab	C316	Microprocessors	1.92	1.90	1.52	1.46	1.96	1.76	1.41	1.38	1.68	1.50

				& Microcon trollers Laborato ry – 15A0460 7										
50	Lab	C317	Digital Signal Processi ng Laborato ry– 15A0460 8	1.7 6	1. 74	1. 75	1. 68	2. 04	1. 84	1. 63	1. 60	1. 76	1. 57	
51	Lab	C318	Advance d English Languag e Commu nication Skills Lab– 15A5260 2	2.0 0	1. 98	1. 98	1. 90	2. 04	1. 84	1. 85	1. 81	1. 76	1. 57	
52	Lab	C319	Compreh ensive	1.6	1.	2.	2.	2.	2.	2.	1.	2.	1.	

				Online Examina tion-II- 15A0460 9	0	58	13	04	30	07	00	96	00	78
IV Year I Sem	53	Theo ry	C401	Optical Fiber Commu nication- 15A0470 1	1.7 6	1. 74	1. 82	1. 75	1. 87	1. 68	1. 70	1. 67	1. 60	1. 42
	54	Theo ry	C402	Embedd ed Systems - 15A0470 2	1.6 0	1. 58	1. 52	1. 46	1. 70	1. 53	1. 41	1. 38	1. 44	1. 28
	55	Theo ry	C403	Microwa ve Engineer ing - 15A0470 3	1.9 2	1. 90	2. 13	2. 04	2. 21	1. 99	2. 00	1. 96	1. 92	1. 71
	56	Theo ry	C404	Data Commu nications and	1.9 2	1. 90	1. 82	1. 75	2. 21	1. 99	1. 70	1. 67	1. 92	1. 71

			Networki ng – 15A0470 4											
57	Theo ry	C405	Radar Systems – 15A0470 5	1.9 2	1. 90	1. 52	1. 46	1. 96	1. 76	1. 41	1. 38	1. 68	1. 50	
58	Theo ry	C406	Digital Image Processi ng– 15A0470 8	1.7 6	1. 74	1. 75	1. 68	1. 87	1. 68	1. 63	1. 60	1. 60	1. 42	
59	Lab	C407	Microwa ve and Optical Commu nication Laborato ry – 15A0471 1	1.8 4	1. 82	1. 75	1. 68	1. 70	1. 53	1. 63	1. 60	1. 44	1. 28	
60	Lab	C408	VLSI & Embedd ed	1.7 6	1. 74	1. 67	1. 61	1. 87	1. 68	1. 55	1. 52	1. 60	1. 42	

				Systems Laborato ry – 15A0471 2										
IV Year II Sem	61	Theo ry	C409	Low Power VLSI Circuits & Systems – 15A0480 2	1.7 6	1. 74	1. 67	1. 61	1. 70	1. 53	1. 55	1. 52	1. 44	1. 28
	62	Theo ry	C410	RF Integrate d Circuits– 15A0480 4	1.8 4	1. 82	1. 82	1. 75	2. 13	1. 91	1. 70	1. 67	1. 84	1. 64
	63	Lab	C411	Compreh ensive Viva Voce – 15A0480 5	2.4 0	2. 38	1. 82	1. 75	2. 55	2. 30	1. 70	1. 67	2. 24	1. 99
	64	Lab	C412	Technica	2.0	2.	1.	1.	2.	1.	1.	1.	1.	1.

				1 Seminar - 15A04806	8	06	75	68	21	99	63	60	92	71
65	Lab	C413		Project Work - 15A04807	2.40	2.38	1.82	1.75	2.55	2.30	1.70	1.67	2.24	1.99

Table 3.2.6: Set Values and attainment values of Co's

SV: Set Value

AV: Attain Value

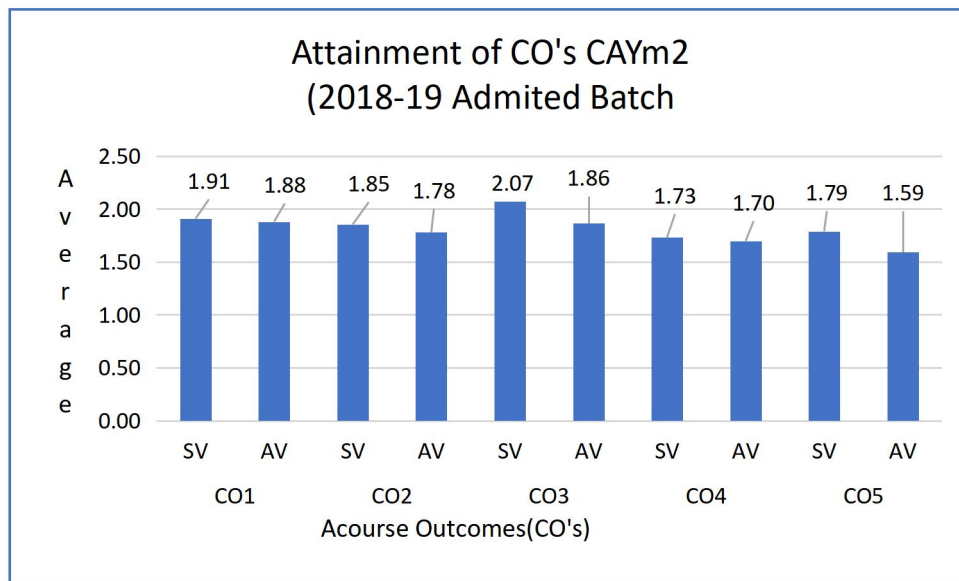


Fig. 3.2.4: Attainment of CO's

CAYm3 (2017-18 Admitted Batch)														
Year	S.No.	Theory /Lab	Course Code	Name of the Subject	CO1		CO2		CO3		CO4			CO5
					SV	AV	SV	AV	SV	AV	SV	AV	SV	AV
I Year I sem	1	Theory	C101	Functional English - 15A52101	2.08	1.91	1.98	1.78	2.21	2.06	1.85	1.72	1.92	1.54
	2	Theory	C102	Mathematics-I - 15A54101	2.08	1.91	1.98	1.78	2.21	2.06	1.85	1.72	1.92	1.54
	3	Theory	C103	Mathematical Methods - 15A05101	1.92	1.77	1.82	1.64	2.21	2.06	1.70	1.58	1.92	1.54
	4	Theory	C104	Engineering Chemistry- 15A51101	1.84	1.69	1.98	1.78	2.13	1.98	1.85	1.72	1.84	1.47
	5	Theory	C105	Environmental Studies- 15A01101	2.08	1.91	2.13	1.92	2.04	1.90	2.00	1.86	1.76	1.41

	6	Lab	C106	English Language Communication Skills Lab - 15A52102	1.92	1.77	2.13	1.92	2.21	2.06	2.00	1.86	1.92	1.54
	7	Lab	C107	Engineering Chemistry Lab- 15A51102	1.92	1.77	1.98	1.78	2.13	1.98	1.85	1.72	1.84	1.47
	8	Lab	C108	Computer Programming Lab- 15A05102	2.08	1.91	1.90	1.71	2.21	2.06	1.78	1.65	1.92	1.54
I Year II sem	9	Theory	C109	English for Professional Communication- 15A52201	2.08	1.91	1.98	1.78	2.38	2.21	1.85	1.72	2.08	1.66
	10	Theory	C110	Mathematics – II- 15A54201	2.08	1.91	1.98	1.78	2.21	2.06	1.85	1.72	1.92	1.54
	11	Theory	C111	Network Analysis-	1.60	1.47	1.52	1.37	1.70	1.58	1.41	1.13	1.14	1.15

				15A04201								1	4	
	12	Theo ry	C11 2	Engineerin g Physics - 15A56101	1.8 4	1.6 9	1. 52	1.3 7	2. 17	2. 02	1. 41	1. 3 1	1. 8 8	1. 50
	13	Theo ry	C11 3	Engineerin g Drawing - 15A03101	1.9 2	1.7 7	1. 82	1.6 4	2. 21	2. 06	1. 70	1. 5 8	1. 9 2	1. 54
	14	Lab	C11 4	Network Analysis Lab - 15A04202	1.8 4	1.6 9	1. 98	1.7 8	2. 13	1. 98	1. 85	1. 7 2	1. 8 4	1. 47
	15	Lab	C11 5	Engineerin g Physics Lab - 15A56102	2.0 8	1.9 1	2. 13	1.9 2	2. 04	1. 90	2. 00	1. 8 6	1. 7 6	1. 41
	16	Lab	C11 6	Engineerin g and IT Workshop - 15A99201	1.9 2	1.7 7	2. 13	1.9 2	2. 21	2. 06	2. 00	1. 8 6	1. 9 2	1. 54
II Year I Sem	17	Theo ry	C20 1	Mathemati cs-III- 15A54301	1.8 4	1.6 9	1. 67	1.5 0	2. 21	2. 06	1. 55	1. 4 4	1. 9 2	1. 54
	18	Theo ry	C20 2	Electronic Devices and	1.7 6	1.6 2	1. 67	1.5 0	1. 70	1. 58	1. 55	1. 4 4	1. 4 4	1. 15

				Circuits- 15A04301										
19	Theo- ry	C20 3	Switching Theory and Logic Design - 15A04302	2.0 8	1.9 1	1. 98	1.7 8	2. 21	2. 06	1. 85	1. 7 2	1. 9 2	1. 54	
20	Theo- ry	C20 4	Signals and Systems- 15A04303	1.6 0	1.4 7	1. 52	1.3 7	1. 70	1. 58	1. 41	1. 3 1	1. 4 4	1. 15	
21	Theo- ry	C20 5	Probability Theory and Stochastic Processes- 15A04304	1.8 4	1.6 9	1. 52	1.3 7	2. 17	2. 02	1. 41	1. 3 1	1. 8 8	1. 50	
22	Theo- ry	C20 6	Electrical Technology - 15A02306	1.9 2	1.7 7	1. 82	1.6 4	2. 21	2. 06	1. 70	1. 5 8	1. 9 2	1. 54	
23	Lab	C20 7	Electronic Devices and Circuits Lab - 15A04305	1.8 4	1.6 9	1. 98	1.7 8	2. 13	1. 98	1. 85	1. 7 2	1. 8 4	1. 47	

	24	Lab	C208	Electrical Technology and Basic Simulation Laboratory - 15A02307	2.08	1.91	2.13	1.92	2.04	1.90	2.00	1.86	1.76	1.41
II Year II Sem	25	Theory	C209	Mathematics-IV- 15A54402	1.76	1.62	1.52	1.37	1.70	1.58	1.41	1.31	1.44	1.15
	26	Theory	C210	Electronic Circuit Analysis - 15A04401	1.76	1.62	1.67	1.50	1.70	1.58	1.55	1.44	1.44	1.15
	27	Theory	C211	Analog Communication Systems- 15A04402	1.92	1.77	1.82	1.64	2.21	2.06	1.70	1.58	1.92	1.54
	28	Theory	C212	Electromagnetic Theory and Transmission Lines - 15A04403	1.84	1.69	1.98	1.78	2.13	1.98	1.85	1.72	1.84	1.47
	29	Theory	C21	Data	2.0	1.9	2.	1.9	2.	1.	2.	1.	1.	1.

		ry	3	Structures- 15A05201	8	1	13	2	04	90	00	8	7	41
	30	Theo ry	C21 4	Control Systems Engineerin g- 15A02303	1.9 2	1.7 7	2. 13	1.9 2	2. 21	2. 06	2. 00	1. 8 6	1. 9 2	1. 54
	31	Lab	C21 5	Electronic Circuit Analysis Laboratory- 15A04404	1.9 2	1.7 7	1. 82	1.6 4	2. 21	2. 06	1. 70	1. 5 8	1. 9 2	1. 54
	32	Lab	C21 6	Analog Communic ation Systems Laboratory - 15A04405	1.8 4	1.6 9	1. 98	1.7 8	2. 13	1. 98	1. 85	1. 7 2	1. 8 4	1. 47
	33	Lab	C21 7	Comprehen sive Online Examinatio n-I - 15A04406	2.0 8	1.9 1	2. 13	1.9 2	2. 04	1. 90	2. 00	1. 8 6	1. 7 6	1. 41
III Year I Sem	34	Theo ry	C30 1	Computer Organizatio n-	1.9 2	1.7 7	2. 13	1.9 2	2. 21	2. 06	2. 00	1. 8	1. 9	1. 54

				15A04511								6	2	
35	Theory	C302	Antennas and Wave Propagation - 15A04501	1.84	1.69	1.98	1.78	2.13	1.98	1.85	1.72	1.78	1.84	1.47
36	Theory	C303	Digital Communication Systems - 15A04502	2.08	1.91	2.13	1.92	2.04	1.90	2.00	1.86	1.76	1.41	1.41
37	Theory	C304	Linear Integrated Circuits and Applications- 15A04503	1.92	1.77	2.13	1.92	2.21	2.06	2.00	1.86	1.92	1.54	1.54
38	Theory	C305	Digital System Design - 15A04504	1.92	1.77	1.82	1.64	2.21	2.06	1.70	1.58	1.92	1.54	1.54
39	Theory	C306	Linux Programming & Scripting-	1.92	1.77	1.52	1.37	1.96	1.82	1.41	1.31	1.68	1.34	1.34

				15A04505										
	40	Lab	C307	IC Applications Laboratory-15A04507	1.76	1.62	1.75	1.57	1.87	1.74	1.63	1.51	1.60	1.28
	41	Lab	C308	Digital Communication Systems Laboratory - 15A04508	1.84	1.69	1.75	1.57	1.70	1.58	1.63	1.51	1.44	1.15
	42	Lab	C309	Audit course - Social Values & Ethics - 15A99501	1.92	1.77	1.52	1.37	1.96	1.82	1.41	1.31	1.68	1.34
III Year II Sem	43	Theory	C310	Managerial Economics and Financial Analysis - 15A52301	1.92	1.77	1.52	1.37	1.96	1.82	1.41	1.31	1.68	1.34
	44	Theo	C31	Microprocessors &	1.8	1.6	1.	1.7	2.	1.	1.	1.7	1.8	1.

		ry	1	Microcontr ollers - 15A04601	4	9	98	8	13	98	85	2	4	47
45	Theo ry	C31 2		Electronic Measureme nts and Instrument ation- 15A04602	2.0 8	1.9 1	2. 13	1.9 2	2. 04	1. 90	2. 00	1. 8 6	1. 7 6	1. 41
46	Theo ry	C31 3		Digital Signal Processing - 15A04603	1.9 2	1.7 7	2. 13	1.9 2	2. 21	2. 06	2. 00	1. 8 6	1. 9 2	1. 54
47	Theo ry	C31 4		VLSI Design - 15A04604	1.9 2	1.7 7	1. 82	1.6 4	2. 21	2. 06	1. 70	1. 5 8	1. 9 2	1. 54
48	Theo ry	C31 5		MATLAB Programmi ng - 15A04605	1.6 0	1.4 7	1. 52	1.3 7	1. 70	1. 58	1. 41	1. 3 1	1. 4 4	1. 15
49	Lab	C31 6		Microproce ssors & Microcontr ollers Laboratory	1.9 2	1.7 7	1. 52	1.3 7	1. 96	1. 82	1. 41	1. 3 1	1. 6 8	1. 34

				-15A04607										
	50	Lab	C317	Digital Signal Processing Laboratory -15A04608	1.76	1.62	1.75	1.57	2.04	1.90	1.63	1.51	1.76	1.41
	51	Lab	C318	Advanced English Language Communication Skills Lab-15A52602	2.00	1.84	1.98	1.78	2.04	1.90	1.85	1.72	1.76	1.41
	52	Lab	C319	Comprehensive Online Examination-II-15A04609	1.60	1.47	2.13	1.92	2.30	2.13	2.00	1.86	2.00	1.60
IV Year I Sem	53	Theory	C401	Optical Fiber Communication-15A04701	1.76	1.62	1.82	1.64	1.87	1.74	1.70	1.58	1.60	1.28
	54	Theory	C402	Embedded Systems -15A04702	1.60	1.47	1.52	1.37	1.70	1.58	1.41	1.31	1.44	1.15

55	Theory	C403	Microwave Engineering - 15A04703	1.92	1.77	2.13	1.92	2.21	2.06	2.00	1.86	1.92	1.54
56	Theory	C404	Data Communications and Networking -15A04704	1.92	1.77	1.82	1.64	2.21	2.06	1.70	1.58	1.92	1.54
57	Theory	C405	Radar Systems- 15A04705	1.92	1.77	1.52	1.37	1.96	1.82	1.41	1.31	1.68	1.34
58	Theory	C406	Digital Image Processing- 15A04708	1.76	1.62	1.75	1.57	1.87	1.74	1.63	1.51	1.60	1.28
59	Lab	C407	Microwave and Optical Communication Laboratory -15A04711	1.84	1.69	1.75	1.57	1.70	1.58	1.63	1.51	1.44	1.15
60	Lab	C408	VLSI & Embedded Systems Laboratory	1.76	1.62	1.67	1.50	1.87	1.74	1.55	1.44	1.60	1.28

				-15A04712										
IV Year II Sem	61	Theory	C409	Low Power VLSI Circuits & Systems – 15A04802	1.76	1.62	1.67	1.50	1.70	1.58	1.55	1.44	1.44	1.15
	62	Theory	C410	RF Integrated Circuits– 15A04804	1.84	1.69	1.82	1.64	2.13	1.98	1.70	1.58	1.84	1.47
	63	Lab	C411	Comprehensive Viva Voce – 15A04805	2.40	2.21	1.82	1.64	2.55	2.37	1.70	1.58	2.24	1.79
	64	Lab	C412	Technical Seminar - 15A04806	2.08	1.91	1.75	1.57	2.21	2.06	1.63	1.51	1.92	1.54
	65	Lab	C413	Project Work - 15A04807	2.40	2.21	1.82	1.64	2.55	2.37	1.70	1.58	2.24	1.79

Table 3.2.7: Set Values and attainment values of Co's**SV:** Set Value**AV:** Attain Value

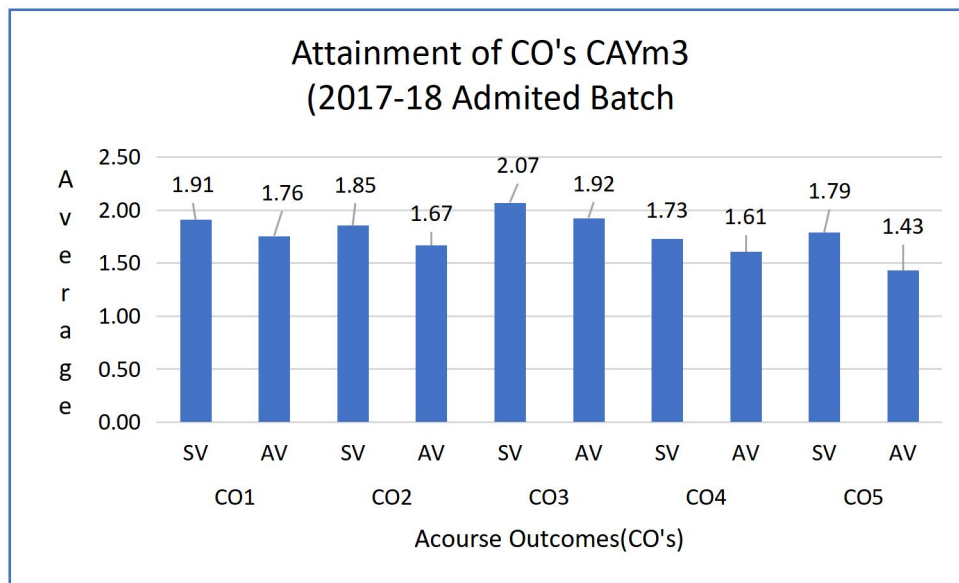


Fig. 3.2.5: Attainment of CO's

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

3.3.1. Describe assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10/50)

(Describe the assessment tools and processes used to gather the data upon which the evaluation of each of the Program Outcomes and Program Specific Outcomes is based indicating the frequency with which these processes are carried out. Describe the assessment processes that demonstrate the degree to which the Program Outcomes and Program Specific Outcomes are attained and

document the attainment levels)

In Outcome based Education, 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 programme educational objectives, program outcomes and course objectives and outcomes.

PO Assessment Tools Assessment tools are categorized into direct and indirect methods to assess the programme educational objectives, program outcomes and course outcomes.

- **Direct methods:** Display the students' knowledge and skills from their performance in the MID Examinations, Lab Examinations, end-semester examinations, presentations and classroom assignments etc. These methods provide a sampling of what students know and/or can do and provide strong evidence of students learning.
- **Indirect methods:** Gather preparations of how well students are achieving/ achieved a learning outcome. The PAC assesses opinions, thoughts about the graduate knowledge and skills. As it is a complex process, the percentage of attainment is kept at lowpercentage.

3.3.1.1 Direct Component

Direct Assessment of POs for a course is obtained by mapping the average value of courseoutcome attainment with the mapping of the target or expected POs for the particular course.

3.3.1.2 Indirect Component

The indirect component of PO contribution is obtained from different surveys:

1. Graduate Exit Survey
2. Alumni Survey
3. Employer Survey

Graduate Exit Survey: The Graduate Exit Survey is conducted at the end of the Program. The Objective of the Survey is to know the level of confidence of each PO/PSO that graduates possess by the end of the program. The sample Graduate Exit survey form is presented in Fig.

3.3.1 and 3.3.2.

VISWAM ENGINEERING COLLEGE
 (Formerly Sir Vishveshwaraiah Institute of Science & Technology)
 Madanapalle - 517 325

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Graduate Exit Survey

The purpose of this survey is to obtain your input as a recent graduate of graduate in Electronics & Communication Engineering at VISWAM Engineering College to assess the achievement of academic Program Outcomes (POs). We seek your help in completing this survey.

Your response is an important part of our continuous improvement process. We are thankful for your response.

General Information:

Name of the Student : A. Hemalatha [19WS1A0401]

Name of the Organization : —

(If employed)

Position : —

(If employed)

Year of Graduation : 2019 - 2023

E-Mail ID : asanapuramhema@gmail.com

Contact Number : 8688440641

Fig. 3.3.1: Graduate Exit Survey

(Page 1/2)

Please rate in the appropriate box to indicate your degree of satisfaction.

3* -Excellent 2* -Good 1* -Average 0* -Poor

S.NO.	Pos have prepared graduates to have the following attributes:	RATE
1	Apply Knowledge of Mathematics, Science and Engineering.	3
2	Design and conduct experiments in Electronics & Communication Engineering as well as analyze and interpret data.	2
3	Design a system, component, or process to meet desired needs of Electronics & Communication Engineering, with in realistic constraints, such as Economic, Environmental, Social, Political, Ethical, Health and Safety, Manufacturability and Sustainability.	2
4	Identify, formulate and solve Electronics & Communication Engineering Problems.	3
5	Use the techniques, skills and modern Electronics & Communication Engineering tools, software tools and equipments to create and analyze and put them into practice in the real life.	2
6	Acquire the board education necessary to understand the impact of Electronics & Communication Engineering solutions in a global, economic, environmental, and societal context.	3
7	Understanding the impact of the professional engineering solutions in societal and environmental context to demonstrate the need for sustainable development.	3
8	Understand professional and ethical responsibility.	2
9	Function on multidisciplinary teams.	2
10	Communicative effectively.	3
11	To apply in practical life as a member, as a leader in a team and to manage projects in MNC's.	2
12	Recognize the need to develop an ability to engage in life -long learning.	3

List out the Strengths / Observations / Suggestions

- 1) Good Facilities
- 2) Experienced faculty.
- 3) Well equipped laboratories.

Date: 25/5/23

A. Hemalatha
Signature

Fig. 3.3.2: Graduate Exit Survey

(Page 2/2)

Alumni Survey A Survey is conducted on Vision & Mission, PEOs, POs and

PSOs. It contributes towards the weightage of PO, PSO and PEOs attainment. This survey is administered by alumni coordinator with the passed out students. The Sample Alumni Survey form is presented in Fig. 3.3.3 and 3.3.4

VISWAM ENGINEERING COLLEGE
(Formerly Sir Vishveshwaraiah Institute of Science & Technology)
Madanapalle – 517 325

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Alumni Survey

The purpose of this survey is to obtain your input on the quality of under graduate program in Electronics & Communication Engineering at VISWAM Engineering College to assess the achievement of academic Program Outcomes (POs). We seek your help in completing this survey.

Your response is a key part of our continuous improvement process. Your participation is greatly appreciated.

Organization Information:

Name of the Student : P. Mayavathi

Name of the Organization :

Type of Business :

Organization Size :

Number of VISWAM Engineering College, Electronics & Communication Engineering Graduates are working in your Organization.

Hall Ticket No : 198P1A0450

Year of Graduation :

E-Mail ID : mayavathipadmaya4agari@gmail.com

Contact Number : 7386610287

Fig. 3.3.3: Alumni Survey
(Page 1/2)

Please rate in the appropriate box to indicate your degree of satisfaction.

3* -Excellent 2* -Good 1* -Average 0* -Poor

S.NO.	Pos have prepared graduates to have the following attributes:	RATE
1	Apply Knowledge of Mathematics, Science and Engineering.	3
2	Design and conduct experiments in Electronics & Communication Engineering as well as analyze and interpret data.	2
3	Design a system, component, or process to meet desired needs of Electronics & Communication Engineering, with in realistic constraints, such as Economic, Environmental, Social, Political, Ethical, Health and Safety, Manufacturability and Sustainability.	3
4	Identify, formulate and solve Electronics & Communication Engineering Problems.	2
5	Use the techniques, skills and modern Electronics & Communication Engineering tools, software tools and equipments to create and analyze and put them into practice in the real life.	2
6	Acquire the board education necessary to understand the impact of Electronics & Communication Engineering solutions in a global, economic, environmental, and societal context.	3
7	Understanding the impact of the professional engineering solutions in societal and environmental context to demonstrate the need for sustainable development.	2
8	Understand professional and ethical responsibility.	3
9	Function on multidisciplinary teams.	3
10	Communicative effectively.	2
11	To apply in practical life as a member, as a leader in a team and to manage projects in MNC's.	3
12	Recognize the need to develop an ability to engage in life -long learning.	2

List out the Strengths / Observations / Suggestions

- 1) Good infrastructure
- 2) Improvement in the industry Interaction by the college
- 3) _____
- 4) _____
- 5) _____

Date: 25/5/2023

Signature
P. Mayavathi

Fig. 3.3.4: Alumni Survey

(Page 2/2)

Employer Survey A feedback is collected on Vision & Mission, PEOs, POs & PSOs. It is an indirect assessment tool which contributes towards the weightage of POs and PSOs. Employee surveys are tools used by organizational leadership to gain feedback on and measure employee engagement, employee moral values and performance.

The various surveys conducted at institution level and their weightages in indirect assessment process are tabulated as given below.

Name Of the Survey	Weightage
Graduate Exit Survey	10%
Alumni Survey	5%
Employer Survey	5%

Table 3.3.1: Weightage of Surveys

3.3.2. Provide results of evaluation of each PO & PSO

Program shall set Program Outcome attainment levels for all POs & PSOs.

(The attainment levels by direct (student performance) and indirect (surveys) are to be presented through Program level Course – PO & PSO matrix as indicated).

PO Attainment

C101, C102 are indicative courses in the first year. Similarly, C409 is final year course. First numeric digit indicates year of study and remaining two digits indicate course nos. in the respective year of study.

Direct attainment level of a PO & PSO is determined by taking average across all courses addressing that PO and/or PSO. Fractional numbers may be used for example 1.55.

Indirect attainment level of PO & PSO is determined based on the student exit surveys, employers surveys, co-curricular activities, extracurricular activities etc.

Example:

1. It is assumed that a particular PO has been mapped to four courses C201, C302, C303 and C401
2. The attainment level for each of the four courses will be as per the examples shown in 3.2.2
3. PO attainment level will be based on attainment levels of direct assessment and indirect assessment
4. For affiliated, non-autonomous colleges, it is assumed that while deciding on overall attainment level 80% weightage may be given to direct assessment and 20% weightage to indirect assessment through surveys from students (largely), employers (to some extent). Program may have different weightages with appropriate justification.
5. Assuming following actual attainment levels:

Direct Assessment

C201–High (3)

C302 – Medium

(2) C303 – Low (1)

C401 – High (3)

Attainment level will be summation of levels divided by no. of courses

$$3+2+1+3/4= 9/4=2.25$$

Indirect Assessment

Surveys, Analysis, customized to an average value as per levels 1, 2 & 3.

Assumed level - 2

6. PO Attainment level will be 80% of direct assessment + 20% of indirect assessment i.e. $1.8 + 0.4 = 2.2$.

Note: Similarly for PSOs

CAYm1 (2019-20 Admitted Batch)																
Ye ar	S.N o.	Theo ry /Lab	Cour se Code	Name of the Subject	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12
I Year I sem	1	Theor y	C101	Algebra & Calculus - 19A54101	1.8	1.6 8	1.6	1.4	-	-	-	-	-	-	1.4	1.2
	2	Theor y	C102	Applied Physics- 19A56101T	1.6 7	1.6 4	1.6 7	-	-	-	-	-	-	-	-	-
	3	Theor y	C103	Problem Solving & Programming- 19A05101T	1.6 8	1.6	1.4	-	-	-	-	-	-	-	1.3	1.4
	4	Theor y	C104	Communicative English 1- 19A52101T	-	-	-	-	-	-	-	1.4 2	1.6 7	1.8	-	1.5
	5	Theor y	C105	Electronics & Communication	1.8	1.4	-	-	-	-	-	-	-	-	-	1.4

				Engineering Workshop- 19A04101												
	6	Lab	C106	Applied Physics Lab - 19A56101P	1.8 2	1.8 2	1.6 3	-	-	-	-	-	-	-	-	-
	7	Lab	C107	Problem Solving & Programming Lab - 19A05101P	1.6 8	1.6	1.4	-	-	-	-	-	-	-	1.4	1.2
	8	Lab	C108	Communicative English 1 Lab - 19A52101P	-	-	-	-	-	-	-	1.4	1.6 8	1.8	-	1.5
I Year II sem	9	Theor y	C109	Network Theory - 19A04201T	1.6 8	1.6	1.4	1.4	-	-	-	-	-	-	-	1.4
	10	Theor y	C110	Differential Equations and Vector Calculus - 19A54201	1.8	1.6 8	1.4	1.4	-	-	-	-	-	-	-	1.2

11	Theor y	C111	Chemistry- 19A51102T	1.6	1.4 1	-	-	-	-	-	-	-	-	-	-
12	Theor y	C112	Data Structures - 19A05201T	1.6 8	1.4	1.2	-	-	-	-	-	-	-	1.7	1.2
13	Theor y	C113	Engineering Workshop - 19A03101	1.6 8	1.6	1.2	1.4	-	-	-	-	-	-	1.4	-
14	Lab	C114	Engineering Graphics Lab - 19A03102	1.7 1	1.4	1.4 5	1.4 9	-	-	-	-	-	-	-	-
15	Lab	C115	Network Theory Lab - 19A04201P	1.6 8	1.6	1.2	1.4	-	-	-	-	-	-	-	1.2
16	Lab	C116	Chemistry Lab - 19A51102P	1.6 5	1.2	-	-	-	-	-	-	-	-	-	-
17	Lab	C117	Data Structures Lab- 19A05201P	1.6 8	1.2	1.4	-	-	-	-	-	-	-	1.7	1.2

II Year I Sem	18	Theory	C201	Complex Variables and Transforms- 19A54302	1.3 6	1.2 9	-	1.4 3	-	-	-	-	-	-	-	-
	19	Theory	C202	Signals & Systems - 19A04301	1.4 3	1.6 7	1.4 4	1.4 4	-	-	-	-	-	-	-	1.5
	20	Theory	C203	Electronic Devices and Circuits - 19A04302T	1.7 5	1.6 8	1.5	-	-	1.5	-	-	-	-	-	-
	21	Theory	C204	Probability Theory and Stochastic Processes- 19A04303	1.2 1	1.1 8	1.1 3	1.1	-	-	-	-	-	-	-	-
	22	Theory	C205	Digital Electronics and Logic Design- 19A04304	1.4 3	1.6 1	1.5 2	-	-	-	-	-	-	-	-	-
	23	Theory	C206	Electrical Technology-	1.5 4	1.5 6	1.1 7	-	1.7 6	-	-	-	-	-	-	-

				19A02304T												
	24	Lab	C207	Electronic Devices and Circuits Lab - 19A04302P	1.9	1.8 1	1.6 5	-	-	1.8	-	-	-	-	-	-
	25	Lab	C208	Basic Simulation Lab - 19A04305	1.6 7	1.4 2	-	-	1.6 9	1.4 6	-	-	-	-	-	1.5
	26	Lab	C209	Electrical Technology Lab - 19A02304P	1.4	1.6 2	1.0 8	-	1.6 3	-	-	-	-	-	-	1.4
	27	Lab	C210	Biology For Engineers - 19A99302	-	1.4 7	-	-	-	-	1.4	-	-	-	-	1.4
II Year II Sem	28	Theor y	C211	Electromagnetic Waves and Transmission lines- 19A04401	1.6	1.5 8	1.5 8	1.2 5	-	-	-	-	-	-	-	-
	29	Theor	C212	Electronic Circuits	1.5	1.7	1.4	-	1.3	-	-	-	-	-	-	-

	y		- Analysis and Design - 19A19A04402T	2	5	7		2								
30	Theory	C213	Control Systems- 19A02404	1.1 4	1.3 1	1.1 1	1.1 1	-	-	-	-	-	-	-	-	-
31	Theory	C214	Analog Communications - 19A04403T	1.6 2	1.7 5	1.6 4	-	-	-	-	-	-	-	-	-	-
32	Theory	C215	Python Programming- 19A05304T	1.8 3	-	1.5 8	-	1.8 1	-	-	-	-	-	-	-	1.8
33	Theory	C216	Computer Architecture and Organization- 19A04404	1.4 6	1.6 6	1.4 6	-	-	-	-	-	-	-	-	-	-
34	Theory	C217	Universal Human Values-52301	-	-	-	-	-	-	-	1.8 3	-	1.4	-	1.4	

	35	Lab	C218	Electronic Circuits - Analysis and Design Lab - 19A04402P	1.7	1.6 9	1.6 7	-	1.4 3	-	-	-	-	-	-	-
	36	Lab	C219	Analog Communications Lab - 19A04403P	1.6 2	1.6 4	1.8 2	-	-	-	-	-	-	-	-	-
	37	Lab	C220	Environmental Science - 19A99301	-	-	-	1.4 2	1.4 3	-	1.8 4	-	-	-	-	1.4
III Year I Sem	38	Theor y	C301	Integrated Circuits and Applications- 19A04501T	1.6 8	1.7	1.7	-	-	-	-	-	-	-	-	-
	39	Theor y	C302	Antennas and Wave Propagation - 19A04502	1.4 1	1.7 6	1.4	-	-	1.4 7	0.7 3	-	-	-	-	0.7
	40	Theor	C303	English Language	-	1.6	-	1.4	-	-	-	-	1.6	1.1	-	1.4

	y		Skills - 19A52601T		2		2					1				
41	Theor y	C304	Digital Communication- 19A 52601T	1.9 9	2.1 3	2	2.1 2	-	-	-	-	-	-	-	-	1.6
42	Theor y	C305	Data Communications and Networks - 19A04504a	1.1 8	1.5 3	1.7 2	-	-	1.5 2	-	-	-	-	-	-	1.5
43	Theor y	C306	Technical Communication and Presentation Skills- 19A 2506a	-	1.6	-	1.4 2	-	-	-	-	1.6 6	1.2	-	-	1.5
44	Lab	C307	Integrated Circuits and Applications Lab- 19A04501P	1.4	1.6 8	1.6	-	-	-	-	-	-	-	-	-	-
45	Lab	C308	English Language Skills Lab - 19A 52601P	-	-	-	-	-	-	-	-	1.6 1	1.1	-	-	1.4

	46	Lab	C309	Digital Communications Lab - 19A 04503P	1.69	1.69	1.42	1.43	-	-	-	-	-	-	-	-	1.1
	47	Lab	C310	Socially Relevant Project - 19A04507	-	1.42	1.61	-	1.4	1.61	1.42	1.4	1.67	1.4	1.4	1.4	1.4
	48	Lab	C311	Research Methodology - 19A99601	-	1.4	-	-	-	-	-	1.4	-	-	-	-	1.4
III Year II Sem	49	Theory	C312	Microprocessors and Microcontrollers - 19A04601T	1.65	1.41	1.6	-	1.65	-	-	-	-	-	-	-	-
	50	Theory	C313	Digital Signal Processing - 19A04602T	1.49	1.75	1.5	1.5	-	-	-	-	-	-	-	-	-
	51	Theory	C314	Digital System Design through	1.65	1.76	1.7	-	-	1.56	-	-	-	-	-	-	-

			VHDL- 19A04603												
52	Theory	C315	Electrical Measurement and Electronic Instruments – 19A04605d	1.46	1.7	-	-	-	-	-	-	-	-	-	-
53	Theory	C316	Industrial waste and wastewater management – 19A01604a	1.78	1.75	-	-	-	-	2.07	1.78	1.86	-	-	1.82
54	Theory	C317	Business Ethics and Corporate Governance - 19A52602c	-	-	-	-	-	-	-	1.64	1.4	-	1.4	1.4
55	Lab	C318	Digital Signal Processing Lab – 19A04602P	1.42	1.42	1.08	1.09	1.6	-	-	-	-	-	-	-
56	Lab	C319	Microprocessors	1.6	1.4	1.6	-	1.7	-	-	-	-	-	1.4	1.4

			and Microcontrollers Lab-19A04601P	9		9									3	
	57	Lab	C320 Socially Relevant Project-19A04606	-	1.4	1.6	-	1.4 2	1.4 3	1.4	1.4	1.6 8	1.4	1.5	1.4	
	58	Lab	C321 Constitution of India – 19A99501	-	-	-	-	-	-	-	-	1.4 2	-	-	1.4	
	59	Lab	C322 Industrial Training/Skill development/Resea rch Project - 19A04607	1.6	1.6 4	1.6 8	1.4	1.6 5	1.4	1.4 3	-	1.4 5	1.6	1.6 5	1.63	
IV Year I Sem	60	Theor y	C401 Microwave Engineering and Optical Communications- 04701T	1.4 9	1.5 5	1.3 8	-	-	-	-	-	-	-	1	-	
	61	Theor	C402 VLSI Design –	1.5	1.4	1.3	1.3	-	-	-	-	-	-	-	1.1	

	y		19A04702T	7		5	5								
62	Theor y	C403	Satellite Communications - 19A04703a	1.7	1.4 8	-	-	-	1.4 6	-	-	-	-	-	1.43
63	Theor y	C404	Air pollution and control-19A01704a	-	-	1.4 3	-	-	-	-	-	-	-	0.7	0.7
64	Theor y	C405	Management Science- 19A52701b	-	1.4 2	1.4	1.4	-	1.4	1.4 3	1.4 3	1.4	1.4	1.4	-
65	Lab	C406	Microwave and Optical Communications Lab-04701P	1.6 4	1.4	1.4 2	-	-	-	-	-	-	-	1.1	-
66	Lab	C407	VLSI Design Lab - 04702P	1.6	1.6 5	1.6 2	1.4	-	-	-	-	-	-	1.4	1.4
67	Lab	C408	Industrial Training/Skill	1.4	1.6	1.6 5	1.4	1.6 9	1.4	1.4 2	-	1.6	1.6 8	1.6 9	1.7

				Development/Research Project – 19A04705													
IV Year II Sem	68	Theory	C409	Introduction to Internet of Things – 19A04801b	1.64	1.84	1.84	-	1.8	-	-	-	-	-	-	-	1.5
	69	Theory	C410	Global Warming and climate changes– 19A01802b	-	1.49	-	-	-	-	1.52	-	-	-	-	-	1.5
	70	Lab	C411	Project –19A04803	2.2	1.7	1.21	1.4	1.75	1.43	1.4	-	1.8	1.6	1.4	1.7	
Average Of Direct Attainment					1.61	1.57	1.49	1.40	1.61	1.50	1.46	1.52	1.61	1.47	1.38	1.39	
80% Of Direct Attainment					1.29	1.26	1.19	1.12	1.29	1.20	1.17	1.22	1.29	1.17	1.11	1.11	

Table 3.3.2: Direct Attainment of PO's

Survey	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
Graduate Exit Survey	2.45	2.38	2.28	2.22	2.5	2.44	2.47	2.34	2.4	2.5	2.5	2.4
Alumni Survey	2.58	2.47	2.45	2.39	2.4	2.54	2.42	2.47	2.6	2.6	2.5	2.5
Employer Survey	2.35	2.29	2.21	2.18	2.3	2.45	2.48	2.49	2.2	2.4	2.3	2.2
20% Of Indirect Attainment	0.49	0.48	0.46	0.45	0.5	0.49	0.49	0.48	0.5	0.5	0.5	0.5

Table 3.3.3: Indirect Attainment of PO's

Survey	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
80% Of Direct Attainment	1.29	1.26	1.19	1.12	1.29	1.20	1.17	1.22	1.29	1.17	1.11	1.11
20% Of Indirect Attainment	0.49	0.48	0.46	0.45	0.5	0.49	0.49	0.48	0.5	0.5	0.5	0.5
Total Attainment	1.78	1.74	1.65	1.57	1.77	1.69	1.66	1.70	1.77	1.66	1.60	1.58

Table 3.3.4: Final Attainment of PO's

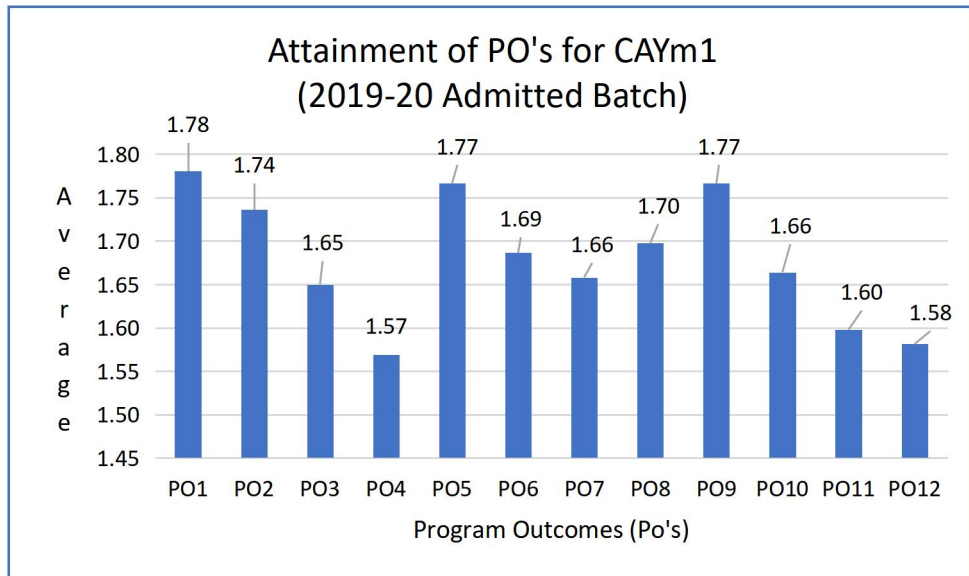


Fig. 3.3.5: Attainment of PO's

CAYm2 (2018-19 Admitted Batch)																	
Ye ar	S.N o.	Theo ry /Lab	Cour se Code	Name of the Subject	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12	
I Year I sem	1	Theor y	C101	Functional English - 15A52101	-	-	-	-	-	-	-	1.4	1.6 8	1.8	-	2.2	
	2	Theor y	C102	Mathematics-I - 15A54101	1.8 3	1.8 0	1.8 2	1.8 2	1.8 5	-	-	-	-	-	-	-	1.4 2
	3	Theor y	C103	Mathematical Methods - 15A05101	1.6 8	1.6 9	1.8 3	1.8 4	1.6 8	-	-	-	-	-	-	-	1.4
	4	Theor y	C104	Engineering Chemistry- 15A51101	1.6 5	2	-	-	-	-	-	-	-	-	-	-	-
	5	Theor y	C105	Environmental Studies- 15A01101	-	-	-	1.4 1	1.4 2	-	1.8	-	-	-	-	-	1.8 2

	6	Lab	C106	English Language Communication Skills Lab - 15A52102	-	-	-	-	1.68	-	-	-	1.81	1.68	-	1.4
	7	Lab	C107	Engineering Chemistry Lab- 15A51102	1.42	1.07	-	-	-	-	-	-	-	-	-	-
	8	Lab	C108	Computer Programming Lab- 15A05102	1.06	1.40	1.41	-	-	-	-	-	-	-	1.42	1.4
I Year II sem	9	Theory	C109	English for Professional Communication- 15A52201	-	1.6	-	1.41	-	-	-	-	1.61	1.06	-	1.41
	10	Theory	C110	Mathematics – II- 15A54201	1.80	1.81	1.82	1.80	1.81	-	-	-	-	-	-	1.4
	11	Theory	C111	Network Analysis-	1.4	1.4	1.4	1.4	-	-	-	-	-	-	1.4	1.4

	y		15A04201	0	2	1	0							2	
12	Theor y	C112	Engineering Physics - 15A56101	1.6 5	1.4 0	-	-	-	-	-	-	-	-	-	-
13	Theor y	C113	Engineering Drawing -15A03101	1.0 8	1.4 1	1.4 0	-	-	-	-	-	-	-	-	-
14	Lab	C114	Network Analysis Lab - 15A04202	1.6 0	1.6 1	1.6 5	1.6 6	-	-	-	-	-	-	-	-
15	Lab	C115	Engineering Physics Lab - 15A56102	1.4 0	1.0 8	-	-	-	-	-	-	-	-	-	-
16	Lab	C116	Engineering and IT Workshop - 15A99201	1.4 0	1.4 2	1.4 1	-	-	-	-	-	-	-	2	1.4
II Year I Sem	17	Theor y	C201	Mathematics-III- 15A54301	1.6 5	1.6 0	-	1.6 6	-	-	-	-	-	-	-
	18	Theor y	C202	Electronic Devices and Circuits-	1.6 0	1.6 1	1.6 2	-	-	2	-	-	-	-	-

			15A04301													
19	Theory	C203	Switching Theory and Logic Design - 15A04302	1.40	1.41	1.40	-	-	-	-	-	-	-	-	-	-
20	Theory	C204	Signals and Systems-15A04303	1.40	1.65	1.40	1.40	0.00	1.40	-	-	-	-	-	-	1.4
21	Theory	C205	Probability Theory and Stochastic Processes-15A04304	1.40	1.41	1.42	1.40	-	-	-	-	-	-	-	-	-
22	Theory	C206	Electrical Technology- 15A02306	1.40	1.41	1.05	-	1.60	-	-	-	-	-	-	-	-
23	Lab	C207	Electronic Devices and Circuits Lab - 15A04305	1.40	1.41	1.41	-	-	-	-	-	-	-	-	-	-
24	Lab	C208	Electrical Technology and	1.41	1.40	1.05	-	1.60	-	-	-	-	-	-	-	-

				Basic Simulation Laboratory - 15A02307													
II Year II Sem	25	Theor y	C209	Mathematics-IV- 15A54402	1.6 0	1.4 1	1.4 2	1.4 0	-	-	-	-	-	-	-	-	
	26	Theor y	C210	Electronic Circuit Analysis - 15A04401	1.6 0	1.6 0	1.4 0	-	-	-	-	-	-	-	-	-	
	27	Theor y	C211	Analog Communication Systems- 15A04402	1.4 1	1.6 5	1.6 0	-	-	-	-	-	-	-	-	-	
	28	Theor y	C212	Electromagnetic Theory and Transmission Lines - 15A04403	1.6 0	1.6 5	1.6 8	-	-	-	-	-	-	-	-	-	
	29	Theor y	C213	Data Structures- 15A05201	1.4 0	-	-	-	1.4 1	-	-	-	-	-	-	-	1.0 4
	30	Theor	C214	Control Systems	1.4	1.4	1.4	1.4	-	-	-	-	-	-	-	-	

		y		Engineering- 15A02303	0	1	2	1								
	31	Lab	C215	Electronic Circuit Analysis Laboratory- 15A04404	1.6 0	1.6 5	1.6 0	-	-	-	-	-	-	-	-	-
	32	Lab	C216	Analog Communication Systems Laboratory - 15A04405	1.6 0	1.6 5	1.6 5	-	-	-	-	-	-	-	-	-
	33	Lab	C217	Comprehensive Online Examination- I - 15A04406	-	-	-	-	-	-	-	-	-	2	-	-
III Year I Sem	34	Theor y	C301	Computer Organization- 15A04511	1.4 0	1.4 1	1.4 3	-	-	-	-	-	-	-	-	-
	35	Theor y	C302	Antennas and Wave Propagation - 15A04501	1.6 1	1.6 5	1.6 5	0.0 0	0.0 0	1.4 1	-	0	0	0	0	0.7 28

36	Theory	C303	Digital Communication Systems - 15A04502	1.40	1.60	1.62	1.61	-	-	-	-	-	-	-	1.08
37	Theory	C304	Linear Integrated Circuits and Applications- 15A04503	1.60	1.68	1.61	-	-	-	-	-	-	-	-	-
38	Theory	C305	Digital System Design - 15A04504	1.60	1.65	1.61	-	-	1.40	-	-	-	-	-	-
39	Theory	C306	Linux Programming & Scripting- 15A04505	1.42	-	-	-	1.41	-	-	-	-	-	-	1.4
40	Lab	C307	IC Applications Laboratory- 15A04507	1.60	1.65	1.61	-	-	-	-	-	-	-	-	-
41	Lab	C308	Digital Communication Systems Laboratory	1.65	1.66	1.41	1.42	-	-	-	-	-	-	-	-

			- 15A04508													
42	Lab	C309	Audit course – Social Values & Ethics - 15A99501	-	-	-	-	-	-	-	2.2	-	1.4 1	-	1.4	
III Year II Sem	43	Theor y	C310 Managerial Economics and Financial Analysis - 15A52301	-	-	-	-	-	-	-	-	-	1.4 1	1.4	1.4 2	
	44	Theor y	C311 Microprocessors & Microcontrollers - 15A04601	1.6 0	1.4 0	1.6 0	-	1.4 0	-	-	-	-	-	-	-	
	45	Theor y	C312 Electronic Measurements and Instrumentation- 15A04602	1.4 0	1.4 0	-	-	-	-	-	-	-	-	-	-	
	46	Theor y	C313 Digital Signal Processing – 15A04603	1.7 0	1.7 1	1.6 5	1.4 1	0.0 0	0.0 0	0	0	0	0	0	0	

47	Theory	C314	VLSI Design – 15A04604	1.6 0	1.4 1	1.4 0	1.4 2	-	-	-	-	-	-	-	1.0 6
48	Theory	C315	MATLAB Programming - 15A04605	1.6 5	1.4 1	1.4 2	1.4 1	-	-	-	-	-	-	1.4	1.4 1
49	Lab	C316	Microprocessors & Microcontrollers Laboratory – 15A04607	1.0 0	2.0 0	2.3 0	-	2.3 0	-	-	-	-	-	2	2
50	Lab	C317	Digital Signal Processing Laboratory– 15A04608	1.6 8	1.4 0	1.0 5	1.0 5	1.6 0	-	-	-	-	-	-	-
51	Lab	C318	Advanced English Language Communication Skills Lab– 15A52602	-	-	-	-	-	-	-	-	1.6	1.6 1	-	1.4

	52	Lab	C319	Comprehensive Online Examination-II- 15A04609	-	-	-	-	-	-	-	-	-	1.4 1	-	-
IV Year I Sem	53	Theory	C401	Optical Fiber Communication- 15A04701	1.6 0	1.4 1	1.4 2	1.4 1	-	-	-	-	-	-	1.0 6	-
	54	Theory	C402	Embedded Systems -15A04702	1.4 1	1.4 2	1.4 0	-	1.4 1	1.4 0	-	-	-	-	-	1.6 5
	55	Theory	C403	Microwave Engineering - 15A04703	1.6 1	1.4 0	1.4 1	-	-	-	-	-	-	-	1.6	-
	56	Theory	C404	Data Communications and Networking – 15A04704	1.0 6	1.4 1	1.6 5	-	-	1.4 0	-	-	-	-	-	1.4 1
	57	Theory	C405	Radar Systems- 15A04705	1.0 0	2.2 0	2.2 0	-	-	-	-	-	-	-	1.6	-

	58	Theory	C406	Digital Image Processing- 15A04708	1.6 0	1.4 0	1.4 2	-	-	-	-	-	-	-	1.4 1	1.4 1
	59	Lab	C407	Microwave and Optical Communication Laboratory - 15A04711	2.3 0	2.0 0	2.0 0	-	-	-	-	-	-	-	1.6	-
	60	Lab	C408	VLSI & Embedded Systems Laboratory - 15A04712	1.6 0	1.6 1	1.6 2	1.4 1	-	-	-	-	-	-	1.4 2	1.4 1
IV Year II Sem	61	Theory	C409	Low Power VLSI Circuits & Systems - 15A04802	1.6 1	1.6 2	1.4 1	1.4 1	-	-	-	-	-	-	1.4	1.4 1
	62	Theory	C410	RF Integrated Circuits-15A04804	1.4 1	1.4 0	-	-	-	-	-	-	-	-	2	-
	63	Lab	C411	Comprehensive Viva	2.2	1.6	2.2	1.4	1.8	1.4	1.4	-	1.8	1.7	1.4	1.7

			Voce –15A04805	0	8	0	1	0	0	0	0				2	1
64	Lab	C412	Technical Seminar - 15A04806	1.8 0	1.6 5	1.8 2	1.4 1	1.6 1	1.4 2	1.4 1	-	1.6 8	1.6 5	-	1.4 1	1.4 1
65	Lab	C413	Project Work - 15A04807	2.2 0	1.6 8	2.2 1	1.4 2	1.8 0	1.4 0	1.4 2	-	1.8	1.7	1.4	1.7	1.7
Average Of Direct Attainment				1.5 4	1.5 6	1.5 7	1.4 2	1.3 2	1.2 0	0.8 6	0.4 4	1.0 3	1.1 2	1.2 3	1.3 2	
80% Of Direct Attainment				1.2 3	1.2 4	1.2 6	1.1 3	1.0 6	0.9 6	0.6 9	0.3 5	0.8 2	0.8 9	0.9 8	1.0 5	

Table 3.3.5: Direct Attainment of PO's

Survey	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Graduate Exit Survey	2.45	2.38	2.28	2.22	2.45	2.44	2.47	2.34	2.44	2.45	2.51	2.36
Alumni Survey	2.58	2.47	2.45	2.39	2.38	2.54	2.42	2.47	2.6	2.56	2.54	2.46
Employer Survey	2.35	2.29	2.21	2.18	2.25	2.45	2.48	2.49	2.18	2.39	2.25	2.24
20% Of Indirect Attainment	0.49	0.48	0.46	0.45	0.48	0.49	0.49	0.48	0.48	0.49	0.49	0.47

Table 3.3.6: Indirect Attainment of PO's

Survey	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
80% Of Direct Attainment	1.23	1.24	1.26	1.13	1.06	0.96	0.69	0.35	0.82	0.89	0.98	1.05
20% Of Indirect Attainment	0.49	0.48	0.46	0.45	0.48	0.49	0.49	0.48	0.48	0.49	0.49	0.47
Total Attainment	1.72	1.72	1.72	1.58	1.54	1.45	1.18	0.83	1.30	1.38	1.47	1.52

Table 3.3.7: Final Attainment of PO's

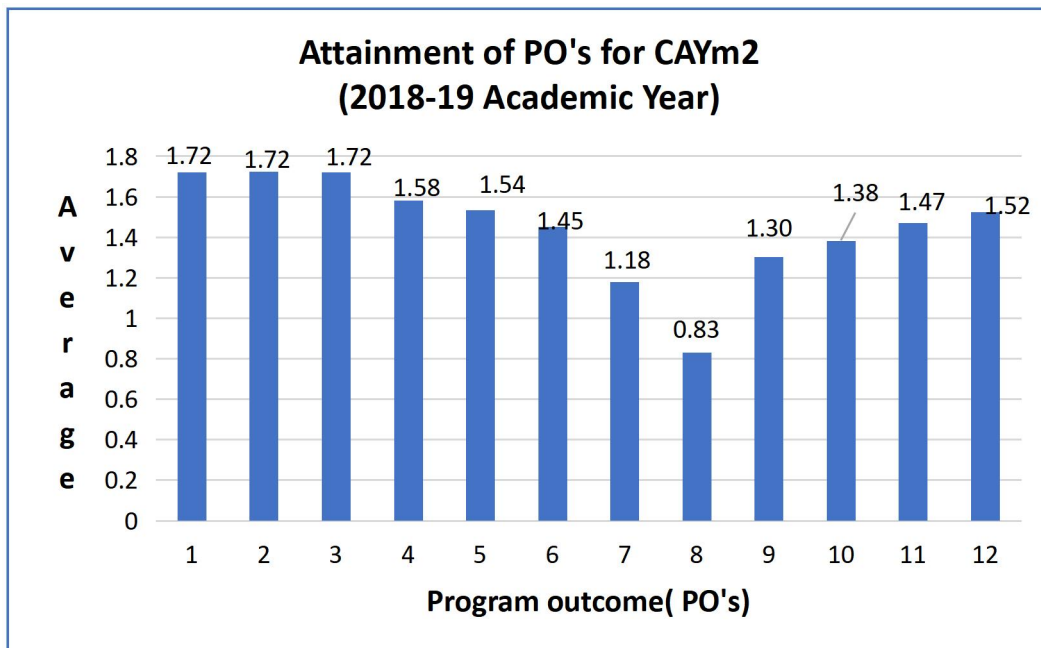


Fig. 3.3.6: Attainment of PO's

CAYm3 (2017-18 Admitted Batch)																	
Ye ar	S.N o.	Theo ry /Lab	Cour se Code	Name of the Subject	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	
I Year I sem	1	Theo ry	C10 1	Functional English - 15A52101	-	-	-	-	-	-	-	1.4	1.6 8	1.8	-	1.6	
	2	Theo ry	C10 2	Mathematics-I - 15A54101	1.8 2	1.8 1	1.8 4	1.8	1.9 2	-	-	-	-	-	-	-	1.4
	3	Theo ry	C10 3	Mathematical Methods - 15A05101	1.6 8	1.6 8	1.8 1	1.8	1.6 9	-	-	-	-	-	-	-	1.4
	4	Theo ry	C10 4	Engineering Chemistry- 15A51101	1.6 5	1.4	-	-	-	-	-	-	-	-	-	-	-
	5	Theo ry	C10 5	Environmental Studies- 15A01101	-	-	-	1.4 1	1.4 1	-	1.8 1	-	-	-	-	-	1.4 1

	6	Lab	C10 6	English Language Communication Skills Lab - 15A52102	-	-	-	-	1.6 8	-	-	-	1.8	1.6 8	-	1.4
	7	Lab	C10 7	Engineering Chemistry Lab- 15A51102	1.4 1	1.8	-	-	-	-	-	-	-	-	-	-
	8	Lab	C10 8	Computer Programming Lab- 15A05102	1.6	1.4 1	1.4	-	-	-	-	-	-	-	1.4	1.4
I Year II sem	9	Theo ry	C10 9	English for Professional Communication- 15A52201	-	1.6	-	1.4	-	-	-	-	1.6	1.6	-	1.4 1
	10	Theo ry	C11 0	Mathematics – II- 15A54201	1.8	1.8	1.8 1	1.8 2	1.9 2	-	-	-	-	-	-	1.4
	11	Theo	C11	Network Analysis-	1.4	1.4	1.4	1.4	-	-	-	-	-	-	1.4	1.4

		ry	1	15A04201	1			1								1
	12	Theo ry	C11 2	Engineering Physics - 15A56101	1.6 5	1.4	-	-	-	-	-	-	-	-	-	-
	13	Theo ry	C11 3	Engineering Drawing -15A03101	1.8	1.4	1.4 1	-	-	-	-	-	-	-	-	-
	14	Lab	C11 4	Network Analysis Lab - 15A04202	1.6	1.6 1	1.6 5	1.6 5	-	-	-	-	-	-	-	-
	15	Lab	C11 5	Engineering Physics Lab - 15A56102	1.4 1	1.8	-	-	-	-	-	-	-	-	-	-
	16	Lab	C11 6	Engineering and IT Workshop - 15A99201	1.4	1.4	1.4	-	-	-	-	-	-	-	1.4	1.4
II Year I Sem	17	Theo ry	C20 1	Mathematics-III- 15A54301	1.6 5	1.6 1	-	1.6 6	-	-	-	-	-	-	-	-
	18	Theo ry	C20 2	Electronic Devices and Circuits-	1.6 1	1.6	1.4	-	-	1.4	-	-	-	-	-	-

			15A04301													
19	Theory	C203	Switching Theory and Logic Design - 15A04302	1.41	1.6	1.4	-	-	-	-	-	-	-	-	-	-
20	Theory	C204	Signals and Systems-15A04303	1.08	1.32	1.14	1.14	-	1.10	-	-	-	-	-	-	1.06
21	Theory	C205	Probability Theory and Stochastic Processes-15A04304	1.4	1.61	1.6	1.4	-	-	-	-	-	-	-	-	-
22	Theory	C206	Electrical Technology-15A02306	1.41	1.4	1.05	-	1.6	-	-	-	-	-	-	-	-
23	Lab	C207	Electronic Devices and Circuits Lab - 15A04305	1.41	1.6	1.4	-	-	-	-	-	-	-	-	-	-
24	Lab	C20	Electrical	1.4	1.4	1.0	-	1.6	-	-	-	-	-	-	-	-

			8	Technology and Basic Simulation Laboratory - 15A02307			5									
II Year II Sem	25	Theory	C209	Mathematics-IV- 15A54402	1.6	1.41	1.4	1.4	-	-	-	-	-	-	-	-
	26	Theory	C210	Electronic Circuit Analysis - 15A04401	1.61	1.6	1.41	-	-	-	-	-	-	-	-	-
	27	Theory	C211	Analog Communication Systems- 15A04402	1.4	1.66	1.6	-	-	-	-	-	-	-	-	-
	28	Theory	C212	Electromagnetic Theory and Transmission Lines - 15A04403	1.51	1.50	1.50	1.19	-	-	-	-	-	-	-	-
	29	Theory	C213	Data Structures- 15A05201	1.41	-	-	-	1.4	-	-	-	-	-	-	-

III Year I Sem	30	Theory	C21 4	Control Systems Engineering- 15A02303	1.4	1.6	1.4 1	1.4 1	-	-	-	-	-	-	-	-
	31	Lab	C21 5	Electronic Circuit Analysis Laboratory- 15A04404	1.6	1.6 5	1.6	-	-	-	-	-	-	-	-	-
	32	Lab	C21 6	Analog Communication Systems Laboratory - 15A04405	1.6	1.6 6	1.6 5	-	-	-	-	-	-	-	-	-
	33	Lab	C21 7	Comprehensive Online Examination-I - 15A04406	-	-	-	-	-	-	-	-	-	1.4	-	-
	34	Theory	C30 1	Computer Organization- 15A04511	1.4	1.4 1	1.4	-	-	-	-	-	-	-	-	-

35	Theory	C30 2	Antennas and Wave Propagation - 15A04501	1.37	1.70	1.36	-	-	1.46	0.73	-	-	-	-	0.73
36	Theory	C30 3	Digital Communication Systems - 15A04502	1.40	1.61	1.60	1.62	-	-	-	-	-	-	-	1.80
37	Theory	C30 4	Linear Integrated Circuits and Applications- 15A04503	1.61	1.68	1.60	-	-	-	-	-	-	-	-	-
38	Theory	C30 5	Digital System Design - 15A04504	1.60	1.65	1.60	-	-	1.40	-	-	-	-	-	-
39	Theory	C30 6	Linux Programming & Scripting- 15A04505	1.40	-	-	-	1.41	-	-	-	-	-	-	1.40
40	Lab	C30	IC Applications Laboratory-	1.6	1.6	1.6	-	-	-	-	-	-	-	-	-

			7	15A04507	1	6	0									
	41	Lab	C308	Digital Communication Systems Laboratory - 15A04508	1.65	1.65	1.40	1.40	-	-	-	-	-	-	-	-
	42	Lab	C309	Audit course – Social Values & Ethics - 15A99501	-	-	-	-	-	-	-	1.60	-	1.41	-	1.40
III Year II Sem	43	Theory	C310	Managerial Economics and Financial Analysis - 15A52301	-	-	-	-	-	-	-	-	-	1.40	1.40	1.40
	44	Theory	C311	Microprocessors & Microcontrollers - 15A04601	1.60	1.40	1.61	-	1.40	-	-	-	-	-	-	-
	45	Theory	C312	Electronic Measurements and Instrumentation-	1.40	1.41	-	-	-	-	-	-	-	-	-	-

			15A04602													
46	Theory	C313	Digital Signal Processing – 15A04603	1.43	1.69	1.45	1.43	-	-	-	-	-	-	-	-	-
47	Theory	C314	VLSI Design – 15A04604	1.61	1.40	1.40	1.41	-	-	-	-	-	-	-	-	1.60
48	Theory	C315	MATLAB Programming - 15A04605	1.40	1.40	1.41	1.40	-	-	-	-	-	-	-	1.41	1.40
49	Lab	C316	Microprocessors & Microcontrollers Laboratory – 15A04607	1.68	1.41	1.65	-	1.66	-	-	-	-	-	-	1.40	1.40
50	Lab	C317	Digital Signal Processing Laboratory– 15A04608	1.41	1.40	1.05	1.05	1.60	-	-	-	-	-	-	-	-

	51	Lab	C318	Advanced English Language Communication Skills Lab-15A52602	-	-	-	-	-	-	-	-	1.61	1.60	-	1.40	
	52	Lab	C319	Comprehensive Online Examination-II-15A04609	-	-	-	-	-	-	-	-	-	1.40	-	-	
IV Year I Sem	53	Theory	C401	Optical Fiber Communication-15A04701	1.61	1.40	1.41	1.40	-	-	-	-	-	-	1.60	-	
	54	Theory	C402	Embedded Systems -15A04702	1.40	1.40	1.40	-	1.40	1.40	-	-	-	-	-	-	1.66
	55	Theory	C403	Microwave Engineering -15A04703	1.61	1.40	1.40	-	-	-	-	-	-	-	1.60	-	

56	Theory	C404	Data Communications and Networking – 15A04704	1.60	1.60	1.65	-	-	1.40	-	-	-	-	-	1.40
57	Theory	C405	Radar Systems– 15A04705	1.6	1.61	1.6	-	-	-	-	-	-	-	1.6	-
58	Theory	C406	Digital Image Processing– 15A04708	1.65	1.41	1.4	-	-	-	-	-	-	-	1.4	1.4
59	Lab	C407	Microwave and Optical Communication Laboratory – 15A04711	1.65	1.4	1.4	-	-	-	-	-	-	-	1.6	-
60	Lab	C408	VLSI & Embedded Systems Laboratory –15A04712	1.6	1.61	1.6	1.4	-	-	-	-	-	-	1.4	1.4

IV Year II Sem	61	Theo ry	C40 9	Low Power VLSI Circuits & Systems – 15A04802	1.6	1.6	1.4	1.4 1	-	-	-	-	-	-	1.4	1.4
	62	Theo ry	C41 0	RF Integrated Circuits-15A04804	1.4	1.4	-	-	-	-	-	-	-	-	1.4	-
	63	Lab	C41 1	Comprehensive Viva Voce –15A04805	1.6	1.6 8	1.6	1.4	1.8	1.4	1.4	-	1.8	1.7	1.4	1.7
	64	Lab	C41 2	Technical Seminar - 15A04806	1.8	1.6 5	1.8	1.4 1	1.6	1.4 1	1.4	-	1.6 8	1.6 7	-	1.4
	65	Lab	C41 3	Project Work - 15A04807	1.6	1.6 8	1.6	1.4	1.8	1.4	1.4 1	-	1.8	1.7	1.4	1.7
Average Of Direct Attainment					1.5 4	1.5 5	1.4 8	1.4 5	1.6 2	1.3 7	1.3 5	1.5 0	1.7 1	1.5 8	1.4 5	1.4 2
80% Of Direct Attainment					1.2 3	1.2 4	1.1 9	1.1 6	1.2 9	1.1 0	1.0 8	1.2 0	1.3 7	1.2 6	1.1 6	1.1 4

Table 3.3.8: Direct Attainment of PO's

Survey	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Graduate Exit Survey	2.45	2.38	2.28	2.22	2.45	2.44	2.47	2.34	2.44	2.45	2.51	2.36
Alumni Survey	2.58	2.47	2.45	2.39	2.38	2.54	2.42	2.47	2.6	2.56	2.54	2.46
Employer Survey	2.35	2.29	2.21	2.18	2.25	2.45	2.48	2.49	2.18	2.39	2.25	2.24
20% Of Indirect Attainment	0.49	0.48	0.46	0.45	0.48	0.49	0.49	0.48	0.48	0.49	0.49	0.47

Table 3.3.9: Indirect Attainment of PO's

Survey	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
80% Of Direct Attainment	1.23	1.24	1.19	1.16	1.29	1.10	1.08	1.20	1.37	1.26	1.16	1.14
20% Of Indirect Attainment	0.49	0.48	0.46	0.45	0.48	0.49	0.49	0.48	0.48	0.49	0.49	0.47
Total Attainment	1.72	1.72	1.65	1.61	1.77	1.59	1.57	1.68	1.85	1.75	1.65	1.61

Table 3.3.10: Final Attainment of PO's

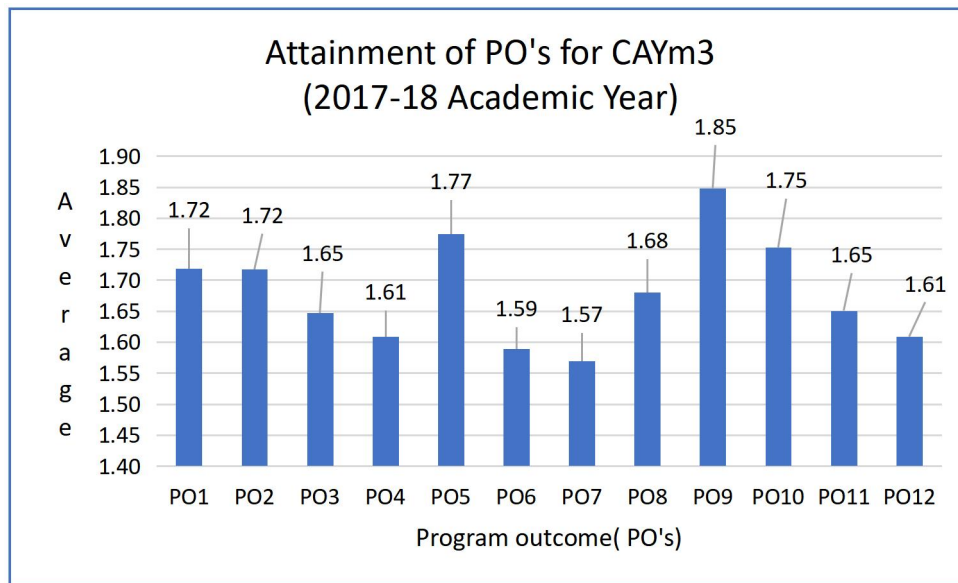


Fig. 3.3.7: Attainment of PO's

CAYm1 (2019-20 Admitted Batch)

Year	Theory /lab	Course Code	Name of the subject	PSO1	PSO2
I Year	Theory	C101	Algebra & Calculus - 19A54101	1.76	-
	Theory	C102	Applied Physics- 19A56101T	-	-
	Theory	C103	Problem Solving & Programming- 19A05101T	1.76	1.2
	Theory	C104	Communicative English 1- 19A52101T	-	1.6
	Theory	C105	Electronics & Communication Engineering Workshop- 19A04101	1.92	-
	Theory	C106	Applied Physics Lab - 19A56101P	-	-

	Lab	C107	Problem Solving & Programming Lab - 19A05101P	1.84	1.6
	Lab	C108	Communicative English 1 Lab - 19A52101P	-	2.08
	Theory	C109	Network Theory - 19A04201T	-	-
	Theory	C110	Differential Equations and Vector Calculus - 19A54201	1.6	-
	Theory	C111	Chemistry- 19A51102T	-	-
	Theory	C112	Data Structures - 19A05201T	-	-
	Theory	C113	Engineering Workshop - 19A03101	1.92	1.84
	Lab	C114	Engineering Graphics Lab - 19A03102	-	-
	Lab	C115	Network Theory Lab - 19A04201P	-	-
	Lab	C116	Chemistry Lab - 19A51102P	-	-
	Lab	C117	Data Structures Lab- 19A05201P	1.6	-
II Year, I Sem	Theory	C201	Complex Variables and Transforms- 19A54302	1.44	1.28
	Theory	C202	Signals & Systems - 19A04301	1.33	0.59
	Theory	C203	Electronic Devices and Circuits - 19A04302T	1.44	1.2
	Theory	C204	Probability Theory and Stochastic Processes- 19A04303	-	1.44
	Theory	C205	Digital Electronics and Logic Design-	1.6	1.6

			19A04304		
	Theory	C206	Electrical Technology- 19A02304T	-	-
	Lab	C207	Electronic Devices and Circuits Lab - 19A04302P	1.76	1.6
	Lab	C208	Basic Simulation Lab - 19A04305	1.6	2
	Lab	C209	Electrical Technology Lab - 19A02304P	-	-
	Theory	C210	Biology For Engineers - 19A99302	-	-
II Year, II Sem	Theory	C211	Electromagnetic Waves and Transmission lines- 19A04401	1.19	0.59
	Theory	C212	Electronic Circuits – Analysis and Design - 19A19A04402T	2	1.6
	Theory	C213	Control Systems- 19A02404	2	1.6
	Theory	C214	Analog Communications - 19A04403T	1.6	1.6
	Theory	C215	Python Programming- 19A05304T	1.6	1.6
	Theory	C216	Computer Architecture and Organization- 19A04404	-	-
	Theory	C217	Universal Human Values-52301	-	1.6
	Lab	C218	Electronic Circuits – Analysis and Design Lab - 19A04402P	1.6	-
	Lab	C219	Analog Communications Lab - 19A04403P	-	-
	Theory	C220	Environmental Science - 19A99301	-	-

III Year, I Sem	Theory	C301	Integrated Circuits and Applications- 19A54302	1.6	-
	Theory	C302	Antennas and Wave Propagation - 19A04502	1.37	0.68
	Theory	C303	English Language Skills - 19A52601T	-	1.76
	Theory	C304	Digital Communication- 19A 52601T	1.6	-
	Theory	C305	Data Communications and Networks - 19A04504a	-	-
	Theory	C306	Technical Communication and Presentation Skills- 19A 2506a	-	2.4
	Lab	C307	Integrated Circuits and Applications Lab- 19A04501P	1.6	-
	Lab	C308	English Language Skills Lab - 19A 52601P	-	2
	Lab	C309	Digital Communications Lab - 19A 04503P	1.6	1.6
	Lab	C310	Socially Relevant Project - 19A04507	1.84	2.4
	Theory	C311	Research Methodology - 19A99601	1.76	2.4
III Year, II Sem	Theory	C312	Microprocessors and Microcontrollers - 19A04601T	1.6	-
	Theory	C313	Digital Signal Processing - 19A04602T	1.48	0.73
	Theory	C314	Digital System Design through VHDL- 19A04603	1.6	2

	Theory	C315	Electrical Measurement and Electronic Instruments – 19A04605d	-	-
	Theory	C316	Industrial waste and wastewater management – 19A01604a	-	-
	Theory	C317	Business Ethics and Corporate Governance - 19A52602c	-	-
	Lab	C318	Digital Signal Processing Lab – 19A04602P	1.84	-
	Lab	C319	Microprocessors and Microcontrollers Lab–19A04601P	1.6	-
	Lab	C320	Socially Relevant Project–19A04606	-	2
	Theory	C321	Constitution of India – 19A99501	-	2
	Lab	C322	Industrial Training/Skill development/Research Project - 19A04607	2	2.08
IV Year, I Sem	Theory	C401	Microwave Engineering and Optical Communications–04701T	1.6	-
	Theory	C402	VLSI Design –19A04702T	1.6	-
	Theory	C403	Satellite Communications - 19A04703a	-	-
	Theory	C404	Air pollution and control–19A01704a	-	-
	Theory	C405	Management Science–19A52701b	-	1.6
	Lab	C406	Microwave and Optical Communications Lab–04701P	-	-

	Lab	C407	VLSI Design Lab -04702P	1.6	1.2
	Lab	C408	Industrial Training/Skill Development/Research Project – 19A04705	1.84	1.8
IV Year, II Sem	Theory	C409	Introduction to Internet of Things – 19A04801b	2	2
	Theory	C410	Global Warming and climate changes– 19A01802b	1.35	1
	Lab	C411	Project –19A04803	2.08	2
Average Of Direct Attainment				1.66	1.66
80 % Of Direct Attainment				1.33	1.32

Table 3.3.11: Direct Attainment of PSO's

Survey	PSO1	PSO2
Graduate Exit Survey	2.6	2.31
Alumni Survey	2.71	2.41
Employer Survey	2.56	2.31
20% of Indirect Attainment	0.52	0.47

Table 3.3.12: Indirect Attainment of PSO's

Attainment	PSO1	PSO2
80% Direct Attainment	1.33	1.32
20% Indirec Attainment	0.52	0.47
Final Attainment	1.86	1.79

Table 3.3.13: Final Attainment of PSO's

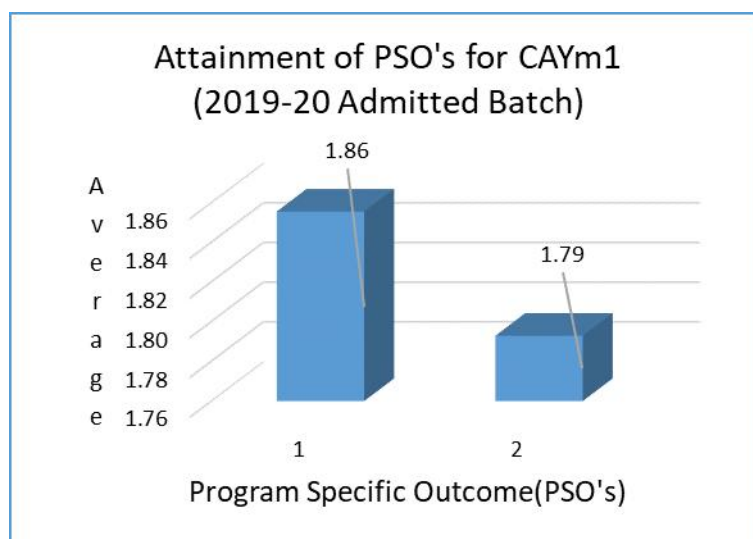


Fig. Attainment of PSO's

CAYm2 (2018-19 Admitted Batch)

Year	Theory /lab	Course Code	Name of the subject	PSO1	PSO2
I Year	Theory	C101	Functional English - 15A52101	-	1.5
	Theory	C102	Mathematics-I - 15A54101	1.35	-
	Theory	C103	Mathematical Methods - 15A05101	1.2	-

	Theory	C104	Engineering Chemistry- 15A51101	-	-
	Theory	C105	Environmental Studies- 15A01101	-	-
	Lab	C106	English Language Communication Skills Lab - 15A52102	-	1.5
	Lab	C107	Engineering Chemistry Lab- 15A51102	-	-
	Lab	C108	Computer Programming Lab- 15A05102	-	1.5
	Theory	C109	English for Professional Communication- 15A52201	-	1.5
	Theory	C110	Mathematics – II- 15A54201	-	-
	Theory	C111	Network Analysis- 15A04201	1.5	-
	Theory	C112	Engineering Physics - 15A56101	-	-
	Theory	C113	Engineering Drawing -15A03101	1.2	-
	Lab	C114	Network Analysis Lab - 15A04202	1.5	-
	Lab	C115	Engineering Physics Lab - 15A56102	-	-
	Lab	C116	Engineering and IT Workshop - 15A99201	-	1.2
II Year, I Sem	Theory	C201	Mathematics-III- 15A54301	1.5	-
	Theory	C202	Electronic Devices and Circuits- 15A04301	1.5	-
	Theory	C203	Switching Theory and Logic Design -	1.35	1.12

			15A04302		
	Theory	C204	Signals and Systems-15A04303	1.45	0.72
	Theory	C205	Probability Theory and Stochastic Processes-15A04304	1.5	1.5
	Theory	C206	Electrical Technology- 15A02306	-	-
	Lab	C207	Electronic Devices and Circuits Lab - 15A04305	1.65	-
	Lab	C208	Electrical Technology and Basic Simulation Laboratory - 15A02307	1.5	1.5
II Year, II Sem	Theory	C209	Mathematics-IV- 15A54402	1.5	0.8
	Theory	C210	Electronic Circuit Analysis - 15A04401	1.8	1.5
	Theory	C211	Analog Communication Systems- 15A04402	1.5	1.5
	Theory	C212	Electromagnetic Theory and Transmission Lines - 15A04403	1.82	0.91
	Theory	C213	Data Structures- 15A05201	1.95	1.5
	Theory	C214	Control Systems Engineering- 15A02303	-	-
	Lab	C215	Electronic Circuit Analysis Laboratory-15A04404	1.5	1.35
	Lab	C216	Analog Communication Systems Laboratory - 15A04405	1.5	1.35

	Lab	C217	Comprehensive Online Examination-I - 15A04406	-	-
III Year, I Sem	Theory	C301	Computer Organization- 15A04511	1.5	-
	Theory	C302	Antennas and Wave Propagation - 15A04501	0.83	0.41
	Theory	C303	Digital Communication Systems - 15A04502	1.65	1.5
	Theory	C304	Linear Integrated Circuits and Applications- 15A04503	1.5	-
	Theory	C305	Digital System Design - 15A04504	-	-
	Theory	C306	Linux Programming & Scripting- 15A04505	0.75	2.25
	Lab	C307	IC Applications Laboratory- 15A04507	1.5	-
	Lab	C308	Digital Communication Systems Laboratory - 15A04508	1.65	1.95
	Lab	C309	Audit course – Social Values & Ethics - 15A99501	1.5	1.5
III Year, II Sem	Theory	C310	Managerial Economics and Financial Analysis - 15A52301	1.5	-
	Theory	C311	Microprocessors & Microcontrollers - 15A04601	1.7	-
	Theory	C312	Electronic Measurements and Instrumentation- 15A04602	-	1.65

	Theory	C313	Digital Signal Processing – 15A04603	1.38	0.69
	Theory	C314	VLSI Design –15A04604	1.5	1.35
	Theory	C315	MATLAB Programming - 15A04605	-	1.5
	Lab	C316	Microprocessors & Microcontrollers Laboratory –15A04607	1.7	-
	Lab	C317	Digital Signal Processing Laboratory– 15A04608	1.5	1.5
	Lab	C318	Advanced English Language Communication Skills Lab–15A52602	-	1.8
	Lab	C319	Comprehensive Online Examination-II- 15A04609	-	1.8
IV Year, I Sem	Theory	C401	Optical Fiber Communication– 15A04701	1.35	-
	Theory	C402	Embedded Systems –15A04702	1.18	1.61
	Theory	C403	Microwave Engineering - 15A04703	-	-
	Theory	C404	Data Communications and Networking –15A04704	-	-
	Theory	C405	Radar Systems–15A04705	-	1.5
	Theory	C406	Digital Image Processing–15A04708	-	-
	Lab	C407	Microwave and Optical Communication Laboratory – 15A04711	1.5	1.1

	Lab	C408	VLSI & Embedded Systems Laboratory -15A04712	1.7	1.7
IV Year, II Sem	Theory	C409	Low Power VLSI Circuits & Systems – 15A04802	1.73	1.38
	Theory	C410	RF Integrated Circuits-15A04804	-	-
	Lab	C411	Comprehensive Viva Voce -15A04805	1.98	1.9
	Lab	C412	Technical Seminar - 15A04806	-	-
	Lab	C413	Project Work - 15A04807	-	-
Average Of Direct Attainment				1.51	1.52
80 % Of Direct Attainment				1.21	1.21

Table 3.3.14: Direct Attainment of PSO's

Survey	PSO1	PSO2
Graduate Exit Survey	2.41	2.3
Alumni Survey	2.48	2.45
Employer Survey	2.25	2.33
20% of Indirect Attainment	0.48	0.47

Table 3.3.15: Indirect Attainment of PSO's

Attainment	PSO1	PSO2
80% Direct Attainment	1.21	1.21
20% Indirec Attainment	0.48	0.47
Final Attainment	1.68	1.68

Table 3.3.16: Final Attainment of PSO's

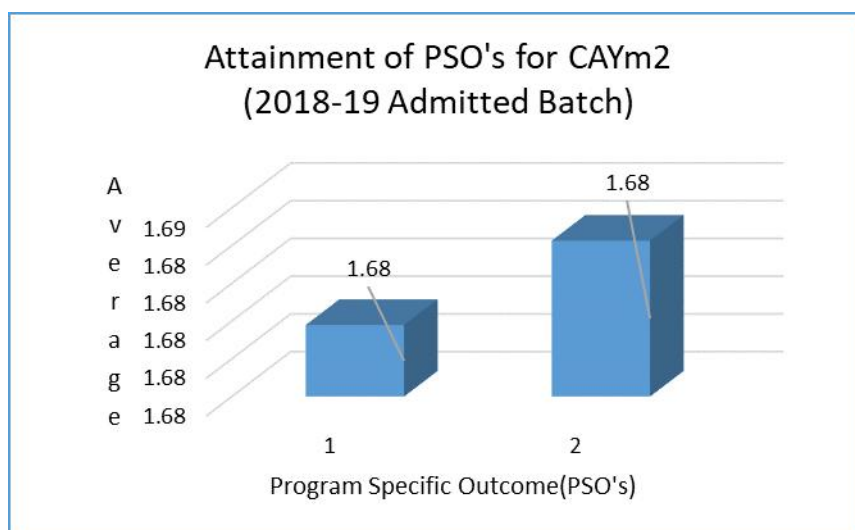


Fig. 3.3.9: Attainment of PSO's

CAYm3 (2017-18 Admitted Batch)

Year	Theory /lab	Course Code	Name of the subject	PSO1	PSO2
I Year	Theory	C101	Functional English - 15A52101	-	1.4
	Theory	C102	Mathematics-I - 15A54101	1.4	-
	Theory	C103	Mathematical Methods - 15A05101	1.26	-

	Theory	C104	Engineering Chemistry- 15A51101	-	-
	Theory	C105	Environmental Studies- 15A01101	-	-
	Lab	C106	English Language Communication Skills Lab - 15A52102	-	1.4
	Lab	C107	Engineering Chemistry Lab- 15A51102	-	-
	Lab	C108	Computer Programming Lab- 15A05102	-	1.4
	Theory	C109	English for Professional Communication- 15A52201	-	1.4
	Theory	C110	Mathematics – II- 15A54201	-	-
	Theory	C111	Network Analysis- 15A04201	1.4	-
	Theory	C112	Engineering Physics - 15A56101	-	-
	Theory	C113	Engineering Drawing -15A03101	1.12	-
	Lab	C114	Network Analysis Lab - 15A04202	1.61	-
	Lab	C115	Engineering Physics Lab - 15A56102	-	-
	Lab	C116	Engineering and IT Workshop - 15A99201	-	1.12
II Year, I Sem	Theory	C201	Mathematics-III- 15A54301	1.4	-
	Theory	C202	Electronic Devices and Circuits- 15A04301	1.4	-

	Theory	C203	Switching Theory and Logic Design - 15A04302	1.26	1.05	
	Theory	C204	Signals and Systems-15A04303	1.05	-	
	Theory	C205	Probability Theory and Stochastic Processes-15A04304	1.4	1.4	
	Theory	C206	Electrical Technology- 15A02306	-	-	
	Lab	C207	Electronic Devices and Circuits Lab - 15A04305	1.54	-	
	Lab	C208	Electrical Technology and Basic Simulation Laboratory - 15A02307	1.4	1.4	
	II Year, II Sem	Theory	C209	Mathematics-IV- 15A54402	1.4	0.7
		Theory	C210	Electronic Circuit Analysis - 15A04401	1.61	1.4
Theory		C211	Analog Communication Systems- 15A04402	1.4	1.4	
Theory		C212	Electromagnetic Theory and Transmission Lines - 15A04403	1.39	0.7	
Theory		C213	Data Structures- 15A05201	1.61	1.4	
Theory		C214	Control Systems Engineering- 15A02303	-	-	
Lab		C215	Electronic Circuit Analysis Laboratory-15A04404	1.4	1.26	
Lab		C216	Analog Communication Systems	1.4	1.26	

			Laboratory - 15A04405		
	Lab	C217	Comprehensive Online Examination-I - 15A04406	-	-
III Year, I Sem	Theory	C301	Computer Organization- 15A04511	1.4	-
	Theory	C302	Antennas and Wave Propagation - 15A04501	1.33	0.65
	Theory	C303	Digital Communication Systems - 15A04502	1.54	1.4
	Theory	C304	Linear Integrated Circuits and Applications- 15A04503	1.4	-
	Theory	C305	Digital System Design - 15A04504	-	-
	Theory	C306	Linux Programming & Scripting- 15A04505	0.7	-
	Lab	C307	IC Applications Laboratory- 15A04507	1.4	-
	Lab	C308	Digital Communication Systems Laboratory - 15A04508	1.54	1.82
	Lab	C309	Audit course – Social Values & Ethics - 15A99501	1.4	1.4
III Year, II Sem	Theory	C310	Managerial Economics and Financial Analysis - 15A52301	1.4	-
	Theory	C311	Microprocessors & Microcontrollers - 15A04601	1.61	-

	Theory	C312	Electronic Measurements and Instrumentation- 15A04602	-	1.54
	Theory	C313	Digital Signal Processing – 15A04603	1.10	0.73
	Theory	C314	VLSI Design –15A04604	1.4	1.26
	Theory	C315	MATLAB Programming - 15A04605	-	1.4
	Lab	C316	Microprocessors & Microcontrollers Laboratory –15A04607	1.61	-
	Lab	C317	Digital Signal Processing Laboratory–15A04608	1.54	1.4
	Lab	C318	Advanced English Language Communication Skills Lab– 15A52602	-	1.75
	Lab	C319	Comprehensive Online Examination-II– 15A04609	-	1.75
IV Year, I Sem	Theory	C401	Optical Fiber Communication– 15A04701	1.4	-
	Theory	C402	Embedded Systems –15A04702	0.65	0.84
	Theory	C403	Microwave Engineering - 15A04703	-	-
	Theory	C404	Data Communications and Networking –15A04704	-	-
	Theory	C405	Radar Systems–15A04705	-	1.4
	Theory	C406	Digital Image Processing–15A04708	-	-

	Lab	C407	Microwave and Optical Communication Laboratory – 15A04711	1.4	1.05
	Lab	C408	VLSI & Embedded Systems Laboratory –15A04712	1.61	1.61
IV Year, II Sem	Theory	C409	Low Power VLSI Circuits & Systems – 15A04802	1.8	1.44
	Theory	C410	RF Integrated Circuits–15A04804	-	-
	Lab	C411	Comprehensive Viva Voce – 15A04805	1.61	1.4
	Lab	C412	Technical Seminar - 15A04806	-	-
	Lab	C413	Project Work - 15A04807	-	-
Average Of Direct Attainment				1.41	1.40
80 % Of Direct Attainment				1.12	1.12

Table 3.3.17: Direct Attainment of PSO's

Survey	PSO1	PSO2
Graduate Exit Survey	2.38	2.31
Alumni Survey	2.47	2.41
Employer Survey	2.29	2.31
20% of Indirect Attainment	0.48	0.47

**Table 3.3.18: Indirect Attainment o
PSO's**

Attainment	PSO1	PSO2
80% Direct Attainment	1.12	1.12
20% Indirec Attainment	0.48	0.47
Final Attainment	1.60	1.59

Table 3.3.14: Final Attainment of PSO's

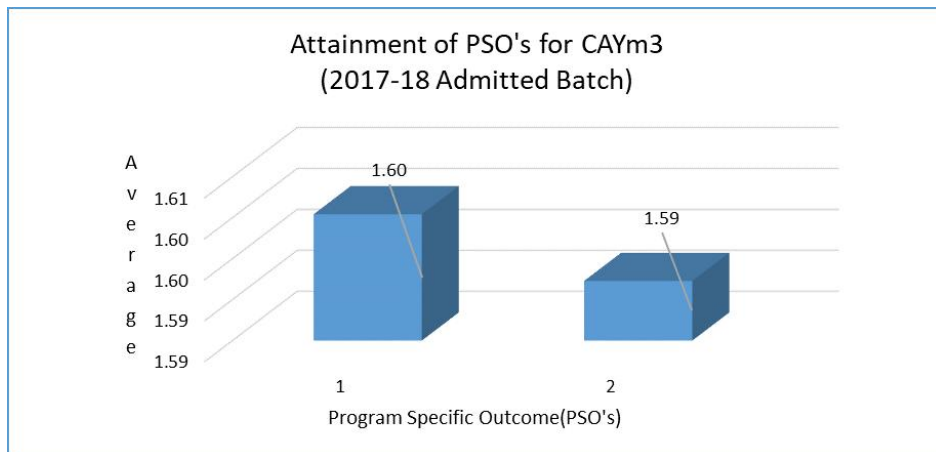


Fig. 3.3.10: Final Attainment of PSO's

Criterion 4	Students' Performance	107/150
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4. STUDENTS' PERFORMANCE (150)

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY (2023-24)	CAYm 1 (2022-23)	CAYm 2 (2021-22)	CAYm 3 (2020-21)
Sanctioned intake of the program (N)	120	120	120	120
Total number of students admitted in first year minus number of students migrated to other rograms/institutions plus no. of students migrated to this program (N1)	120	60	89	106
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	-	01	10	02
Separate division students, if applicable (N3)	-	-	-	-
Total number of students admitted in the Program (N1 + N2 + N3)	120	61	99	108

Table B.4a Total number of students admitted in the program for past Four years

CAY – Current Academic Year

**CAYm1- Current Academic Year minus1= Current Assessment
Year CAYm2 - Current Academic Year minus2=Current
Assessment Year minus 1 CAYm3 - Current Academic Year
minus2=Current Assessment Year minus 2**

LYG – Last Year Graduate

**LYGm1 - Last Year Graduate
minus 1 LYGm2 - Last Year
Graduate minus 2 LYGm3 - Last
Year Graduate minus 3**

Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated without backlogs in any semester/year of study (Without Backlog means no compartment or failures in any semester/year of study)			
2023-24 CAY	120(120+0+0)				
2022-23 CAYm1	61(60+01+0)	32			
2021-22 CAYm2	99(89+10+0)	48	39		
2020-21 CAYm3	108(106+02+0)	60	51	38	
2019-20 CAYm4 (LYG)	55(49+06+0)	29	20	20	18
2018-19 CAYm5 (LYGm1)	98(83+15+0)	46	39	35	29
2017-18 CAYm6 (LYGm2)	93(80+130)	4 5	40	31	2 5

Table: B.4.b. Number of students successfully graduated without backlogs

Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated with backlogs in any semester/year of study (With Backlog means no compartment or failures in any semester/year of study)			
2023-24 CAY	120(120+0+0)				
2022-23 CAYm1	61(60+01+0)	33			
2021-22 CAYm2	99(89+10+0)	70	78		
2020-21 CAYm3	108(106+02+0)	103	104	97	
2019-20 CAYm4 (LYG)	55(49+06+0)	48	51	50	49
2018-19	98(83+15+0)	76	90	87	87

CAYm5 (LYGm1)					
2017- 18 CAYm6 (LYGm2)	93(80+130)	70	81	81	81

Table B.4.c Number of students successfully graduated with backlogs

4.1. Enrolment Ratio (16/20)

Enrolment Ratio= $N1/N$

Item (Students are at the first Year Level on average basis during the last three years starting from current academic years)	Marks
>=90% students enrolled	20
>=80% students enrolled	18
>=70% students enrolled	16
>=60% students enrolled	14
>=50% students enrolled	12
Otherwise	0

Yea of Entry	N1	N	Enrolment Ratio= N1/N	Percentage	Marks
2023-24	120	120	1	100	20
2022-23	60	120	0.50	50	12
2021-22	89	120	0.7416	74.16	16
2020-21	106	120	0.8833	88.33	18

Table B.4.1 Enrolment Ratio

4.2. Success Rate in the stipulated period of the program (20.75/40)

4.2.1. Success rate without backlogs in any semester/year of study (7.50/25)

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

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

Success rate without backlogs in any year of study = 25 × Average SI

Success rate without backlogs in any year of study = **25 × 0.3=7.5**

Item	LYG (CAYm4) 2019-20	LYGm1 (CAYm5) 2018- 19	LYGm2 (CAYm6) 2017- 18
Number of students admitted in the corresponding First Year + admitted in 2 nd year via lateral entry and separate division, if applicable	55	98	93
Number of students who have graduated without backlogs in the stipulated period	18	29	25
Success Index (SI)	0.33	0.3	0.27
Average SI	0.3		

Table B.4.2.1 Success rate without backlogs

4.2.2. Success rate with backlog in stipulated period of study (13.25/15)

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

Average SI = mean of Success Index (SI) for past three batches
Success rate = $15 \times \text{Average SI} = 15 \times$

0.88= 13.25

Item	(CAYm3) 2020-21	LYG (CAYm4) 2019-20	LYGm1 (CAYm5) 2018-19	LYGm2 (CAYm6) 2017-18
Number of students admitted in the corresponding First Year + admitted in 2 nd year via lateral entry and separate division, if applicable	Pursuing	55	98	93
Number of students who have graduated with backlogs in the stipulated period		49	87	81
Success Index (SI)	-	0.89	0.89	0.87
Average Success Index	0.88			

Table B.4.2.2 Success rate with backlogs in stipulated period.

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 (10.86/15)

Academic Performance = 1.5 * Average API (Academic Performance Index)

API = ((Mean of 3rd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Third Year/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the final year. Academic Performance = **1.5 * 7.24 = 10.86**

Academic Performance	CAYm3 2020- 21	LYG 2019-20	LYGm1 2018-19
Mean of CGPA or Mean Percentage of all successful students (X)	7.62	7.81	7.2
Total no. of successful students (Y)	97	50	81
Total no. of students appeared in the examination (Z)	104	51	90
API = x* (Y/Z)	7.11	7.66	6.96
Average API = (AP1 + AP2 + AP3)/3	7.24		

Table B.4.3 Academic performance in 3rd year

4.4. Academic Performance in Second Year (11.29/15)

Academic Performance Level = 1.5 * Average API (Academic

Performance Index) API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10point scale) or (Mean of the

percentage of marks of all successful students in SecondYear/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the Third year. Academic Performance = 1.5 * Average API (Academic Performance Index) Academic Performance = **1.5 * 7.53 = 11.29**

Academic Performance	CAYm2 2021-22	CAYm3 2020-21	LYG 2019-20
Mean of CGPA or Mean Percentage of all successful students (X)	7.84	7.64	7.8
Total no. of successful students (Y)	78	104	51
Total no. of students appeared in the examination (Z)	80	105	54
API = x* (Y/Z)	7.64	7.57	7.37
Average API = (AP1 + AP2 + AP3)/3	7.53		

Table B.4.4 Academic performance in 2nd year

4.5. Placement, Higher Studies and Entrepreneurship (28.40/40)

Assessment Points = $40 \times \text{average}$

placement Assessment Points = $40 \times$

0.71 = 28.40

Item	LYG (2019-20)	LYGm1 (2018- 19)	LYGm2 (2017-18)
Total No. of Final Year Students (N)	50	87	81
No. of students placed in companies or Government Sector (x)	39	55	51
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	2	2	2
No. of students turned entrepreneur in engineering/ technology (z)	0	0	0
$x + y + z =$	41	57	53
Placement Index : $(x + y + z)/N$	0.82	0.66	0.65
Average placement = $(P1 + P2 + P3)/3$	0.71		

Table B.4.5 Placement, Higher studies and Entrepreneurship for past three years

4.5a. Provide the placement data in the below mentioned format with the name of the program and the assessment year:

CAYm1 (2022-23)

S.No	Name of the Student Placed	Enrollment No.	Name of the Employer	Appointment Letter Reference No with Date
1	B BALA KRISHNA	19W51A0403	TechM	VISM/ECE/TechM-01
2	B GANESH	19W51A0404	TechM	VISM/ECE/TechM-02
3	B VENKATA MAHESH YADAV	19W51A0408	TechM	VISM/ECE/TechM-03
4	CHAMANTHI GIRIDHAR	19W51A0410	TechM	VISM/ECE/TechM-04
5	C LOKESH REDDY	19W51A0413	TechM	VISM/ECE/TechM-05
6	Y V NARESH NAIDU	19W51A0449	TechM	VISM/ECE/TechM-06
7	B BALA KRISHNA	19W51A0403	TeachNook	VISM/ECE/TN-01
8	KAMASANI SANDHYA	19W51A0428	TeachNook	VISM/ECE/TN-02
9	KANNEMADUGU HEMA	19W51A0429	TeachNook	VISM/ECE/TN-03
10	MISBHA K B	19W51A0434	TeachNook	VISM/ECE/TN-04
11	RAMAKKAGARI BHARATHI	19W51A0438	TeachNook	VISM/ECE/TN-05

12	SIDDULA TEJA	19W51A0444	TeachNook	VISM/ECE/TN-06
13	TATIPARTHI SREEVIDYA	19W51A0446	TeachNook	VISM/ECE/TN-07
14	B GANESH	19W51A0404	TVS	VISM/ECE/TVS-01
15	CHAMANTHI GIRIDHAR	19W51A0410	TVS	VISM/ECE/TVS-02
16	C LOKESH REDDY	19W51A0413	TVS	VISM/ECE/TVS-03
17	D BHARGAV REDDY	19W51A0416	TVS	VISM/ECE/TVS-04
18	K CHAKRAPANI	19W51A0423	TVS	VISM/ECE/TVS-05
19	K MADHUKAR REDDY	19W51A0424	TVS	VISM/ECE/TVS-06
20	SIDDULA TEJA	19W51A0444	TVS	VISM/ECE/TVS-07
21	V SREENIVSA KALYAN	19W51A0447	TVS	VISM/ECE/TVS-08
22	Y V NARESH NAIDU	19W51A0449	TVS	VISM/ECE/TVS-09
23	K. ROHIT	20W55A0403	TVS	VISM/ECE/TVS-10
24	GUNDLURU REVATHI	19W51A0420	Altek	VISM/ECE/ALTEK-01
25	Tatiparthi sreevidya	19W51A0446	Altek	VISM/ECE/ALTEK-02
26	ASANAPURAM HEMALATHA	19W51A0402	Global Queat	VISM/ECE/GQ-01

27	K.LALINI	18W51A0427	Global Queat	VISM/ECE/GQ-02
28	PULLAGANTI MOUNIKA	19W51A0437	Global Queat	VISM/ECE/GQ-03
29	B.SRAVANI	19W51A0407	Kodnest	VISM/ECE/KODNEST-01
30	ASANAPURAM HEMALATHA	19W51A0402	Palle	VISM/ECE/PALLE-01
31	K.ROHITH	20w55a0403	Pentagon Space	VISM/ECE/PS-01
32	G REDDY YAMINI	18W51A0420	Pentagon Space	VISM/ECE/PS-02
33	R LOKESH	18W51A0459	Pentagon Space	VISM/ECE/PS-03
34	K.BHANUPRAKASH REDDY	18W51A0425	Pentagon Space	VISM/ECE/PS-04
35	YANAMALA BHARGAVI	18W51A0482	Pentagon Space	VISM/ECE/PS-05
36	C.GOWTHAMI	19W51A0414	Qspiders	VISM/ECE/Qs-01
37	R.BHARATHI	19W51A0438	Qspiders	VISM/ECE/Qs-02
38	K.B.Misbha	19W51A0434	Qspiders	VISM/ECE/Qs-03
39	A.HEMALATHA	19W51A0402	Qspiders	VISM/ECE/Qs-04

CAYm2 (2021-22)

S.No	Name of the Student Placed	Enrollment No.	Name of the Employer	Appointment Letter Reference No with Date
1	A NAVEEN KUMAR	18W51A0401	Infotel India	VISM/PC/20 21-22/II-01
2	ANIGANI SASIKUMAR REDDY	18W51A0402	Intergrated Digital Info Services	VISM/PC/20 21-22/IDI-01
3	BESTA BHAVANTH	18W51A0405	Infotel India	VISM/PC/20 21-22/II-02
4	C P SREENATH	18W51A0408	Cubespace Technologies	VISM/PC/20 21-22/CT-01
5	CHINNAREDDIVARI SUSHMA	18W51A0410	Infotel India	VISM/PC/20 21-22/II-03
6	D SHIFA AFREEN	18W51A0411	Mesmer Technologies	VISM/PC/20 21-22/MT-01
7	DAYYALA SREELEKHA	18W51A0414	Lean Data Technologies	VISM/PC/20 21-22/LDT- 01
8	E PAVAN KALYAN REDDY	18W51A0416	Cubespace Technologies	VISM/PC/20 21-22/CT-02
9	G GAGANKANTH	18W51A0418	Infotel India	VISM/PC/20 21-22/II-04

10	G GOVINDA REDDY	18W51A0419	Mesmer Technologies	VISM/PC/20 21-22/MT-02
11	GAJULA ROOPA	18W51A0421	Intergrated Digital Info Services	VISM/PC/20 21-22/IDI-02
12	G SRINIVASULU	18W51A0422	Infotel India	VISM/PC/20 21-22/II-05
13	K BHANUPRAKASH REDDY	18W51A0425	Intergrated Digital Info Services	VISM/PC/20 21-22/IDI-03
14	KANNAREDDI NAGESH	18W51A0428	Cubespace Technologies	VISM/PC/20 21-22/CT-03
15	K SIREESHA	18W51A0430	Infotel India	VISM/PC/20 21-22/II-06
16	K VINAY KUMAR	18W51A0431	Lean Data Technologies	VISM/PC/20 21-22/LDT- 02
17	KOKA GAYATHRI	18W51A0434	Infotel India	VISM/PC/20 21-22/II-07
18	KONDASANI SUPRAJA	18W51A0436	Infotel India	VISM/PC/20 21-22/II-08
19	K HARSHAVARDHAN REDDY	18W51A0437	Cubespace Technologies	VISM/PC/20 21-22/CT-04
20	M ANIL KUMAR	18W51A0439	Intergrated Digital Info Services	VISM/PC/20 21-22/IDI-04

21	M NAGESH BABU	18W51A0440	Lean Data Technologies	VISM/PC/20 21-22/LDT-03
22	MALLEM PADMAJA	18W51A0443	Mesmer Technologies	VISM/PC/20 21-22/MT-03
23	MAYANA SAMEER KHAN	18W51A0445	Cubespace Technologies	VISM/PC/20 21-22/CT-05
24	MODEM ANITHA	18W51A0446	Mesmer Technologies	VISM/PC/20 21-22/MT-04
25	N SUKANYA	18W51A0449	Infotel India	VISM/PC/20 21-22/II-09
26	NAGIREDDIGARI RADHARANI	18W51A0450	Infotel India	VISM/PC/20 21-22/II-10
27	NEERUGATTI SINDHU	18W51A0452	Cubespace Technologies	VISM/PC/20 21-22/CT-06
28	PEDDAKA ARCHANA	18W51A0453	Lean Data Technologies	VISM/PC/20 21-22/LDT-04
29	PASALA SUSMITHA	18W51A0455	Infotel India	VISM/PC/20 21-22/II-11
30	PASUPULETI DWARAKA ROYAL	18W51A0456	Infotel India	VISM/PC/20 21-22/II-12
31	PURAM LOKESHWARI	18W51A0458	Cubespace Technologies	VISM/PC/20 21-22/CT-07

32	R LOKESH	18W51A0459	Mesmer Technologies	VISM/PC/20 21-22/MT-05
33	S CHANDRA TEJA REDDY	18W51A0462	Intergrated Digital Info Services	VISM/PC/20 21-22/IDI-05
34	SHAIK KHADARVALLI	18W51A0465	Cubespace Technologies	VISM/PC/20 21-22/CT-08
35	SHAIK NEEHA ANJUM	18W51A0469	Infotel India	VISM/PC/20 21-22/II-13
36	S RAJITHA	18W51A0471	Mesmer Technologies	VISM/PC/20 21-22/MT-06
37	TELLAGORLA MEGHANA	18W51A0473	Infotel India	VISM/PC/20 21-22/II-14
38	V SANTOSH REDDY	18W51A0478	Cubespace Technologies	VISM/PC/20 21-22/CT-09
39	Y BHARGAVI	18W51A0482	Lean Data Technologies	VISM/PC/20 21-22/LDT- 05
40	Y MUKESH KUMAR REDDY	18W51A0483	Intergrated Digital Info Services	VISM/PC/20 21-22/IDI-06
41	G SALMABHANU	19W55A0402	Infotel India	VISM/PC/20 21-22/II-15
42	G MOHAMMAD AFROZ	19W55A0403	Infotel India	VISM/PC/20 21-22/II-16

43	KUDUMULA SADASIVA REDDY	19W55A0405	Cubespace Technologies	VISM/PC/20 21-22/CT-10
44	MUDDANGALA PRASANNA	19W55A0407	Infotel India	VISM/PC/20 21-22/II-17
45	N PAVAN KUMAR	19W55A0408	Mesmer Technologies	VISM/PC/20 21-22/MT-07
46	BOCHOLLU CHALAPATHI	18W51A0406	Palle Technologies	VISM/PC/20 21-22/PT-01
47	MALIGI SRUCHITHA	18W51A0442	Palle Technologies	VISM/PC/20 21-22/PT-02
48	RASINTI MADHURI	18W51A0461	Palle Technologies	VISM/PC/20 21-22/PT-03
49	T JAHNAVI	18W51A0474	Palle Technologies	VISM/PC/20 21-22/PT-04
50	V VINEETH KUMAR	18W51A0479	Palle Technologies	VISM/PC/20 21-22/PT-05
51	VEMPALLI MAHAMMAD RAFI	18W51A0481	TCS	VISM/PC/20 21-22/TCS- 01
52	TUMMALA VISHNUPRIYA	18W51A0477	inGO Electric Ltd	VISM/PC/20 21-22/IE-01
53	KONDE SWAPNA REDDY		Palle Technologies	VISM/PC/20 21-22/PT-06

54	VEMPALLI MAHAMMAD RAFI	18W51A0481	MIND TREE	VISM/PC/20 21-22/MT-01
55	VEMPALLI MAHAMMAD RAFI	18W51A0481	Capgemini	VISM/PC/20 21-22/01

CAYm3(2019-20)

S.N o	Name of the Student Placed	Enrollment No.	Name of the Employer	Appointment Letter Reference No with Date
1	AVULA NIKHITHA	17W51A0401	Cubespace Technologies	SVTM/ECE/CT- 01
2	ANANTHA VANI	17W51A0402	Genex Technologies	SVTM/ECE/GT- 01
3	ARAVA REKHA	17W51A0403	Confianza Solutions	SVTM/ECE/CS- 01
4	AVULA GOVARDHAN	17W51A0404	Intergrated Digital Info Services	SVTM/ECE/IDIS- 01
5	BACHHIREDDY TEJASWINI	17W51A0406	Cubespace Technologies	SVTM/ECE/CT- 02
6	BAPANAPALLI DALMA	17W51A0407	Mesmer Technologies	SVTM/ECE/MT- 01
7	BODOLLA SHIREESHA	17W51A0409	Confianza Solutions	SVTM/ECE/CS- 02

8	BUSA POOJA	17W51A0411	Genex Technologies	SVTM/ECE/GT-02
9	BYSANI PALLAVI	17W51A0412	T-edge	SVTM/ECE/T-edge-01
10	CHEEKATIPALLE SAI TEJA	17W51A0414	Cubespace Technologies	SVTM/ECE/CT-03
11	C PURUSHOTHAM REDDY	17W51A0416	Mesmer Technologies	SVTM/ECE/MT-02
12	CHITIKI KARTHIK REDDY	17W51A0417	Intergrated Digital Info Services	SVTM/ECE/IDIS-02
13	DADI SUPRIYA	17W51A0419	Genex Technologies	SVTM/ECE/GT-03
14	D MADHUSUDAN REDDY	17W51A0420	Cubespace Technologies	SVTM/ECE/CT-04
15	DEVAKKAGARI ANITHA	17W51A0422	Confianza Solutions	SVTM/ECE/CS-03
16	GOPIDINNE PUSHPALATHA	17W51A0427	Genex Technologies	SVTM/ECE/GT-04
17	GUNIGANTI NEERAJ	17W51A0429	Cubespace Technologies	SVTM/ECE/CT-05
18	J CHETHANA SREE	17W51A0431	Confianza Solutions	SVTM/ECE/CS-04
19	JARIPITI	17W51A0432	Mesmer Technologies	SVTM/ECE/MT-

	ARUNKUMAR			03
20	K BHANUPRAKASHR EDDY	17W51A0434	Confianza Solutions	SVTM/ECE/CS- 05
21	K VEGA	17W51A0435	Genex Technologies	SVTM/ECE/GT- 05
22	M BHARATH	17W51A0437	Cubespace Technologies	SVTM/ECE/CT- 06
23	MAMIDIKUNTA NOWZIYA	17W51A0439	T-edge	SVTM/ECE/T- edge-02
24	MANDEM SRAVANI	17W51A0440	Genex Technologies	SVTM/ECE/GT- 06
25	MODEM HEMALATHA	17W51A0443	T-edge	SVTM/ECE/T- edge-03
26	MOGASALAMARRI RAMYA	17W51A0444	Cubespace Technologies	SVTM/ECE/CT- 07
27	MULINTI MONIKA	17W51A0446	Intergrated Digital Info Services	SVTM/ECE/IDIS- 03
28	M MERCY MALATHI	17W51A0447	Genex Technologies	SVTM/ECE/GT- 07
29	N VIJAY	17W51A0450	Mesmer Technologies	SVTM/ECE/MT- 04
30	P BHARATH KUMAR	17W51A0452	Confianza Solutions	SVTM/ECE/CS- 06

31	PAGADALA LOKESH	17W51A0455	Mesmer Technologies	SVTM/ECE/MT- 05
32	PATAN MAHEERA	17W51A0456	Genex Technologies	SVTM/ECE/GT- 08
33	POOLA VISWANATH	17W51A0458	Mesmer Technologies	SVTM/ECE/MT- 06
34	POTLI BHARATH	17W51A0459	Genex Technologies	SVTM/ECE/GT- 09
35	R RIYAZ BASHA	17W51A0461	Intergrated Digital Info Services	SVTM/ECE/IDIS- 04
36	S LALASA	17W51A0462	Confianza Solutions	SVTM/ECE/CS- 07
37	S NAWAZ SHARIEF	17W51A0467	Mesmer Technologies	SVTM/ECE/MT- 07
38	S REDDY DEEPIKA	17W51A0469	T-edge	SVTM/ECE/T- edge-04
39	T S MOHAMMED IMRAN	17W51A0470	Mesmer Technologies	SVTM/ECE/MT- 08
40	VADIGALA BHARGAVA REDDY	17W51A0473	Genex Technologies	SVTM/ECE/GT- 10
41	VADIGIPALLI SASIKALA	17W51A0474	Confianza Solutions	SVTM/ECE/CS- 08

42	VISANAKARRA SREEVANI	17W51A0477	Genex Technologies	SVTM/ECE/GT- 11
43	YANAMALA BHARGAVI	17W51A0479	Confianza Solutions	SVTM/ECE/CS- 09
44	G BALA KRISHNA	17W51A0480	Genex Technologies	SVTM/ECE/GT- 12
45	KOTTAPALLE HARATHI	18W55A0403	Intergrated Digital Info Services	SVTM/ECE/IDIS- 05
46	P PUSHPAVATHI	18W55A0406	Confianza Solutions	SVTM/ECE/CS- 10
47	SHAIK MUBARAK BASHA	18W55A0408	T-edge	SVTM/ECE/T- edge-05
48	SGANESH KUMAR REDDY	18W55A0410	Mesmer Technologies	SVTM/ECE/MT- 09
49	T RAM KUMAR	18W55A0412	Genex Technologies	SVTM/ECE/GT- 13
50	S MOHAMMED SHARIF	18W55A0413	Intergrated Digital Info Services	SVTM/ECE/IDIS- 06
51	YAKASI ESWAR REDDY	16W51A0442	Genex Technologies	SVTM/ECE/GT- 14

4.6. Professional Activities (20/20)**4.6.1. Professional societies/chapters and organizing engineering events (5/5)**

ECE Department has the following professional society memberships:

S.No.	Name of the Professional Body	Membersh ip Number
1	Next generation communication networks (ngcn) club	-
2	Vaidyuktha (electronics) club	-

Table 4.6.1.1: List of Professional Societies/Chapters

S.No	Topic	Type of Event	Organized / Resource Person	Dates	Targeted Audience	Professional Society
1	Design & Implementation of Big Data & Hadoop	Workshop	Dr.S. Farooq Answer, Associate Professor, Global Engineering College Kadapa	27.12.20 23- 28.12.20 23	IV ECE	IEE E
2	Embedded System by using Real Time Applications for Electronic Systems	Workshop	Dr. G. Venkata Subbaiah, Professor, NIT, Rayachoor.	22.09.20 23- 24.09.20 23	IV ECE	IEE E
3	PCB design & Fabrication of MOSFET Configuration	Workshop	Mr.Y. Basava Raj, Associate Professor, SVIT, Anantapur.	04.10.20 23- 06.10.20 23	II ECE	IEE E
4	DSP& Embedded	Guest	Dr. Asif Hussain, Associate	20.04.20	III ECE	IST

	System Concept	Lecture	Professor, RJM, Nandyala.	23		E
5	Signal & Systems	Guest Lecture	Dr. K. Bala, Professor, AITS, Rajampeta.	20.12.20 22	II ECE	IEE E
6	Microprocessor & Microcontroller	Gues t Lectu re	Dr.S. Farooq Answer, Associate Professor, Global College Kadapa	20.11.20 22	III& IV ECE	IET E

Table 4.6.1.2: List of Organizing Engineering Events CAYm1: 2022-23

S.No	Topic	Type of Event	Organized / Resource Person	Dates	Targeted Audience	Professional Society
1	Design of Adaptive Filters using TMS	Guest Lecture	Mrs. M. Madhavi, Associate Professor, Global Engineering College, Kadapa	20.12.2022	IV ECE	IETE
2	Zener Diode for Operation of Regulator by using Capacitor	Workshop	Dr. Adinarayana Reddy, Professor, KSRM, Kadapa	08.11.2022- 11.11.2022	II ECE	IETE
3	Concepts of VLSI and its Applications	Workshop	Mr. B. Sanjeev Rayudu, Associate Professor, Gowthami Engineering College, Proddutur	04.10.2022- 05.10.2022	IV ECE	IETE

4	Concepts of Communication Radar System	Guest Lecture	Dr. T. Janardhan Raju, Principal, Siddartha Engineering College, Puttur.	28.11.202 2	III ECE	IETE
5	Design of IOT Modules	Workshop	Dr. A. Madhavi Latha, Professor, KSRRM, Kadapa	20.08.202 2- 22.08.202 2	IV ECE	IETE
6	Design of Real time Projects using Arduino Systems	Hands on Training	Dr. J. Gangaiah, Professor, Siddartha Engineering College, Puttur.	12.07.202 1	II & III ECE	IETE
7	Concept of Multiprocessor, RISC, CISC Architecture	Workshop	Mr. D. Damodhar Reddy, Assistant Professor, KMM College, Tirupati	25.06.202 1- 27.06.202 1	III ECE	IETE

Table 4.6.1.3: List of Organizing Engineering Events CAYm2: 2021-22

S.No	Topic	Type of Event	Organized / Resource Person	Dates	Targeted Audience	Professional Society
1	VLSI Design for using FPGA Architecture using low power	Workshop	Dr. B. D. Venkatramana Reddy, Professor, SVTM, Angallu.	23.04.20 21- 25.04.20 21	IV ECE	IETE
2	IOT Using Arduino Controller of Mobile Application	Workshop	Dr. B. Mohan Reddy, Associate Professor Sri Vaidyanathan Engineering College, Rangampeta, Tirupati	10.01.20 21- 13.01.20 21	III & IV ECE	IETE
3	Recent Trends in Wireless Communication for Satellites	Seminar	Dr. G. Venteswara Reddy, Professor, CBIT, Proddatur	15.11.20 20	II & IV ECE	ISTE

5	Perspectives And Future Scope of Embedded Systems& VLSI Design	Guest Lecture	Mr. Y Sreenivasulu, Associate Professor, Tadipatri Engineering College, Tadipatri.	23.08.20 20- 25.08.20 20	IV ECE	IST E
6	Antenna and Wave Propagation of Wireless Communication System	Guest Lecture	Mrs. Sabeena, SRTS,Kadapa.	20.07.20 20	III ECE	IST E

Table 4.6.1.4: List of Organizing Engineering Events CAYm3: 2020-21

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

(The Department shall list the publications mentioned earlier along with the names of the editors, publishers, etc.)

S.No	Name of The Newsletter	Editorial Members	Periodicity	Year
1	Newsletter, October- December, 2023	Dr B D VenkataramanaReddy Dr. Adinarayana Reddy	Half Yearly	CAY (2023-24)
2	Newsletter, October- December, 2022	Dr B D VenkataramanaReddy Dr. Adinarayana Reddy	Half Yearly	CAYm1 (2022-23)
3	Newsletter, October- March, 2022	Mr. Y Sreenivasulu Dr. G. VenteswaraReddy	Half Yearly	CAYm1 (2022-23)
4	Newsletter, October- December, 2021	Mr P Sreenisa Rao Dr G Janarhana Raju	Half Yearly	CAYm2 (2020-21)
5	Newsletter, October- March, 2021	Dr B D VenkataramanaReddy Mr. Y Sreenivasulu	Half Yearly	CAYm2 (2020-21)
6	Newsletter,	Dr. Adinarayana	Half	CAYm3

	October- December, 2020	Reddy Dr. G. VenteswaraReddy	Yearly	(2019-20)
7	Newsletter, October- March, 2020	Mr. Y Sreenivasulu Dr. G. VenteswaraReddy	Half Yearly	CAYm3 (2019-20)

Table 4.6.2.1: List of Publication of Newsletters

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

(The Department shall provide a table indicating those publications, which received awards in the events/conferences organized by **other institutes**.)

S.No	Name of The Student	Hall ticket No.	Prize/ Participation	Title	Event Place	Date
1	M AVINASH REDDY	19W51A043 2	Participation	17th Senior National Super 7 Cricket championship 2022-2023(Men's Section),	Amroha (UP)	13.11.2022
2	D BHARGAV REDDY	19W51A041 6	Participation	17th Senior National Super 7 Cricket championship 2022-2023(Men's	Amroha (UP)	13.11.2022

				Section),		
3	M AVINASH REDDY	19W51A043 2	Participation	A.P Senior Men Inter District Super Seven Cricket Championship,	Nandyala (AP)	16.10.2022
4	SYED AFRIN	19W51A044 5	2 nd Prize	Intra college elocution/ Competition	Nandyala (AP)	14.09.2022
5	SHAIK RAFIYA SULTHANA	19W51A044 3	1 st Prize	Intra college quiz	Nandyala (AP)	10.09.2022
6	B SRAVANI	19W51A040 7	Participation	Entrepreneurship Awareness Camp	Karnool (AP)	26.08.2022
7	K CHAKRAPAN	19W51A042 3	Participation	Entrepreneurship Awareness Camp	Karnool (AP)	26.08.2022

	I					
8	MISBHA K B	19W51A043 4	Participation	Entrepreneurship Awareness Camp	Karnool (AP)	26.08.2022
9	POOLA AKSHAYA	20W55A040 5	Participation	Paper Presentation	Nandyala (AP)	20.08.2022
10	TATIPATRI SREEVIDYA	19W51A044 6	Participation	Intra college elocution/ Competition	Karnool (AP)	16.07.2022
11	SHAIK RAFIYA SULTHANA	19W51A044 3	Participation	Essay Writing	Nandyala (AP)	12.06.2022
12	UPPUTHOLL A DIVYASREE	20W55A040 6	Participation	Essay Writing	Karnool (AP)	12.06.2022

Table 4.6.3.1: Participation in Inter-Institute events by students in CAYm1: 2022-23

Criterion 5	Faculty Information and Contributions	177.92/200
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5. FACULTY INFORMATION AND CONTRIBUTIONS (177.92/200)

Note: Please provide details for the faculty of the department, cumulative information for all the shifts for all academic years starting from current year in above format in Annexure - II.

Annexure - II ELECTRONICS AND COMMUNICATION ENGINEERING STAFF LIST FOR THE ACADEMIC YEAR 2023-24

S.No	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor /Associate Professor	Date of Joining the Institution	Specialization	Research paper Publication	Ph.D. Guidance	Faculty Receiving Ph.D. during the assessment years	Currently Associated (Y/N) Date of Leaving (In Case Currently Associated is ("No"))	Nature of Association(Regular /Contract)
		Degree (Highest Degree)	University	Year of attaining higher qualification										
1	Dr. B D VENKATRAMAN A REDDY	PhD	JNTUA	06/09/2012	Yes	PROFESSOR	29/04/2013	29/04/2013	ECE			06/09/2012	Yes	Regular

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ECE- SAR

2	Dr.S GIRIPRASAD	PhD	Anna University	27/11/2019	No	ASSOCIATE PROFESSOR	04/12/2020	04/12/2020	Embedded system			27/11/2019	'07/09/2023	Regular
3	Dr.K DAMODAR	PhD	SRU	24/12/2018	Yes	ASSOCIATE PROFESSOR	05/07/2021	05/07/2021	ECE			24/12/2018	Yes	Regular
4	Dr.J.KALIAPPAN	PhD	Bharath University	17/02/2016	Yes	PROFESSOR	07/06/2021	07/06/2021	ECE			17/02/2016	Yes	Regular
5	Dr. P KARUNAKAR	PhD	SSUTMS	08/06/2020	Yes	ASSOCIATE PROFESSOR	05/04/2021	05/04/2021	ECE			08/06/2020	Yes	Regular
6	Dr.S VENKATESAN	PhD	SIST	05/07/2012	Yes	PROFESSOR	18/04/2022	18/04/2022	ECE			05/07/2012	Yes	Regular
7	Dr.VASANT H SWAMINATHAN	PhD	Annamalai University	01/07/2016	Yes	ASSOCIATE PROFESSOR	01/06/2023	01/06/2023	ECE			01/07/2016	Yes	Regular
8	Dr T RAMAKRISHNA	PhD	VBSPU	11/09/2017	Yes	ASSOCIATE PROFESSOR	05/06/2023	05/06/2023	ECE			11/09/2017	Yes	Regular

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9	Dr. VENKATA SUBBAIAH	PhD	SRM	23/12/2016	Yes	Professor	05/06/2023	05/06/2023	ECE			23/12/2016	Yes	Regular
10	Mr.M RAVEENDRA	M.TECH	University	11/04/2006	Yes	ASSOCIATE PROFESSOR	05/06/2023	05/06/2023	VLSI&D				Yes	Regular
11	Mr. J MAHESWAR REDDY	M.TECH	JNTUH	05/10/2007	Yes	ASSOCIATE PROFESSOR	01/08/2017	01/07/2010	DECS				Yes	Regular
12	Mrs. P HEMALATHA	M.TECH	JNTUA	08/12/2014	Yes	ASSOCIATE PROFESSOR	16/03/2020	17/07/2017	ES				Yes	Regular
13	Mrs. T REDDI RANI	M.TECH	JNTUA	08/12/2014	Yes	ASSOCIATE PROFESSOR	01/04/2019	02/01/2015	ES				Yes	Regular
14	Mrs. W J HIMA BHINDU	M.TECH	JNTUA	20/12/2016	Yes	ASSOCIATE PROFESSOR	16/03/2020	17/07/2017	ECE				Yes	Regular
15	Mr.M ARUN RAJ	M.E	Anna University	08/06/2016	No	ASSISTANT PROFESSOR		24/12/2020	ICE				31/08/2023	Regular

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16	Mrs.R HARITHA	M.TECH	JNTUA	10/12/2013	Yes	ASSISTANT PROFESSOR		24/06/2023	DSCE				Yes	Regular
17	Mr. N NAGENDRA	M.TECH	JNTUA	07/11/2016	Yes	ASSISTANT PROFESSOR		15/03/2018	DECS				Yes	Regular
18	Mr. P GOVARDHAN	M.TECH	JNTUA	09/10/2017	Yes	ASSISTANT PROFESSOR		28/01/2021	DECS				Yes	Regular
19	Mr. Y AYYAVARU REDDY	M.TECH	JNTUA	01/11/2016	Yes	ASSISTANT PROFESSOR		07/01/2020	VLSI&SD				Yes	Regular
20	Mrs. N THEJASWY	M.TECH	JNTUA	08/07/2016	Yes	ASSISTANT PROFESSOR		02/03/2021	DECS				Yes	Regular
21	Mrs. B KEERTHI	M.TECH	JNTUA	05/11/2016	Yes	ASSISTANT PROFESSOR		28/01/2021	VLSI				Yes	Regular
22	Mrs. G MANJULA	M.TECH	JNTUA	06/11/2021	Yes	ASSISTANT PROFESSOR		15/12/2021	VLSI&SD				Yes	Regular

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23	Mrs. K V NANDINI	M.TECH	JNTUA	08/12/202 1	Yes	ASSISTANT PROFESSOR		17/10/202 2	ES				Yes	Regular
24	Mrs. K APSARA	M.TECH	JNTUA	10/12/202 2	Yes	ASSISTANT PROFESSOR		01/04/202 3	ES				Yes	Regular
25	Mrs.G AFRIN	M.TECH	JNTUA	09/12/202 2	Yes	ASSISTANT PROFESSOR		01/04/202 3	ES				Yes	Regular
26	Mr.R HARSHAVARDH AN REDDY	M.TECH	JNTUA	08/12/201 6	Yes	ASSISTANT PROFESSOR		07/01/202 0	ES				Yes	Regular
27	Mr.V KRISHNAKANTH	M.TECH	JNTUA	09/10/201 8	Yes	ASSISTANT PROFESSOR		04/03/202 1	ES				Yes	Regular

**CTRONICS AND COMMUNICATION ENGINEERING
STAFF LIST FOR THE ACADEMIC YEAR 2022-23**

S.No	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor /Associate Professor	Date of Joining the Institution	Department	Specialization	Research paper Publication	Ph.D. Guidance	Faculty Receiving Ph.D. during the assessment years	Currently Associated (Y/N) Date of Leaving (In Case Currently Associated is ("No"))	Nature of Association (Regular /Contract)
		Degree(Highest Degree)	University	Year of attaining higher qualification											
1	Dr. B D VENKATRAMANA REDDY	PhD	JNTUA	06/09/2012	Yes	PROFESSOR	29/04/2013	29/04/2013	ECE	ECE			06/09/2012	Yes	Regular
2	Dr. S GIRI PRASAD	PhD	Anna University	27/11/2019	Yes	ASSOCIATE PROFESSOR & HOD	04/12/2020	04/12/2020	ECE	ECE			27/11/2019	Yes	Regular
3	Dr.J.KALIAPPAN	PHD	Bharath University	17/02/2016	Yes	PROFESSOR	07/06/2021	07/06/2021	ECE	ECE			17/02/2016	Yes	Regular

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4	Dr.S VENKATESAN	PHD	SIST	05/07/2012	Yes	PROFESSOR	18/04/2022	18/04/2022	ECE	ECE			05/07/2012	Yes	Regular
5	Dr. P KARUNAKAR	PHD	SSUTMS	08/06/2020	Yes	ASSOCIATE PROFESSOR	05/04/2021	05/04/2021	ECE	ECE			08/06/2020	Yes	Regular
6	Dr.K DAMODAR	PHD	SRU	24/12/2018	Yes	ASSOCIATE PROFESSOR	05/07/2021	05/07/2021	ECE	ECE			24/12/2018	Yes	Regular
7	Mr. J MAHESWAR REDDY	M.TECH	JNTUH	05/10/2007	Yes	ASSOCIATE PROFESSOR	01/08/2017	01/07/2010	ECE	DECS				Yes	Regular
8	Mrs. P HEMALATHA	M.TECH	JNTUA	08/12/2014	Yes	ASSOCIATE PROFESSOR	16/03/2020	17/07/2017	ECE	ES				Yes	Regular
9	Mrs. T REDDI RANI	M.TECH	JNTUA	08/12/2014	Yes	ASSOCIATE PROFESSOR	01/04/2019	02/01/2015	ECE	ES				Yes	Regular

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ECE- SAR

10	Mrs. W J HIMA BHINDU	M.TECH	JNTUA	20/12/2016	Yes	ASSOCIATE PROFESSOR	16/03/2020	17/07/2017	ECE	ECE				Yes	Regular
11	Mr.M ARUN RAJ	M.E	Anna University	08/06/2016	Yes	ASSISTANT PROFESSOR		24/12/2020	ECE	ICE				Yes	Regular
12	Mr. N NAGENDRA	M.TECH	JNTUA	07/11/2016	Yes	ASSISTANT PROFESSOR		15/03/2018	ECE	DECS				Yes	Regular
13	Mr. P GOVARDHAN	M.TECH	JNTUA	09/10/2017	Yes	ASSISTANT PROFESSOR		28/01/2021	ECE	DECS				Yes	Regular
14	Mr. Y AYYAVARU REDDY	M.TECH	JNTUA	01/11/2016	Yes	ASSISTANT PROFESSOR		07/01/2020	ECE	VLSI&SD				Yes	Regular
15	Mrs. N THEJASWY	M.TECH	JNTUA	08/07/2016	Yes	ASSISTANT PROFESSOR		02/03/2021	ECE	DECS				Yes	Regular

CRITERIA-5

ECE- SAR

16	Mrs. B KEERTHI	M.TECH	JNTUA	05/11/2016	Yes	ASSISTANT PROFESSOR		28/01/2021	ECE	VLSI				Yes	Regular
17	Mrs. G MANJULA	M.TECH	JNTUA	06/11/2021	Yes	ASSISTANT PROFESSOR		15/12/2021	ECE	VLSI&SD				Yes	Regular
18	Mrs. K V NANDINI	M.TECH	JNTUA	08/12/2021	Yes	ASSISTANT PROFESSOR		17/10/2022	ECE	ES				Yes	Regular
19	Mr.R HARSHAVARD HAN REDDY	M.TECH	JNTUA	08/12/2016	Yes	ASSISTANT PROFESSOR		07/01/2020	ECE	ES				Yes	Regular
20	Mr.V KRISHNAKANT H	M.TECH	JNTUA	09/10/2018	Yes	ASSISTANT PROFESSOR		04/03/2021	ECE	ES				Yes	Regular
21	Mr.R NAGENDRA	M.TECH	JNTUA	06/11/2012	No	ASSOCIATE PROFESSOR	01/08/2017	04/12/2008	ECE	ES				03/05/2023	Regular

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ECE- SAR

22	Mr.M V MAHESWAR REDDY	M.TECH	JNTUA	05/06/2009	No	ASSOCIATE PROFESSOR	11/07/2018	11/07/2018	ECE	DECS				28/06/2023	Regular
23	S SHAMAR SULTHANA	M.TECH	JNTUH	05/08/2015	No	ASSISTANT PROFESSOR		07/06/2021	ECE	ECE				12/11/2022	Regular
24	Mrs. J SABITHA	M.TECH	JNTUA	11/10/2020	No	ASSISTANT PROFESSOR		07/06/2021	ECE	DECS				24/07/2023	Regular
25	Mr.K SANTHOSH KUMAR	M.TECH	JNTUA	05/02/2015	No	ASSISTANT PROFESSOR		07/01/2020	ECE	ES				30/05/2023	Regular
26	Mr.T ANANDA KRISHNA	M.TECH	JNTUA	08/02/2014	No	ASSISTANT PROFESSOR		04/02/2020	ECE	VLSI				06/05/2023	Regular

**LECTRONICS AND COMMUNICATION ENGINEERING
STAFF LIST FOR THE ACADEMIC YEAR 2021-22**

S.No	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor /Associate Professor	Date of Joining the Institution	Department	Specialization	Research paper Publication	Ph.D. Guidance	Faculty Receiving Ph.D. during the assessment years	Currently Associated (Y/N) Date of Leaving (In Case Currently Associated is("No"))	Nature of Association (Regular /Contract)
		Degree(Highest Degree)	University	Year of attaining higher qualification											
1	Dr. B D VENKATRAMANA REDDY	PhD	JNTUA	06/09/2012	Yes	PROFESSOR	29/04/2013	29/04/2013	ECE	ECE			06/09/2012	Yes	Regular
2	Dr.J.KALIAPPAN	PhD	Bharath University	17/02/2016	Yes	PROFESSOR	07/06/2021	07/06/2021	ECE	ECE			17/02/2016	Yes	Regular
3	Dr. S GIRI PRASAD	PhD	Anna University	27/11/2019	Yes	ASSOCIATE PROFESSOR & HOD	04/12/2020	04/12/2020	ECE	ECE			27/11/2019	Yes	Regular

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ECE- SAR

4	Dr. P KARUNAKAR	PhD	SSUTMS	08/06/2020	Yes	ASSOCIATE PROFESSOR	05/04/2021	05/04/2021	ECE	ECE			08/06/2020	Yes	Regular
5	Dr.K DAMODAR	PhD	SRU	24/12/2018	Yes	ASSOCIATE PROFESSOR	05/07/2021	05/07/2021	ECE	ECE			24/12/2018	Yes	Regular
6	Mr. J MAHESWAR REDDY	M.TECH	JNTUH	05/10/2007	Yes	ASSOCIATE PROFESSOR	01/08/2017	01/07/2010	ECE	DECS				Yes	Regular
7	Mrs. P HEMALATHA	M.TECH	JNTUA	08/12/2014	Yes	ASSOCIATE PROFESSOR	16/03/2020	17/07/2017	ECE	ES				Yes	Regular
8	Mrs. T REDDI RANI	M.TECH	JNTUA	08/12/2014	Yes	ASSOCIATE PROFESSOR	01/04/2019	02/01/2015	ECE	ES				Yes	Regular
9	Mrs. W J HIMA BHINDU	M.TECH	JNTUA	20/12/2016	Yes	ASSOCIATE PROFESSOR	16/03/2020	17/07/2017	ECE	ECE				Yes	Regular

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ECE- SAR

10	Mr.M ARUN RAJ	M.E	Anna University	08/06/2016	Yes	ASSISTANT PROFESSOR		24/12/2020	ECE	ICE				Yes	Regular
11	Mr. N NAGENDRA	M.TECH	JNTUA	07/11/2016	Yes	ASSISTANT PROFESSOR		15/03/2018	ECE	DECS				Yes	Regular
12	Mr. P GOVARDHAN	M.TECH	JNTUA	09/10/2017	Yes	ASSISTANT PROFESSOR		28/01/2021	ECE	DECS				Yes	Regular
13	Mr. Y AYYAVARU REDDY	M.TECH	JNTUA	01/11/2016	Yes	ASSISTANT PROFESSOR		07/01/2020	ECE	VLSI&SD				Yes	Regular
14	Mrs. N THEJASWY	M.TECH	JNTUA	08/07/2016	Yes	ASSISTANT PROFESSOR		02/03/2021	ECE	DECS				Yes	Regular
15	Mrs. B KEERTHI	M.TECH	JNTUA	05/11/2016	Yes	ASSISTANT PROFESSOR		28/01/2021	ECE	VLSI				Yes	Regular

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ECE- SAR

16	Mrs. G MANJULA	M.TECH	JNTUA	06/11/2021	Yes	ASSISTANT PROFESSOR		15/12/2021	ECE	VLSI&SD				Yes	Regular
17	Mr.R HARSHAVARD HAN REDDY	M.TECH	JNTUA	08/12/2016	Yes	ASSISTANT PROFESSOR		07/01/2020	ECE	ES				Yes	Regular
18	Mr.V KRISHNAKAN TH	M.TECH	JNTUA	09/10/2018	Yes	ASSISTANT PROFESSOR		04/03/2021	ECE	ES				Yes	Regular
19	Mr.R NAGENDRA	M.TECH	JNTUA	06/11/2012	Yes	ASSOCIATE PROFESSOR	01/08/2017	04/12/2008	ECE	ES				Yes	Regular
20	Mr.M V MAHESWAR REDDY	M.TECH	JNTUA	05/06/2009	Yes	ASSOCIATE PROFESSOR	11/07/2018	11/07/2018	ECE	DECS				Yes	Regular
21	S SHAMAR SULTHANA	M.TECH	JNTUH	05/08/2015	Yes	ASSISTANT PROFESSOR		07/06/2021	ECE	ECE				Yes	Regular

CRITERIA-5

ECE- SAR

22	Mrs. J SABITHA	M.TECH	JNTUA	11/10/2020	Yes	ASSISTANT PROFESSOR		07/06/2021	ECE	DECS				Yes	Regular
23	Mr.K SANTHOSH KUMAR	M.TECH	JNTUA	05/02/2015	Yes	ASSISTANT PROFESSOR		07/01/2020	ECE	ES				Yes	Regular
24	Mr.T ANANDA KRISHNA	M.TECH	JNTUA	08/02/2014	Yes	ASSISTANT PROFESSOR		04/02/2020	ECE	VLSI				Yes	Regular
25	Mr.C MANOJ KUMAR	M.TECH	JNTUA	15/07/2011	No	ASSOCIATE PROFESSOR	05/09/2020	15/06/2016	ECE	VLSI & SD				13/08/2021	Regular
26	Mr.S RIZWAN	M.TECH	JNTUA	21/08/2017	No	ASSISTANT PROFESSOR		26/03/2018	ECE	VLSI & ES				16/05/2022	Regular

**CTRONICS AND COMMUNICATION ENGINEERING
STAFF LIST FOR THE ACADEMIC YEAR 2020-21**

S.No	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor /Associate Professor	Date of Joining the Institution	Department	Specialization	Research paper Publication	Ph.D. Guidance	Faculty Receiving Ph.D. during the assessment years	Currently Associated (Y/N) Date of Leaving (In Case Currently Associated is("No"))	Nature of Association(Regular /Contract)
		Degree(Highest Degree)	University	Year of attaining higher qualification											
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2	Dr. S GIRI PRASAD	PhD	Anna University	27/11/2019	Yes	ASSOCIATE PROFESSOR & HOD	04/12/2020	04/12/2020	ECE	ECE			27/11/2019	Yes	Regular
3	Dr. P KARUNAKAR	PhD	SSUTMS	08/06/2020	Yes	ASSOCIATE PROFESSOR	05/04/2021	05/04/2021	ECE	ECE			08/06/2020	Yes	Regular

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ECE- SAR

4	Mr. J MAHESWAR REDDY	M.TECH	JNTUH	05/10/2007	Yes	ASSOCIATE PROFESSOR	01/08/2017	01/07/2010	ECE	DECS				Yes	Regular
5	Mrs. P HEMALATH A	M.TECH	JNTUA	08/12/2014	Yes	ASSOCIATE PROFESSOR	16/03/2020	17/07/2017	ECE	ES				Yes	Regular
6	Mrs. T REDDI RANI	M.TECH	JNTUA	08/12/2014	Yes	ASSOCIATE PROFESSOR	01/04/2019	02/01/2015	ECE	ES				Yes	Regular
7	Mrs. W J HIMA BHINDU	M.TECH	JNTUA	20/12/2016	Yes	ASSOCIATE PROFESSOR	16/03/2020	17/07/2017	ECE	ECE				Yes	Regular
8	Mr.M ARUN RAJ	M.E	Anna University	08/06/2016	Yes	ASSISTANT PROFESSOR		24/12/2020	ECE	ICE				Yes	Regular
9	Mr. N NAGENDRA	M.TECH	JNTUA	07/11/2016	Yes	ASSISTANT PROFESSOR		15/03/2018	ECE	DECS				Yes	Regular

CRITERIA-5

ECE- SAR

10	Mr. P GOVARDHAN	M.TECH	JNTUA	09/10/2017	Yes	ASSISTANT PROFESSOR		28/01/2021	ECE	DECS				Yes	Regular
11	Mr. Y Ayyavaru Reddy	M.TECH	JNTUA	01/11/2016	Yes	ASSISTANT PROFESSOR		07/01/2020	ECE	VLSI&SD				Yes	Regular
12	Mrs. N Thejaswy	M.TECH	JNTUA	08/07/2016	Yes	ASSISTANT PROFESSOR		02/03/2021	ECE	DECS				Yes	Regular
13	Mrs. B Keerthi	M.TECH	JNTUA	05/11/2016	Yes	ASSISTANT PROFESSOR		28/01/2021	ECE	VLSI				Yes	Regular
14	Mr.R Harshavar Dhan Reddy	M.TECH	JNTUA	08/12/2016	Yes	ASSISTANT PROFESSOR		07/01/2020	ECE	ES				Yes	Regular
15	Mr.V Krishnaka Nth	M.TECH	JNTUA	09/10/2018	Yes	ASSISTANT PROFESSOR		04/03/2021	ECE	ES				Yes	Regular

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ECE- SAR

16	Mr.R NAGENDRA	M.TECH	JNTUA	06/11/2012	Yes	ASSOCIATE PROFESSOR	01/08/2017	04/12/2008	ECE	ES				Yes	Regular
17	Mr.M V MAHESWAR REDDY	M.TECH	JNTUA	05/06/2009	Yes	ASSOCIATE PROFESSOR	11/07/2018	11/07/2018	ECE	DECS				Yes	Regular
18	S SHAMAR SULTHANA	M.TECH	JNTUH	05/08/2015	Yes	ASSISTANT PROFESSOR		07/06/2021	ECE	ECE				Yes	Regular
19	Mr.K SANTHOSH KUMAR	M.TECH	JNTUA	05/02/2015	Yes	ASSISTANT PROFESSOR		07/01/2020	ECE	ES				Yes	Regular
20	Mr.T ANANDA KRISHNA	M.TECH	JNTUA	08/02/2014	Yes	ASSISTANT PROFESSOR		04/02/2020	ECE	VLSI				Yes	Regular
21	Mr.C MANOJ KUMAR	M.TECH	JNTUA	15/07/2011	Yes	ASSOCIATE PROFESSOR	05/09/2020	15/06/2016	ECE	VLSI & SD				Yes	Regular

CRITERIA-5

ECE- SAR

22	Mr.S RIZWAN	M.TECH	JNTUA	21/08/2017	Yes	ASSISTANT PROFESSOR		26/03/2018	ECE	VLSI & ES				Yes	Regular
23	Mrs.C K HEMANTHA LAKSHMI	M.TECH	JNTUA	06/07/2009	No	ASSISTANT PROFESSOR		01/07/2019	ECE	VLSI & SD				02/12/2020	Regular
24	Mrs.N IDA JOSLIN	M.TECH	JNTUA	05/03/2016	No	ASSISTANT PROFESSOR		09/01/2020	ECE	DECS				30/12/2020	Regular

5.1. Student-Faculty Ratio (SFR) (16/20)

(To be calculated at Department Level)

No. of UG Programs in the Department (n):1

No. of PG Programs in the Department (m):1

No. of Students in UG 2nd

Year= **u1** No. of Students

in UG 3rd Year= **u2** No. of

Students in UG 4th Year=

u3 No. of Students in PG

1st Year= **p1** No. of

Students in PG 2nd Year=

p2

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

(The above data to be provided considering all the UG and PG programs of the department)

S=Number of Students in the Department = UG1 + UG2 +.. +UGn + PG1 + ...PGn

F = Total Number of Faculty Members in the Department (excluding first year faculty)

Student Teacher Ratio (STR) = S / F

Year	CAY (2023-24)	CAYm1 (2022-23)	CAYm2 (2021-22)
u1.1	121	130	122
u1.2	130	122	126
u1.3	122	126	135
UG1	373	378	383

p1.1	18	18	18
p1.2	18	18	18
PG1	36	36	36
Total No. of Students in the Department (S)	409	414	419
No. of Faculty in the Department (F)	F1 = 25	F2 =24	F3 =24
Student Faculty Ratio (SFR)	SFR1=S1/F1 = 409/25= 16.36	SFR2= S2/F2 = 414/24 = 17.25	SFR3= S3/F3 = 419/24 = 17.46
Average SFR	SFR=(SFR1+SFR2+SFR3)/3 = 17.02		

Table 5.1.1: Student Teacher Ratio

Note: Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1.marks distribution is given as below:

≤ 15 - 20 Marks

≤ 17 - 18 Marks

≤ 19 - 16 Marks

≤ 21 - 14 Marks

≤ 23 - 12 Marks

≤ 25 - 10 Marks

> 25.0 - 0 Marks

All the faculty whether regular or contractual (except part-time or hourly based), will be considered. The contractual faculty appointed with any

terminology whatsoever, who have taught for 2 consecutive semesters with or without break between the 2 semesters in 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 with or without break between the 2 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 InThe Department	Total number of Contractualfaculty in the Department
CAY (2023-24)	25	0
CAYm1(2022-23)	24	0
CAYm2 (2021-22)	24	0

Table 5.1.2: Regular and Contractual Faculty

Average SFR for three assessment years : 17.02

Assessment SFR : 16

5.2. Faculty Cadre Proportion (25/25)

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

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

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

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

The following is calculated as SFR as 20:1

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY (2023-24)	2	4	4	4	13	17
CAYm1 (2022-23)	2	3	4	3	13	18
CAYm2 (2021-22)	2	2	4	3	13	19
Average Numbers	RF1= 2	AF1=3	RF2= 4	AF2= 3.3	RF3= 13	AF3= 18

Table 5.2.1: Faculty Cadre Proportion

$$\left[\left(\frac{AF1}{RF1} \right) + \left(\frac{AF2 \times 0.6}{RF2} \right) + \left(\frac{AF3 \times 0.4}{RF3} \right) \right] \times 12.5$$

- If AF1 = AF2= 0 then zero marks
 - Maximum marks to be limited if it exceeds 25
- (Refer calculation in SAR)

Example: Intake =60(i.e., Total no of students =180); Required number of Faculty: 9;RF=1,RF=2 and RF3=6

Case 1: AF1/RF1=1;AF2/RF2=1;AF3/RF3=1; Cadre proportion marks=(1+0.6+0.4)x12.5=25

Case 2: AF1/RF1=1;AF2/RF2=3/2;AF3/RF3=5/6; Cadre proportion marks=(1+0.9+0.3)x12.5= Limited to 25

Case 3: AF1/RF1=0;AF2/RF2=1/2;AF3/RF3=8/6; Cadre proportion marks=(0+0.3+0.53)x12.5=10.4

5.3.Faculty Qualification (16.92/25)

FQ =2.5 x [(10X +4Y)/F] where **x** is no. of regular faculty with Ph.D., **Y** is no. of regular faculty with M.Tech. **F** is no. of regular faculty required to comply 20:1 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

Years	X	Y	F	FQ=2.5 x [(10X +4Y)/F]
CAY (2023-24)	8	17	20	2.5 x [(80 +68)/20]=18.50
CAY _{m1} (2022-23)	6	18	20	2.5 x [(60 +72)/20]=16.5
CAY _{m2} (2021-22)	5	19	20	2.5 x [(50 +76)/20]=15.75
Average Assessment				16.92

Table 5.3.1: Faculty Qualification

5.4. Faculty Retention (25/25)**No. of faculty members in CAY_{m1}= 24 CAY= 25**

Item (% of faculty retained during the period of assessment keeping CAY_{m2} as base year)	Marks (Allotted)	Marks (Obtained)
>=90% of required Faculty members retained during the period of assessment keeping CAY _{m2} as base year	25	25 (92%)
>=75% of required Faculty members retained during the period of assessment keeping CAY _{m2} as base year	20	
>=60% of required Faculty members retained during the period of assessment keeping CAY _{m2} as base year	15	
>=50% of required Faculty members retained during the period of assessment keeping CAY _{m2} as base year	10	
<50% of required Faculty members retained during the period of assessment keeping CAY _{m2} as base year	0	

Table 5.4.1: Percentage of Faculty Retention

Item	CAY	CAYm1
No. of Faculty Retained	15	22
Total No. of required faculty in CAYm2	20	
% of Faculty Retained	110	75
Faculty Retained	92%	

Table 5.4.3 Percentage of Faculty Retention For each academic year

S.No	CAYm2 (2021- 22)	CAYm1 (2022- 23)	CAY (2023- 24)
1.	Dr. B D VENKATRAMANA REDDY	Dr. B D VENKATRAMANA REDDY	Dr. B D VENKATRAMANA REDDY
2.	Dr.J. KALIAPPAN	Dr.J. KALIAPPAN	Dr.J. KALIAPPAN
3.	Dr. P KARUNAKAR	Dr. P KARUNAKAR	Dr. P KARUNAKAR
4.	Dr.K DAMODAR	Dr.K DAMODAR	Dr.K DAMODAR
5.	Mr. J MAHESWAR REDDY	Mr. J MAHESWAR REDDY	Mr. J MAHESWAR REDDY
6.	Mrs. P HEMALATHA	Mrs. P HEMALATHA	Mrs. P HEMALATHA
7.	Mrs. T REDDI RANI	Mrs. T REDDI RANI	Mrs. T REDDI RANI
8.	Mrs. W J HIMA BHINDU	Mrs. W J HIMA BHINDU	Mrs. W J HIMA BHINDU
9.	Mr. N NAGENDRA	Mr. N NAGENDRA	Mr. N NAGENDRA
10.	Mr. P GOVARDHAN	Mr. P GOVARDHAN	Mr. P GOVARDHAN
11.	Mr. Y AYYAVARU REDDY	Mr. Y AYYAVARU REDDY	Mr. Y AYYAVARU REDDY
12.	Mrs. N THEJASWY	Mrs. N THEJASWY	Mrs. N THEJASWY
13.	Mrs. B KEERTHI	Mrs. B KEERTHI	Mrs. B KEERTHI
14.	Mrs. G MANJULA	Mrs. G MANJULA	Mrs. G MANJULA
15.	Mr. R HARSHAVARDHAN REDDY	Mr.R HARSHAVARDHAN REDDY	Mr.R HARSHAVARDHAN REDDY
16.	Mr.V KRISHNAKANTH	Mr.V KRISHNAKANTH	
17.	Dr. S GIRI PRASAD	Dr. S GIRI PRASAD	
18.	Mr. M ARUN RAJ	Mr. M ARUN RAJ	
19.	Mr.R NAGENDRA	Mr.R NAGENDRA	
20.	Mr.M V MAHESWAR REDDY	Mr.M V MAHESWAR REDDY	

21.	Mrs. J SABITHA	Mrs. J SABITHA	
22.	Mr.K SANTHOSH KUMAR	Mr.K SANTHOSH KUMAR	
23.	Mr.T ANANDA KRISHNA		
24.	Mr.C MANOJ KUMAR		
25.	Mr.S RIZWAN		
26.	S SHAMAR SULTHANA		

Table: List of Faculty Retained

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

The Electronics & Communication Engineering faculty strives to improve teaching and learning experiences through new techniques. These are clearly stated in both our Department Records and on the Institute website. The faculty's innovations in teaching and learning are outlined as follows.

i. App based learning

Teaching using applications on students' smartphones. Apps on the Play Store improve learning by providing answers to complex issues with various variables. The apps, their features, topic benefits, and associated links are listed below:

S. No	App details	Courses benefited	Link to install the app
1	Pauls v lab	Analog Circuits, Control Systems	https://www.vlab.co.in/participating-institute-nitk-surathkal
2	intellipaat	Electronic Measurements & Instrumentation	https://intellipaat.com

3	Edi Mate	Digital Image Processing	https://play.google.com/store/apps/details?id=com.cadimate.edimatepro YouTube explanation Link:
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ii. Solution Bank

Exam questions are typically offered by topic experts and can help clarify concepts. Solutions to these papers might help students understand the many approaches to analyzing and solving concepts.

S. No	Innovative Teaching Method & Features provided	Courses benefited	Link
1	Quora, Unacademy	Cellular & Mobile Communications, Communication Networks	http://unacademy.com/ https://www.quora.com/

iii. Collaborative Tools

Engineering requires a collaborative effort between management and ground-level workers to execute a strategy developed by a few individuals.

Nowadays, students can use collaborative platforms to collect and synthesize knowledge from various resources, unlike in the past.

S.N o.	Name of the Tool	Courses benefited	Relevant Link
1	Google docs for notes sharing. Important Links to additional material i.e. apps, websites, videos, journals.	Electronic Devices & Circuits Digital Processing, Digital Design signal Logic	https://docs.google.com/document/create?addon_store

iv. Internet for distribution of notes & academic information

S. No.	Name of the Tool	Courses benefited	Relevant Link
1	<ul style="list-style-type: none"> • Word press Blog for academic activities Department events • MCQ tests & Feedback • Notes & Assignments • Solutions to previous papers • Discussion Forum 	VLSI, Embedded Sytem Designs Linear & Digital IC Applications	https://wordpress.com/forums/topic/Ece/

v. Flipped Class

Students are provided with videos and study materials to help them with problem-solving, advanced applications, debates, conversations, and clarifying doubts.

S. No	Innovative Teaching Method & Features provided	Courses benefited	Link
1	YouTube Channel for screen recorded videos explaining the concept	Digital Logic Design, Signals & Systems	https://github.com/Developer-Y/cs-video-courses https://www.youtube.com/watch?v=xLetJpcjHS0 https://www.youtube.com/c/SimplilearnOfficial/videos https://www.youtube.com/watch?app=desktop&v=EU3rgkBG8E

vi. PowerPoint Presentation (Prezi):

Students are provided with videos and study materials to help them with problem-solving, advanced applications, debates, conversations, and clarifying doubts.

S. No	Innovative Teaching Method & Features provided	Courses benefited	Link
1	Prezi - It is an online platform that provides infinite canvas on which all the data can be placed with suitable scaling. Then a sequence can be planned that zooms in to relevant parts of that infinite canvas. It is a presentation tool that's more engaging, persuasive, and effective than PowerPoint.	EMTL, Micro Processors & Micro Controllers	https://prezi.com/ https://prezi.com/presentation-template/lesson-plan-template-business-presentation-chalk/

vii. Plickers:

The previously created Objective quiz is exhibited on the projector via plickers.com.

Each student's unique bar code will be scanned with an internet-connected smartphone using the Plickers app. This feedback system ensures students understand class subjects accurately. If a class receives

a high number of incorrect responses, further classes may be scheduled.

S. No	Innovative Teaching Method & Features provided	Courses benefited	Link
1	Pickers: It is the free card activity that millions of educators use to do a formative assessment within the classroom.	Electronic Measurement & Instrumentation, Radar Engineering	https://www.plickers.com/

viii. Google forms for Quiz

Conducting objective quizzes might be challenging due to the high volume of papers and time-consuming corrections required. Automated solutions on the internet reduce time and make materials more reusable.

S. No	Innovative Teaching Method & Features provided	Courses benefited	Link
1	Google forms for MCQ / Objective tests	Advanced Micro Controllers, Embedded Real time operating systems	https://docs.google.com/forms/d/1d_K2ltTiiHODsdryGsr4yOhVcIvFrwjBWgSJezS6Zk/edit

ix. Charts / Models

Charts are used in labs to better comprehend machine and operation. Students gain a better understanding of functions when subjects are linked together. Charts assist students grasp the practical relevance of several topics, as a single part may require knowledge from multiple subjects.

S. No	Innovative Teaching Method & Features provided	Courses benefited	Link
1	Google Charts, Chart blocks	Embedded Sytem Design, ERTOS, Embedded System Protocols	https://developers.google.com/chart https://chartblocks.io/

x. **Virtual Labs**

Virtual laboratories are another technique to overcome the restrictions of physical labs.

Students can do experiments in a simulated environment created by software engineers, providing a nearly equivalent experience to those conducted in the lab. The institute has applied to vlabs to become a nodal centre.

In addition to traditional teaching methods such as chalk and talk, faculty members uses

- The digital library offers expert video lectures from famous resource persons, allowing professors and students to access NPTEL e-Tutorials, e-Journals, and video conference rooms.
- Modern teaching aids such as LCD projectors, Internet-enabled computers, and Wi-Fi laptops are commonly used in classrooms and other learning environments.
- Faculty members use Open-Source tools such as the digital library, MATLAB, and P-Spice to grasp course content.
- Faculty members are encouraged to participate in short-term courses, webinars, staff development programs, and seminars to maintain

advanced knowledge and abilities. power point presentations in all classes.

- Use Role play in the classroom is an excellent technique to push pupils outside of their comfort zone and improve their interpersonal skills. The role-playing strategy will help a student grasp how academic material will apply to his daily tasks. Role play is a simulation in which each player is assigned a specific role. After reading their job descriptions, the participants act out their roles by engaging with one another. Examples of roles assigned to students include teacher, interviewer, and entrepreneur.
- Use seminars and interactive conversations. This strategy requires students to give presentations on specific themes. During the session, students can engage in interactive discussions by asking questions.
- Lab manuals with sample readings are accessible in the laboratories for students' use. Every year, when the syllabus changes, all lab guides are changed and updated.

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

- A Faculty scores maximum five points for participation
- Participation in 2 to 5 days Faculty development program: 3 Points
- Participation >5 days Faculty development program: 5 points

S.No	Name of the Faculty	Max. 5 per Faculty		
		CAYm1 (2022-23)	CAYm2 (2021-22)	CAYm3 (2020-21)
1.	Dr. B D Venkatramana Reddy	3	3	5
2.	Dr. S Giri Prasad	5	5	3
3.	Dr.J.Kaliappan	3	5	0
4.	Dr.S Venkatesan	5	0	0
5.	Dr. P Karunakar	3	5	0
6.	Dr.K Damodar	5	3	0
7.	Mr. J Maheswar Reddy	5	3	5
8.	Mrs. P Hemalatha	3	5	5
9.	Mrs. T Reddi Rani	5	3	5
10.	Mrs. W J Hima Bhindu	3	5	5
11.	Mr. M Arun Raj	3	5	3
12.	Mr. N Nagendra	5	5	5
13.	Mr. P Govardhan	3	5	0
14.	Mr. Y Ayyavaru Reddy	3	5	5
15.	Mrs. N Thejaswy	3	5	3
16.	Mrs. B Keerthi	5	3	0
17.	Mrs. G Manjula	5	5	0
18.	Mrs. K V Nandini	5	0	0
19.	Mr.R Harshavardhan Reddy	3	5	5
20.	Mr.V Krishnakanth	3	3	0

21.	Mr.R Nagendra	3	5	5
22.	Mr.M V Maheswar Reddy	0	3	3
23.	Ms.S Shamar Sulthana	3	3	3
24.	Mrs. J Sabitha	3	5	3
25.	Mr.K Santhosh Kumar	0	3	3
26.	Mr.T Ananda Krishna	0	5	3
27.	Mr.C Manoj Kumar	0	0	5
28.	Sum	87	102	74
29.	RF = Number of Faculty required to comply with 20:1 Student Faculty Ratios as per 5.1	20.4 5	20.70	20.95
30.	Assessment $[3*(Sum / 0.5RF)]$	25.5 3	29.57	21.19
Average assessment over 3 years: 25.43				

Table 5.6.1: Faculty Score for Attending faculty development programs

5.7. Research and Development (20/30)**5.7.1. Academic Research (10/10)**

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

- Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (6)
- Ph.D. guided /Ph.D. awarded during the assessment period while working in the institute (4)
- All relevant details shall be mentioned.

5.7.1 (A) List of Publications/Conferences:**CAYm1 (2022-23)**

S.No	Name of the Faculty	Title/ Topic	Name of the Journal	International / National Journal with Impact Factor	Year of Publication
1.	Dr S Giriprasad	Crop Yield Prediction in Agriculture using productivity and season Data	Journal of emerging technologies and innovative research	International	Vol 9, issue 4, April 2022, Issn no. 2349-5162
2.	Mr J Maheswar Reddy	Crop Yield Prediction in Agriculture using productivity and season Data	Journal of emerging technologies and innovative research	International	Vol 9, issue 4, April 2022, Issn no. 2349-5162

3.	Dr S Giriprasad	Realtme Facemask and Alert System Using Artifitial intelegence	Journal Of Information and Comutational science	Internation al	Vol 12 Issue 5 2022
4.	Dr.P Karunakar	Autonomous delivery robot with pin control	Journal of Current Science	Internation al	Volume 11 Issue 02 April 2023 ISSN NO: 9726-001X
5.	Mr T Reddy Rani	Realtme Facemask and Alert System Using Artifitial intelegence	Journal Of Information and Comutational science	International	Vol 12 Issue 5 2022
6.	Dr.P Karunakar	Making Better CRM Decisions with IoT Data	International Journal of Computer Networks and Wireless Communications (IJCNWC)	International	Vol.13, No 1, Jan 2023 SSN: 2250-3501
7.	Mrs.K Apsana	An Alerting and Monitoring System for	Journal of Current Science	International	Volume 11 Issue 02 June 2023

		Bridges Based on the Internet of Things			ISSN NO: 9726-001X
8.	Dr.J Kaliappan	Agricultural IoT-Based Pesticide Spray Drone	International Journal of Engineering & Science Research	International	July 2022 Vol-12 Issue-3 ISSN 2277-2685
9.	Mrs.P Hemalatha	Important structure for managing wired networks in many groupings: assessment of needs	International Journal of Engineering & Science Research	International	JULY 2022/ Vol-12/Issue-3 ISSN 2277-2685
10.	Mr.P Govardhan	A Low-Cost Robotics Education Platform Based on Open-Source Software and 3D Printers	International Journal of Engineering & Science Research	International	Dec 2022/ Vol-12/Issue-4/ ISSN 2277-2685
11.	Mrs.B Keerthi	Methods for Matching Semantic Things with Relevant Services in Industrial IoT Settings: A Critical Review	International Journal of Engineering & Science Research	International	JULY 2023/ Vol-13/Issue-3 ISSN 2277-2685

12.	Mrs.G Manjula	Control Your Lights Intelligently with an Arduino Board	International Journal of Engineering & Science Research	International	JULY 2023/ Vol-13/Issue-3/1-5 ISSN 2277-2685
13.	Dr.G Venkata Subbaiah	Highly efficient pmos biased sense amplifier design	Journal of Current Science	International	Volume 11 Issue 03 July 2023 ISSN NO: 9726-001X
14.	Mrs.R Haritha	NEC-Based Node MCU-Based Raspberry Pi Agriculture System	Journal of Current Science	International	Volume 11 Issue 02 June 2023 ISSN NO: 9726-001X
15.	Dr.Vasanth Swaminathan	Methods for Interfacing Hardware and Software in Open Source Networks	Journal of Current Science	International	Volume 11 Issue 03 July 2023 ISSN NO: 9726-001X
16.	Mr.N Nagendra	Data mining, dashboards, and	International Journal of	International	ISSN: 2250-3501 Vol.13, No 1, Jan

		statistics provide a solid foundation for the chemical design of molecular nanomagnets.	Computer Networks and Wireless Communications (IJCNWC)		2023
17. Mrs.N Thejaswy		Analyzing Breast Cancer Images Histopathologically using Deep Learning	International Journal of Computer Networks and Wireless Communications	International	SSN: 2250-3501 Vol.13, No 2, April 2023
18. Mr.M Raveendra		Smart Zone Based Vehicle Speed Control Using RF and Obstacle Detection and Accident Prevention	International Journal of Computer Networks and Wireless Communications	International	ISSN: 2250-3501 Vol.13, No 2, June 2023
19. Mrs.B Keerthi		Important structure for managing wired networks in many groupings: assessment	International Journal of Engineering & Science Research	International	JULY 2022/ Vol-12/Issue-3 ISSN 2277-2685

		of needs			
20.	Mr.R Harsha Vardhan Reddy	Important structure for managing wired networks in many groupings: assessment of needs	International Journal of Engineering & Science Research	International	JULY 2022/ Vol-12/Issue-3 ISSN 2277-2685
21.	Mr.R Nagendra	A Low-Cost Robotics Education Platform Based on Open-Source Software and 3D Printers	International Journal of Engineering & Science Research	International	Dec 2022/ Vol-12/Issue-4/ ISSN 2277-2685
22.	Mrs.J Sabitha	A Low-Cost Robotics Education Platform Based on Open-Source Software and 3D Printers	International Journal of Engineering & Science Research	International	Dec 2022/ Vol-12/Issue-4/ ISSN 2277-2685
23.	Mrs.G Manjula	Methods for Matching Semantic Things with Relevant Services in Industrial IoT Settings:	International Journal of Engineering & Science Research	International	JULY 2023/ Vol-13/Issue-3 ISSN 2277-2685

		A Critical Review			
24.	Mrs.T Reddy Rani	Methods for Matching Semantic Things with Relevant Services in Industrial IoT Settings: A Critical Review	International Journal of Engineering & Science Research	International	JULY 2023/ Vol-13/Issue-3 ISSN 2277-2685
25.	Mrs.B Keerthi	Control Your Lights Intelligently with an Arduino Board	International Journal of Engineering & Science Research	International	JULY 2023/ Vol-13/Issue-3/1-5 ISSN 2277-2685
26.	Mrs.K V Nandini	Machine Learning for Internet of Things Data Caching	International Journal of Engineering & Science Research	International	ISSN 2277-2685 Dec 2023/ Vol-13/Issue-4/1-6
27.	Mr.R Harsha Vardhan Reddy	Machine Learning for Internet of Things Data Caching	International Journal of Engineering & Science Research	International	ISSN 2277-2685 Dec 2023/ Vol-13/Issue-4/1-6
28.	Mrs.R Haritha	Machine Learning for Internet of Things Data	International Journal of	International	ISSN 2277-2685 Dec 2023/ Vol-

		Caching	Engineering & Science Research		13/Issue-4/1-6
29.	Mr.M Raveendra	Enhancing Ad-hoc Network Security	Journal of Current Science	International	Volume 11 Issue 04 Oct 2023 ISSN NO: 9726- 001X
30.	Dr.G Venkata Subbaiah	Enhancing Ad-hoc Network Security	Journal of Current Science	International	Volume 11 Issue 04 Oct 2023 ISSN NO: 9726- 001X
31.	Mrs.T Reddy Rani	Enhancing Ad-hoc Network Security	Journal of Current Science	International	Volume 11 Issue 04 Oct 2023 ISSN NO: 9726- 001X
32.	Mrs.T Reddy Rani	NEC-Based Node MCU- Based Raspberry Pi Agriculture System	Journal of Current Science	International	Volume 11 Issue 02 June 2023 ISSN NO: 9726- 001X

33.	Dr.G Venkata Subbaiah	Smart Zone Based Vehicle Speed Control Using RF and Obstacle Detection and Accident Prevention	International Journal of Computer Networks and Wireless Communications	International	ISSN: 2250-3501 Vol.13, No 2, June 2023
34.	Mrs.T Reddy Rani	Smart Zone Based Vehicle Speed Control Using RF and Obstacle Detection and Accident Prevention	International Journal of Computer Networks and Wireless Communications	International	ISSN: 2250-3501 Vol.13, No 2, June 2023

CAYm2 (2021-22)

S.No.	Name of the Faculty	Title/ Topic	Name of the Journal	International/ National Journal with Impact Factor	Year of Publication
1.	B.D.Venkatramana Reddy	Image Super Resolution Model Enabled by Wavelet Lifting with Optimized Deep Convolutional Neural Network	Expert Systems, Wiley Publications.	International 1	Aug 2021 (SCIE). DOI: 10.1111/exsy.12793.
2.	B.D.Venkatramana Reddy	A Multi-objective Opposition-based Barnacles Mating Optimization for Image Super Resolution	Journal of Engineering Design and Technology, Emerald	International 1	Aug 2021. (ESCI). DOI 10.1108/JEDT-01-2021-0030.

		Using hyper-Spectral Images	Publishing Company		
3.	B.D.Venkatramana Reddy	Automated Image Super Resolution with the aid of Activation Function Optimized Deep CNN and Adaptive Wavelet lifting approach	Journal of Image and Graphics, World Scientific Publishing Company	International 1	Aug 2021, (ESCI). https://doi.org/10.1142/S0219467822500462
4.	Mrs T Reddy Rani	IOT Based Drunk Driving detection and vehicle safty auto ignition control	International Journal of research	International	Vol 8, Issue 7 ,July 2021, Issn No. 2348-6848
5.	Mr J Maheswar reddy	IOT Based Drunk Driving detection and vehicle safty auto ignition control	International Journal of research	International	Vol 8, Issue 7 ,July 2021, Issn No. 2348-6848
6.	Mrs W J Hima Bindu	Movable road divider for Organized Vehicle traffic control with Monitoring Over IOT	International Journal of research	International	Vol 8, Issue 7 ,July 2021, Issn No. 2348-6848

7.	Mrs P Hema Latha	Low Power 4X4 Multiplier design using dada algorithm and Optimized full Adder	International Journal of research	International	Vol 8 , Issue 12, Dec 2021, Issn No. 2348-6848
8.	Mrs W J Hima Bindu	Design of area efficient VLSI architecture of digital FIR filter using MAC	International Journal of research	International	Vol 8, Issue 11 ,Nov 2021, Issn No. 2348-6848
9.	Mrs W J Hima Bindu	Movable road divider for Organized Vehicle traffic control with Monitoring Over IOT	International Journal of research	International	Vol 8, Issue 8 ,Aug 2021, Issn No. 2348-6848
10.	Mr C Manoj Kumar	Movable road divider for Organized Vehicle traffic control with Monitoring Over IOT	International Journal of research	International	Vol 8, Issue 8 ,Aug 2021, Issn No. 2348-6848
11.	Mrs P Hemalatha	High speed VLSI Architecture of 4X4 bit Multiplier Design	International Journal of research	International	Vol 8, Issue 12 ,Dec 2021, Issn No. 2348-

		using Booth Algorithm			6848
12.	Mr J Maheswar Reddy	A Performance Analysis of AES Algorithm for Data Privacy in IOT Devices	International Journal of research	International	Vol 8, Issue 12 ,Dec 2021, Issn No. 2348-6848
13.	Mrs S Shamar Sulthana	Design and Implimentation of High advanced encryption standed (AES)	International Journal of research	International	Vol 8, Issue 11 ,Nov 2021, Issn No. 2348-6848
14.	Mrs B Keerthi	High Speed VLSI Architecture of Multi linear feedback shift register Counters with Reduced decoding logic	International Journal of research	International	Vol 8, Issue 11 ,Nov 2021, Issn No. 2348-6848
15.	Mr J Maheswar reddy	Advanced Railway track fault detection and reporting over	International Journal of research	International	Vol 8, Issue 7 ,July 2021, Issn No. 2348-

		IOT			6848
16. Mr.R Nagendra		Dual axis solar tracking system with weather and power monitoring system	International journal of basic and applied research	International	ISSN 2249-3352 Aug 2021 Volume 11 ISSUE 4
17. Dr.K Damodar		Empowering disabled communication: designing and implementing gesture recognition system	International journal of basic and applied research	International	July 2021 Volume 11 ISSUE 3 ISSN 2249-3352
18. Dr.J Kaliappan		Automating Your Home Using IoT Apps	International journal of basic and applied research	International	July 2021 Volume 11 ISSUE 3 ISSN 2249-3352
19. Mrs.P Hemalatha		Dual axis solar tracking system with weather and power	International journal of basic and applied	International	ISSN 2249-3352 Aug 2021 Volume 11

		monitoring system	research		ISSUE 4
20.	Dr.P Karunakar	Dual axis solar tracking system with weather and power monitoring system	International journal of basic and applied research	International	ISSN 2249-3352 Aug 2021 Volume 11 ISSUE 4
21.	Mr.R Harshavardhan Reddy	Empowering disabled communication: designing and implementing gesture recognition system	International journal of basic and applied research	International	July 2021 Volume 11 ISSUE 3 ISSN 2249-3352
22.	Ms.S Shamar Sulthana	Empowering disabled communication: designing and implementing gesture recognition system	International journal of basic and applied research	International	July 2021 Volume 11 ISSUE 3 ISSN 2249-3352

23. Mr.N Nagendra	Iot-enabled industrial fault monitoring system for improving equipment performance and management	International journal of basic and applied research	International	ISSN 2249-3352 Nov 2021 Volume 11 ISSUE 4
24. Mrs.J Sabitha	Smart street light system using cloud technology	International journal of basic and applied research	International	Oct 2021 Volume 11 ISSUE 4 ISSN 2249-3352

CAYm3 (2020-21)

S.No.	Name of the Faculty	Title/ Topic	Name of the Journal	International/ National Journal with Impact Factor	Year of Publication
1.		Contribution of Enhanced DWT	International Journal of	International	Sep 2020, (SCIE).

	Dr.B D Venkatrama na Reddy	and Non-negative Structured Sparse Representation for Image Super Resolution: A Performance Analysis	Wavelets, Multiresolution and Information Processing, World Scientific Publishing Company		https://doi.org/10.1142/S0219691320500496
2.	Mrs.T Reddi Rani	Planning and execution of a centralized method for localization of many nodes	International Journal of Modern Electronics and Communication Engineering	International	Vol 8, Issue.2April 2020 ISSN2321-2152
3.	Mr.M V Maheswar Reddy	Methods for Creating Power- and Latency-Efficient 10T and 14T SRAM Cells	International Journal of Modern Electronics and	International	Vol 8, Issue.3April 2020 SSN2321-2152

			Communicatio n Engineering		
4.	Mr.T Ananda Krishna	The Impact of IoT Sites on Multi- User Domains	International Journal of Modern Electronics and Communicatio n Engineering	International	Vol 8, Issue.2June 2020 ISSN2321- 2152
5.	Ms.S Shamar Sulthana	RGB Color Sorting using Arduino	International Journal of Modern Electronics and Communicatio n Engineering	International	Vol 8, Issue3.1June 2020 ISSN2321- 2152
6.	Mr.N Nagendra	Automating Your Home Using IoT Apps	International journal of basic and applied research	International	July 2021 Volume 11 ISSUE 3 ISSN 2249-

					3352
7.	Ms.S Shamar Sulthana	Smart Health Monitoring System using IoT	International journal of basic and applied research	International	May 2021 Volume 11 ISSUE 2 ISSN 2249-3352
8.	Mr.T Anand Krishna	Wirless black box for driver safety and accidnt monitoring	International Journal of Modern Electronics and Communicatio n Engineering	International	Vol 8, Issue.2May 2020 ISSN2321-2152
9.	Mr.N Nagendra	The Impact of IoT Sites on Multi-User Domains	International Journal of Modern Electronics and Communicatio	International	Vol 8, Issue.2June 2020 ISSN2321-2152

			n Engineering		
10.	Mr.M Arun Raj	GSM-Based Auto-Identification and Engine Management	International journal of basic and applied research	International	May 2021 Volume 11 ISSUE 2 ISSN 2249-3352
11.	Mr.R Nagendra	GSM-Based Auto-Identification and Engine Management	International journal of basic and applied research	International	May 2021 Volume 11 ISSUE 2 ISSN 2249-3352
12.	Mr.M V Maheswar Reddy	GSM-Based Auto-Identification and Engine Management	International journal of basic and applied research	International	May 2021 Volume 11 ISSUE 2 ISSN 2249-

					3352
13.	Mrs.T Reddy Rani	Smart Health Monitoring System using IoT	International journal of basic and applied research	International	May 2021 Volume 11 ISSUE 2 ISSN 2249-3352
14.	Mr.P Govardhan	Smart Health Monitoring System using IoT	International journal of basic and applied research	International	May 2021 Volume 11 ISSUE 2 ISSN 2249-3352
15.	Mr.T Ananda Krishna	Smart cultivation system using Iot	International journal of basic and applied research	International	ISSN 2249-3352 April 2021 Volume 11 ISSUE 2

16.	Mrs.T Reddi Rani	Smart cultivation system using Iot	International journal of basic and applied research	International	ISSN 2249-3352 April 2021 Volume 11 ISSUE 2
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Table 5.7.1: List of papers Published and Conferences Attended by faculty

5.7.1 (B) Ph.D. Awarded during assessment Period**CAYm1 (2022-23)**

S.No.	Faculty Name	University	Research Area
NIL			

CAYm2 (2021-22)

S.No.	Faculty Name	University	Research Area
NIL			

CAYm3 (2020-21)

S.No.	Faculty Name	University	Research Area
1	Dr.P Karunakar	Sri Sathya University of Technical & Medical Sciences, Sehore	Development of Vehicular Adhoc Network(Vanet) using NS2 Simulation Routing Protocol

Table 5.7.2: Faculty receiving **PhD.** during each assessment Year**5.7.1 (C) Ph.D. Guided**

Research Guide	Name of the Scholar	Topic of the Research	University & Year of Registration	status
B.D.Venkatraman Reddy	Achukatla Valli Bhasha	A comprehensive Analysis of Four Channel CWDM Network System	JNTUA, ANANTAPURA MU 2016	April, 2023

Table 5.7.3: Faculty guiding Ph.D scholars

5.7.1 (D) Faculty Pursuing Ph.D.

S.No	Faculty Name	Research Topic	University	Guide	Date of Registration	Number of quality publications in refereed / SCI Journals, citations, Books/ Book Chapters
1	Mr. M Raveendra	Optimized Deep learning framework for video forensic	JNTU, ANATAPUR	Dr.K Nagi Reddy	June 2017	4
2	Mr. J Maheswar Reddy	Region of Interest Extraction of colour images using frequency domain analysis	JNTU, ANATAPUR	Dr.S A K Jilani	June 2010	4
3	Mrs.T Reddy	Wireless	Mohan Babu	Dr.P Geetha	12/12/2022	3

	Rani	Communication	University			
4	Mrs. P Hemalatha	Wireless Sensor Networks	Geetham University	Dr.Srinivas Karedla	31/07/2021	1

Table 5.7.4: Details of Faculty Pursuing Ph.D.

5.7.2. Sponsored Research (0/5)

- Funded research:

(Provide a list with Project Title, Funding Agency, Amount and Duration)Funding amount (Cumulative during CAYm1,CAYm2 and CAYm3):

Amount > 20 Lakh – 5 Marks

Amount >= 16 Lakh and <= 20 lakh – 4

MarksAmount >= 12 Lakh and < 16 lakh

– 3 Marks Amount >= 8 Lakh and <

12 lakh – 2 Marks Amount >= 4 Lakh

and < 8 lakh – 1 Mark Amount < 4

Lakh – 0 Mark

CAYm1(2022-23)

S.No	Title of the Project	Funding Agency	Amount
1	Whether Monitoring Using Raspberry PI over Internet of Things	Viswam Educational Society	20000

CAYm2 (2021-22)

S.No.	Title of the Project	Funding Agency	Amount
1	Online Smart voting system using BIO-Metrics based Facial & Finger Print	Viswam Educational Society	35000

	detection on image Processing & CNN		
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CAYm3(2020-21)

S.No	Title of the Project	Funding Agency	Amount
1	Aurdino Based Accident Alert System using GSM, GPS & MES Accelerometer	Viswam Educational Society	25000
2	Design of Approximate Multiplexers using Approximate Adders	Viswam Educational Society	30000

Table 5.7.5: Details of Funded research

5.7.3. Development Activities (10/10)

Provide details:

- Product Development
- Research Laboratories
- Instructional materials
- Working models/charts/monograms etc.

5.7.3. (A) Product Development: CAYm1 (2022-23)

S. No.	Title of the Product
1	Plant Disease detection using Machine Learning Technique
2	Home Automation Based on IoT using Raspberry PI

CAY m2 (2021-22)

S. No.	Title of the Product
1	Driver Drowsiness Detection using Machine Learning Techniques for ADAS
2	An Implementation of FIR Filters using Digit Serial Multipliers for digital signal processing applications

CAY m3 (2020-21)

S. No.	Title of the Product
1	Reduction of Side lobes in Antenna Arrays using MATLAB applications
2	Wireless Sensor Networking & Data Minorng over IoT
3	High speed VLSI Architecture of Multistage Linear Feed Back shift register counters with Reduced decoding Logic.

Table 5.7.6: Product Developed by faculty/Student

5.7.3. (B) Research Laboratories

S. No.	Licensed Software Description / Hardware Description
1.	MATLAB
2.	Robotics Lab
3.	KiCad
4.	VLSI (Xilinx)
5.	ARM Processor, NS2
6.	Microprocessor & Micro Controllers kits
7.	Digital logic Design Kits
8.	Microwind tool & DSCH Tool
9.	Multisim tool
10.	Analog Communication Kits
11.	Digital Communication Kits
12.	Micro wave Bench Setup
13.	Antenna array Equipment

Table 5.7.7: Hardware and Software

5.7.3. (C) Instructional materials

S. No.	Details
1	Multimedia Projector
2	Lab Manuals
3	NPTEL Videos
4	Assignments
5	PPTs
6	Subject Notes

Table 5.7.8: Instructional materials

List of instructional materials available in the department

S. No.	Subject Name	Instructional Materials	Prepared by
1.	Control Systems Engineering	Softcopy & Hard Copy	Dr.P Karunakar
2.	Microprocessors and Microcontrollers	Softcopy & Hard Copy	Dr.J Kaliappan
3.	MAT Lab Programming	Softcopy & Hard Copy	Dr.B Venktramana Reddy
4.	Cellular& Mobile Communications	Softcopy & Hard Copy	Mrs.T Reddy Rani
5.	Radar Engineering	Softcopy & Hard Copy	Mrs.W J Hima Bindhu
6.	Digital Logic Design	Softcopy & Hard Copy	Mr.N Nagendra
7.	Satellite Communication	Softcopy & Hard Copy	Mrs.B Keerthi
8.	Discrete Mathematics & Graph Theory	Softcopy & Hard Copy	Mr. Vijay Kumar
9.	DigitalElectronics& Microprocessors	Softcopy & Hard Copy	Mrs. G. Manjula
10.	Introduction to Internet of Things	Softcopy & Hard Copy	Dr.S.Giriprasad
11.	Antennas & Microwave Engineering	Softcopy & Hard Copy	Mr. J. Maheshwar Reddy
12.	VLSI Design	Softcopy & Hard Copy	Mrs. B. Keerthi
13.	Communication Networks	Softcopy & Hard Copy	Mrs. T. Reddirani

14.	Optical Communication	Softcopy & Hard Copy	Mrs. P.Hemalatha
15.	Digital Logic Design	Softcopy & Hard Copy	Mrs. W.J. Himabindu
16.	EM Waves and Transmission Lines	Softcopy & Hard Copy	Mr. M.Arunraj
17.	Communication Systems	Softcopy & Hard Copy	Dr.P.Karanakar
18.	Antennas & Microwave Engineering	Softcopy & Hard Copy	Dr.Venkatesan
19.	Communication Networks	Softcopy & Hard Copy	Dr.K Damodar
20.	Linear and Digital IC Applications	Softcopy & Hard Copy	Mr.N.Nagendra
21.	Optical Fiber Communication	Softcopy & Hard Copy	P.Hemalatha
22.	Embedded Systems	Softcopy & Hard Copy	S.Giriprasad
23.	Microwave Engineering	Softcopy & Hard Copy	B.Keerthi
24.	Data Communications And Networking	Softcopy & Hard Copy	W.J.Hima Bindu
25.	Radar Systems	Softcopy & Hard Copy	B.D.Venkataramana Reddy
26.	Cellular & Mobile Communication	Softcopy & Hard Copy	T.Rededyrani
27.	Computer Organization	Softcopy & Hard Copy	C.Manoj Kumar
28.	Antennas And Wave Propagation	Softcopy & Hard Copy	M.Arunraj

29.	Digital Communication Systems	Softcopy & Hard Copy	N.Nagendra
30.	Linear Integrated Circuits And Applications	Softcopy & Hard Copy	S.Shamar Sulthan
31.	Digital System Design	Softcopy & Hard Copy	W.J Himabindu
32.	Signals & Systems	Softcopy & Hard Copy	J.Maheswar Reddy
33.	Electronic Devices And Circuits	Softcopy & Hard Copy	S.Giriprasad
34.	Probability Theory And stochastic Processes	Softcopy & Hard Copy	B.Keerthi
35.	Electronics And Logic Design	Softcopy & Hard Copy	P.Hemalatha
36.	Low Power VLSI Circuits & Systems	Softcopy & Hard Copy	Mrs. G. Manjula
37.	RF Integrated Circuits	Softcopy & Hard Copy	Mrs. P. Hemalatha
38.	Microprocessors and Microcontrollers	Softcopy & Hard Copy	Dr. S. Giriprasad
39.	Signals and Systems	Softcopy & Hard Copy	Dr.K Damodar
40.	Optical Fiber Communication	Softcopy & Hard Copy	Dr.J Kaliappan
41.	Advanced Computer Architectures	Softcopy & Hard Copy	Dr.P Karunakar
42.	Digital Signal Processing	Softcopy & Hard Copy	Mr. J. MaheshwarReddy
43.	Digital System Design through VHDL	Softcopy & Hard Copy	Mrs. B. Keerthi

44.	Electronic Measurements and Instrumentation	Softcopy & Hard Copy	Mrs. T. ReddyRani
45.	Digital Logic Design	Softcopy & Hard Copy	Mrs. W.J. Himabindu
46.	EM Waves and Transmission Lines	Softcopy & Hard Copy	Mr. M.Arunraj
47.	Communication Systems	Softcopy & Hard Copy	Dr.B.D.Venkataramana Reddy
48.	Linear and Digital IC Applications	Softcopy & Hard Copy	Ms. S. Shamar Sulthana
49.	Embedded System Design	Softcopy & Hard Copy	Mrs.P Hemalatha
50.	Embedded Programming	Softcopy & Hard Copy	Mrs.T.Reddy Rani
51.	Sensors and Actuators	Softcopy & Hard Copy	Mr. J. MaheshwarReddy
52.	Hardware and Software Co-design	Softcopy & Hard Copy	Mr.M.V.Maheswar Reddy
53.	Optical Fiber Communication	Softcopy & Hard Copy	P.Hemalatha
54.	Embedded Systems	Softcopy & Hard Copy	C.K.Hemantha lakshmi
55.	Microwave Engineering	Softcopy & Hard Copy	B.Keerthi
56.	Data Communications And Networking	Softcopy & Hard Copy	W.J.Hima Bindu
57.	Radar Systems	Softcopy & Hard Copy	B.D.Venkataramana Reddy
58.	Cellular & Mobile Communication	Softcopy & Hard Copy	T.Rededyrani

59.	Antennas And Wave Propagation	Softcopy & Hard Copy	C.Manoj Kumar
60.	Digital Communication Systems	Softcopy & Hard Copy	M.Arunraj
61.	Linear Integrated Circuits And Applications	Softcopy & Hard Copy	N.Nagendra
62.	Digital System Design	Softcopy & Hard Copy	S.Shamar Sulthan

5.7.3.(D) Working models/charts/monograms etc.

Charts displayed in all Laboratories.

The department has many models created by students and has been displayed in research Laboratory. This prototype models helps the students to understand the working of basics and recent technologies in a better manner. Also, this can be used for better teaching and learning process.

Working Models

CAYm1(2022-23)

S. No.	Working Models Developed
1	Touch Sensitivity Colour Changing Plant using Arduino and RGB LEDs
2	Wireless Mobile Charging Using Inductive Coil
3	Cellphone Detector

CAYm2(2021-22)

S. No.	Working Models Developed
1	Flood Altering By using Arduino
2	Plant Disease Detection using Convolution Neural Network.
3	Intruder Alarm and Defender

CAYm3(2020-21)

S. No.	Working Models Developed
1	IoT Based Smart Helmet for Construction
2	Blind Stick for Visually Impaired People using Voice Commands
3	Anticipating Heart Disease by Using Machine Learning Classification Algorithms

Table 5.7.9: Working Models**5.7.4 Consultancy (from Industry) (0/5)****CAYm1(2022-23)**

Project Title	Duratio n	Funding Agency	Amount
Heart Beat Sensor Using LM358	40 days	Sri Balaji Industries	5000
Wireless AC Line	25 days	Sri Vensy	15000

Detector		Technologies	
Total amount (X)			20000

CAYm2 (2021-22)

Project Title	Duration	Funding Agency	Amount
Reconfigurable Antenna for 5G Technology	40 days	Sri Balaji Industries	20000
Single Lead ECG Monitoring with Bluetooth	20 days	Sri Balaji Industries	15000
Total amount (Y)			35000

CAYm3 (2020-21)

Project Title	Duration	Funding Agency	Amount
Vehicle Protection and Anti-Theft Detection using Facial Recognition and Shock Mechanism	30 days	Sri Vensy Technologies	18000
Total amount(Z)			18000

Table 5.7.10: Consultancy Projects

Cumulative Amount (X + Y + Z) = 73000

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

Each faculty member is required to submit a Faculty Performance Appraisal letter demonstrating their innovative and research-based efforts to adapt to technological advances and gain expertise for curriculum implementation.

To ensure successful faculty appraisal,

- it's important to cover the syllabus on time according to the academic calendar.
- Outside of the usual curriculum, additional content is covered.
- Improvements to the teaching and learning process, as well as informative innovations.
- Results in the relevant subjects from the end-of-semester exams.
- Setting question papers for other universities as well as preparing question banks.
- Research papers might be published in journals, conferences, books, or book chapters.
- Research grants were acquired, and consulting work was completed.
- Additional responsibilities at the department or college level, including industry interactions and visits.
- Actively organize events such as seminars, workshops, FDPs, SDPs, and conferences.
- Professional networking.

Faculty members in higher education institutions are responsible for various roles and tasks. Faculty members must innovate, conduct research, stay up-to-date with technology, and gain skills to effectively administer courses. Additionally, they are responsible for assisting the industry and community in identifying and addressing real-world issues. The post also includes administrative responsibilities and collaboration with other faculty, department heads, and the Institute's Head. Having

an effective performance appraisal system for faculty is crucial for maximizing individual contributions to institutional performance.

The assessment is based on:

Academic Performance Indicators

- Teaching, learning, and evaluation-related responsibilities like Lectures, seminars, tutorials, and practicals.
- Reading/Instructional material consulted, and supplementary knowledge resources supplied to students.
- Implemented participatory and innovative teaching methods, updated subject content, and improved courses.
- Examination assignments were assigned and completed.
- Training courses, teaching-learning evaluation technology programmes, and FDPs.

Co-Curricular, Extension, Professional Development related activities.

- Extension, co-curricular and field based activities.
- Contribution to corporate life and management of the institution.
- Professional Development activities.
- Invited lectures and chairmanships at national or international conferences / seminars.
- Published papers in journals and conferences.
- Book-published articles and chapters.
- Books/Chapters published as a single author or editor.
- Research grants and consulting work
- Research advice.

Other Relevant Information.

- Significant Contribution in any manner.
- Award Received for good results produced.

Sample Faculty Appraisal Form



VISWAM ENGINEERING COLLEGE

(Formerly Sir Vishweshwaraiah Institute of Science & Technology)

Madanapalle - 517 325

FACULTY SELF ASSESSMENT

Self-Assessment Form for the Academic Year			
Name :	D.R. B.D. Venkatramana Reddy	DOB :	10-06-1974
Dept. :	ECE	Designation :	Professor

1.1 Academic Profile:

Course	Qualification	Study Duration		College / University	Specialization
		from	to		
UG	B.Tech	1992	1996	S.V. University	ECE
PG	M.Tech	1996	1998	S.V. University	DECS
M.Phil	-	-	-	-	-
Ph.D	Ph.D	2008	2012	JNTUA	Image Processing

1.2 Work Experience:

Post Held	Organization	Work Duration		Years of Experience
		from	to	
ASST. PROFESSOR	KSRMCE, KADAPA	22-07-98	31-12-2003	5 years 5 months
ASSOCIATE PROFESSOR	KSRMCE, KADAPA	1-1-2004	30-05-2007	3 years 5 months
PROFESSOR	MITS, MADANAPALLE	31-05-2007	16-05-2013	6 years
PROFESSOR	VEC, MADANAPALLE	17-05-2013	Till date	10 years 5 months

1.3 Details of Theory Subjects taught during the two previous academic years

AY	Sem	Subjects Handled	Yr-Br-Sec	Pass %	Feed Back Score	Softcopy of Lecture Notes Uploaded YES/No
2021-22	II	Analog Communication Systems	II ECE	85%	4.5 (on a scale of 5)	YES
2022-23	II	Communication Systems	II ECE	82%	4.6	YES
2022-23	I	Embedded system design	M-Tech (ES)	90%	4.7	YES

1.4 Details of Projects Supervised (Add rows if required)

AY	UG / PG	Project Title	Roll no. of the Student(s)
2021-22	UG	Robust and Invisible Image Watermarking	17W51A0476, 403, 447, 473
2022-23	UG	Weather monitoring system using Arduino	19W51A0401, 411, 415, 421, 450
2022-23	PG	A comprehensive PI analysis of FDD channel CDM network systems	21W51D5503

1.5 Additional Responsibilities carried out

S. No.	Responsibility	Nature of work	Period
1.	Director	General Administration	2020 - 2022
2.	Alumni coordinator	To co-ordinate Alumni Association Activities	2022 - Till date
3.	Dean R&D	To co-ordinate research activities	Sept. 2023 - Till date
4.			
5.			

1.6 Details of events organized (Add rows if required)

S.No.	Name of Event	Role	Dates
1	One-day National Level conference/Technical Symposium	Co-ordinator	17th - 18th Oct
2	Alumni Meet - 2023	Co-ordinator	10th July 2023
3			

2.1 Membership of Professional bodies (Enclose relevant certificates)

Name of the professional body	Membership number	w.e.f.	Permanent / yearly
AMIE	AM091117-0	16/5/2003	Permanent
MISTE	LM 70365	2010	Permanent
IAENG	64640	02/25/2008	Permanent

2.2 Details of Workshops/Conferences/Seminars attended (Enclose relevant certificates)

S.No.	Name	Dates	Conducting Organization
1	one day Workshop on NIE rankings 2024	25-11-2023	APSCHE.
2	5 days FDP on design & Innovation in wireless communication with Advanced Technology	16-01-24 to 20-01-24	Gates Institute of Technology, Anantapur

3.1 Details of Journal publications(Enclose the copies)

S.No.	Title of the paper	Volume, Number, year	Publisher with ISSN Number	National/ International
1	Image Super-resolution model Enabled by NNet	Aug. 2021	0266-4720	International
2	A multi-objective optimization based character writing	Aug 2021	1726-0531	International
3	Automated Image Super Resolution	Aug 2021	0219-4678	International
4	A Comprehensive Analysis of Four channel CDM Network System	July 2023	1943-0620	International

3.3 Details of Research Guidance

S.No.	Name of Research Scholar	Title of thesis	Year of Registration	Name of University	Name of Supervisor/Co-Supervisor	Present Status
	A. Valli	Research on Super Resolution Image Reconstruction Techniques	2016	JNTUA	Dr. B. D. Venkateswara Reddy	Awarded (Ph.D)

4.0 Any other information: (Guest Lectures, Research Evaluations, Memberships in Academic Boards etc...) Enclose supporting documents.

Acting as Editorial Board member of VSRD International Journal
 acting as Editorial Board member of The Research Journal
 Editorial Board member of International Institute of organized research
 Editorial Board member of IJRECE
 Editorial Board member of IJCSIT

DECLARATION

I hereby declare that the above information and particulars are true and correct.

Date: 20-01-2023

Signature of the Faculty
 Dr. B. D. Venkateswara Reddy

Overall Remarks by Reporting Officer: Overall he has good feedback & I am recommending him for the appraisal of 10 to 15%.

Recommendations of Principal: He has good feedback and research work. So I am recommending an appraisal of 12% for this year.

Approval Remarks of Secretary:

(Signature)

Fig.5.8.a. Faculty Performance Appraisal

Implementation & Effectiveness:

Performance appraisals identify faculty members who require additional training to improve their teaching skills.

Faculty Members produced 90% and above result in semester examinations

Faculty members who achieved 90% & above results in theory topics will be recognized at the Annual Day Function. Table 5.8a shows a list of faculty members with 90% & above results results in their subjects.

Table 5.8a List of faculty who have secured 90% above results in the theory subjects handled

S.No	Academic Year	Year/Sem/Section	Subject Code//Name	Name of the Faculty
1.	2022-23	III-II	VLSI	Mrs.B Keerthi
2.	2022-23	IV-I	APD	Mrs R Haritha
3.	2022-23	IV-I	MW&OC	Mrs.P Hemalatha
4.	2022-23	IV-I	SC	Dr.B D Venkatramana Reddy
5.	2022-23	IV-II	IOT	Dr.S Giri Prasad
6.	2022-23	IV-II	GW&CC	Mrs.R Haritha
7.	2021-22	III-I	LICA	Mrs.S shamar Sulthana
8.	2021-22	III-II	DSP	Mr.J Maheswar Reddy

9.	2021-22	IV-II	RFIC	Mrs.N Thejaswy
10	2020-21	IV-I	OFC	Mrs.
11	2020-21	IV-I	ES	Mrs.T Reddy Rani
12	2020-21	IV-I	DCN	Mr.N Nagendra
13	2020-21	IV-II	LPVLSI	Mrs.S shamar Sulthana
14	2020-21	IV-II	RFIC	Mrs.B Keerthi

Awards & Incentives:

The list of faculties received awards and incentives are given in table 5.8b.

S.No	Academic Year	Faculty Name	Award Name	Incentives
1.	2022-23	Dr. B D Venkatramana Reddy	Promotion	Dean R&D
2.		Dr. S Giri Prasad	Promotion	NAAC Coordinator
3.		Dr.J.Kaliappan	Cash Award	2000
4.		Dr.K Damodar	Cash Award	1000
5.		Mr. J Maheswar Reddy	Promotion	Promotion
6.		Mrs. P Hemalatha	Incentive	8000
7.		Mrs. T Reddi Rani	Incentive	10000
8.		Mrs. W J Hima Bhindu	Incentive	8000
9.		Mr. M Arun Raj	Incentive	4000
10.		Mr. N Nagendra	Incentive	6000
11.		Mrs. J Sabitha	Cash Award	1000
12.		Mr. P Govardhan	Cash Award	3000
13.		Mrs. B Keerthi	Incentive	3000

14.		Mr. Y Ayyavaru Reddy	Cash Award	2000
15.		Mr.R Harshavardhan Reddy	Cash Award	2000
16.		Mrs. G Manjula	Incentive	2000
17.		Mrs. K V Nandini	Incentive	2000
18.	2021-22	Dr. B D Venkatramana Reddy	Incentive	10000
19.		Dr.J.Kaliappan	Incentive	4000
20.		Dr. S Giri Prasad	Incentive& Promotion	10000 & Associate Professor
21.		Mr. J Maheswar Reddy	Incentive& Promotion	3000 Assistant to Associate Prof
22.		Mr.S Rizwan	Incentive	2000
23.		Mrs. N Thejaswy	Incentive	1000
24.		Mrs. B Keerthi	Incentive	1000
25.		Mrs. W J Hima Bhindu	Incentive	3000
26.		Mr. M Arun Raj	Cash Award	1000
27.		Mrs. T Reddi Rani	Incentive& Promotion	3000 Assistant to Associate Prof
28.		Mrs. P Hemalatha	Incentive& Promotion	3000 Assistant to Associate Prof
29.		S Shamar Sulthana	Incentive	3000
30.		Mr. R Harshavardhan Reddy	Incentive	1000
31.		Mr. Nagendra	Cash Award	1000
32.	2020-21	Dr. B D Venkatramana Reddy	Incentive	5000
33.		Mr. J Maheswar Reddy	Incentive	3000

34.		Mrs. P Hemalatha	Incentive	4000
35.		Mrs. T Reddi Rani	Incentive	3000
36.		Mrs. W J Hima Bhindu	Incentive	3000
37.		Mr. M Arun Raj	Cash	2000
38.		Mr. N Nagendra	Incentive	2500
39.		Mr. S Rizwan	Incentive	2000
40.		Mrs.C K Hemantha Lakshmi	Incentive	2000
41.		S Shamar Sulthana	Incentive	3000
42.		Mr.R Nagendra	Incentive	2000
43.		Mrs. B Keerthi	Cash	1000
44.		Mr. Y Ayyavaru Reddy	Cash	1000

Table 5.8b: list of faculty received awards and incentives

Faculty members attended Basic Training / Refresher courses:

The list of faculty who have undergone basic training/ refresher courses on engineering subjects is given in table 5.8c.

S.No	Academic Year	Faculty Name	Title of the Program	Dates	Organised by
1	2022-23	Mr.N Nagendra	Introduction to Basic Electrical Components and its Functions	22/06/20 23	IITS, Markapur
2	2022-23	Mr.M Arun Raj	Design of Microstrip antenna for Multiband Applications	8 th July 2022 to 12 th July 2022	Arasu Engineering College,Chenn ai
3	2022-23	Mr.V Krishnakanth	Electromagnetics: Recent Trends and Future Applications		IIT,Indore
4	2021-22	Mrs.P Hemalatha	Artificial Intelligence & Machine Learning with a hands-on session using MATLAB	3 rd to 7 th November 2021	MITS, Madanapalle
5	2021-22	Mr. Harsha Vardhan Reddy	Recent Trends in Under Water Communication	25 th to 27 th November 2021	Sri Vishnu Engineering College for women,

					Bhimavaram
6	2021-22	Mrs.B Keerthi	Managing Cyber Security in the New Normal	22 nd to 24 th October 2021	Rabindranath Tagore University
7	2021-22	Mr.V Krishnakanth	Creating AI Contextual Assistant (Chatbot) using RASA	24 th JAN 2021	SAVEETHA IIT
8	2020-21	Mr. N Nagendra	Low Power VLSI & its Industry Trends	Online 24 th May 2021-29 th May 2021	Sanskriti School of Engineering,P uttaparthi
9	2020-21	Mr.S Rizwan	Machine Learning in Image Processing Applications	15 th to 27 th March 2021	PSCMRECT,Vi jayawada
10	2020-21	Mrs. N Thejaswy	Deep Learning & Cyber Security	22 nd to 27 th Feb 2021	MITS, Madana palle
11	2020-21	Dr K. Kaliappan	Recent Advances in Electronics & Communication Engineering	20 th July 2020 to 26 th July 2020	Santhiram Engineering College, Nandy al
12	2020-21	Mr.P Govardhan	Design Thinking	1 st to 5 th June 2020	MITS, Angallu

Summary of Faculty Awards, Incentives & Training courses:

The consolidated list of faculty who have received awards/incentives and undergone basic training/ refresher courses on engineering subjects is given in table 5.8d.

S. No	Annual Year	No of Faculties Received Award	No of Faculties Received Incentives	No of Faculties improved through Training
1	2022-23	8	9	3
2	2021-22	3	12	4
3	2020-21	4	10	5

Table 5.8c: Consolidated list of faculty received awards, Incentives and undergone basic training/ refresher courses.

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

One of the primary goals is to foster strong and robust partnership between educational institutions and the industry. The mechanical engineering department aims to regularly engage industry professionals, academics, scholars, practitioners, and policymakers in teaching, research, and associated activities. This involvement adds a fresh viewpoint to normal teaching, making it more engaging and enriching for faculty members.

CAYm1(2022-23)

S.N o.	Name of the Visiting/A djunct/E meritus Faculty	Organisation & Designation	Name of the Course	Class	No of Sessions in Hours
1	Mr.M Vamsidhar Reddy	Sr Software Engineer INTEL	Commu nication Systems	II-II	25
2	Ms.Vishnu Priya	Ingo Electronic Private Limited Embedded Product Architect	Embedd ed System Design	III-II	28

CAYm1(2021-22)

S.No.	Name of the Visiting/Adjunct/Emeritus Faculty	Organisation & Designation	Name of the Course	Class	No of Sessions in Hours
1	Mr.M.Bhanu Prakash Reddy	ETG Global Service Software Developer	CMC	IV-I	21
2	Ms.R Poornima	System Engineer, TCS	DSP	III-II	30

CAYm1(2020-21)

S.No.	Name of the Visiting/Adjunct/Emeritus Faculty	Organisation & Designation	Name of the Course	Class	No of Sessions in Hours
1	M Madhuri	Software Developer Capgemini	VLSI	III-II	28
2	R Jagadeesh	Sr Analyst EY Company	DIP	IV-I	35

Table 5.9.1: Emeritus Faculty

Criterion 6	Facilities and Technical Support	80/80
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6. Facilities and Technical Support

6.1 Adequate and well-equipped laboratories and technical manpower (30/30)

Sl No	Lab No	Name of the Laboratory		Number of students per setup (batch size)	Name of the important equipment	Weekly utilization status (All the courses for which the lab is utilized)	Technical manpower support			
		semest er	Lab name				the technical Designatio n	Qualificati on		
1	Lab1	AC& DC Lab	I	ANALOG CIRCUIT LAB	33	Cathode ray oscilloscope Regulated power	6 hours per week	Mr. K. Sai Prasad	Lab Technician	DECE

			II	COMUNICATION SYSTEM LAB	supply, DC Ammeters Digital voltmeter, Pulse amplitude modulation kit, DSB modulator and demodulator Time division kit Function generator, Trainer's kit	3 hours per week			
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2	Lab2	M W & OC lab	I	ANTENNA AND MICRO WAVES LAB	33 Microwave bench setup klystron power supply, Microwave bench setup Gunn Diode power supply, E-Plane Tee H- Plane magic tee & T-type circulator, Optical Communication Analog Link, Optical Communication Digital Link, Antenna Trainer kit	6 hours per week	Mr. K. Venu Gopal	Lab Instructor	B. Tech
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3	Lab3	MP & MC Lab	I	MP & MC Lab	33	8086 Microprocessor Trainer kit,	12 hours per week	Ms. P. Akshaya	Lab Instructor	B. Tech
			II	DE & MP Lab		8086 Microprocessor Trainer kit with PS, 8259 Interfacing Kit 8051 Embedded developing kit	3 hours per week			
	Lab4	e CAD Lab	I	Basic Simulation lab	33	Computer Systems with required Software's, with additional 10 Systems	6 hour per week	Mr. K. Sai Prasad	Lab Technician	DECE

4	I	Digital Signal Processing lab	33	Computer Systems with required Software's, with additional 10 Systems	12 hour per week	Ms. P. Akshaya	Lab Instructor	B. Tech
	II	VLSI lab	33	Computer Systems with required Software's, with additional 10 Systems	6 hour per week	Mr. R. Venu Gopal	Lab Instructor	B. Tech
	II	Communication system lab	33	Computer Systems with required Software's, with additional 10 Systems	3 hour per week	Ms. P. Akshaya	Lab Instructor	B. Tech

CRITERION -6

ECE- SAR

5	Lab5	EDC Lab	I	DEMP LAB	33	Cathode ray oscilloscope (0-30MHz) Cathode ray oscilloscope demonstrator	3 hours per week	Mr. K. Sai Prasad	Lab Technician	DECE
			I	BEEE lab	33	Cathode ray oscilloscope (0-30MHz) Cathode ray oscilloscope demonstrator	9 hours per week	Mr. R. Venu Gopal	Lab Instructor	B. Tech
			II	BEEE lab	33	Cathode ray oscilloscope (0-30MHz) Cathode ray oscilloscope	6 hours per week	Ms. P. Akshaya		B. Tech
Viswam Engineering College, Madanapalle										

CRITERION -6

ECE- SAR

						demonstrator				
			II	DLD lab	33	Cathode ray oscilloscope (0-30MHz) Cathode ray oscilloscope demonstrator	3 hours per week	Mr. K. Sai Prasad	Lab Technician	DECE
Viswam Engineering College, Madanapalle	Lab5	EDC Lab	II	LDIC lab	33	Cathode ray oscilloscope (0-30MHz) Cathode ray oscilloscope	3 hours per week	Mr. K. Venu Gopal	Lab Instructor	B. Tech 561

						demonstrator				
6	Lab 6	Project Lab	II	Project Lab	30	<p>Cathode ray oscilloscope Demonstrator</p> <p>8051 Embedded developing kit</p> <p>Computer Systems with required Software's, with additional 10 Systems</p>	Complete semester is opened to utilize	Mr. K. Sai Prasad	Lab Technician	DECE

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

Sl. no	Facility Name	Details	Reasons for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to Pos/PSOs
1	Computer Peripheral Assembly Lab	<ul style="list-style-type: none"> • Using Scrap • Unused computers 	To provide complete picture of hardware devices for better understanding of the subjects	5hoursper week	Real time experience of dissembling, locating the devices, assembling the system	PO1, PO4, PO7,

<p>2</p>	<p>Smart class facility</p>	<ul style="list-style-type: none"> • Fully equipped shared Smart Class room with LCD projector and software's with the seating capacity of 80. • Comfortable desks, chairs and teaching aids. • Glass board, Fan, Tube light, chalk board 	<p>To enhancing Teaching Learning</p>	<p>Per Semester 15 hours</p>	<p>Better understanding</p>	<p>PO5, PO10, P12</p>
<p>3</p>	<p>E-journal Facility</p>	<ul style="list-style-type: none"> • IEEE, • J Gate, • Springer, • OAJSE 	<p>For research and project activities. To know about recent trends in Science and</p>	<p>Complete semester is opened to utilize</p>	<p>Research activity, Recent trends in engineering, Project activity</p>	<p>PO1, PO2, PO3, PO5, P12</p>

			technology			
4	Common Internet Facility	<ul style="list-style-type: none"> Ethernet/ Wi Fi 	Facility to staff and students for enhancing Teaching Learning,	Complete semester is opened to utilize	More knowledge apart from curriculum,24×7 access to learning resources	PO1, PO3, PO4, PO5, PO12
5	MAT Lab Facility	<ul style="list-style-type: none"> Control system, Simu link, signal processing, Machine Learning 	In addition to the VTU curriculum, students can verify theoretical concepts in a practical environment It is helpful for	Complete semester is opened to utilize	Modeling the equation for the Design engineering problems	PO2, PO3, PO4,

			the analysis of problems			
6	Dept. Library	<ul style="list-style-type: none"> • Having collection of Text Books, • Reference Books, Journals, Project / seminar report. 	<p>To meet the needs of the students,</p> <p>To provide reference facilities, to refer advanced Information for seminar, laboratory, projects,</p> <p>To know about the past research activities undertaken by</p>	Complete semester is opened to utilize	Students and staff can refer text book and have a better understanding, preparing notes,	PO1, PO2, PO12

			the students			
7	ICT	<ul style="list-style-type: none"> • Smart Board 	<p>Increased engagement</p> <p>Enhanced creativity</p> <p>Greater understanding</p>	Complete semester is opened to utilize	Students with special needs and low performers exhibit improved writing when utilizing technology	PO5
8	Centre of Excellence & Robotics	<ul style="list-style-type: none"> • Fire ball • V2.60 Spark • V-Robot Zigbee module • Metal gear server motor 	To support students, usually by providing tips, insights, training, and research	Complete semester is opened to utilize	Best practices, research, support, and training for a focus area	PO5, PO6, PO10, PO11, PO12.

CRITERION -6**ECE- SAR**

	lab	<ul style="list-style-type: none">• Sharp GPZOA21YKOF• Microsoft X-box Kinect• Hexapod• AVR studio Keil AVR boot loader• Flash magic				
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6.3 Laboratories: Maintenance and overall ambience (10/10)

The department of E.C.E has well equipped and well-maintained laboratories to conduct the experimental work in a healthy and safe environment.

Maintenance

Lab Maintenance Committee takes the responsibility of lab maintenance and ambience through certain number of reviews taken periodically. This committee comprises of Program Coordinator, senior faculty, lab in charge and senior technical staff. In order to maintain the laboratories efficiently, department of ECE follows a systematic procedure:

1. The committee identifies faulty equipment's, requirement of new equipment, consumables and calibrations.
2. The committee ensures the equipment is ready for conducting experiments without any hassles.

Weekly inspection: In this, the technical staff inspects all equipment's and prepares a report accordingly for their respective labs.

Monthly inspection: In this, the lab in charge along with technical staff reviews the weekly reports and sorts out if any requirements. By the end of semester, the lab in charge prepares a report on the overall maintenance and requirement of the respective lab.

Semester inspection: Form the report of lab in charge; lab maintenance committee will decide the overall requirements and maintenance of all laboratories.

3. The following registers are maintained to trace the progress of laboratory maintenance:

Consumable Register: A register is maintained for newly purchased

consumables along with old stock and checks the data weekly. The technical staff maintains indents and purchases of the laboratory.

Stock Register: Newly purchased equipment with all the details like quantity, cost and other information is posted in to the stock register.

Calibration Reports: A calibration report is maintained on all the equipment's regularly.

4. Internal technical staff will conduct minor repairs and major repairs will be handled by out sourced staff.
5. System servicing is carried out by the Computer Hardware Department of the Institute.
6. Student's entry and exit times are maintained through log books.

Stock verification committee: For every two years stock verification committee will be constituted by head of the institution to audit lab equipment, furniture and other infrastructure.

This committee submits a deficiency (if any) report to the head of the institution.

7. Apart from the in-house maintenances, some of the complex and important equipment is being sent to the service provider and after repairing/ maintenances done the provider will send back that equipment.

LAB OCCUPANCY SHOWING MAINTANCE SLOT



VISWAM ENGINEERING COLLEGE

(Formerly Sir Vishveshwaraiah Institute of Science & Technology)

Madanapalle - 517 325

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2022-23(EVEN SEM)

R&D LAB

Day/ Time	09.20 10.10	10.10 11.00	11.10 12.00	12.00 12.50	12.50 01.40	01.40 02.35	02.35 03.30	03.30 04.25
Mon					Lunch Break	VLSI LAB -III ECE A SEC ↔ B,Keerthi/Mr.Y.AyyavaruReddy /Ms.K.Apsara		
Tue						VLSI LAB -III ECE B SEC ↔ B,Keerthi/G. Manjula /Mr.Y.Ayyavaru Reddy		
Wed								
Thu		VLSI LAB -III ECE A SEC ↔ Mr.Y.Ayyavaru Reddy /G.Manjula/Mr.V.Krishnakanth						
Fri						VLSI LAB -III ECE B SEC ↔ B,Keerthi /G.Manjula /Mr.Y.Ayyavaru Reddy		



VISWAM ENGINEERING COLLEGE

(Formerly Sir Vishveshwaraiah Institute of Science & Technology)

Madanapalle - 517 325

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ACADEMIC YEAR 2022-23(EVEN SEM)

AC LAB

Day/ Time	09.20 10.10	10.10 11.00	11.10 12.00	12.00 12.50	12.50 01.40	01.40 02.35	02.35 03.30	03.30 04.25
Mon					Lunch Break	LDICA LAB -II ECE B SEC Mr. N. Nagendra/ Mr. J. Krishnakanth		
Tue	LDICA LAB -II ECE B SEC Mr. N. Nagendra/Mr.M.V.Maheswar Reddy					CS LAB -II ECE A SEC Mrs.N.Tejaswy/ Ms J.Sabitha		
Wed						LDICA LAB -II ECE A SEC Mr. N. Nagendra/ Mrs.K.V.Nandini/Ms.Lahari		
Thu						CS LAB -II ECE B SEC Mrs. B. Keerthi/Mrs.K.V.Nandini		
Fri	LDICA LAB -II ECE A SEC Mr.N.Nagendra/Mr.Mr.M.V.Maheswar Reddy							

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VISWAM ENGINEERING COLLEGE

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Madanapalle - 517 325

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ACADEMIC YEAR 2022-23(EVEN SEM)

EDC LAB

Day/ Time	09.20 10.10	10.10 11.00	11.10 12.00	12.00 12.50	12.50 01.40	01.40 02.35	02.35 03.30	03.30 04.25
Mon					Lunch Break	DLD LAB -II ECE B SEC Mrs W.J.Himabindu/ Mr.P.Govardhan		
Tue	CS LAB -II ECE B SEC Mr.P.Govardhan/Ms J.Sabitha/Ms.K.Apsara					DLD LAB -II ECE A SEC Mrs W.J.Himabindu/ Mr.M.V.Maheswar Reddy		
Wed	EDC LAB -I ECE Mr.M.V.Maheswar Reddy/ Mrs. I. Lahari Mounika					CS LAB -II ECE A SEC Ms J.Sabitha / Mrs.P.Govardhan/Ms.K.Apsara		
Thu						DLD LAB -II ECE B SEC Mrs W.J.Himabindu/ Mr.V.Krishnakanth		
Fri	DLD LAB -II ECE A SEC Mrs W.J.Himabindu/ Mrs.K.V.Nandini							

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LAB Details

S.No	Name of the laboratory	Area of the laboratory (sq. m.)	Maintenance and Ambience
1	AC & DC LAB	97.90	<p>Maintenance- Breakdown register is maintained in the laboratories.</p> <p>As per the requirement minor repairs are carried out by the lab technical staff</p> <p>Major repairs are out sourced by following the procedure of the institute</p> <p>Ambience-Adequate ventilation and lighting is provided.</p> <p>Display boards of tools and work instructions are provided.</p>
2	MW & OC lab	65.67	<p>Maintenance- Breakdown register is maintained in the laboratories.</p> <p>As per the requirement minor repairs are carried out by the lab technical staff</p> <p>Major repairs are out sourced by following the procedure of the institute</p> <p>Ambience-Adequate ventilation and lighting is provided.</p> <p>Display boards of tools and work instructions are provided.</p>

3	MP & MC lab	113.37	<p>Maintenance- Breakdown register is maintained in the laboratories.</p> <p>As per the requirement minor repairs are carried out by the lab technical staff</p> <p>Major repairs are out sourced by following the procedure of the institute</p> <p>Ambience-Adequate ventilation and lighting is provided.</p> <p>Display boards of tools and work instructions are provided.</p>
4	e-CAD Lab	83.72	<p>Maintenance- Breakdown register is maintained in the laboratories.</p> <p>As per the requirement minor repairs are carried out by the lab technical staff</p> <p>Major repairs are out sourced by following the procedure of the institute</p> <p>Ambience-Adequate ventilation and lighting is provided.</p> <p>Display boards of tools and work instructions are provided</p>

5	EDC Lab	125.355	<p>Maintenance- Breakdown register is maintained in the laboratories.</p> <p>As per the requirement minor repairs are carried out by the lab technical staff</p> <p>Major repairs are out sourced by following the procedure of the institute</p> <p>Ambience-Adequate ventilation and lighting is provided.</p> <p>Display boards of tools and work instructions are provided</p>
6	PROJECT LAB	84.63	<p>Maintenance- Breakdown register is maintained in the laboratories.</p> <p>As per the requirement minor repairs are carried out by the lab technical staff</p> <p>Major repairs are out sourced by following the procedure of the institute</p> <p>Ambience-Adequate ventilation and lighting is provided.</p> <p>Display boards of tools and work instructions are provided</p>

LAB PHOTOS



DSP LAB



MICROWAVE LAB



MICRO PROCESSOR LAB



EDC LAB



SIMULATION LAB



AC DC LAB

6.4 Project Laboratory (5/5)

S.No	Name of the Facilities	Utilization
1.	Universal VLSI FPGA-CPLD Trainer system with Xilinx (sparten) (HI-QFPGA)-Model S.No-21010902	6 th ,8 th semester student's PG students, and Faculty
2.	Embedded development Module with 8051 family (P89C51RD2P1G34570082)	8thsemester students, PG students, and Faculty
3.	Microprocessor Kit (8086/8088)	6 th ,8 th semester students, PG students, and Faculty members.
4.	Micro controller (8051)	6 th ,8thsemester students, PG students, and Faculty
5.	Interfacing kits –PPI (8255)	,8 th semester students, PG students, and Faculty
6.	Programmable keyboard (8279)	8 th semester students, PG students, and Faculty
7	DMA controller (8257/8237)	8thsemester students, PG students, and Faculty
8	USART Interfacing (8251)	8thsemester students, PG students, and Faculty
9	MAT lab 2017B	3 rd ,6 th ,8thsemester students, PG students, and

		Faculty
10	Multi sim 14.0	3 rd , semester students, PG students, and faculty
11	Embedded system with IOT	8thsemester students, PG students, and Faculty

PROJECTS DONE IN PROJECT LAB - FOR A.Y- 2022-23.

S.NO	NAME OF THE PROJECT	SOFTWARES USED
1.	Whether monitoring using Raspberry PI over Internet of Things (software & hardware)	Embedded -c
2.	Online Smart Voting System using BIO – Metrics based Facial and Fingerprint Detection on Image Processing and CNN (hardware)	MAT LAB
3.	Plant disease detection using machine learning technique(software)	MAT LAB
4.	Home Automation based on IOT using Raspberry pi (hardware & software)	PYTHON

PROJECTS DONE IN PROJECT LAB- FOR A.Y-2021-22.

S.NO	NAME OF THE PROJECT	SOFTWARES USED
1.	Arduino based Accident alert system using GSM, GPS and MEMS Accelerometer (Hardware)	Embedded -c
2.	Plant Disease Detection Using Convolution Neural network (software)	Python
3.	Driver Drowsiness Detection Using Machine Learning Techniques For ADAS(Software)	Python
4.	Automatic Engine Locking system for Home Automation (Hardware)	Arduino- IDE

PROJECTS DONE IN PROJECT LAB-FOR A.Y-2020-21

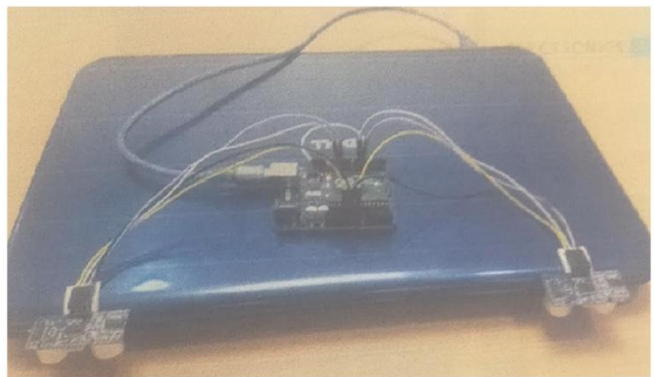
S.NO	NAME OF THE PROJECT	SOFTWARES USED
1.	Reduction of Side lobe Antenna Arrays using MATLAB Applications (software)	MAT LAB
2.	Design of Approximate Multipliers using Approximate Adders (Software)	MICROWIND TOOL
3.	Controlling Of PC by Using Hand Gestures(software)	PYTHON

<p>4.</p>	<p>Moving Shadows Detection Algorithm and Implementation Based on Dual Background Modeling(software)</p>	<p>MAT LAB</p>
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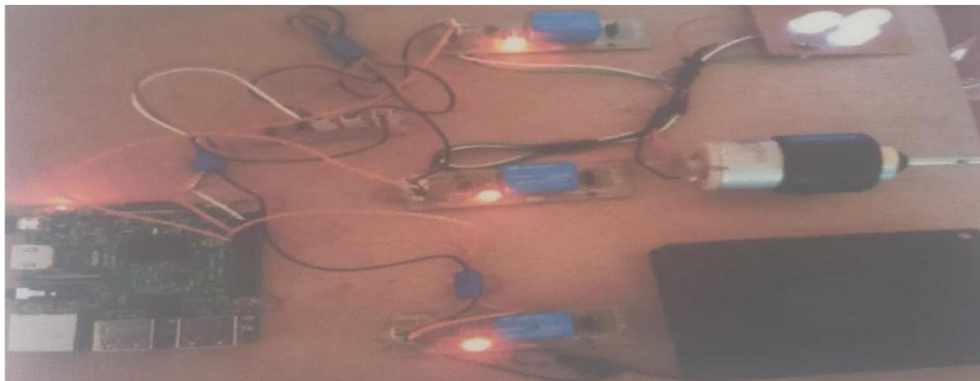
Project working models developed in the project lab



AUTOMATIC ENGINE LOCK SYSTEM



CONTROLLING OF PC BY USING HAND GESTURES



HOME AUTOMATION BASED ON IOT USING RASPBERRY pi

6.5 Safety measures in laboratories (10/10)

Sl. No	Name of the Laboratory	Safety Measures
1	Lab1 AC LAB& DC LAB	<ul style="list-style-type: none">• General Rules of Conduct in Laboratories are displayed.• Specific Safety Rules for students displayed.• First aid box, Fire extinguishers are kept in the laboratory.• Well trained technical supporting staff.• Avoiding the use of damaged equipment's and provides needful equipment's and components.• Periodical servicing of the lab equipment's.• Maintain a clean and organized laboratory,• Avoiding the use of cell phones.• Appropriate storage areas.

2	<p style="text-align: center;">Lab 2 MW & OC LAB</p>	<ul style="list-style-type: none"> • General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguishers are kept in the laboratory. • Well trained technical supporting staff. • Avoiding the use of damaged equipment's and provides needful equipment's and components. • Periodical servicing of the lab equipment's. • Maintain a clean and organized laboratory, • Avoiding the use of cell phones. • Appropriate storage areas
3	<p style="text-align: center;">Lab 3 MP&MC LAB</p>	<ul style="list-style-type: none"> • General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguishers are kept in the laboratory. • Well trained technical supporting staff. • Avoiding the use of damaged equipment's and provides needful equipment's and components. • Periodical servicing of the lab equipment's. • Maintain a clean and organized laboratory, • Avoiding the use of cell phones.

		<ul style="list-style-type: none"> • Appropriate storage areas
4	<p style="text-align: center;">Lab 4 e-CAD LAB</p>	<ul style="list-style-type: none"> • General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguishers are kept in the laboratory. • Well trained technical supporting staff. • Avoiding the use of damaged equipment's and provides needful equipment's and components. • Periodical servicing of the lab equipment's. • Maintain a clean and organized laboratory, • Avoiding the use of cell phones. • Appropriate storage areas
5	<p style="text-align: center;">Lab 5 EDC LAB</p>	<ul style="list-style-type: none"> • General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguishers are kept in the laboratory. • Well trained technical supporting staff. • Avoiding the use of damaged equipment's and provides needful equipment's and components. • Periodical servicing of the lab equipment's. • Maintain a clean and organized laboratory,

		<ul style="list-style-type: none">• Avoiding the use of cell phones.• Appropriate storage areas
6	Lab 6 Project lab	<ul style="list-style-type: none">• General Rules of Conduct in Laboratories are displayed.• Specific Safety Rules for students displayed.• First aid box, Fire extinguishers are kept in the laboratory.• Well trained technical supporting staff.• Avoiding the use of damaged equipment's and provides needful equipment's and components.• Periodical servicing of the lab equipment's.• Maintain a clean and organized laboratory,• Avoiding the use of cell phones.• Appropriate storage areas

Criterion 7	CONTINUOUS IMPROVEMENT	50/50
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7.1. Actions taken based on the results of evaluation of each of the POs & PSOs (20/20)

Identify the areas of weaknesses in the program based on the analysis of evaluation of POs & PSOs attainment levels. Measures identified and implemented to improve POs & PSOs attainment levels for the assessment years. Actions to be written as per table in 3.3.2.

Examples of analysis and proposed action

Sample 1-Course outcomes for a laboratory course did not measure up, as some of the lab equipment did not have the capability to do the needful (e.g., single trace oscilloscopes available where dual trace would have been better, or, non-availability of some important support software etc.). Action taken-Equipment up-gradation was carried out (with details of up-gradation)

Sample 2-In a course on EM theory student performance has been consistently low with respect to some Cos Analysis of answer scripts and discussions with the students revealed that this could be attributed to a weaker course on vector calculus Action taken-revision of the course syllabus was carried out (instructor/text book changed too has been changed, when deemed appropriate)

Sample 3-In a course that had group projects it was determined that the expectations from this course about PO3 (like: “to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations”) were not realized as there were no discussions about these aspects while planning and execution of the project.

Action taken- Project planning, monitoring and evaluation included in rubrics related to these aspects

S.No.	NAME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CAYm1 2022-23	Target	1.98	1.92	2.00	1.92	1.95	1.75	1.95	1.86	2.01	2.00	1.84	2.04
	Attain ment	1.98	1.95	1.93	1.85	2.00	1.95	2.02	1.90	1.99	2.07	1.92	1.92
MET-M/ NOT METNM		M	M	NM	NM	M	M	M	M	M	M	M	NM
CAY2 2021-22	Target	1.97	2.00	1.75	1.75	2.05	1.95	1.74	1.76	1.86	1.64	1.80	1.81

	Attainment	1.95	1.86	1.67	1.72	2.01	1.72	1.66	1.55	1.82	1.74	1.71	1.83
MET-M/ NOT MET-NM		M	NM	NM	NM	M	NM	NM	NM	M	M	NM	M
CAYm3 2020-21	Target	2.01	1.85	1.95	2.03	1.95	1.76	1.81	1.95	1.80	1.95	1.85	1.95
	Attainment	2.00	1.69	1.81	1.91	1.98	1.71	1.85	1.91	1.92	2.00	1.90	1.92
MET-M/ NOT MET-NM		M	NM	NM	NM	M	NM	M	NM	M	M	M	M

Table7.1.1: Target Levels and Attainments of POs for 3 Academic Years

S. No.	NAME	PSO1	PSO2
CAYm1 - 2022-23	Target	2.00	1.95
	Attainm ent	1.88	1.91
MET-M/ NOT MET-NM		NM	M
CAYm2 - 2021-22	Target	1.95	1.94
	Attainm ent	1.88	1.85
MET-M/ NOT MET-NM		NM	NM
CAYm3 - 2020-21	Target	1.95	1.95
	Attainm ent	1.81	1.85
MET-M/ NOT MET-NM		NM	NM

Table7.1.2: Target Levels and Attainments of PSOs for 3 Academic Years

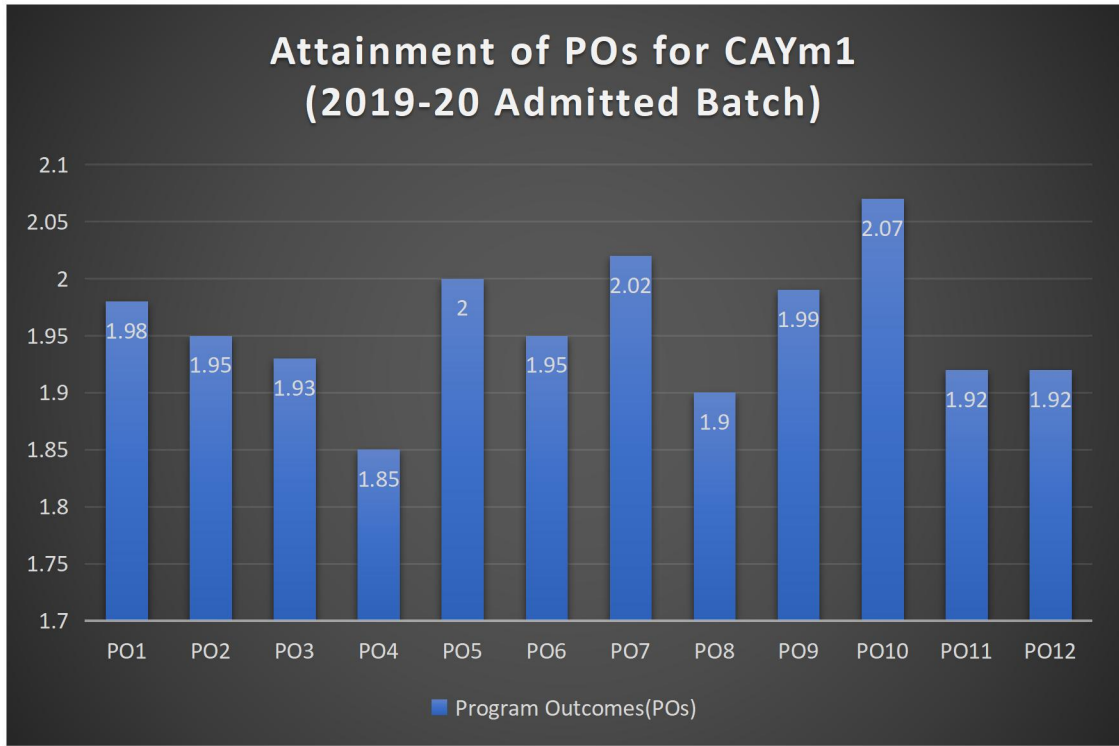


Fig. 7.1.1: Attainment of Program Outcomes (POs)

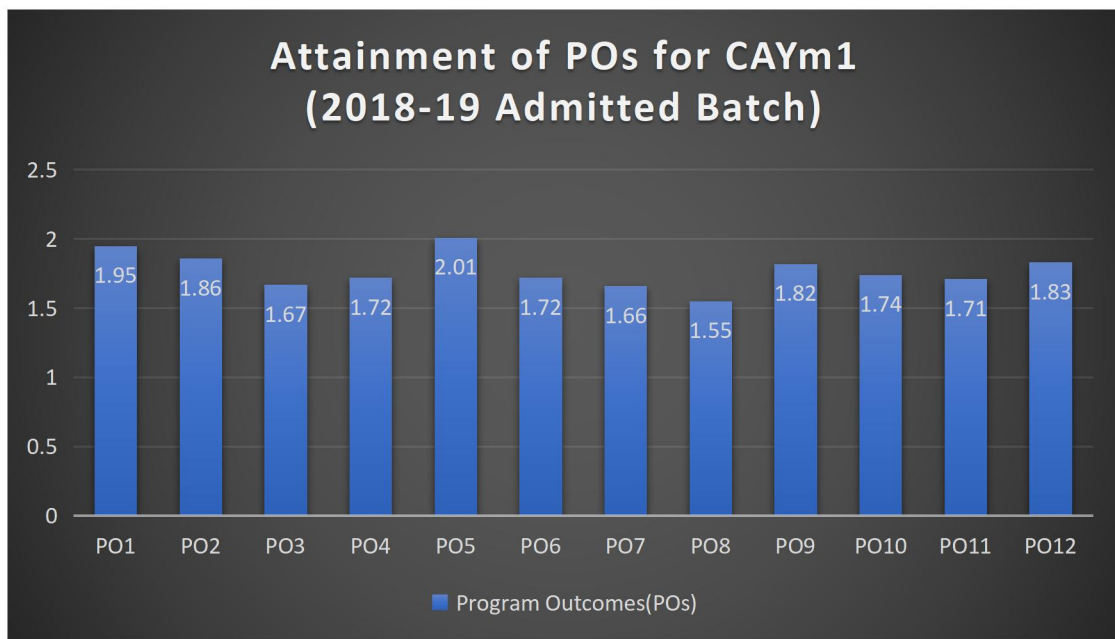


Fig. 7.1.2: Attainment of Program Outcomes (POs)

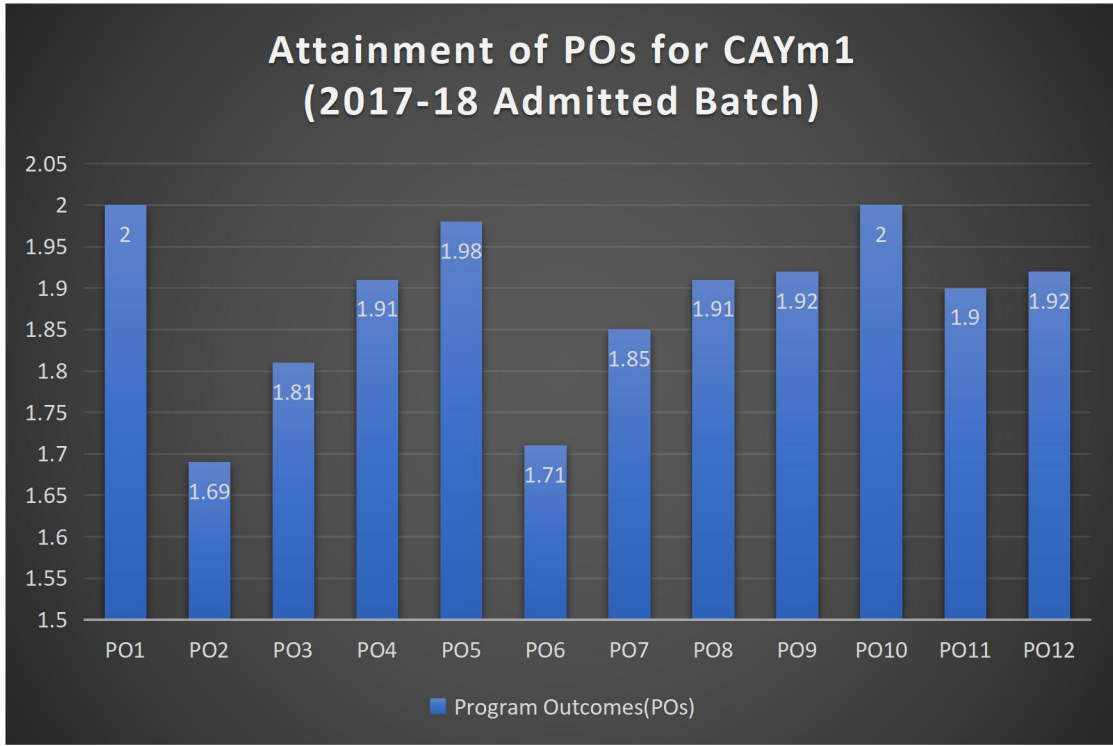


Fig. 7.1.3: Attainment of Program Outcomes (POs)

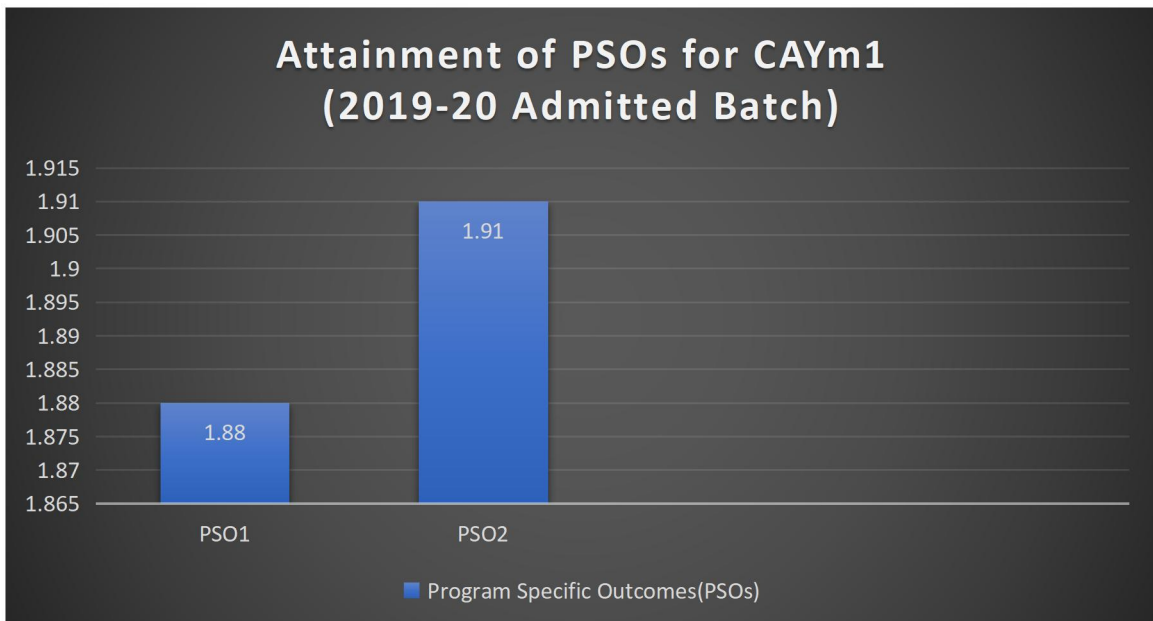


Fig. 7.1.4: Attainment of Program Specific Outcomes (PSOs)

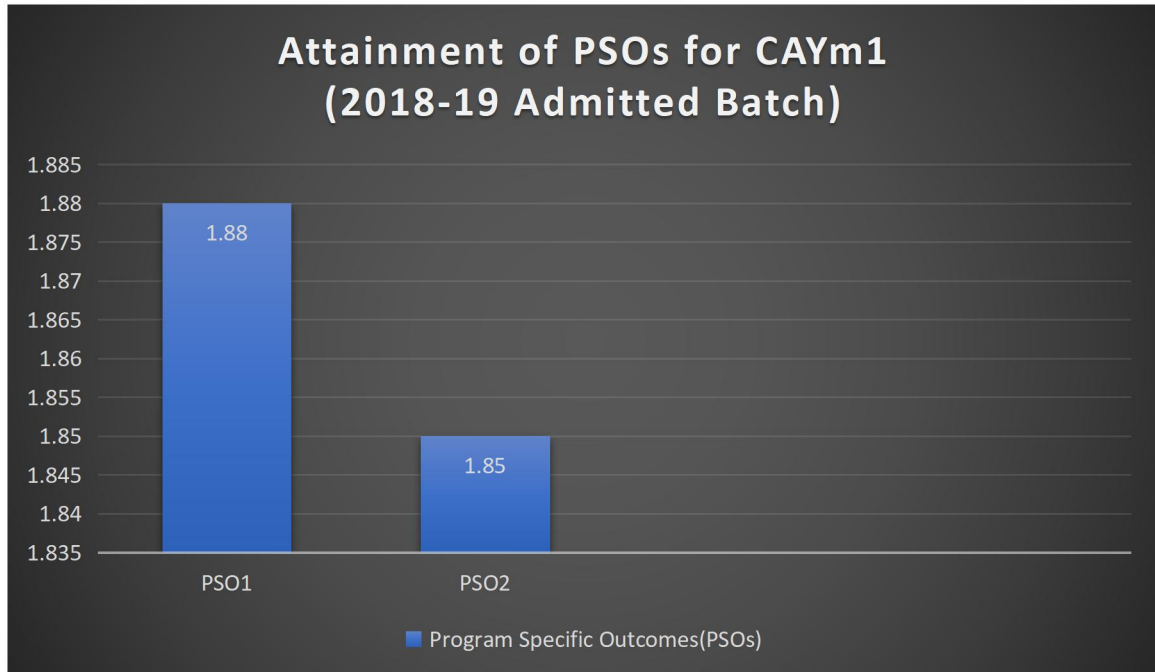


Fig. 7.1.5: Attainment of Program Specific Outcomes (PSOs)

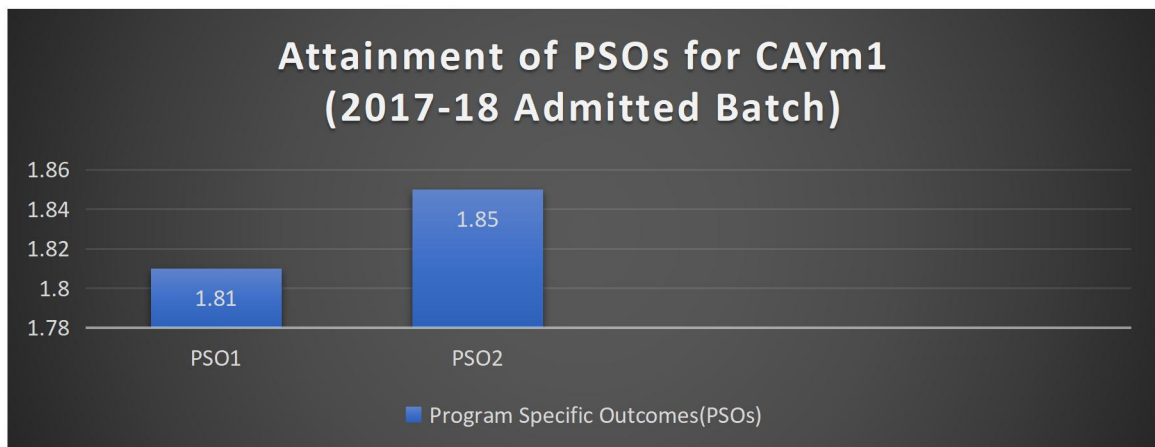


Fig. 7.1.6: Attainment of Program Specific Outcomes (PSOs)

POs Attainment Levels and Actions for Improvement- CAYm1 (2022-23)

POs	Target Level	Attainment Level	Observations
<p>PO1: Engineering knowledge</p> <p>Apply the knowledge of mathematics, science, engineering Fundamentals and an Engineering specialization to the solution of complex engineering problems.</p>			
PO1	1.98	1 . 9 8	<p>Target reached:</p> <p>Students have less information in grasping rudiments of arithmetic.</p> <p>Comprehension of fundamental sciences and designing basics are fundamental for tackling designing issues.</p>
<p>Action 1: Conducted tutorial classes for improving the knowledge of the students in engineering mathematics.</p> <p>Action 2: Fundamentals are explained during the laboratory sessions of engineering science.</p>			

<p>PO2: Problem analysis</p> <p>Identify, formulate, review research literature, and analyze complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural Sciences and engineering sciences.</p>			
PO2	1.92	1.95	<p>Target reached:</p> <p>Critical thinking and investigating abilities are acquired through fundamental electronic subjects. Comprehension of fundamental sciences and designing basics are fundamental for forming and assessing the designing science.</p>
<p>Action 1: Making students to practice analytical problems during the tutorial classes to improve their understanding levels in problem solving.</p> <p>Action 2: Introduced advanced tool usage to the students through workshops in order to introduce problem solving abilities.</p>			
<p>PO3: Design/development of solutions</p> <p>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.</p>			
PO3	2.00	1.93	<p>Target not reached:</p> <p>Ideas of health Safety, societal environmental considerations are to be explained.</p>

			Fundamental comprehension in advanced tools apparatuses is fundamental for essential plan improvements of designing arrangements.
<p>Action 1: Conducted workshops to the students to meet the design requirements in designing/development of solutions by conducting Mat lab-GUI-Simulink workshop.</p> <p>Action 2: Usage of EDA tools to the students are introduced to students for their basic understanding levels in developing solutions.</p>			
<p>PO4: Conduct investigations of complex problems</p> <p>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.</p>			
PO4	1.92	1.85	<p>Target not reached:</p> <p>Complexities of understudies' activities are to be made sense of alongside simple courses.</p> <p>Understanding basic electronics along with programming abilities are fundamental for designing/providing conclusions.</p>

<p>Action 1: Conducted hands on workshop on embedded systems for improving the knowledge in designing and analysis.</p> <p>Action 2: Additional classes are conducted for students for improvements in the courses like LDIC, ESD, and PTSP.</p>			
<p>PO5: Modern tool usage</p> <p>Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an Understanding of the limitations.</p>			
PO5	1.95	2. 00	<p>Target reached:</p> <p>Essential comprehension of modern tools is to be improved. Students ought to know about advanced tool apparatus use expected for demonstrating models with basic knowledge in the engineering subjects.</p>
<p>Action 1: Workshops are arranged for better understanding of basic knowledge in EDA tools for the relevant courses like DLD, DSP, and VLSI.</p> <p>Action 2: Additional classes are conducted to improve the students' knowledge.</p>			
<p>PO6: The engineer and society</p> <p>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.</p>			

PO 6	1.7 5	1.9 5	<p>Target reached:</p> <p>Basic Knowledge on engineering solutions applicable to societal issues is fundamental.</p> <p>Students have less knowledge or less understanding level in</p> <p>Understanding basics of communication subjects.</p>
<p>Action 1: Making the students to understand societal, health issues by conducting awareness programs on recent technologies.</p> <p>Action 2: While conducting the workshops, students are able to get awareness on recent development techniques in various domains.</p>			
<p>PO7: Environment and sustainability</p> <p>Understand the impact of the professional engineering solutions in societal and</p> <p>environmental contexts, and demonstrate the knowledge of and need for sustainable development.</p>			

PO7	1.95	2.02	<p>Target reached: A few students have less knowledge in grasping rudiments of Environmental Studies, and engineering designing subjects like EMTL, misunderstanding in societal and environmental settings in engineering designing arrangements is fundamental.</p>
<p>Action 1: To understand the impact of the engineering solutions, environmental context is explained through various awareness programs.</p> <p>Action 2: Additional awareness classes are conducted through Professional Ethics subject.</p>			
<p>PO8: Ethics</p> <p>Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice</p>			
PO8	1.86	1.90	<p>Target reached:</p> <p>Essential knowledge in understanding proficient morals is to be explained.</p> <p>Fundamentals are to instructed for comprehend standards and morals of</p>

			engineering.
<p>Action 1: Motivational classes on Human Values and Professional Ethics are arranged to the students for better understanding in engineering practice.</p> <p>Action 2: Seminars are arranged to understand the professional ethics. Activities like Best Out Of Waste are conducted for better understanding of responsibilities and norms of the engineering practice.</p>			
<p>PO9: Individual and team work</p> <p>Function effectively as an individual, and as a member or leader in diverse teams and in Multidisciplinary settings.</p>			
PO9	2.01	1.99	<p>Target reached:</p> <p>A few students are less projected for doing individual projects according to the educational Schedule.</p> <p>Individual mindfulness is to be made to the</p>

			students for implementing the simple model plans.
<p>Action 1: Conducted hands on session to the students to improve their knowledge in individual works. Students are motivated to prepare simple projects.</p> <p>Action 2: Workshops are conducted to the students for improvement. Students are informed to prepare own documentation reports during project session.</p>			
<p>PO10: Communication Communicate effectively on complex engineering activities with the engineering community and with society at large. Such as being able to comprehend and write effective reports and design documentation. make effective presentations and give clear instructions</p>			
PO10	2.00	2.07	<p>Target reached:</p> <p>Less comprehension in essential communication theories is noticed.</p> <p>Improvement in advanced skills abilities for successful communication is required.</p>

<p>Action 1: Advanced communication skills laboratory sessions are conducted to the students as part of the curriculum. Pre-placement activities are conducted for overall improvement in effective communication on the Engineering activities.</p> <p>Action 2: Group discussion sessions are conducted during the association hours.</p>			
<p>PO11: Project management and finance Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work as a member and leader in a team, to manage projects and in multidisciplinary environments.</p>			
PO11	1.84	1.92	<p>Target reached:</p> <p>Absence of understanding is found among certain students in planning the projects at multidisciplinary conditions.</p> <p>Better figuring out in Designing basics is fundamental for applying project plans.</p>

<p>Action 1: Tutorial classes are conducted during the project sessions for improving student abilities. Fundamentals are taught in Managerial Economics and Financial Analysis.</p> <p>Action 2: Tutorial classes are conducted to the students on management science which are essential for understanding the own project.</p>			
<p>PO12: Life-long learning</p> <p>Recognize the need and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.</p>			
PO12	2.04	1.92	<p>Target not reached:</p> <p>Students are lagging in comprehension of essential engineering subjects in applying technological aspects.</p> <p>Significance of essential subjects must be</p> <p>very much made sense of with regards to technological changes.</p>

Action 1: Seminars on VLSI, MPMC and CMC are conducted to the students.

Action 2: During project sessions, students are exposed to review the basic fundamental subjects while taking part in project seminars.

PSOs Attainment Levels and Actions for Improvement

PSOs	Target Level	Attainment Level	Observations
<p>PSO1: Students shall have knowledge on specific problems in Industrial and Domestic automation and ability to provide prototype solutions Using (i) Advanced Micro Controllers/Processors & DSP processor, (ii) Software Tools.</p>			
PSO1	2.00	1.88	<p>Target not reached:</p> <p>Few students need the knowledge on fundamental electronic subjects.</p> <p>Programming skill abilities are to be made sense of to the students for developing their own prototypes.</p>
<p>Action 1: Conducted workshop on Embedded Systems and Mat lab</p>			

Tools.			
Action 2: Students were made to practice EDA tool usage in project sessions.			
PSO2: Developing student's ability to Design and Simulate Architectures in VLSI domain using Xilinx and FPGA, thereby, evaluating and analyzing the performance of them by EDA Tools.			
PSO2	1.95	1.91	Target reached required to students for explanations its
			Different tools and designs to develop, implement, test, manufacture and maintain the electronic systems.
<p>Action 1: 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 the exposure to latest technologies.</p> <p>Action 2: Academic workshops and seminars are scheduled on technical topics to understand the current technological changes.</p>			

Table 7.1.3: Observations and Actions Taken

POs Attainment Levels and Actions for Improvement- CAYm2 (2021-22)

POs	Target Level	Attainment Level	Observations
<p>PO1: Engineering knowledge</p> <p>Apply the knowledge of mathematics, science, engineering Fundamentals and an Engineering specialization to the solution of complex engineering problems.</p>			
PO1	1.97	1.95	<p>Target reached:</p> <p>Few students are lagging in mathematical essentials.</p> <p>Hardly any students can't comprehend the fundamentals of engineering subjects in Electronics and Communication.</p>
<p>Action 1: Suggestive tutorial classes are scheduled to students for improvement in the fundamental subjects.</p> <p>Action 2: Importance of signals and systems, electronics fundamentals are explained through lectures to the students.</p>			

<p>PO2: Problem analysis Identify, formulate, review research literature, and analyze complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural Sciences and engineering sciences.</p>			
PO2	2.00	1.86	<p>Target not reached:</p> <p>Students can't recognize the significance of mathematical basics in Electronics and Communication.</p> <p>Procured less knowledge in like probability stochastic processes and digital signal handling because of lag in comprehension of Engineering mathematical analysis.</p>
<p>Action 1: Conducted seminars to the students to understand the basics of mathematical subjects.</p> <p>Action 2: Workshops are scheduled to the students for their betterment of advanced electronics subjects.</p>			
<p>PO3: Design/development of solutions</p> <p>Design solutions for complex engineering problems and design system components or processes that meet the specified needs with</p>			

appropriate consideration for the public health and safety, and the cultural, societal, and Environmental considerations.			
PO3	1.75	1.67	<p>Target not reached:</p> <p>Students are expected to know the requirements by understanding the social needs.</p>
			<p>The environmental considerations for public safety measures are to be understood by the students.</p>
<p>Action 1: While designing the projects, the students are guided for better understanding of societal and environmental considerations.</p> <p>Action 2: Design solutions of the student's project are reviewed before start of project.</p>			
<p>PO4: Conduct investigations of complex problems</p> <p>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.</p>			

PO4	1.75	1.72	<p>Target not reached:</p> <p>Approving the information, solution arrangements are required in project sessions by the students for their better comprehension.</p>
<p>Action 1: Guidance is provided by conducting workshops on Embedded systems and VLSI domains for betterment in solving the solutions for designing projects.</p> <p>Action 2: The valid conclusions have been suggested to the students by guiding them in project sessions.</p>			
<p>PO5: Modern tool usage</p> <p>Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an Understanding of the limitations.</p>			
			<p>Target reached:</p> <p>Present day devices are to be introduced with the students for better comprehension in innovation</p>

PO5	2.05	2.01	needs. Basics of present-day device utilization are to be educated.
<p>Action 1: Modern tools are introduced to the students by conducting workshops on MATLAB tools, Xilinx and Embedded Systems tools.</p> <p>Action 2: Modern tools are introduced to students by providing hands on sessions in workshops.</p>			
<p>PO6: The engineer and society Apply reasoning informed by the contextual knowledge to assess Societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional Engineering practice.</p>			
PO6	1.95	1.72	Target not reached: Understandin in friendly mindfulness is
			required considering the issues connected with proficient engineering. Responsibilities relevant to professional engineering practice for understanding the health and public security is to be educated.
<p>Action 1: Students get awareness on health safety issues through explanation of experiments during the laboratory sessions.</p>			

<p>Action 2: Students are guided to design projects with safety measures by considering issues related to social awareness.</p>			
<p>PO7: Environment and sustainability</p> <p>Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.</p>			
<p>PO7</p>	<p>1.74</p>	<p>1.66</p>	<p>Target not reached:</p> <p>The issues of global and environmental awareness among the student should be improved. Issues related to the environment in designing the engineering solutions are to be improved.</p>
<p>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.</p> <p>Action 2: Tutorial sessions are conducted on Disaster Management and</p>			

Environmental Studies.			
<p>PO8: Ethics:</p> <p>Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.</p>			
PO8	1.76	1.55	<p>Target not reached:</p> <p>It isn't clear for the students about the moral practices in Designing training.</p> <p>Students are seen as weak in understanding the ideas of essential electronic subjects.</p>
<p>Action 1: Motivational speeches are planned on “Values & Ethics in Engineering”. Action 2: Basic concepts of electronics subjects are taught for better practice and usefulness.</p>			
<p>PO9: Individual and team work Function effectively as an individual and as a member or leader in diverse teams, and in multi- disciplinary settings.</p>			
PO9	1.86	1.82	Target reached:

			<p>Nonappearance of connection is seen among the team members during the task work.</p> <p>Students are lagging in planning the Real Time Application oriented projects.</p>
<p>Action 1: Proper counselling is provided to motivate the students to do projects in Real Time Applications.</p> <p>Action 2: Students are suggested to give individual demonstration and presentation for their progress in projects.</p>			
<p>PO10: Communication</p> <p>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 clear instructions</p>			
			<p>Target reached:</p> <p>Students need to have ability in fundamental relational abilities for</p>

PO10	1.64	1.74	introducing engineering thoughts. Engineering exercises must be led to learn viable communication.
<p>Action 1: Expert classes on soft skill development are conducted during the regular class work.</p> <p>Action 2: Regular classes of English communication as per the curriculum are scheduled.</p>			
<p>PO11: Project management and finance</p> <p>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.</p>			
PO11	1.80	1.71	<p>Target not reached:</p> <p>Few students are found weak in Embedded Systems Design concepts.</p> <p>Students are found having less awareness in simulation Projects.</p>
<p>Action 1: Tutorial classes are conducted for the improvement of students. Action 2: Projects with varied professional specializations</p>			

in diverse teams were encouraged.			
PO12: Life-long learning Recognize the need and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.			
PO12	1.81	1.83	Target reached: Few students are unaware of their engineering
			conceptual studies for lifelong learning. The pre last year and last year courses of the program is shown as asset for contemporary issues and long-lasting learning.
<p>Action 1: Students are motivated to do hand on experiments and projects of their own interest.</p> <p>Action 2: Motivational classes are arranged to enhance the abilities of engineering contexts.</p>			

PSOs Attainment Levels and Actions for Improvement

PSOs	Target Level	Attainment Level	Observations
<p>PSO1: Students shall have knowledge on specific problems in Industrial and Domestic automation and ability to provide prototype solutions Using (i) AdvancedMicro Controllers/Processors & DSP processor, (ii) Software Tools.</p>			
PSO1	1.95	1.88	<p>Target not reached:</p> <p>Less openness is found for the students in main subjects, which needs more focus. Software tool usage sessions are to be conducted.</p>
<p>Action 1: Workshops are conducted on various tools of MATLAB.</p> <p>Action 2: During project hours, understanding sessions on tools like Kiel, Xilinx are conducted.</p>			
<p>PSO2: Developing student's ability to Design and Simulate Architectures in VLSI domain using Xilinx and FPGA, thereby, evaluating and analyzing the performance of them by EDA</p>			

Tools.			
PSO2	1.94	1.85	<p>Target not reached:</p> <p>Architectural design concepts are to be explained.</p> <p>Utilization of EDA apparatuses and understanding in fundamental subjects are to be granted.</p>
<p>Action 1: Extra classes are scheduled to the students for better understanding of EDA tools.</p> <p>Action 2: Workshops are conducted to understand usage of advanced tools.</p>			

Table 7.1.4: Observations and Actions Taken

POs Attainment Levels and Actions for Improvement- CAYm3(2020-21)

POs	Target Level	Attainment Level	Observations
<p>PO1: Engineering knowledge</p> <p>Apply the knowledge of mathematics, science, engineering Fundamentals and an Engineering specialization to the solution of complex engineering problems.</p>			
PO1	2.01	2.00	<p>Target reached:</p> <p>Electronics and Communication Engineering educational program strong foundation of strength for practical and theoretical knowledge of basic engineering mathematics.</p>
<p>Action 1: Tutorials based on real application inclusion of simulation software in teaching learning process are conducted.</p> <p>Action 2: Students are motivated to participate in technical events, other events where their basic knowledge is converted to application matching with defined level of standards.</p>			

<p>PO2: Problem analysis</p> <p>Identify, formulate, review research literature, and analyze complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural Sciences, and engineering sciences.</p>			
PO2	1.85	1.69	<p>Target not reached:</p> <p>Lateral entry students have less direction in fundamental engineering mathematics for figuring out and use in engineering sciences.</p>
<p>Action 1: Additional classes are conducted to introduce fundamental concepts.</p> <p>Action 2: Students are encouraged to raise questions which are solved in the classes. Students are encouraged to practice problem solving subjects regularly.</p>			
<p>PO3: Design/development of solutions</p> <p>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.</p>			

PO3	1.95	1.81	<p>Target not reached:</p> <p>A few students from lateral entry section find it hard to tackle the engineering problems in mathematics.</p> <p>Absence of satisfactory information on plan and</p> <p>improvement development-oriented problems are seen as in lateral entry students.</p>
<p>Action 1: Workshops are conducted to the students for realizing the importance of safety considerations in designing the solutions.</p> <p>Action 2: More design-oriented classes are taken in the tutorial classes.</p>			
<p>PO4: Conduct investigations of complex problems</p> <p>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.</p>			

PO4	2.03	1.91	<p>Target not reached:</p> <p>A few students find it challenging to utilize mathematical devices to complex engineering problems.</p> <p>A few students get some margin for tackling insightful Problem.</p>
<p>Action 1: Additional classes are conducted to motivate the students for solving analytical subjects.</p> <p>Action 2: Practical sessions are conducted on solving analytical and design problems.</p>			
<p>PO5: Modern tool usage</p> <p>Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.</p>			
PO5	1.95	1.98	<p>Target reached:</p> <p>Improvement is seen among the understudies in the utilization of MATLAB, Multi Sim 14.0, Xilinx,</p>

			apparatuses for executing their educational program project works.
<p>Action 1: Various workshops are arranged to meet the requirements of different usages of tools.</p> <p>Action 2: Students were provided with individual computer systems to work on software tools during workshop sessions.</p>			
<p>PO6: The Engineer and Society</p> <p>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.</p>			
PO6	1.76	1.71	Target not reached: Students don't know that they are the piece of the normal society and are bound to serve the general public. The courses of Electronics and Communication Engineering location the requirements of well-being.

CRITERION 7 Action 1: Emphasis on the management subjects is given while imparting knowledge to students. ECE- SAR

Action 2: Awareness programs to understand the technology as well as societal considerations are arranged for improving the abilities of the students.

PO7: Environment and sustainability

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

PO7	1.81	1.85	<p>Target reached:</p> <p>The issues of global and environmental awareness among the students should be Improved. Issues connected with the environment in planning the engineering arrangements are to be moved along.</p>
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Action 1: Students are encouraged to indulge in projects, in which environmental issues are improved with respect to consumption of energy and utilization of renewable energy resources.

Action 2: Environmental and societal issues relating to advanced changes in modern technology is explained for better understanding of basic engineering solutions

PO8: Ethics Apply ethical principles and commit to professional

ethics and responsibilities and norms of the engineering practice.			
PO8	1.95	1.91	<p>Target not reached:</p> <p>It isn't clear for the students about the moral practices in Engineering education. Students are tracked down frail in grasping the ideas of fundamental moral responsibilities.</p>
<p>Action 1: Motivational talks are planned on “Values & Ethics in Engineering” Action 2: Basic concepts of electronics subjects are taught for better practice.</p>			
<p>PO9: Individual and team work Function effectively as an individual, and as a member or leader in diverse teams and in Multidisciplinary settings.</p>			
PO9	1.80	1.92	<p>Target reached: Absence of relationship among a few teams’ member is seen during the project work. Students are lagging in the Real Time Application arranged projects.</p>
<p>Action 1: Proper counselling is given to motivate students to do projects. Action 2: Students are asked to give individual demonstration and presentation to</p>			

show their progress in their project designs.			
<p>PO10: Communication</p> <p>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</p> <p>Receive clear instructions.</p>			
PO10	1.95	2.00	<p>Target reached:</p> <p>Students are found with moderate communication skill ability to appreciate and compose reports.</p> <p>Improvement is expected in show abilities.</p>
<p>Action 1: Expert classes on soft skill development are conducted in addition to regular class work.</p> <p>Action 2: Regular activity based on learning English communication as per the curriculum is arranged during Department Association hours.</p>			
<p>PO11: Project management and finance Demonstrate knowledge and understanding of the engineering and management principles and</p>			

apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.			
PO11	1.85	1.90	<p>Target reached: A few students are found power less in Embedded Systems Design concepts.</p> <p>Students are found having less background information in reproduction Activities or in simulation Projects.</p>
<p>Action 1: Tutorial classes are conducted for improvement of students in project work sessions. Action 2: Workshop is conducted on PCB Design and Fabrication.</p>			
<p>PO12: Life-long learning Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.</p>			
PO12	1.95	1.92	<p>Target reached: A few students know nothing about ideas of Engineering studies for long lasting learning. The pre-last year and last year courses of the program are shown as the asset for contemporary issues and long-lasting learning.</p>

Action 1: Students are motivated to do hands on experiments and projects of their own interest.

Action 2: Motivational classes are arranged to enhance their abilities in lifel ong learning

PSOs Attainment Levels and Actions for Improvement

PSOs	Target Level	Attainme nt Level	Observations
<p>PSO1: Students shall have knowledge on specific problems in Industrial and Domestic automation and ability to provide prototype solutions Using (i) Advanced Micro Controllers/Processors & DSP processor, (ii) Software Tools.</p>			
PSO1	1.95	1.81	<p>Target not reached:</p> <p>Lateral entry Students are found having less information in Designing Arithmetic.</p> <p>Students need programming skills in core domain.</p>

<p>Action 1: Tutorial classes are arranged to the students to improve their knowledge.</p> <p>Action 2: Workshops are arranged to the students to improve in basic practice of simulation and modelling.</p>			
<p>PSO2: Developing student's ability to Design and Simulate Architectures in VLSI domain using Xilinx and FPGA, thereby, evaluating and analyzing the performance of them by EDA Tools.</p>			
PSO2	1.95	1.85	<p>Target not reached:</p> <p>Students are found with less information in core subjects.</p> <p>Design and analysis of advanced tools in electronics are to be surely known by the students.</p>
<p>Action 1: Guest lectures are arranged to the students for their improvement. Hands on sessions are arranged to the students for improving the concepts of design and analysis through workshops.</p> <p>Action 2: Industrial interaction to the students is arranged through industrial visits.</p>			

Table 7.1.5: Observations and Actions Taken

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

(Academic Audit system/process and its implementation in relation to Continuous Improvement) **Academic Audit:** Viswam Engineering College has an effective auditing system in place both through internal & external agencies **1.Internal Audit**

S. No	Name of the audit	Frequency	Analysis	Action taken
1.	Faculty contribution	Semester	Publications, conferences	Funding the faculty members to improve the publications and presentations in conferences
2.	Student quality enhancement	Semester	Student Publications, paper presentation	Paper publications for final year students per batch
3.	Teaching methodologies	Semester	Workshops, add on courses, collaborative learning	40% of the syllabus by innovative teaching methodologies, participation by students in hackathon

			techniques	
4.	Stock Verification	Semester	Library books, laboratories equipment, computers	To be maintained as per norms and usage of e resources

2.External Audit

S. No	Name of the audit	Frequency	Analysis	Action taken
1.	Jawaharlal Nehru Technological University, Anantapur	Annual	Faculty, students, facility to run the curriculum	Fulfilling the curriculum requirements and making ready for the next academic year
2.	ISO	Annual	Preparation of various documents required towards quality improvement like	Documentation aligned to NBA

			Laboratories file, course files, publications of students and staff, feedback	
3.	NIRF	Annual	Data collection and analysis as per the requirements - Faculty, student ratio, publicatio ns, placements, higher education	Plan and Work towards the requirements
4.	AISHE	Annual	Faculty student ratio, ICT, class rooms, laboratories	Procurement of ICT equipment.

Internal audit is taken up by IQA

Though an informal Internal Quality Assurance Cell was in existence since 2019-20, in the year 2022-23, IQAC was formally launched aiming at the improvement of quality standards of the institution through the adoption of diverse strategies. IQAC cell enjoys the unique distinction of being the most

important of all the committees formed in the institution. The IQAC has been established exclusively to better the quality standards and devise a broad range of learner centric practices for academic excellence of the institute. Prior to the constitution of IQAC, each department was having an internal quality assurance system which is taken care by two senior faculties. Course files, personal files, project files, lab files were introduced for the purpose of evaluating the performance and professional competencies of the faculty for their continuous improvement

In the academic year 2019-20 the initiate of self-appraisal was introduced facilitating the continuous self-assessment of the faculty in all aspects of his/her professional career. This self-appraisal initiative really helped a number of faculty to improve their qualifications and do various technical certificate courses, under take research in their respective field of specialization and paper publications

Innovations and Entrepreneurship Development Cell (IEDC) was constituted in May 201

1. To create an environment for self-employment and entrepreneurship development through formal and quality initiatives organized by IQAC programs to introduce the concept of entrepreneurship in curricula at diploma and degree levels.
2. To develop management personnel at appropriate levels for the non-corporate and unorganized sectors like education, rural development, small-scale industry etc.
3. To utilize the infrastructure facilities and technically trained manpower for the development of non-corporate and unorganized sectors.

4. To promote employment opportunities

Quality engineering education coupled with innovative research and development is very much essential towards the overall progress of the institution. Keeping this in view and based on the recommendations of the IQAC a Research and Development cell is constituted. to promote and monitor the R & D Programs of the institution with a vision and mission to pursue and promote research in advanced technologies. R&D and Consultancy Cell is headed by a senior faculty member as coordinator and supported by HODs, doctorates, research scholars and students of various departments. The cell manages all the research programs of the institution by monitoring and coordinating the R & D activities. It conducts the research review meetings to examine the quality of research undergoing in the institution. The R&D cell also recommends for the sanction of in-house research scholarships / incentives to students and faculty members for their research work and publications

7.3. Improvement in Placement, Higher Studies and Entrepreneurship (10/10)

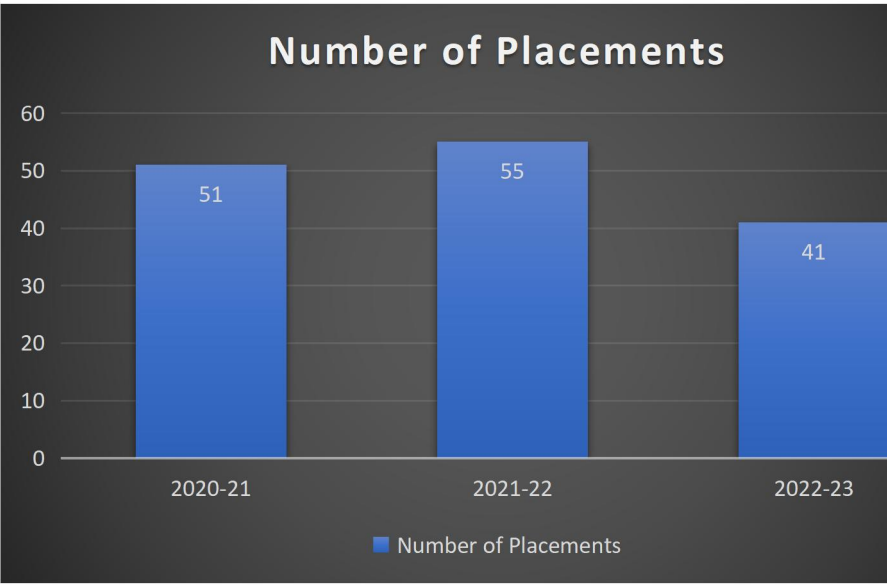
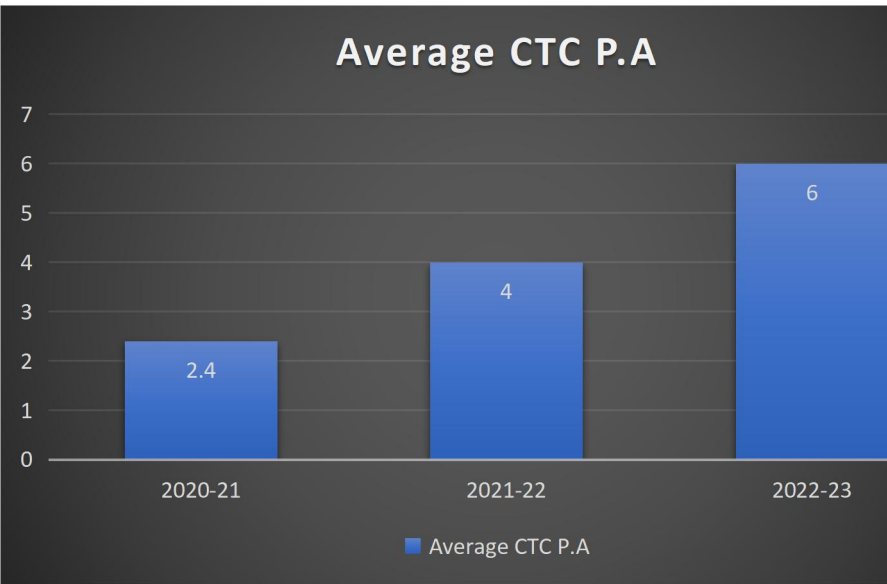
Assessment is based on improvement in:

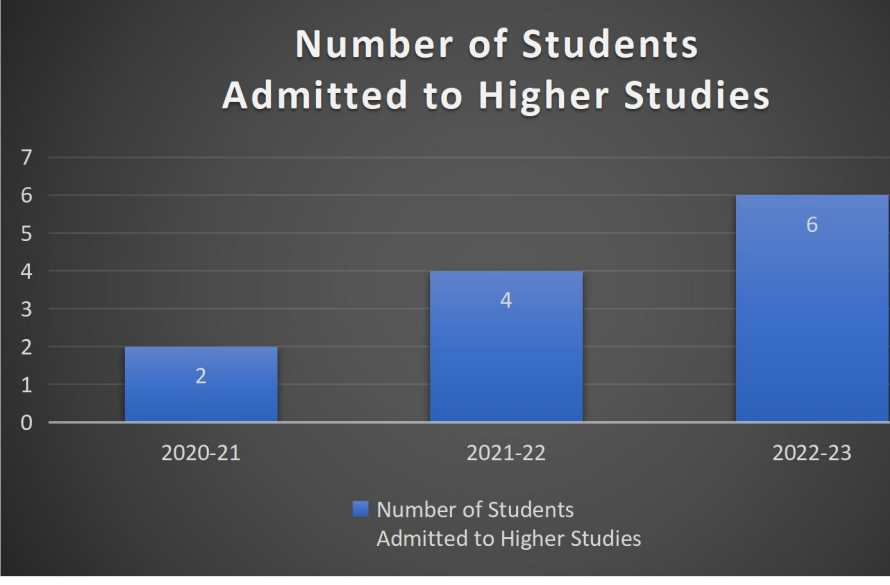
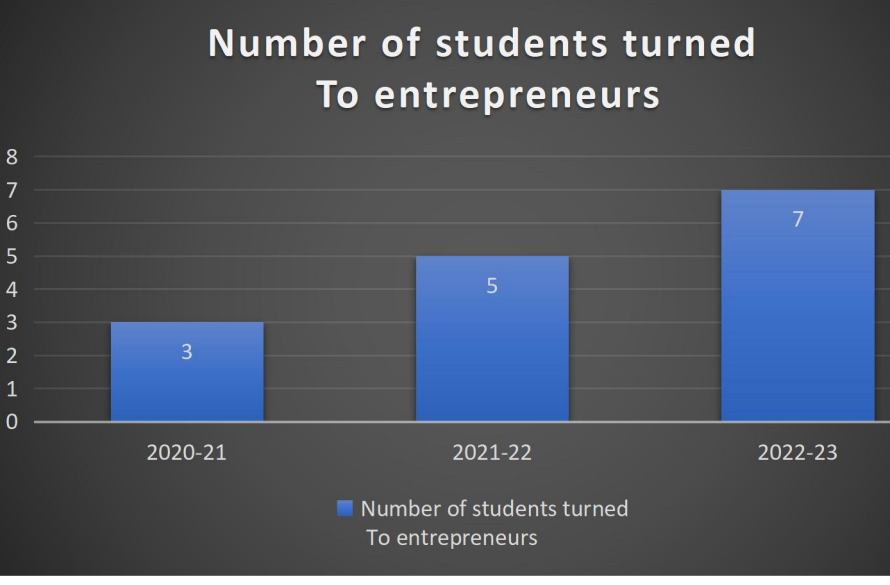
- Placement: number, quality placement, core industry, pay packages etc.
- Higher studies: performance in GATE, GRE, GMAT, CAT etc., and admissions in premier institutions
- Entrepreneurs

ITEM	CAYm1 (2022-23)	CAYm2 (2021-22)	CAYm3(20 20-21)
No. Of students placed in companies or government sector (PLACEMENTS)	41	55	51
Avg. CTC P. A	2.4L	4.0L	6.0L
No of students admitted to higher studies with valid qualifying scores (HIGHER STUDIES)	2	2	2
No of students turned entrepreneur in engineering/ technology (ENTREPRENEURS)	7	5	3

Table 7.3.1: Student's improvement in placements and higher education

Placement Assessment and Trends

SNO	Representation	Trend Description								
1.	 <p>Number of Placements</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Number of Placements</th> </tr> </thead> <tbody> <tr> <td>2020-21</td> <td>51</td> </tr> <tr> <td>2021-22</td> <td>55</td> </tr> <tr> <td>2022-23</td> <td>41</td> </tr> </tbody> </table>	Year	Number of Placements	2020-21	51	2021-22	55	2022-23	41	<p>Placements increased from 2020-21 to 2021-22 but decreased for 2022-23 due to less job vacancies in the core companies.</p>
Year	Number of Placements									
2020-21	51									
2021-22	55									
2022-23	41									
2.	 <p>Average CTC P.A</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Average CTC P.A</th> </tr> </thead> <tbody> <tr> <td>2020-21</td> <td>2.4</td> </tr> <tr> <td>2021-22</td> <td>4</td> </tr> <tr> <td>2022-23</td> <td>6</td> </tr> </tbody> </table>	Year	Average CTC P.A	2020-21	2.4	2021-22	4	2022-23	6	<p>Average CTC is observed to be increased from A. Y 2020-21 to A.Y 2022-23</p>
Year	Average CTC P.A									
2020-21	2.4									
2021-22	4									
2022-23	6									

3.	 <p>Number of Students Admitted to Higher Studies</p> <table border="1"><thead><tr><th>Year</th><th>Number of Students Admitted to Higher Studies</th></tr></thead><tbody><tr><td>2020-21</td><td>2</td></tr><tr><td>2021-22</td><td>4</td></tr><tr><td>2022-23</td><td>6</td></tr></tbody></table>	Year	Number of Students Admitted to Higher Studies	2020-21	2	2021-22	4	2022-23	6	Number of students admitted to higher studies were increased from A.Y 2020 to A.Y 2022-23
Year	Number of Students Admitted to Higher Studies									
2020-21	2									
2021-22	4									
2022-23	6									
4.	 <p>Number of students turned To entrepreneurs</p> <table border="1"><thead><tr><th>Year</th><th>Number of students turned To entrepreneurs</th></tr></thead><tbody><tr><td>2020-21</td><td>3</td></tr><tr><td>2021-22</td><td>5</td></tr><tr><td>2022-23</td><td>7</td></tr></tbody></table>	Year	Number of students turned To entrepreneurs	2020-21	3	2021-22	5	2022-23	7	Number of students turned To entrepreneurs Were increased from A.Y 2020-21 to 2022-23
Year	Number of students turned To entrepreneurs									
2020-21	3									
2021-22	5									
2022-23	7									

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

Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrance tests, percentage marks in Physics, Chemistry and Mathematics in 12th Standard and percentage marks of the lateral entry students.

ITEM		CAYm1 (2023-24)	CAYm1 (2022-23)	CAYm2 (2021-22)	CAYm3 (2020-21)
National Level Entrance Examination (Name of the Entrance Examination)	No. of Students admitted	-	-	-	-
	Opening Score/Rank	-	-	-	-
	Closing Score/Rank	-	-	-	-
State/University/ Level	No. of Students	120	60	89	106

Entrance Examination/ Others (EAMCET)	admitted				
	Open in Score/Rank	56162	71051	60901	49193
	Closing Score/Rank	14922 3	168261	12704 3	12632 9
Name of the Entrance Examination for Lateral Entry or Lateral entry details	No. of Students admitted	-	1	10	2
	Opening Score/Rank	-	1225	4886	3169
	Closing Score/Rank	-	5883	4886	5287
Average CBSE/Any other Board Result of admitted students (Physics, Chemistry & Mathematics)		7.2	6.7	6.72	6.52

Table 7.4.1: Students admitted to the institute with board results

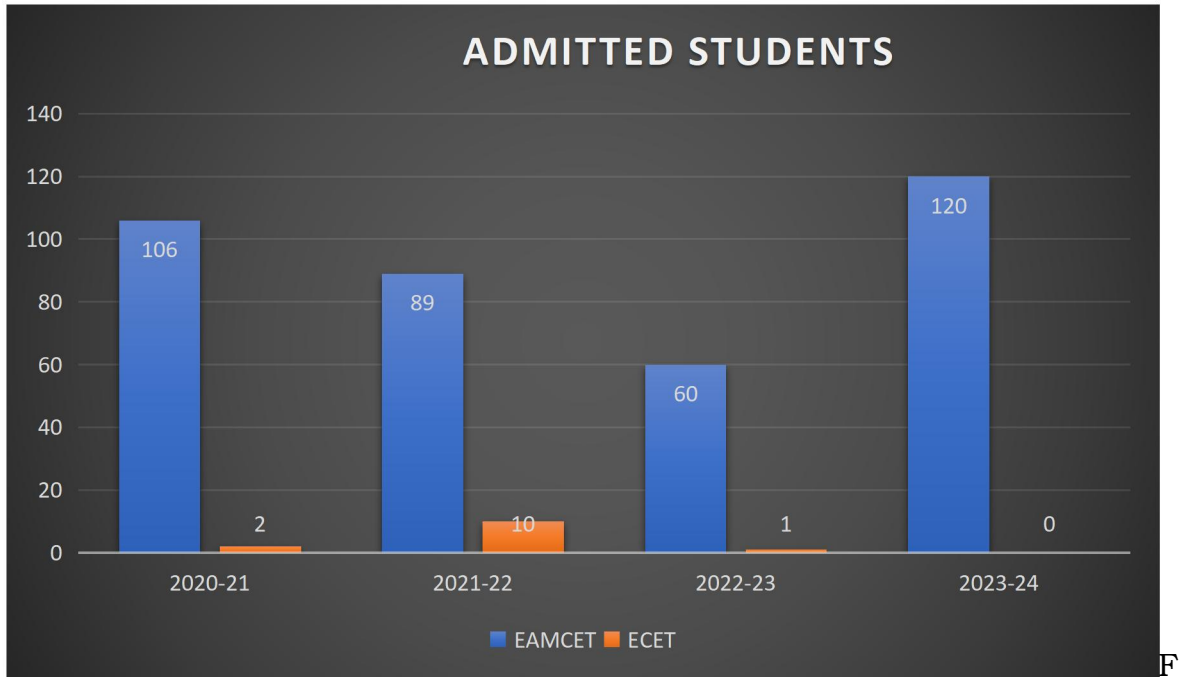


Figure.7.4.1: Number of students admitted to the department for last 3 years

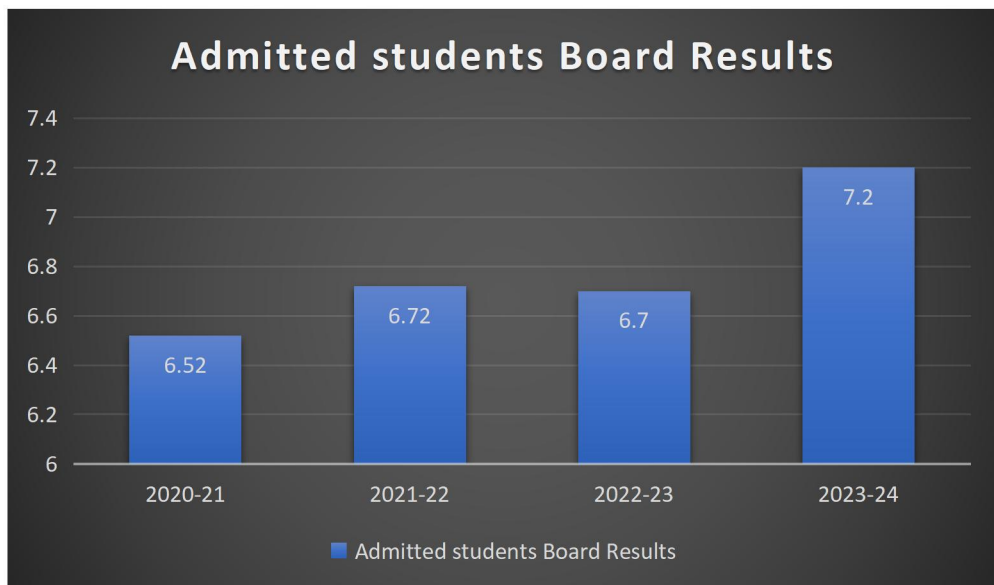


Figure.7.4.2: Board results of admitted students for last 3 years

Students Admitted: CAY (2023-24)

S. No.	Students Admitted	Total Intake
Regular		
1	120	120
Lateral Entry		
2	-	-

Table 7.4.2: Admission details

Students Admitted: CAY (2022-23)

S. No.	Students Admitted	Total Intake
Regular		
1	60	120
Lateral Entry		
2	1	12

Table 7.4.2: Admission details

Students Admitted: CAYm1 (2021-22)

S. No.	Students Admitted	Total Intake
Regular		
1	89	120
Lateral Entry		
2	10	12

Table 7.4.3: Admission details

Students Admitted: CAYm1 (2020-21)

S. No.	Students Admitted	Total Intake
Regular		
1	106	120
Lateral Entry		
2	2	12

Table 7.4.3: Admission details

Criterion 8	FIRST YEAR ACADEMICS	43.43/50
--------------------	-----------------------------	-----------------

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

8.1 Faculty Ratio (FYSFR) (5) Assessment = $(5 \times 15) / \text{Average FYSFR}$ (Limited to Max.5)

Year	Number Of Students (approved intake strength) N	Number of Faculty members (considering fractional load) F	FYSFR (N/F)	*Assessment= $(5 \times 20) / \text{FYSFR}$ (Limited to Max.5)
2023-24 (CAY)	420	31	14	5
2022-23 (CAYm1)	420	28	15	5
2021-22 (CAYm2)	420	26	16	5
Average	420	28	15	5

S. NO.	NAME OF THE FACULTY	PAN No	Qualification	Date of Receiving highest degree	Area of Specialization	Designation	Date of Joining	CAY 2023-24	CAYm1 2022-23	CAYm2 2021-22	Currently Associated (Y/N)	Nature of Association (Regular / Contract / Adjunct)	Date of Leaving (in Case of Contract / Adjunct)	Currently Associated (in Case of Contract / Adjunct) No")
1	Dr. Ch. Kalyani	BIOPK 6214R	Ph.D	25-09-2016	Fluid Dynamics	Professor	25-08-2023	10 0	0	0	YES	Regular		
2	Dr. T. Sreenivasulu Reddy	AGIPT 3396E	Ph.D	18/10/2016	Physics	Professor	17-08-2009	10 0	10 0	10 0	YES	Regular		
3	Dr. Krishnaveni	DXNP K4219L	Ph.D	11/12/2019	Physics	Professor	8/21/2023	10 0	0	0	YES	Regular		
4	Dr. D Sai Lakshmi	CSTPS 9649J	Ph.D	16/10/2021	English	Associate Professor	10-09-2021	10 0	10 0	10 0	YES	Regular		
5	Dr. S Geethan	HIPPK 0397Q	Ph.D	29/01/2020	Mathematics	Associate Professor	7/1/2019	10 0	10 0	10 0	YES	Regular		

	Kumar												
6	Dr. K Madhu Sudhan Reddy	COYP K2894 G	Ph.D	31/10/2018	Chemistry	Associate Professor	5/10/2022	100	100	100	YES	Regular	
7	Dr. K Uaday Kumar	CMMP K6813 P	Ph.D	28/08/2023	Physics	Associate Professor	1/17/2020	100	100	100	YES	Regular	
8	Mr. V Vijay Kumar	APSPV 6929E	M.SC	1/7/2011	Mathematics	Assistant Professor	10/8/2010	100	100	100	YES	Regular	
9	Mr. S Arshad Ali	HBQP S1095 R	M.A	23/11/2001	English	Assistant Professor	7/1/2019	100	100	100	YES	Regular	
10	Mr. K Jaya Prakash	CSNP K3991 H	M.SC	5/21/2012	Mathematics	Assistant Professor	3/16/2020	100	100	100	YES	Regular	
11	Mrs. K Haritha	AWCP H5779 H	M.SC	4/10/2017	Organic Chemistry	Assistant Professor	2/3/2021	100	100	100	YES	Regular	
12	Mrs. C Harshitha	ANXP H6296 F	M.A	4/10/2018	English	Assistant Professor	03/04/2023	100	100	100	YES	Regular	
13	Mr.G Ravindra Reddy	CDQP G0939 R	M.SC	22/06/2015	Applied Mathematics	Assistant Professor	15/07/2023	100	0	0	YES	Regular	
14	Mrs.M Sunitha	FKPM 8029J	M.SC	01/05/2017	Chemistry	Assistant Professor	8/6/2023	100	0	0	YES	Regular	
15	Mr. D Shekshavalli	CYRPS 7675E	M.SC	5/11/2015	Mathematics	Assistant Professor	1/7/2020	100	100	100	YES	Regular	
16	Mrs. T Lakshmidevi	AQUP T1282 F	M.A	14/02/2011	English	Assistant Professor	2/22/2021	100	100	100	YES	Regular	
17	Mr. D Venkata Subba Reddy	BLRP D6497 H	M.SC	24/03/2007	Mathematics	Assistant Professor	09/12/2019	100	100	100	YES	Regular	
18	Mr. K Damodar Reddy	CEHP K9617 N	M.SC	29/09/2015	Mathematics	Assistant Professor	21/03/2022	100	100	0	YES	Regular	
19	Mr. B Mahendranath Reddy	ATZPB 7727K	M.SC	20/11/2014	Chemistry	Assistant Professor	21/03/2022	100	100	0	YES	Regular	
20	Mrs. G Prasanthi	BWKP G5250 M	M.SC	27/10/2010	Physics	Assistant Professor	10-05-2022	100	100	0	YES	Regular	
21	Mr.A Gangadhar Reddy	DDXP G1399 P	M.SC	#####	Chemistry	Assistant Professor	3/12/2022	100	0		YES	Regular	
22	Dr.L Thimmaiah	ACUP L3900 C	Ph.D	7/9/2007	Civil Engineering	Professor	23/11/2023	100	0	0	YES	Regular	
23	Dr.V RAMESH	BKMP R8912 D	Ph.D	9/3/2020	EEE	Professor	3/6/2021	100	100	100	YES	Regular	
24	Ms.T Madhubala	FIDBP 5877E	MBA	5/5/2015	MBA	Assistant Professor	6/15/2020	100	100	100	YES	Regular	
25	Ms.V Sunitha	KOHP S7516 J	MBA	29/01/2020	MBA	Assistant Professor	5/4/2021	100	100	100	YES	Regular	
26	Mr.E Siva	AAZPE 4553D	MCA	6/11/2014	MCA	Assistant Professor	14/09/2016	100	100	100	YES	Regular	
27	Mrs.S Sailaja	KHDP S2627 P	M.SC	15/04/2021	Computer Science	Assistant Professor	15/06/2021	100	100	100	YES	Regular	
28	Mr. M. Praveen Naik	DTPR R0351 L	CSE	10/5/2015	Information Technology	Assistant Professor	09/08/2021	100	100	100	YES	Regular	
29	Ms. G M Anasuya	BCWP G1468 H	M.Tech	21/04/2017	Electrical Power Systems	Assistant Professor	22/11/2021	100	100	100	YES	Regular	

30	Mr Ratnaswamy	CIBPR 5528K	M E	11/06/2018	Constuction Engineering and Management	Assistant Professor	08/01/2021	100	100	100	YES	Regular	
31	Mr. S B Anjappa	BRVP A6035N	M.Tech	5/5/2016	Mechanical Engineering	Assistant Professor	07/01/2019	100	100	100	YES	Regular	
32	Mrs. V. Spandana	AMIPV 0400H	M.SC	2/8/2011	Chemistry	Assistant Professor	8/2/2019	100	100	100	NO	Regular	20/02/2023
33	Ms. Pavana Lekha	EPFPP 2416R	M.SC	4/12/2013	Physics	Assistant Professor	12/12/2019		50	100	NO	Regular	03/07/2023
34	Mr.K Naresh Kumar	CFQP N4572R	M.SC	11/5/2018	Chemistry	Assistant Professor	2/15/2021			100	NO	Regular	23/06/2022

8.2 Qualification of Faculty Teaching First Year Common Courses (3.33/3.33)

Assessment of qualification = $(5x + 3y)/RF$, x = Number of Regular Faculty with Ph. D, y = Number of Regular Faculty with Post-graduate qualification
 RF = Number of faculty members required as per SFR of 20:1, Faculty definition as defined in 5.1

Year	x (Number of Regular Faculty with Ph. D)	y (Number Of Regular Faculty with Post graduate Qualification)	RF (Number Of Faculty Members required as per SFR of 20:1)	Assessment Of Faculty Qualification [$(5x + 3y) / RF$]
2023-24	9	19	21	4
2022-23	5	17	21	3
2021-22	4	18	21	3
Average Assessment:			3.33	

8.3 First Year Academic Performance (5.10/5.10)

Academic Performance = ((Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of Attainment of Course Outcomes of first year courses (10) marks in First Year of all successful students / 10)) x (number of successful students / number of students appeared in the examination)

Successful students are those who are permitted to proceed to the second year.

Academic Performance	2022-23 (CAYm1)	2021-22 (CAYm2)	2020-21 (CAYm3)
Mean of CGPA or mean percentage of all successful students(X)	6.7	6.72	6.52
Total Number of successful students(Y)	33	70	103
Total Number of students appeared in the examination(Z)	60	89	106
API [X*(Y/Z)]	3.68	5.29	6.34
Average API [(AP1+AP2+AP3)/3]	5.10		

8.4. Attainment of Course Outcomes of first year courses (5/10)

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)

Course Assessment Process for Theory Courses:

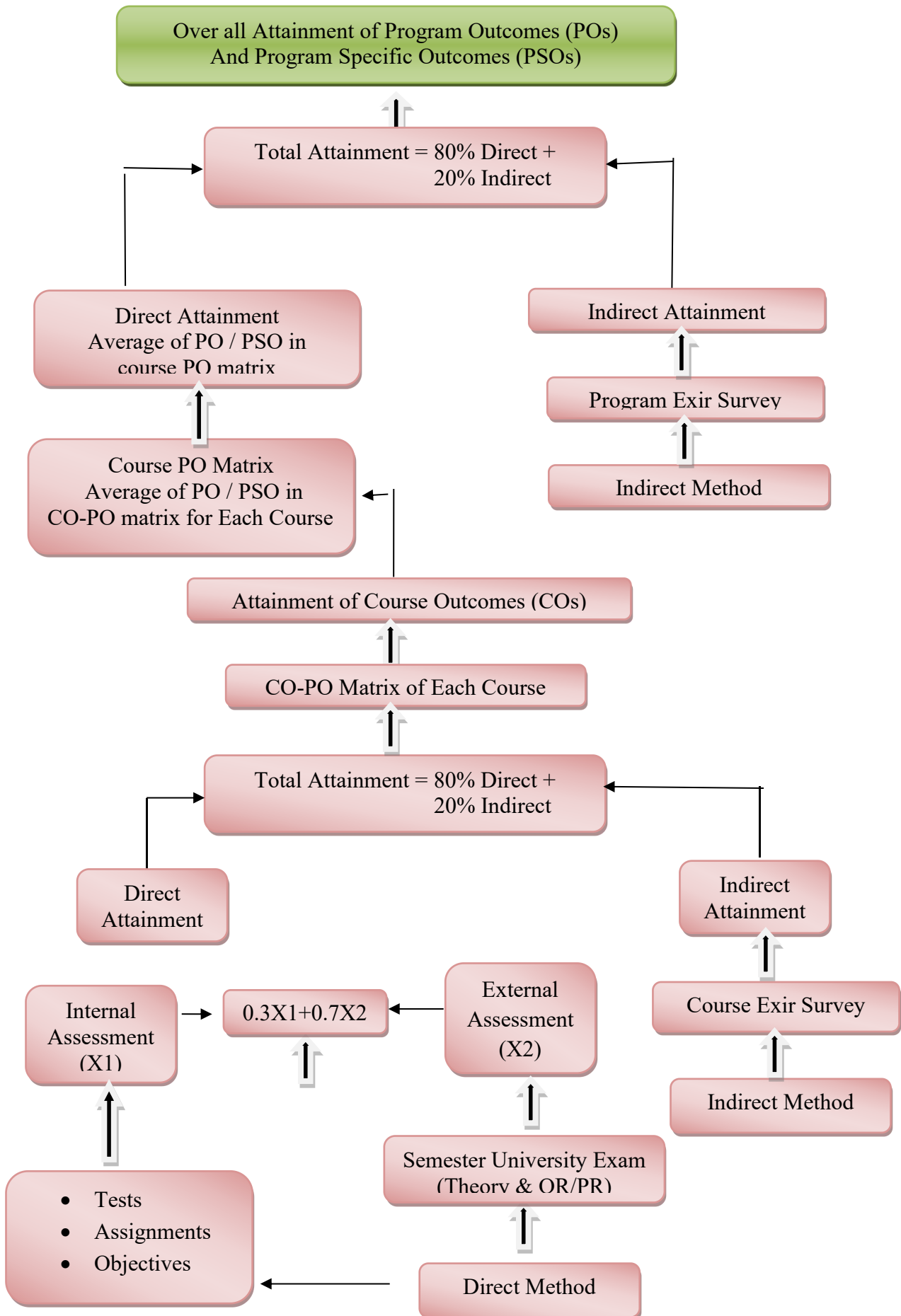
Course Assessment processes used to gather the data upon which the evaluation of Course Outcome is estimated based on Direct and Indirect Assessment processes given below:

Direct Assessment:

- Internal examinations (Twice in Semester)
- ❖ Subjective examination
- ❖ Objective examination
- ❖ Assignment
- University examination (Semester end examination)

Indirect Assessment:

- CO feedback (on completion of course)



**Attainment of Program Outcomes (POs), Program Specific Outcomes (PSOs) and
Course Outcomes (COs)**

I. Internal examination:

The CO attainment from internal exam is based on internal marks of each student which has two mid-term examinations of 30 marks each that split into Descriptive of 15 marks, Objective of 10 marks and Assignments of 5 marks. Internal question paper analysis is done in which each question is mapped with a CO. The CO attainment result value always based on number of students scored above the threshold marks out of the attempted students. Class average mark was taken as threshold value. It is made sure that the entire five COs are covered in two internal examinations. Objective and Assignments also cover the entire COs. The CO percentage score is computed the same as above and is assigned to each.

A sample attainment sheet of Applied Physics Course based on two internal examinations is shown below:

Name of the Subject (Code) : Applied Physics (20A54202)

Name of the Faculty : Dr. T. Srinivasulu Reddy

Year & Sem : I B.Tech. I Sem **Academic Year :** 2022-23

Branch : ECE

S.No	Hall Ticket Number	Name of the Student	Descriptive												Objective		Assignment		External Marks	
			Mid-1						Mid-2						Mid -1	Mid -2	Mid -1	Mid -2		
			Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6						
1	22W51A0401	ANIGANI MANASA	2		2			3		4		4		4	4	3	5	5	9	
2	22W51A0402	A. NAVEEN RAJU						3		3			4			2	5	5	14	
3	22W51A0403	B SAIGANESH		1						9					6	2	5	5	7	
4	22W51A0404	BHARNEPALLI BHANU PRASAD	2			1	3		5				3		3	7	1	5	5	11
5	22W51A0406	CHEVITI LAKSHMI															0	0		

		NARASIMHA																	
6	22W51A0407	D BHUDESWAR VENKAT		2	3			2	5		5		5		7	2	5	5	25
7	22W51A0408	GNANAMMAGARI PRAVEEN KUMAR	3		4				4	4			4	2	4	5	5	17	
8	22W51A0409	GUTTA MALIKA		1	2			3	3		4			3	1	0	5	1	
9	22W51A0410	J MEGANADHA	2				3	4		5		5		4	3	5	0	2	
10	22W51A0411	KAALAM TEJASREE			2	2			4				5	8	2	5	5	10	
11	22W51A0412	KAMURI NITHIN KUMAR		3			2			5	5			7	3	5	5	9	
12	22W51A0413	KOMERA NAVYA	1		2	2		2			2		2	7	6	0	5	1	
13	22W51A0414	MARIMIREDDY RADHA		4	4				1		5	5		5	4	5	5	25	
14	22W51A0415	MITTAPALLI SAI SANDEEP REDDY	4		1		4	5		4			5	5	2	5	5	25	
15	22W51A0416	N M VARSHITHA			2	1			5			5		3	2	5	5	5	
16	22W51A0417	NATARAJAN DHANUSH		3	3			2			2		5	4	3	5	5	9	
17	22W51A0418	PATAN SUMIYA	2		3		3	4	4					5	2	5	5	17	
18	22W51A0419	PENDYALA THARUNPAUL		5	5		2	4		5		5		7	3	5	5	14	
19	22W51A0420	REPANARAGHA VA	1			3			3				2	3	10	5	5	1	

	Descriptive												Objective		Assignment		External Marks		
	Mid-1						Mid-2						Mid -1	Mid -2	Mid -1	Mid -2			
	Q1	Q2	Q3	Q4	Q5	Q6	Q1	Q2	Q3	Q4	Q5	Q6							

Average Mark:	267	2.93	2.71	3.36	2.83	3.43	3.59	4.41	4.47	4.14	4.77	4.27	4.94	2.97	4.43	4.57	15.71
Mapping Course Outcomes:	CO1	CO1	CO2	CO2	CO1	CO2	CO3	CO3	CO4	CO4	CO5	CO5	CO1 CO2	CO3 CO4 CO5	CO1 CO2	CO3 CO4 CO5	CO1 CO2 CO3 CO4 CO5
Number of Students above average mark:	8	10	10	6	9	8	10	8	8	7	10	9	18	16	31	32	17
No. of Students Attempted:	15	14	17	11	12	14	17	17	15	14	13	15	33	34	35	35	34
% of Students above Average Mark :	53.33	71.43	58.82	54.55	75.00	57.14	58.82	47.06	53.33	50.00	76.92	60.00	54.55	47.06	88.57	91.43	50.00
Average % of Students above Avg Marks:	62.38		56.68		75.00	57.14	52.94		51.67		68.46		54.55	47.06	88.57	91.43	50.00

DESCRIPTIVE ATTAINMENT

S.No.	COURSE OUTCOME	% OF STUDENTS ABOVE AVERAGE IN THE RESPECTIVE CO's		AVERAGE	ATTAINMENT	% of ATTAINMENT
1	C112.1	62.38	75.00	68.69	3.00	100.00
2	C112.2	56.68	57.14	56.91	2.00	66.67
3	C112.3	52.94		52.94	2.00	66.67
4	C112.4	51.67		51.67	2.00	66.67
5	C112.5	68.46		68.46	3.00	100.00

OBJECTIVE ATTAINMENT

S.No.	COURSE OUTCOME	% OF STUDENTS ABOVE AVERAGE IN THE RESPECTIVE CO's		AVERAGE	ATTAINMENT	% of ATTAINMENT
1	C112.1	54.55		54.55	2	66.67
2	C112.2	54.55		54.55	2	66.67
3	C112.3	47.06		47.06	1	33.33
4	C112.4	47.06		47.06	1	33.33
5	C112.5	47.06		47.06	1	33.33

ASSIGNMENT ATTAINMENT

SNO	COURSE OUTCOME	% OF STUDENTS ABOVE AVERAGE	AVERAGE	ATTAINMENT	% of ATTAINMENT
-----	----------------	-----------------------------	---------	------------	-----------------

		IN THE RESPECTIVE CO's			
1	C112.1	88.57	88.57	3	100.00
2	C112.2	88.57	88.57	3	100.00
3	C112.3	91.43	91.43	3	100.00
4	C112.4	91.43	91.43	3	100.00
5	C112.5	91.43	91.43	3	100.00

INTERNAL ATTAINMENT

S.No	COURSE OUTCOM E	40% DISCRIPTIV E	40% OBJECTIV E	20% ASSIGNMEN T	TOTA L	% of ATTAINMEN T
1	C112.1	1.20	0.80	0.60	2.60	86.67
2	C112.2	0.80	0.80	0.60	2.20	73.33
3	C112.3	0.80	0.40	0.60	1.80	60.00
4	C112.4	0.80	0.40	0.60	1.80	60.00
5	C112.5	1.20	0.40	0.60	2.20	73.33

II. University examination:

Being affiliated to JNTUA Ananthapur, the semester end examinations are conducted by the university to award 70 marks. The CO Attainment is based on university examination marks of each student. The attainment result value always based on number of students scored above the threshold marks out of the attempted students. Class average mark was taken as threshold value. As the question wise performance of the students was not announced by the university, the overall student performance is taken as equally contributing to all COs.

A sample attainment sheet of Applied Physics Course based on university examinations is shown below:

EXTERNAL ATTAINMENT

S.No.	COURSE OUTCOME	% OF STUDENTS ABOVE AVERAGE	ATTAINMENT	% of Attainment
1	C112.1	50.00	2	66.67
2	C112.2	50.00	2	66.67
3	C112.3	50.00	2	66.67
4	C112.4	50.00	2	66.67
5	C112.5	50.00	2	66.67

DIRECT COURSE OUTCOME ATTAINMENT

S.N o.	COURSE OUTCOME	INTERNAL ATTAINMENT	EXTERNAL ATTAINMENT	30% INTERNAL	70% EXTERNAL	TOTAL ATTAINMENT	% of Attainment
1	C112.1	2.60	2.00	0.78	1.40	2.18	72.67
2	C112.2	2.20	2.00	0.66	1.40	2.06	68.67
3	C112.3	1.80	2.00	0.54	1.40	1.94	64.67
4	C112.4	1.80	2.00	0.54	1.40	1.94	64.67
5	C112.5	2.20	2.00	0.66	1.40	2.06	68.67

III. CO Feedback process:

The CO feedback obtained based on specific learning outcomes from each student at the end of semester. Feedback rating was based on the 1-3 scaling like 3-High, 2-Medium, 1-Low. From these survey results are tabulated and the average values corresponding to each CO are determined.

Indirect CO Assessment = Sum of student's response reacted the expected levels in answering the survey /Number of students responded

The sample CO feedback based on overall learning process of the student of the Academic Year 2022-23 of I B.Tech. I semester ECE is shown below:

S. No.	QUESTIONNAIRE	Overall Rating
SPECIFIC LEARNING OUTCOMES - Linear Algebra and Calculus		
C111.1	Solve linear system of equations and calculate the Eigen values and Eigen vectors of the given square matrices.	2.75
C111.2	Apply Cayley – Hamilton theorem to find the inverse and powers of a square matrix and diagonalise the square matrix.	2.72
C111.3	Analyse mean value theorems to the given function.	2.89
C111.4	Utilize the technique of partial differentiation to find the Jacobean and the extreme values of functions of several variables.	2.73
C111.5	Apply the techniques of multiple integrals to find the areas and volumes.	2.64
SPECIFIC LEARNING OUTCOMES – Applied Physics		
C112.1	Identify the wave properties of light and the interaction of energy with the matter.	2.96
C112.2	Asses the electromagnetic wave propagation and its power in	2.85

	different media	
C112.3	Understands the response of dielectric and magnetic materials to the applied electric and magnetic fields.	2.79
C112.4	Study the quantum mechanical picture of subatomic world along with the discrepancies between the classical estimates and laboratory observations of electron transportation phenomena by free electron theory and band theory.	2.84
C112.5	Elaborate the physical properties exhibited by materials through the understanding of properties of semiconductors and superconductors.	2.86
SPECIFIC LEARNING OUTCOMES – Communicative English		
C113.1	Facilitate effective listening skills for better comprehension of academic lectures and English spoken by native speakers	2.71
C113.2	Focus on appropriate reading strategies for comprehension of various academic texts and authentic materials	2.59
C113.3	Help improve speaking skills through participation in activities such as role plays, discussions and structured talks/oral presentations	2.62
C113.4	Impart effective strategies for good writing and demonstrate the same in summarizing, writing well organized essays, record and report useful information	2.68
C113.5	Provide knowledge of grammatical structures and vocabulary and encourage their appropriate use in speech and writing	2.68
SPECIFIC LEARNING OUTCOMES – Fundamentals of Electrical Circuits		
C114.1	Understand and Remember basics of R, L, C Parameters their V & I relations, Analyze KCL & KVL Laws, Apply Network reduction Techniques	2.65

C114.2	Understand and remember basic graph theory definitions, Analyze the concepts of nodal, mesh analysis and principle of duality, Apply the various methodologies in solving electrical circuits based on the topology	2.51
C114.3	Understand the fundamental definitions of 1- ϕ AC circuits and its representation, Steady State Analysis of R, L, classification of power and concept of PF	2.49
C114.4	Remember and understand the various theorems and to know their applications in network, analysis apply various theorems on simple electrical circuit	2.41
C114.5	Remember and understand the concept of three phase AC circuits and the relation between line and phase voltages and currents in star and delta connections Analyze the measurement of active and reactive power in balanced and unbalanced circuits	2.48
SPECIFIC LEARNING OUTCOMES – Engineering Drawing		
C115.1	Describe the fundamentals and standards of engineering graphics & draw the basic geometrical constructions	2.84
C115.2	Sketch orthographic projections of lines and plane surfaces.	2.67
C115.3	Sketch the projections and solids and perform freehand sketching of simple solids	2.67
C115.4	Construct the section for simple solids	2.57
C115.5	Development of surfaces concept for simple solids	2.7
SPECIFIC LEARNING OUTCOMES – Engineering Graphics Lab		
C116.1	Understand the drawing commands and students are able to draw the basic drawing elements and regular polygon in auto CAD Software	2.83

C116.2	Understand the concept of different quadrants and be able to draw different views.	2.56
C116.3	Understand the given drawing and students can draw simple objects orthographic drawing using auto CAD Software	2.65
C116.4	Understand the given drawing and students can draw simple objects isometric drawing using auto CAD Software	2.62
C116.5	able to do conversion of orthographic views to isometric views	2.68
SPECIFIC LEARNING OUTCOMES – Applied Physics lab		
C117.1	Operate optical instruments like travelling microscope and spectrometer.	2.62
C117.2	Determination of thickness of wire using interference concept.	2.57
C117.3	Plot the intensity of magnetic field of circular coil carrying current.	2.73
C117.4	Evaluate the acceptance angle and numerical aperture of an optical fiber	2.76
C117.5	Calculate the band gap of a semiconductor	2.68
SPECIFIC LEARNING OUTCOMES- Communicative English Lab		
C118.1	Interpret basic grammatical concepts for better understanding of sentence structure in English language.	2.83
C118.2	Interpret pieces of specific information from social or transactional dialogues spoken by native speakers of English to improve comprehension abilities among students	2.80
C118.3	Use grammatical structures to construct sentences and correct word formation	2.73

C118.4	Illustrate discourse markers to make students use them in both formal and informal discussions	2.82
C118.5	Evaluate reading/listening skills of students through academic texts and enhance them to write summaries based on global comprehension of these texts.	2.65
SPECIFIC LEARNING OUTCOMES- Fundamentals of Electrical Circuits lab		
C119.1	Remember, understand and apply various theorems for circuit analysis and verify practically	2.80
C119.2	Understand and experimentally verify self, mutual inductances and coefficient of coupling	2.56
C119.3	Understand and analyze power measurements in single phase circuits	2.73
C119.4	Understand and analyze power measurements in three phase circuits	2.65
C119.5	Evaluate Current flow in various circuits	2.71

A sample sheet for indirect attainment of Linear Algebra & Calculus Course based on Student's feedback is given below: **INDIRECT COURSE OUTCOME ATTAINMENT**

S.No.	COURSE OUTCOME	ATTAINMENT	% of Attainment
1	C112.1	2.96	98.67
2	C112.2	2.85	95.00
3	C112.3	2.79	93.00
4	C112.4	2.84	94.67
5	C112.5	2.86	95.33

IV. Overall Attainment process:

Each faculty computes the overall attainment of the COs based on the internal, university examinations and the CO feedback as per the weightage mentioned below:

Attainment Stages	Tool	Frequency	Weightage
Direct Attainment	Internal examination	Twice per semester	30%
	University examination	End of the semester	70%
Indirect Attainment	CO Feedback	Completion of course	
Overall Attainment	80% of Direct Attainment + 20% of Indirect Attainment		

Student attainment is calculated using the following Rubrics:

% Students attained	Attainment Level
$\geq 60\%$	3
$50\% \geq \& < 60\%$	2
$40\% \geq \& < 50\%$	1
$< 40\%$	0

Mapping strength of a course outcome can be obtained by taking the average of the CO-CO-PO mapping matrices of that course.

Set Target of CO C112.1 = Average of CO-PO mapping Averages

$$= (2+1)/2 = 1.5$$

Each faculty performs the CO-PO mapping at the beginning of the semester to identify the gaps and takes corrective measures. The overall contribution of the course to the POs is taken as the set target for the course. Each faculty analyses the attainment status based on the set target and identifies the improvements.

A sample sheet for overall attainment of Linear Algebra & Calculus Course is given below:

OVERALL COURSE OUTCOME ATTAINMENT

S. No	Course Outcome	Direct Attainment	Indirect Attainment	80% of Direct	20% of Indirect	Final Attainment	% of Attainment	Set Target	Attained / Not
1	C112.1	2.18	2.96	1.74	0.59	2.34	77.87	1.50	Attained
2	C112.2	2.06	2.85	1.65	0.57	2.22	73.93	1.67	Attained
3	C112.3	1.94	2.79	1.55	0.56	2.11	70.33	1.50	Attained
4	C112.4	1.94	2.84	1.55	0.57	2.12	70.67	1.50	Attained
5	C112.5	2.06	2.86	1.65	0.57	2.22	74.00	1.50	Attained

PO Attainment:

Program Outcomes assessment process is given below:

The CO-PO mapping has been done with correlation levels of 3, 2, 1 and '-'. The notation of 3, 2 and 1 denotes substantially (high), moderately (medium) and slightly (low). The meaning of '-' is no correlation between CO and PO. POs are defined by Accreditation Agencies of the country (NBA in India), which are the statements about the knowledge, skills and attitudes, graduate attributes incorporated in a formal engineering program. The NBA laid down the graduate attributes relating to programme outcomes and is to be derived by the program. Program Specific Outcomes are the statements that indicate what the graduates of a specific engineering program should execute what they are capable of performing.

Sample of CO-PO Matrix Mapping for the subject Applied Physics is given below:

CO-PO-PSO Mapping

S. No	COURSE OUTCOME	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
1	C112.1	2	1	-	-										
2	C112.2	2	2	1	-										
3	C112.3	2	1	-	-										
4	C112.4	2	1	-	-										
5	C112.5	2	2	1	1										
Average		2.0	1.4	1.0	1.0										

Mapping strength of a course to PO/PSO can be obtained by taking the average of the CO-PO / PSO mapping matrices of that course.

Set Target = Average of CO-PO mapping Averages

$$= (2+1.4+1+1)/4 = 1.1$$

Each PO attainment of corresponding to a particular course is determined from the attainment values obtained for each course outcome related to that PO and the CO-PO mapping values. Similarly, the values of PSO attainment are also determined. Using CO-PO mapping, the mapped POs are considered for assessment.

Sample PO attainment sheet for the subject Linear Algebra & Calculus is given below:

Course Articulation Matrix

S.No	COURSE OUTCOME	PO 1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
1	C112.1	1.56	0.78												
2	C112.2	1.48	1.48	0.74											
3	C112.3	1.41	0.70												
4	C112.4	1.41	0.71												
5	C112.5	1.48	1.48	0.74	0.74										
AVERAGE		1.47	1.03	0.74	0.74										

Course Assessment Process for Laboratory Courses:

As per AICTE curriculum Lab courses consists of continuous internal evaluation (CIE) for 30 marks and Semester End Examination (SEE) for 70 marks for all labs. CO-PO attainment has to be done based on the daily lab assessment sheet of the laboratory. In that particular sheet the lab assessment has been done daily for 30 marks. and those 30 marks are split into three division i.e, Daily Practical, Record/Observation & Viva-Voice.

- After the daily lab assessment, the CO-PO attainment was calculated based on the class average marks.

After taking the class average, the number of students attained more than class average were identified.

- Based on that percentage of students attained the course outcomes was calculated. The same percentage was taken for the mapped course outcome.

Example: The following is the CO attainment for Applied Physics Laboratory

Name of the laboratory (Code) : APPLIED PHYSICS LAB (20A56201P)

Name of the Faculty : Dr. T. Sreenivasulu Reddy **Branch** : ECE

Year & Sem : I B.Tech. I Sem **Academic Year** : 2022-23

S.No.	Hall Ticket Number	Name of the Student	Internal Marks (30 marks)	External Marks (70 marks)
1	22W51A0401	Anigani Manasa	28	67
2	22W51A0402	A. Naveen Raju	27	68
3	22W51A0403	B Saiganesh	25	57
4	22W51A0404	Bharnepalli Bhanu Prasad	25	61
5	22W51A0406	Cheviti Lakshmi Narasimha	29	69
6	22W51A0407	D Bhuddeswar Venkat	28	66
7	22W51A0408	Gnanammagari Praveen Kumar	20	45
8	22W51A0409	Gutta Malika	24	64
9	22W51A0410	J Meganadha	25	63
10	22W51A0411	Kaalam Tejasree	28	66
11	22W51A0412	Kamuri Nithin Kumar	26	61

12	22W51A0413	Komera Navya	27	68
13	22W51A0414	Marimireddy Radha	28	68
14	22W51A0415	Mittapalli Sai Sandeep Reddy	28	65
15	22W51A0416	N M Varshitha	22	62
16	22W51A0417	Natarajan Dhanush	24	65
17	22W51A0418	Patan Sumiya	29	69
18	22W51A0419	Pendyala Tharunpaul	25	65
19	22W51A0420	Repanaraghava	28	67

Average Mark:	26.43	65.43
Mapping Course Outcomes:	CO1, CO2 CO3, CO4, CO5	CO1, CO2 CO3, CO4, CO5
Number of Students above average mark:	21	22
No. of Students Attempted:	35	35
% of Students above Average Mark :	60.00	62.86

INTERNAL ATTAINMENT				
S.No.	COURSE OUTCOME	% OF STUDENTS ABOVE AVERAGE	ATTAINMENT	% of ATTAINMENT
1	C117.1	60.00	3.00	100.00
2	C117.2	60.00	3.00	100.00
3	C117.3	60.00	3.00	100.00
4	C117.4	60.00	3.00	100.00
5	C117.5	60.00	3.00	100.00

EXTERNAL ATTAINMENT				
S.No.	COURSE OUTCOME	% OF STUDENTS ABOVE AVERAGE	ATTAINMENT	% of Attainment
1	C117.1	62.86	3	100.00
2	C117.2	62.86	3	100.00
3	C117.3	62.86	3	100.00
4	C117.4	62.86	3	100.00
5	C117.5	62.86	3	100.00

DIRECT COURSE OUTCOME ATTAINMENT

S.N o.	COURS E OUTCO ME	INTERNAL ATTAINME NT	EXTREAN AL ATTAINME NT	30% INTERN AL	70% EXTERN AL	TOTAL ATTAINME NT	% of Attainm ent
1	C117.1	3.00	3.00	0.90	2.10	3.00	100.00
2	C117.2	3.00	3.00	0.90	2.10	3.00	100.00
3	C117.3	3.00	3.00	0.90	2.10	3.00	100.00
4	C117.4	3.00	3.00	0.90	2.10	3.00	100.00
5	C117.5	3.00	3.00	0.90	2.10	3.00	100.00

INDIRECT COURSE OUTCOME ATTAINMENT

S.No.	COURSE OUTCOME	ATTAINMENT	% of Attainment
1	C117.1	2.62	87.33
2	C117.2	2.57	85.67
3	C117.3	2.73	91.00
4	C117.4	2.76	92.00
5	C117.5	2.68	89.33

A sample sheet for overall attainment of Applied Physics Laboratory is given below:

OVERALL COURSE OUTCOME ATTAINMENT									
S.No	Course Outcome	Direct Attainment	Indirect Attainment	80% of Direct	20% of Indirect	Final Attainment	% of Attainment	Set Target	Attained / Not
1	C117.1	3.00	2.62	2.40	0.52	2.92	97.47	2.20	Attained
2	C117.2	3.00	2.57	2.40	0.51	2.91	97.13	2.20	Attained
3	C117.3	3.00	2.73	2.40	0.55	2.95	98.20	2.20	Attained
4	C117.4	3.00	2.76	2.40	0.55	2.95	98.40	2.20	Attained
5	C117.5	3.00	2.68	2.40	0.54	2.94	97.87	2.20	Attained

PO Attainment for the Course Applied Physics Laboratory

CO-PO-PSO Mapping

S.No	COURSE OUTCOME	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PSO 10	PSO 11	PSO 12	PSO 1	PSO 2
1	C117.1	2	2	2	3	2									
2	C117.2	3	2	2	2	2									

3	C117.3	2	3	2	2	2									
4	C117.4	3	2	2	2	2									
5	C117.5	2	3	2	2	2									
AVERAGE		2.4	2.4	2.00	2.20	2.00									

Course Articulation Matrix

S.No	COURSE OUTCOME	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
1	C117.1	1.95	1.95	1.95	2.92	1.95									
2	C117.2	2.91	1.94	1.94	1.94	1.94									
3	C117.3	1.96	2.95	1.96	1.96	1.96									
4	C117.4	2.95	1.97	1.97	1.97	1.97									
5	C117.5	1.96	2.94	1.96	1.96	1.96									
AVERAGE		2.35	2.35	1.96	2.15	1.96									

8.4.2 Record the attainment of Course Outcomes of all first-year courses (5/5)

Program shall have set attainment levels for all first-year courses.

(The attainment levels shall be set considering average performance levels in the university examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect the COs of a subject plus the performance in the University examination)

S.No	Course Code	Course Name	Course Outcome	Direct Attainment	Indirect Attainment	Overall Attainment (0.8xDirect) + (0.2xIndirect)	Course Target	Attainment Status
1	20A54101	Linear Algebra & Calculus	C111.1	1.24	2.75	1.54	1.49	Attained
			C111.2	1.24	2.72	1.54	1.48	Attained
			C111.3	1.12	2.89	1.47	1.43	Attained
			C111.4	1.00	2.73	1.35	1.40	Partially Attained
			C111.5	1.36	2.64	1.62	1.53	Attained
2	20A56201T	Applied Physics	C112.1	2.18	2.96	2.34	1.50	Attained
			C112.2	2.06	2.85	2.22	1.67	Attained
			C112.3	1.94	2.79	2.11	1.50	Attained
			C112.4	1.94	2.84	2.12	1.50	Attained
			C112.5	2.06	2.86	2.22	1.50	Attained

3	20A5210 1T	Communicative English	C113.1	1.94	2.71	2.09	2.00	Attained
			C113.2	1.70	2.59	1.88	2.00	Partially Attained
			C113.3	1.70	2.62	1.88	2.00	Partially Attained
			C113.4	1.82	2.68	1.99	1.50	Attained
			C113.5	1.82	2.68	1.99	2.00	Partially Attained
4	20A0210 1T	Fundamentals of Electrical Circuits	C114.1	2.06	2.65	2.18	2.20	Attained
			C114.2	1.94	2.51	2.05	2.00	Attained
			C114.3	2.30	2.49	2.34	2.00	Attained
			C114.4	2.18	2.41	2.23	2.00	Attained
			C114.5	2.30	2.48	2.34	2.20	Attained
5	20A0310 1T	Engineering Drawing	C115.1	2.18	2.84	2.31	2.00	Attained
			C115.2	2.18	2.67	2.28	2.00	Attained
			C115.3	2.18	2.67	2.28	2.00	Attained
			C115.4	2.30	2.57	2.35	2.00	Attained
			C115.5	2.30	2.70	2.38	2.00	Attained
6	20A0310 1P	Engineering Graphics Lab	C116.1	3.00	2.83	2.97	1.33	Attained
			C116.2	3.00	2.56	2.91	1.25	Attained
			C116.3	3.00	2.65	2.93	1.20	Attained
			C116.4	3.00	2.62	2.92	1.50	Attained

			C116.5	3.00	2.68	2.94	1.67	Attained
7	20A5620 1P	Applied Physics Lab	C117.1	3.00	2.62	2.92	2.20	Attained
			C117.2	3.00	2.57	2.91	2.20	Attained
			C117.3	3.00	2.73	2.95	2.20	Attained
			C117.4	3.00	2.76	2.95	2.20	Attained
			C117.5	3.00	2.68	2.94	2.20	Attained
8	20A5210 1P	Communica tive English Lab	C118.1	2.30	2.83	2.41	2.00	Attained
			C118.2	2.30	2.80	2.40	2.00	Attained
			C118.3	2.30	2.73	2.39	2.00	Attained
			C118.4	2.30	2.82	2.40	2.00	Attained
			C118.5	2.30	2.65	2.37	2.00	Attained
9	20A0210 1P	Fundament als of Electrical Circuits Lab	C119.1	2.40	2.80	2.48	2.00	Attained
			C119.2	2.40	2.56	2.43	1.80	Attained
			C119.3	2.40	2.73	2.47	2.40	Attained
			C119.4	2.40	2.65	2.45	2.00	Attained
			C119.5	2.40	2.71	2.46	2.00	Attained
10	20A5420 1	Differential Equations and Vector Calculus	C121.1	0.54	2.87	1.01	1.50	Not Attained
			C121.2	0.42	2.80	0.90	1.50	Not Attained
			C121.3	0.66	2.82	1.09	1.50	Not Attained

			C121.4	0.54	2.85	1.00	1.50	Not Attained
			C121.5	0.90	2.85	1.29	1.50	Not Attained
11	20A5110 1T	Chemistry	C122.1	1.36	2.78	1.64	2.00	Partially Attained
			C122.2	1.48	2.82	1.75	2.00	Partially Attained
			C122.3	1.48	2.80	1.74	2.00	Partially Attained
			C122.4	1.24	2.73	1.54	1.67	Partially Attained
			C122.5	1.24	2.71	1.53	1.67	Partially Attained
12	20A0520 1T	C- Programmi ng & Data Structures	C123.1	2.64	2.85	2.68	1.60	Attained
			C123.2	2.64	2.78	2.67	1.50	Attained
			C123.3	2.76	2.89	2.79	1.60	Attained
			C123.4	2.88	2.84	2.87	2.00	Attained
			C123.5	2.88	2.84	2.87	1.33	Attained
13	20A0410 1T	Electronic Devices & Circuits	C124.1	1.70	2.87	1.93	1.80	Attained
			C124.2	1.70	2.85	1.93	1.80	Attained
			C124.3	1.82	2.76	2.01	1.80	Attained
			C124.4	1.94	2.82	2.12	1.80	Attained

			C124.5	1.94	2.78	2.11	2.00	Attained
14	20A0320 2	Engineering Workshop	C125.1	3.00	2.87	2.97	1.67	Attained
			C125.2	3.00	2.78	2.96	1.67	Attained
			C125.3	3.00	2.87	2.97	1.67	Attained
			C125.4	3.00	2.78	2.96	1.33	Attained
			C125.5	3.00	2.69	2.94	1.67	Attained
15	20A0520 2	IT Workshop	C126.1	2.40	2.93	2.51	2.00	Attained
			C126.2	2.40	2.91	2.50	2.00	Attained
			C126.3	2.40	2.54	2.43	1.33	Attained
			C126.4	2.40	2.56	2.43	1.50	Attained
			C126.5	2.40	2.86	2.49	2.00	Attained
16	20A0520 1P	C- Programmi ng & Data Structures Lab	C127.1	3.00	2.86	2.97	1.00	Attained
			C127.2	3.00	2.76	2.95	1.25	Attained
			C127.3	3.00	2.77	2.95	1.00	Attained
			C127.4	3.00	2.67	2.93	1.25	Attained
			C127.5	3.00	2.76	2.95	2.00	Attained
17	20A5110 1P	Chemistry Lab	C128.1	3.00	2.86	2.97	2.50	Attained
			C128.2	3.00	2.84	2.97	2.50	Attained
			C128.3	3.00	2.79	2.96	2.50	Attained
			C128.4	3.00	2.78	2.96	2.50	Attained
			C128.5	3.00	2.67	2.93	2.50	Attained

18	20A0410 1P	Electronic Devices & Circuits Lab	C129.1	1.30	2.70	1.58	1.33	Attained
			C129.2	1.30	2.71	1.58	1.67	Partially Attained
			C129.3	1.30	2.52	1.54	1.67	Partially Attained
			C129.4	1.30	2.70	1.58	1.33	Partially Attained
			C129.5	1.30	2.67	1.57	1.67	Partially Attained

Overall CO Attainments of I. B.Tech Ist & IInd Semesters (2022-23 AY) of ECE

CO Attainment Values from Indirect Assessment (Students' Feedback) of I. B.Tech Ist & IInd Semesters (2022-23 AY) of ECE

S.No	Course Code	Course Name	CO1	CO2	CO3	CO4	CO5
1	20A54101	Linear Algebra & Calculus	2.75	2.72	2.89	2.73	2.64
2	20A56201T	Applied Physics	2.96	2.85	2.79	2.84	2.86
3	20A52101T	Communicative English	2.71	2.59	2.62	2.68	2.68
4	20A02101T	Fundamentals of Electrical Circuits	2.65	2.51	2.49	2.41	2.48
5	20A03101T	Engineering Drawing	2.84	2.67	2.67	2.57	2.7

6	20A03101P	Engineering Graphics Lab	2.83	2.56	2.65	2.62	2.68
7	20A56201P	Applied Physics Lab	2.62	2.57	2.73	2.76	2.68
8	20A52101P	Communicative English Lab	2.83	2.8	2.73	2.82	2.65
9	20A02101P	Fundamentals of Electrical Circuits Lab	2.8	2.56	2.73	2.65	2.71
10	20A54201	Differential Equations and Vector Calculus	2.87	2.8	2.82	2.85	2.85
11	20A51101T	Chemistry	2.78	2.82	2.8	2.73	2.71
12	20A05201T	C-Programming & Data Structures	2.85	2.78	2.89	2.84	2.84
13	20A04101T	Electronic Devices & Circuits	2.87	2.85	2.76	2.82	2.78
14	20A03202	Engineering Workshop	2.87	2.78	2.87	2.78	2.69
15	20A05202	IT Workshop	2.93	2.91	2.54	2.56	2.86
16	20A05201P	C-Programming & Data Structures Lab	2.86	2.76	2.77	2.67	2.76
17	20A51101P	Chemistry Lab	2.86	2.84	2.79	2.78	2.67
18	20A04101P	Electronic Devices & Circuits Lab	2.70	2.71	2.52	2.70	2.67

CO Attainment Values from Direct Assessment of I. B.Tech Ist & IInd Semesters (2022-23 AY) of ECE

S.No.	Course Code	Course Name	CO 1	CO2	CO3	CO 4	CO5
1	20A54101	Linear Algebra & Calculus	1.2 4	1.24	1.12	1	1.36
2	20A56201 T	Applied Physics	2.1 8	2.06	1.94	1.9 4	2.06
3	20A52101 T	Communicative English	1.9 4	1.7	1.7	1.8 2	1.82
4	20A02101 T	Fundamentals of Electrical Circuits	2.0 6	1.94	2.3	2.1 8	2.3
5	20A03101 T	Engineering Drawing	2.1 8	2.18	2.18	2.3	2.3
6	20A03101 P	Engineering Graphics Lab	3.0 0	3.00	3.00	3.0 0	3.00
7	20A56201 P	Applied Physics Lab	3.0 0	3.00	3.00	3.0 0	3.00
8	20A52101 P	Communicative English Lab	2.3	2.3	2.3	2.3	2.3
9	20A02101 P	Fundamentals of Electrical Circuits Lab	2.4	2.4	2.4	2.4	2.4
10	20A54201	Differential Equations and Vector Calculus	0.5 4	0.42	0.66	0.5 4	0.9
11	20A51101 T	Chemistry	1.3 6	1.48	1.48	1.2 4	1.24

12	20A05201 T	C-Programming & Data Structures	2.6 4	2.64	2.76	2.8 8	2.88
13	20A04101 T	Electronic Devices & Circuits	1.7	1.7	1.82	1.9 4	1.94
14	20A03202	Engineering Workshop	3.0 0	3.00	3.00	3.0 0	3.00
15	20A05202	IT Workshop	2.4	2.4	2.4	2.4	2.4
16	20A05201 P	C-Programming & Data Structures Lab	3.0 0	3.00	3.00	3.0 0	3.00
17	20A51101 P	Chemistry Lab	3.0 0	3.00	3.00	3.0 0	3.00
18	20A04101 P	Electronic Devices & Circuits Lab	1.3 0	1.30	1.30	1.3 0	1.30

8.5 Attainment of Program Outcomes from first year courses (20/20)**8.5.1 Indicate results of evaluation of each relevant PO and/ or PSO, if applicable (15/15)**

(Describe the assessment processes that demonstrate the degree to which the Program Outcomes are attained through first year courses and document the attainment levels. Also include information on assessment processes used to gather the data upon which the evaluation of each Program Outcome is based indicating the frequency with which these processes are carried out)

POs Attainment Values of I. B.Tech Ist & IInd Semesters (2022-23 AY) of ECE

S.No	Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
1	20A5410 1	1.5 0	0.5 0										
2	20A5620 1T	2.0 0	1.4 0	1.0 0	1.0 0								
3	20A5210 1T								0.6 6	1.9 6	2.09		
4	20A0210 1T	1.7 7	1.6 5	1.6 4	1.4 8								
5	20A0310 1T	2.3 2	0.7 7	1.5 5									1.55
6	20A0310 1P	1.9 6	1.1 7	1.3 0		0.9 8						1.46	1.17
7	20A5620 1P	2.3 5	2.3 5	1.9 6	2.1 5	1.9 6							
8	20A5210 1P									1.6 0	2.39		0.80

9	20A0210 1P	1.6 4	1.8 0	1.9 7	1.8 0								1.15
10	20A5420 1	2.0 0	1.0 0										
11	20A5110 1T	1.6 4	0.5 5					0.5 1					
12	20A0520 1T	2.2 1	1.8 6	1.6 7	0.9 3	1.9 1	0.8 9				0.96		0.93
13	20A0410 1T	1.3 5	1.6 2	1.3 5								0.81	1.08
14	20A0320 2	1.7 8		1.9 7						0.9 9			
15	20A0520 2	1.6 5	1.6 4		1.6 7	0.8 1				0.8 1	0.81		1.09
16	20A0520 1P	1.5 7	1.1 8	0.9 8	0.9 8								
17	20A5110 1P	2.9 6						1.9 7					
18	20A0410 1P	0.9 4	0.9 4	0.5 2									

PO Attainment Level:

Course	PO 1	PO2	PO 3	PO 4	PO5	PO6	PO7	PO 8	PO9	PO1 0	PO11	PO12
Direct Attainment	1.85	1.32	1.45	1.43	1.42	0.89	1.24	0.66	1.34	1.56	1.14	1.11

PSO Attainment Values of I. B.Tech Ist & IInd Semesters (2022-23 AY) of ECE

S.No.	Course Code	Course Name	PSO1	PSO2
1	20A54101	Linear Algebra & Calculus		
2	20A56201T	Applied Physics		
3	20A52101T	Communicative English		
4	20A02101T	Fundamentals of Electrical Circuits	1.16	1.16
5	20A03101T	Engineering Drawing	0.77	
6	20A03101P	Engineering Graphics Lab	1.46	
7	20A56201P	Applied Physics Lab		
8	20A52101P	Communicative English Lab		
9	20A02101P	Fundamentals of Electrical Circuits Lab	1.31	
10	20A54201	Differential Equations and Vector Calculus		
11	20A51101T	Chemistry		
12	20A05201T	C-Programming & Data Structures		0.96
13	20A04101T	Electronic Devices & Circuits	1.08	

14	20A03202	Engineering Workshop	0.99	
15	20A05202	IT Workshop	1.67	
16	20A05201P	C-Programming & Data Structures Lab	0.99	1.38
17	20A51101P	Chemistry Lab		
18	20A04101P	Electronic Devices & Circuits Lab	0.84	

PSO Attainment Level:

Course	PSO1	PSO2
PSO Attainment	1.14	1.17

8.5.2 Actions taken based on the results of evaluation of relevant POs (5/5)

(The attainment levels by direct (student performance) are to be presented through Program level Course-PO matrix as indicated)

POs Attainment Levels and Actions for Improvement-CAY-Mention for relevant POs**POs Attainment Levels and Actions for Improvement - (2023-24)**

POs	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge			
PO 1	2.33	1.85	The Courses 20A56201P, 20A03202, 20A05201P, 20A51101P are attained. The Courses 20A03101T, 20A03101P, 20A02101P, 20A05201T, 20A05202 are partially

			<p>attained.</p> <p>The courses 20A54101, 20A56201T, 20A02101T, 20A54201, 20A51101T, 20A04101T, 20A04101P are not attained.</p>
<p>Action1: Conducted prerequisite courses to enhance their knowledge in the above subjects.</p> <p>Action2: Additional examples taught in tutorial classes of Algebra & Calculus and Chemistry</p> <p>Action 3: Extra classes were conducted to improve students' knowledge in Engineering Graphics Lab.</p>			
PO2: Problem Analysis			
PO 2	1.71	1.32	<p>The Courses 20A56201P, 20A05201P are attained.</p> <p>The Courses 20A03101T, 20A03101P, 20A02101P, 20A05201T are partially attained.</p> <p>The courses 20A54101, 20A56201T, 20A02101T, 20A54201, 20A51101T, 20A04101T, 20A04101P are not attained.</p>
<p>Action 1: Additional examples were taught to students in tutorial classes of Linear Algebra & Calculus</p> <p>Action 2: Extra classes were conducted to improve students' knowledge.</p> <p>Action 3: Practice sessions were also organized for solving problems for the partially attained courses.</p>			
PO3: Design/development of Solutions			
			<p>The Courses 20A56201P, 20A03202, 20A05201P are attained.</p> <p>The Courses 20A03101T, 20A03101P,</p>

PO 3	1.78	1.45	20A02101P, 20A05201T are partially attained. The courses 20A56201T, 20A02101T, 20A04101T, 20A04101P are not attained.
<p>Action 1: More problems are given for courses Problem Solving & Programming.</p> <p>Action 2: Additional labs were conducted for Engineering Graphics Lab.</p> <p>Action 3: Conducted revisions classes for Electrical Circuits course.</p>			
PO4: Conduct Investigations of Complex Problems			
PO 4	1.49	1.43	The Courses 20A56201P, 20A05201P are attained. The Courses 20A02101P, 20A05201T, 20A05202 are partially attained. The courses 20A56201T, 20A02101T are not attained.
<p>Action 1: Additional programs were given to students for practice in Electrical Circuits.</p> <p>Action 2: Assignments given to students to enhance their skills in problem solving.</p> <p>Action 3: Conducted seminars on applications of Mathematics to Engineering and Science.</p>			
PO5: Modern Tool Usage			
PO 5	1.75	1.42	The Courses 20A56201P is attained. The Courses 20A03101P, 20A05201T, 20A05202 are partially attained.
<p>Action 1: New applications explained to enhance their skills in the courses C-Programming and Data Structures.</p> <p>Action 2: Special Computer sessions and classes were conducted to make the students aware of the modern tools usage for the courses which are not attained.</p> <p>Action 3: New applications explained to enhance their skills in the courses Problem</p>			

Solving & Programming and Data Structures			
PO6: The Engineer and Society			
PO 6	1	0.89	The Courses 20A05201T is partially attained.
<p>Action1: Students were advised to get exposed to real world problems by way of case studies.</p> <p>Action 2: Organize group discussions, conducted quiz programs, cultural activities.</p> <p>Action 3: Conducted fests, seminars and paper presentations on modern engineering and science.</p>			
PO7: Environment and Sustainability			
PO 7	1.75	1.24	The Courses 20A51101P is attained. The Courses 20A51101T not attained.
<p>Action 1: Organized awareness programs on environment.</p> <p>Action 2: Practical approach of protecting the nature: Harvest rain water, increase the plantation.</p>			
PO8: Ethics			
PO 8	1.00	0.66	The courses 20A52101T is not attained.
<p>Action 1: More assignments were given for solving and practicing the problem.</p> <p>Action 2: studies were insisted on the importance of personal ethics and its influence on Profession.</p>			
PO9: Individual and Team Work			
PO 9	1.50	1.34	The Courses 20A03202 is attained. The Courses 20A52101T, 20A52101P, 20A05202 are partially attained.

Action 1: Organized sports, group discussions, language games and role play which enhance their team skills.

Action 2: Exhibit Scientific and Engineering models in National Science Day.

PO10: Communication

PO 10	2.00	1.56	The Courses 20A52101P, 20A05201T, 20A05202 are partially attained. The courses 20A52101T is not attained.
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Action 1: Elocution, Essay writing competitions were conducted.

Action 2: Conduct women empowerment programs.

Action 3: Students were encouraged to participate in more Elocution, Essay writing competitions, seminars and presentations to improve their communication skills.

PO11: Project Management and Finance

PO 11	1.75	1.14	The courses 20A03101P is not attained.
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Action1: College fest budget assigned to them to get practical knowledge.

Action 2: Organizing fresher's day and Annual day.

PO12: Life-long Learning

PO 12	1.39	1.11	The Courses 20A03101T, 20A52101P, 20A02101P, 20A05201T, 20A05202 are partially attained. The courses 20A03101P, 20A04101T are not attained.
----------	------	------	--

Action 1: Students were told about the importance of education and how it would be helpful for them throughout their lives and were also encouraged to learn the content from the courses.

Action 2: Seminars were conducted to promote practical knowledge with good practice sessions on designing and development of solutions.

PSOs Attainment Levels and Actions for Improvement - (2023-24)

PSOs	Target Level	Attainment Level	Observations
<p>PSO1: Analyse, design, synthesize and develop solutions by applying the foundational concepts of electronics and communication engineering.</p>			
PSO 1	1.39	1.14	<p>The Courses 20A03202, 20A05201P are attained.</p> <p>The Courses 20A02101T, 20A03101T, 20A03101P, 20A02101P, 20A05202 are partially attained.</p> <p>The courses 20A04101T, 20A04101P are not attained.</p>
<p>Action1: Conducted prerequisite courses to enhance their knowledge in the above subjects.</p> <p>Action2: Additional examples taught in tutorial classes of Electrical Circuits.</p> <p>Action 3: Extra classes were conducted to improve students' knowledge in Electrical Circuits.</p>			
<p>PSO2: Emerge as ethical leaders, engage in lifelong learning, pursue entrepreneurship and contribute in the field of Electronics and Communication Engineering.</p>			
PSO 2	2.40	1.17	<p>The Courses 20A05201P is attained.</p> <p>The Courses 20A02101T is partially attained.</p> <p>The courses 20A05201T is not attained.</p>

Action 1: More questions in Fundamentals of Electrical Circuits should be given to students.

Action2: Additional examples taught in tutorial classes of Electrical Circuits.

Action 3: Extra classes were conducted to improve students' knowledge in Electrical Circuits.

Criterion 9	STUDENT SUPPORT SYSTEM	50/50
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9.1 Mentoring system to help at the individual level (10/10)

Type of mentoring: Professional guidance/ career advancements/course work specific/ laboratory specific/ all-round development. Number of faculty mentors: Number of students per mentor: Meeting frequency.

9.1.1 Details of the Mentoring system has been developed for the benefit of students for various purposes and also state the efficacy of such system:

Mentoring System

An effective **Student mentoring system** (SMS) has been implemented in our institution.

- ❖ The Students Counseling & Mentoring Cell (SC&MC) aims to offer effective Mentoring and Counseling Support to students in their Course, Personal, Professional & Career Development and Progress for their overall development.
- ❖ The Institute emphasizes towards the enhancement of the institutional ambience and serves better to the needs of an ever-changing and dynamic learning community.
- ❖ To achieve this objective, a 'Mentoring System' has been adapted in the college.
- ❖ Effective mentoring has been developed by the faculty and depends on the healthy relationship between faculty and students.
- ❖ Each faculty will be a mentor of a group of 15-20 students.
- ❖ Mentoring books will be provided to all the mentors of the concerned department.

- ❖ First-year students will have mentors from the Department of Basic Sciences & Humanities, and second, third, and final-year students will have mentors from the parent department.
- ❖ Department faculty will continue to be the mentors for the same group of students till their graduation.
- ❖ The efficacy of such a system will be monitored regularly.



Fig9.1.1Mentoring Process

Functions of the cell:

- To identify specific needs of the student Community-Academic, personal, career related and provide mentoring and counselling.
- Assisting students to independently monitor their progress towards achieving their educational and career goals.
- Guiding students to choose the right career path, job, higher studies, Entrepreneurship, etc....
- Counseling students for solving their problems and providing confidence to improve their quality of life and thereby improving Teacher & Student Relationship.

Responsibilities:

The mentor will perform the following functions.

- Meets the group of students once in a fortnight up to the end of the semester.
- Continuously monitor, counsel, guide, and motivate the students in all academic matters and all activities are discussed and noted in the mentoring book.
- Advise students regarding the choice of electives, projects, summer training, etc.
- Mentor the students regarding the coursework and laboratory.
- Contact parents/guardians, if the situation demands, i.e., Academic irregularities, negative behavioral changes, interpersonal relations, and negative activities, etc.
- Advise students in their career development/professional guidance.
- Encourage students to clear backlogs, if any, and also provide assistance in carrying out additional laboratory experiments.
- Keep in touch with the students even after their graduation.
- Intimate HOD and suggest, if any administrative action is called for.

- Maintain a detailed progressive record of the student.
- Maintain a brief and clear record of all discussions with students.

HOD: The HOD will,

- Meet all mentors of his/her department to review the proper implementation of the system.
- Instruct mentors wherever and whenever necessary.
- Initiate an administrative action on a student when necessary.
- Keep the head of the institute being informed.

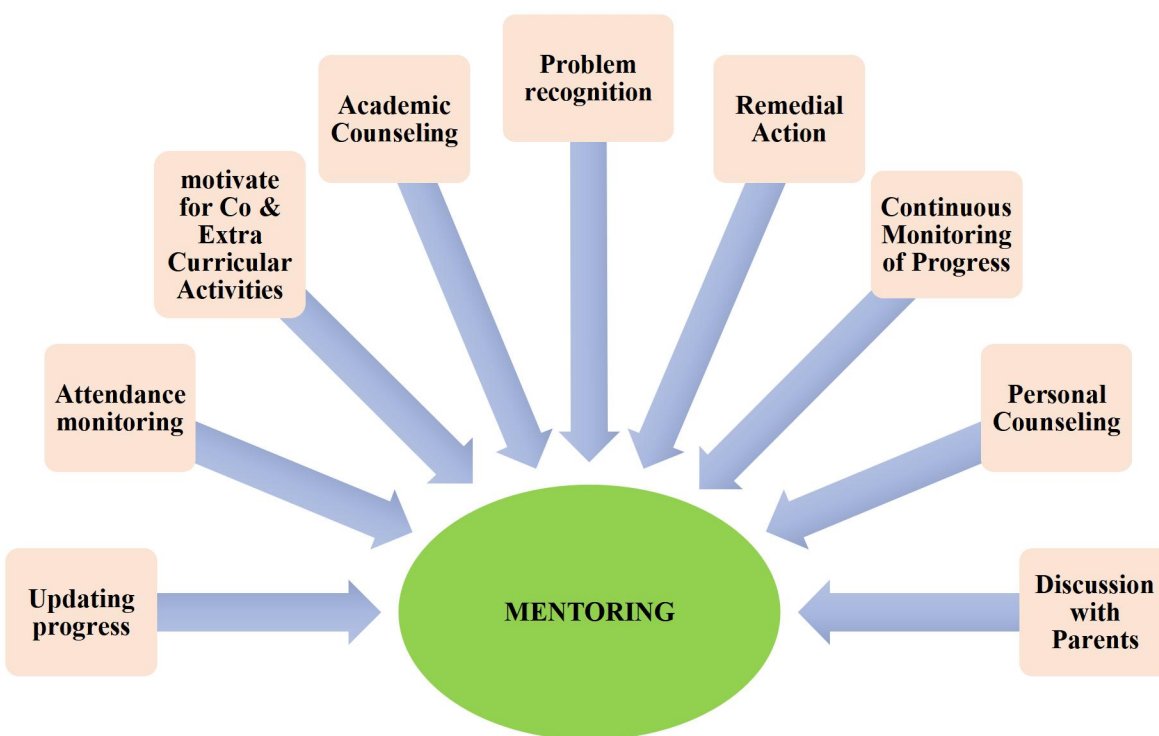


Fig.9.1.2 Roles of a mentor

Facilities of the cell:

- Student counselling & mentoring cell in the institution with an objective to reach the students in all aspects.
- To achieve this objective the institution formulated an organized mechanism, by linking faculty members, and administrative bodies to resolve the issues on a top-priority basis.
- Printing mentor-wise records (Mentoring Records) for the allotted mentees
- SMS package for communication

- Creation of WhatsApp Groups of Mentees & their Parents/Guardians

Members of the Cell

S. No.	Name of the Faculty	Position
1	Dr. D. Ramana Reddy	Principal
2	Dr. B. D. Venkataramana Reddy	Dean
3	Dr. D. Sai Lakshmi	Coordinator
4	Dr. R. Vasanth selva Kumar	HOD -CSE
6	Dr. C. H. Kalyani	HOD - H&S
7	T. Rama Krishna	Faculty- ECE
8	Dr. B. Reddi Ramu	Faculty -MBA
9	Senior Students one from each Dept/Branch	6 Members

Mentors Department Wise

S. No	Name of the Department	Name of the Mentor	Phone Number
1	CSE	Dr. V. Hemasree	7993501197
2	ECE	J. Maheswar Reddy	9398684173
3	H&S	Dr. K. Krishnaveni	6301688949
4	MEC	Mr. S. B. Anjappa	9900461878
6	AIDS	Mr. G. Pratap	9440883245
7	EEE	G. M. Anasuya	9618248646
8	CE	R. Raj Kumar	7305585427

Student Members in the Cell

S. No	Roll Number	Name of the Student	Department
1	21W51A0540	K. Sana Anjum	CSE
2	21W51A0456	R. Sruthi	ECE
3	23W51A03013	M. Gayathri	AIDS
4	22W55A0101	A. Pavan Kumar	CIVIL
5	23W55A0209	M MANASA	EEE
6	23W51E0009	A. Mounika	MBA
7	22W55A0302	P. Hareesh	ME

Roles & responsibilities of cell coordinator/HODs

- Allotment of the students of 1st Semester to VIII Semester to mentor/Counselor in the range of 15 to 20 students/mentor who maintains the entire student information.
- Provision & Maintenance of a separate mentoring and counseling hour for each class as part of their timetable and the respective mentor meets the students in the said hour.

- Monitoring the preparation of monthly attendance of every student from every section and passing the information to the parents through proper channels.
- A mentoring record will be prepared and developed to check the counselling process.
- Holding periodic meetings with HODs in the presence of the principal to review the punctuality, regularity, and progress of the students towards academic performance, & may suggest/advise if observes any deviations.
- Meetings will be conducted once a month to know the students under various categories like weak/slow learners, rural background, less communication skills, and more backlogs which may lead to detained, and to solve students' problems with proper necessary suitable suggestions keeping in view the overall development of the student.

Mentor/Faculty Member

- To extend counseling support to students, the mentor performs the following functions:
- Track academic performance and advise on improvement
- Gather specific information on problems related to specific courses.
- Resolve difficulties faced by students in the usage of college facilities.
- Help out when personal issues interfere with academic performance.
- Extend support to students having acclimatization issues at college etc...
- Identify various career options and guide to choose the appropriate career path.
- Parents/ Guardians of poor attendance/performance students are called to meet the mentors and corrective measures are implemented for further improvement with knowledge of the HOD of the concerned department.

All Faculty Mentor - Activity

1. Maintain the Mentor Record of each student in the standard format provided.
2. Have a formal meeting with the assigned mentee at least twice a semester. He /she should make efforts to meet more often, particularly in the case of those students where he feels necessary.
3. Monitor academic performance and attendance of the students.
4. Send letters/e-mail/SMS regarding performance and attendance to parents, if necessary, and maintain the record.
5. Make efforts to encourage students to improve their performance.
6. Note the change of address or phone numbers in each meeting.
7. Maintain a record of efforts taken for the improvement of students.
8. Sign the report and submit it to the H.O.D. at the end of every semester for verification and further necessary actions.

STUDENT MEMBER

Senior students as the representatives of the cell in touch with the juniors with a friendly approach till they adjust to the atmosphere and provide information regarding counseling.

Guides the juniors in the subjects, referring books, and processors and in conducting the events.

Takes care of them in finding hostels/accommodation at competitive prices close to the college.

Acts as big brother & presents as & when problems arise.

Mentoring / Counseling Process

At the first-year level, each class is divided into batches of 20 students, and each batch is assigned to a faculty member of the Department of Sciences and Humanities, to act as a Counselor, also referred to as a Mentor.

- A Mentor Record is maintained for each student with his/her details along with
 - Performance at SSC and Intermediate level
 - Future goals
 - Strengths/ Weaknesses
 - Family background
- The Mentor / Student counselor meets the batch of students initially and students are introduced to the process of mentoring/counseling existing in the institute. They are given confidence that any problem can be shared confidentially with the mentor who would support and help to get over it.
 - The mentor tries to address any specific problems related to the transition to professional college education, as well as college facilities related to office, library, sports, and canteen or ragging.
 - From the second year onwards, this mentorship will be transferred to a new faculty belonging to their branch of specialization. Lateral entry students joining in the second year are also attached to the mentors of the class. Students will be normally with the same mentor till they go out of college.
 - The files contain information on
 - Academic performance during various semesters
 - Accomplishments/Failures academically or otherwise

- The mentors also have informal chats with students as part of counseling. As the same mentor is continued from II year onwards, the associated students develop a close relationship with the faculty member who helps them to share their problems freely or seek advice or guidance on various academic, co-curricular issues, and higher studies or professions.
- Mentoring is done during slots of students' separate mentoring and counseling hours for each class as part of their timetable and the respective mentor meets the students in the said hour. It may be done over and above as required.

Mentor & Mentee allotment:

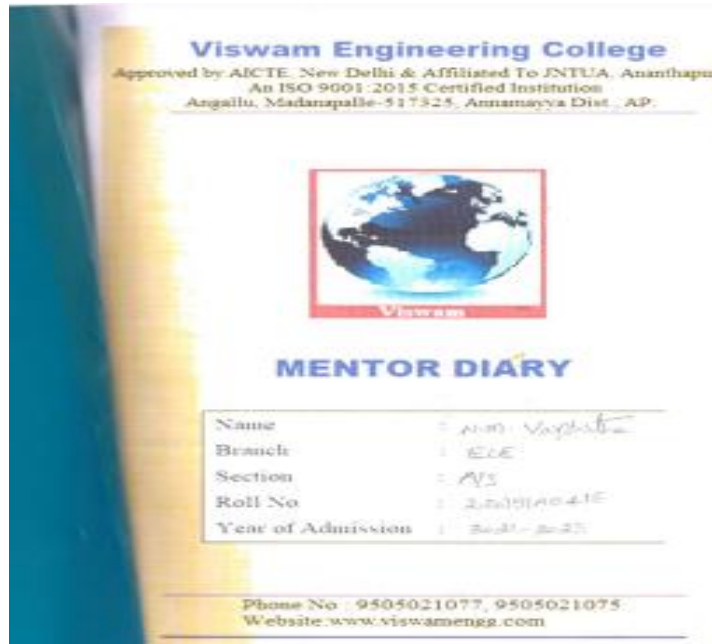
Mentor: Mrs. B. Keerthi

YEAR: III

BRANCH: ECE-A

S. No	Name of the student	Roll. no	Phone number
1	R. Jagadeeswar Reddy	21W51A045 5	9676953873
2	R. Sruthi	21W51A045 6	8125930670
3	J. Dadahafeez	21W51A045 7	7993696551
4	T. Reddy sekhar	21W51A045 8	8886459470
5	T. Keerthi	21W51A045 9	9603314965
6	T. Someswari	21W51A046 1	7288075083

7	V. Sathya sai	21W51A046 2	6303367340
8	V. Himaja	21W51A046 3	9014941533
9	V. Suhana	21W51A046 4	9100407427
10	V. Manjunath	21W51A046 5	8978038798
11	V. Lavanya	21W51A046 6	8374425151
12	Y. Narasimhulu	21W51A046 8	7702368524
13	Y. Meghana	21W51A046 9	9542240930
14	Y. Jahnavi	21W51A047 0	6300015020
15	Y. Reddy babu	21W51A047 1	9000107253



Viswam Engineering College
 Approved by AICTE, New Delhi & Affiliated To JNTUA, Ananthapuram
 An ISO 9001:2015 Certified Institution
 Angallu, Madanapalle-517325, Annamayya Dist., AP.

MENTOR DIARY

Name : N.M. Varshita		
Roll No: 22091A0416		Branch : ECE
Year & Semester : I		Section :
Academic Year : 2022-23		

Day Scholar / Hostler: (Tick Appropriately)	Contact Numbers :
Local Address : Gandhi Nagar Kadivi	1. Personal: 9390470364
Permanent Address 83-98 Parasitapu Colony Tambalapalle	2. Father's:
	3. Mother's: 9550602390
	4. Local Guardian :



VISWAM ENGINEERING COLLEGE

Viswam Engineering College is an Autonomous Institute of Science & Technology
 Madanapalle - 517 325

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
TIMETABLE SCHEDULE
 ACADEMIC YEAR 2023-24 (ODD SEMESTER)

SEMESTER : III - II BATCH : 2020 - 2024
 CLASS & SECTION : III Year Hall NO : B-205
 CLASS CO-ORDINATOR: Mr. N.NagendraW.E.F : 22.02.2024

Day/Time	9:20- 10:10	10:10 -11:00	11:10-12:00	12.00-12.50	1:40 - 2:35	2:35-3:30	3:30-4:25
Mon	Room No:B 205 CN K.V.Nandini	RoomNo:B 205 FML M.Ravindra	RoomNo:B 205 AWE Mr.J.Maheshwar Reddy	Room No:B 205 VLSI B.Keerthi	RoomNo:B 205 CN/RFSDLAB R.Haritha/K.V.Nandini		
Tue	Room No:B 205 VLSI B.Keerthi	RoomNo:B 205 ESD R.Haritha	RoomNo:B 205 FML M.Ravindra	Room No:B 205 CN K.V.Nandini	RoomNo:B 212,207 AWP/VLSILAB J.MaheshwarReddy/B.Keerthi		
Wed	RoomNo:B 205 AWE Mr.J.Maheshwar Reddy	RoomNo:B 205 IPR	Room No:B 205 VLSI B.Keerthi	RoomNo:B 205 ESD R.Haritha	RoomNo:B205 CN K.V.Nandini	RoomNo:B 205 FML M.Ravindra	RoomNo:B 205 MENTORING
Thu	RoomNo:B 205 ESD R.Haritha	RoomNo:B 205 CN K.V.Nandini	Room No:B 205 VLSI B.Keerthi	RoomNo:B 205 AWE Mr.J.Maheshwar Reddy	RoomNo:B 205 CN/RFSDLAB R.Haritha/K.V.Nandini		
Fri	RoomNo:B 205 FML M.Ravindra	RoomNo:B205 AWE Mr.J.Maheshwar Reddy	Room No:B 205 CN K.V.Nandini	RoomNo:B 205 MENTORING	RoomNo:B 212,207 AWP/VLSILAB J.MaheshwarReddy/B.Keerthi		
Sat	RoomNo:B 205 IPR	RoomNo:B 205 FML M.Ravindra	RoomNo:B 205 ESD R.Haritha	Room No:B 205 VLSI B.Keerthi	RoomNo:B205 AWE Mr.J.Maheshwar Reddy	RoomNo:B 205 ESD R.Haritha	SPORTS

ACRONYM	SUB.CODE	SUBJECT NAME	NAME OF THE FACULTY	DESIGNATION
CSE	20A04501	Control Systems Engineering	Dr.Vasanthasaminadhan	Associate Professor
DSP	20A04502I	Digital Signal Processing	Mr.J. Maheshwar Reddy	Associate Professor
MPMC	20A04503I	Microprocessors and Microcontrollers	Dr.G.Venkatasubbaiah	Associate Professor
CAO	20A04504a	Computer Architecture & Organization	Mrs. K.V.Nandini	Assistant Professor
MAD	20A12502	Mobile Application Development using Android	Mrs.G.S.GowthamiKumari	Assistant Professor
DSP LAB	20A04502P	Digital Signal Processing Lab	Mr.J.MaheshwarReddy/Mrs.R.Haritha	Assistant Professor
MPMC LAB	20A04503P	Microprocessors and Microcontrollers Lab	Mrs.R.Haritha/Dr.P.Karunakar	Assistant Professor
PCB	20A04506	PCB Design and Prototype development	Mrs.T.ReddiRani/Mr.Harshvardhan	Associate Professor
EVS	20A99201	Environmental Science	Mrs.K.Haritha	Assistant Professor
MENTORING	Mrs. K.V.Nandini Mr.J. Maheshwar Reddy Mrs.R.Haritha			

N.Nagendra
 TIME TABLE INCHARGE

M.Ravindra
 HOD

K.V.Nandini
 PRINCIPAL

MENTOR DIARY																					
<p>Name of the student _____</p> <p>Hal ticket No. _____</p> <p>Branch _____</p> <p>Section _____</p> <p>Year & Semester _____</p> <p>Student is staying: A. College PG B. Outside PG</p> <p>Transportation: A. Own Vehicle B. APSRTC C. College Bus.</p> <p>Contact numbers:</p> <p>STUDENT _____</p> <p>FATHERS _____</p> <p>MOTHERS _____</p> <p>LOCAL GUARDIAN _____</p> <p>A. PHYSICAL / PERSONAL INFORMATION DOB: _____ SEX: _____</p> <p>IDENTIFICATION Marks: 1. _____ 2. _____</p> <p>Seat allotted whether A. Convener Quota Rank: _____</p>	<p style="text-align: center;">B. Management Quota</p> <p>B. ACADEMIC HISTOY UPTO INTER/DIPLOMA</p> <p>Name of the school : _____</p> <p>SSC Percentage : _____</p> <p>Name of the college : _____</p> <p>Inter /Diploma : _____</p> <p>Inter /Diploma percentage : _____</p> <p>C.FAMILY BACK GROUND:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>FATHER</th> <th>MOTHER</th> <th>LOCAL GUARDIAN (Relationship)</th> </tr> </thead> <tbody> <tr> <td>NAME</td> <td></td> <td></td> <td></td> </tr> <tr> <td>OCCUPATION</td> <td></td> <td></td> <td></td> </tr> <tr> <td>QUALIFICATION</td> <td></td> <td></td> <td></td> </tr> <tr> <td>ANNUAL INCOME (Approximate)</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Details of siblings or close, if any, studying in the same college/other college: _____</p> <p>D. ADDITIONAL INFORMATION:</p> <p>1. Reading Habits:</p> <p>2. Co-Curricular Activities (such as paper/project presentation etc.):</p> <p>3. Extra- curricular Activities:</p> <p style="margin-left: 20px;">i. Literary Competition's:</p> <p style="margin-left: 20px;">ii. Cultural Competition's:</p> <p style="margin-left: 20px;">iii. Social service:</p> <p style="margin-left: 20px;">iv. Games/Sports:</p> <p style="margin-left: 20px;">v. Others</p>		FATHER	MOTHER	LOCAL GUARDIAN (Relationship)	NAME				OCCUPATION				QUALIFICATION				ANNUAL INCOME (Approximate)			
	FATHER	MOTHER	LOCAL GUARDIAN (Relationship)																		
NAME																					
OCCUPATION																					
QUALIFICATION																					
ANNUAL INCOME (Approximate)																					

Mentoring Record

ACADEMIC PROFILE												
Marks obtained in each Subject (1 year 1 Semester):												
S.NO	NAME OF THE SUBJECT	MID-1			MID-2			AVG	Internal MARKS	EXTERNAL EXAMS		
		D	O	T	D	O	T			MARKS	PASS	FAIL
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
TOTAL MARKS / PERCENTAGE												
NOTE: D=Descriptive, O=Objective, T=Total												
Supplementary Exams:												
S.NO	NAME OF THE SUBJECT	1 st ATTEMPT		2 nd ATTEMPT		3 rd ATTEMPT		4 th ATTEMPT				
		Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail			
1												
2												
3												
4												
5												
6												

SUMMARY OF PASSED SUBJECTS:				
S.No.	No of subjects passed in as on			
	1 st attempt	2 nd attempt	3 rd attempt	4 th attempt

SUMMARY OF BACKLOGS:		
S.NO	NO. of Subjects	As on
1		
2		
3		
4		
5		
6		
7		
8		

Impact analysis:

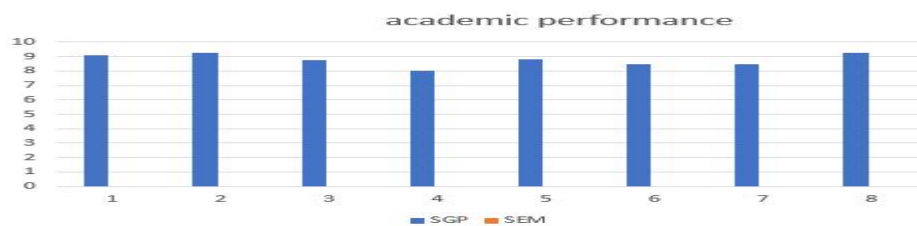
Description: Ms. A. Hemalatha Student of Branch continuously mentored by Mrs. T. Reddy Rani-Faculty Mentor, her observations revealed the impact of the Mentoring

NAME OF THE MENTEE	ROLL NO	BRANCH	PHONE NO. & MAIL ID
A. Hemalatha	19W51A0402	ECE	8688440641 asannapuramhema@gmail.com

System helping the Mentees to aware of their potential in maximum extent for achieving their goals to be successful in the life.



Semester Wise Academic performance (From BE 1ST SEM TO IV SEM)

**Efficacy of Mentoring System**

1. Does Mentoring really help the first-generation professional students in the families having uneducated parents with rural background?

Ans: Yes, mentoring really has helped students to come out successful even without any background.

Ms. A. Hemalatha (19W51A0402)

- Her father has no formal education.
- With a strong desire to come up in her life in spite of difficulties she concentrated on her studies
- With the help of Mentor who inspired him in all the ways, she succeeded in her every attempt which leads her to be the topper.

Education Level	Percentage of Marks
SSC	10.0
Intermediate	9.86
B. Tech- i semester	9.11
B. Tech ii semester	9.27
B. Tech -iii semester	8.74
B. Tech -iv semester	8.04
B. Tech- v semester	8.79
B. Tech vi semester	8.47
B. Tech -vii semester	8.5
B. Tech -viii semester	9.28

2.Does the mentoring system has a structured mentoring process?

Ans: Yes, a well-defined process for the mentoring has been devised & successfully implement

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

Feedback collected for all courses: YES/NO; Specify the feedback collection process; Average percentage of students, who participate, specify the feedback analysis process; Basis of Reward/ Corrective measures, if any; Indices used for measuring quality of Teaching & Learning and summary of the index values for all the courses/ teachers; Number of corrective actions taken.

Feedback collected for all courses (YES/NO): **YES**

Feedback collection Process: **Offline/Online mode**

Percentage of students Participating: Above **82%**

Feedback Collection Process: The feedback on teaching and learning is taken online, twice in a semester, generally the Second week after the commencement of classwork and final week before the end of semester. The dynamic online feedback software is developed by faculty of CSE dept. The link of feedback (<https://forms.gle/UkyeABspLxeKMn1n6>) to be given by the students will be sent through their mobile and their mail id by mentioning the random password generated for each student. They can give feedback on their mobile, computer laboratories or on the website.

The students require to login by giving his/her credentials, the blank format for inputting in the scale of 1 to 5 for each faculty, subject wise appears for 20 parameters. The software is designed in such a way that at least 75% of the class strength gives the feedback in a given slot of 15 to 20 days otherwise it will be extended. The methodology adopted here is very transparent.

Methodology followed for analysis of Feedback and its effectiveness:

The Institute regularly collects the feedback on all the Courses in order to analyze the performance of faculty in every semester.

The feedback from students will be taken twice in a semester to evaluate the faculty performance in class room teaching on different parameters on a 5-point scale through offline/online.

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 Angalthe, Madanapalle 517328, Anantapur Dist., A.P.

DEPARTMENT OF ECE-C

STUDENTS FEEDBACK FORM Year & Sem: 1 & 1

You are filled in the students for teaching evaluation by the students. This will help teachers to improve their skills. Give mark / points according to your assessment of teachers performance on the five point scale given below

Excellent-5, Very Good-4, Good-3, Fair-2, Poor-1

Parameters	IP	LAC	BEED	EG	P	SDS	EPLab	EE Workshop	CP Lab
1. Preparation:									
Teacher comes to class on time	5	5	5	5	5	5	5	5	5
Teaching is well planned	5	5	5	4	5	4	5	5	4
Teaching is in simple style	5	4	5	4	5	3	4	4	4
Subject matter organized in logical sequence	5	5	4	3	5	5	4	4	4
Teacher comes well prepared in the subject	4	4	5	4	3	3	3	3	4
TOTAL	25	23	24	20	18	20	21	21	19
2. Presentation & Communication:									
Parameters									
Teacher speaks clearly & audibly	5	4	5	5	5	5	5	5	5
Teaching notes & dates legible	5	5	5	4	5	4	3	4	5
Teacher gives adequate examples / problems	5	4	3	3	5	4	4	3	3
Teacher's voice & level of voice suitable	4	5	3	4	3	4	4	4	3
Teacher offers assistance & counseling to the needy students	4	5	3	4	3	4	5	4	4
TOTAL	23	21	28	20	18	20	22	20	16
3. Student's participation:									
Parameters									
Teacher asks questions to promote interaction & self-reflective learning	5	4	3	4	3	5	4	5	4
Teacher encourages students / raising doubts by the students / queries / errors	4	3	5	4	3	5	3	4	3
Teacher assigns regular activity and problem solving activity assigned by the students	5	5	4	4	3	4	5	5	4
Teacher encourages / compliments & praise originality and creativity displayed by the students	4	5	5	3	4	4	5	5	3
Teacher is courteous & respectful in dealing with the students	5	4	3	5	4	5	4	3	5
TOTAL	22	21	28	20	17	23	21	20	19
4. Class Management / Assessment of Students:									
Parameters									
Teacher engages classes regularly & maintains discipline	5	5	5	5	5	5	5	5	5
Teaching covers the syllabus & all appropriate points	5	4	5	4	3	5	4	5	3
Teacher holds tests regularly which are helpful to students in building up confidence in their application of knowledge	5	5	5	5	5	4	5	5	4
Teacher maintains a log of answer scripts in fair & regular	4	4	5	4	3	5	4	5	3
Teacher is prompt in marking & returning the answer scripts & handling feedback on performance	5	4	5	4	3	5	4	5	3
TOTAL	24	22	28	22	19	24	23	25	18
Total Score (Out of 100)	96	87	93	83	86	81	86	86	79
Comments on HOD	our head man is very senstive and the she is the man.								
Comments on Principal	our sir.								
Comments on Faculty	our campus is good. Improve the college.								

Following is the rubric for corrective measures:

Average feedback range	Action
Less than 3.0	Explanation is sought and advised to improve
Between 3.1 to 4.5	No action, advised to improve in specified weak parameters

A. Record of Corrective Measures Taken:

Feedback Corrective Measures are being followed:

- HOD speaks to the concerned faculty to appreciate or suggest necessary improvements in teaching.
- The staff members who got above 90% are appreciated for their excellent efforts.
- The staff members who got above 70 % to 89% are appreciated for their good efforts.
- Staff members who get average feedback below 60% are identified.
- Those staff members are given orientation lectures and special inputs by the Head of the department and are also sent to attend FDP or workshops on teaching methodologies or technical concepts.
- The following are the number of corrective actions taken on the faculty over the past 3 years.

Table 9.2.1 Corrective Measures Taken on Faculty

Academic year	No. of Corrective Actions taken
2021-22	2
2020-21	5
2019-20	3

Basis of reward/Corrective measures:

- If the average feedback is between 3.1 to 4.5, HODs will inform the faculty about the weak parameters for improvement.

9.3 Feedback on facilities (10/10)

Assessment is based on student feedback collection, analysis, and corrective action taken.

A. Feedback Collection Process:

- The institute regularly collects feedback on the various facilities offered to the students.
- Feedback is also collected from employers, parents, alumni, faculty, and hostlers and the analysis of the feedback is done to carry out any corrective measures.
- The feedback is collected through a well-defined feedback form from different stakeholders of the college.
- The following is the format through which feedback is collected about the facilities of the college.



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Department

of Electronics and Communication Engineering

FEEDBACK-STUDENTS

A) Please provide your comments on the following

1. college infrastructure : Excellent Very Good Good Average
2. Departmental Resources : Excellent Very Good Good Average
3. Faculty helpfulness : Excellent Very Good Good Average
4. Library facilities : Excellent Very Good Good Average
5. computing and internet facilities : Excellent Very Good Good Average
6. Sports, Extra-Curricular facilities : Excellent Very Good Good Average
7. Personality/ Communication Skills : Excellent Very Good Good Average
8. Placement training : Excellent Very Good Good Average
9. Transport Facilities : Excellent Very Good Good Average

10. Mess/Canteen Facilities : Excellent Very Good Good Average
11. Discipline Standards in the college : Excellent Very Good Good Average
12. overall rating of the college : Excellent Very Good Good Average

B) your positive/negative comments:

c) Your suggestions for the improvement of the institution:

HOD



Department of Electronics and communication & engineering

FEEDBACK-STUDENTS

A) Please provide your comments on the following

1.college infrastructure	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
2.Departmental Resources	<input checked="" type="checkbox"/> Excellent	<input type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
3.Faculty helpfulness	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
4.Library facilities	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
5.computing and internet facilities	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
6.Sports, Extra Curricular facilities	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
7.Personality/ Communication Skills	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
8.Placement training	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
9.Transport Facilities	<input checked="" type="checkbox"/> Excellent	<input type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
10.Mess/Canteen Facilities	<input type="checkbox"/> Excellent	<input type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input checked="" type="checkbox"/> Average
11.Discipline Standards in the college	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average
12.overall rating of the college	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average

B) your positive/negative comments:

Good Infrastructure

c) Your suggestions for the improvement of the institution:

road is not upto mark. canteen facilities have to be improved.

HOD

Fig.9.3.1(A) Proforma for Student Feedback on Facilities

Feedback Analysis and Action Taken:

- Based on the suggestions and feedback given by the stakeholders, the Head of Department summarizes the feedback and submits a consolidated report to the principal who in turn discusses with the Management to solve the problems.
- Then the principal sends the feedback to necessary committees to take necessary actions to solve the problems addressed by the students.

Action Taken based on the three assessment years:

- Two RO water plants are installed
- The gym facility is upgraded
- Basketball court developed
- Air conditioners are installed in all computer laboratories.
- A qualified Physical Director is appointed
- Tech fests/College Day celebrations are organized regularly
- Students are nominated to various committees at the college level Student
- Developments are organized regularly.

9.4 Self learning (5/5)

(The institution needs to specify the facilities, materials, and scope for self-learning/ learning beyond the syllabus, Webinars, Podcast, MOOCs, etc. and evaluate their effectiveness)

A. Scope for Self-Learning:

- The Institute strongly believes in providing various self-learning facilities to the student community, through which the subject can be induced in a better manner. The following are the various facilities offered by the institute for self-learning

1. Tutorial Classes.
2. Department library.
3. Computer center.
4. Department Technical Associations.
5. Digital Library consisting of Various E-journals including IEEE Journals.
6. Internal Seminars.
7. NPTEL video courses (National Programmed Technical Enhanced Learning).

B. Effective Utilization of Self Learning facilities:

- The library is accessible to students from 9:00 A.M to 6:00 P.M for use. The collection comprises textbooks, general reference material, etc.
- Department library with a sufficient number of volumes on core and application areas, technical journals are available during college hours.
- Computer Lab with well-equipped and internet facility is open for students up to 6.00 pm.
- The entire College is provided with Wi-Fi facility, so that the students can access the internet at all points of the college.
- The students are also encouraged to participate in internal seminars organized by the department.

- Communication skills classes are being arranged every week and students are motivated to take active participation in Group discussions, debate and similar language activities.
- NPTEL videos are also regularly used in classes, in order to upgrade their technical knowledge on various courses.

Library facilities	
Carpet area of library	205 Sq. m
Reading space	100 Sq. m
Area of stack	105 Sq. m
Digital library	20.2 Sq. m
Reference section	30.20
Discussion room	10.2 Sq. m
No. of seats in reading space	90
No. of users (issue books)	150
No. of users (reading space)	120

Timings:	9.10am-4.30pm
No. of library staff	2

Fig: 9.4.1 E-Learning





Stack Area



Reading Section





Circulation Section



Digital Library

Scope of self-learning:

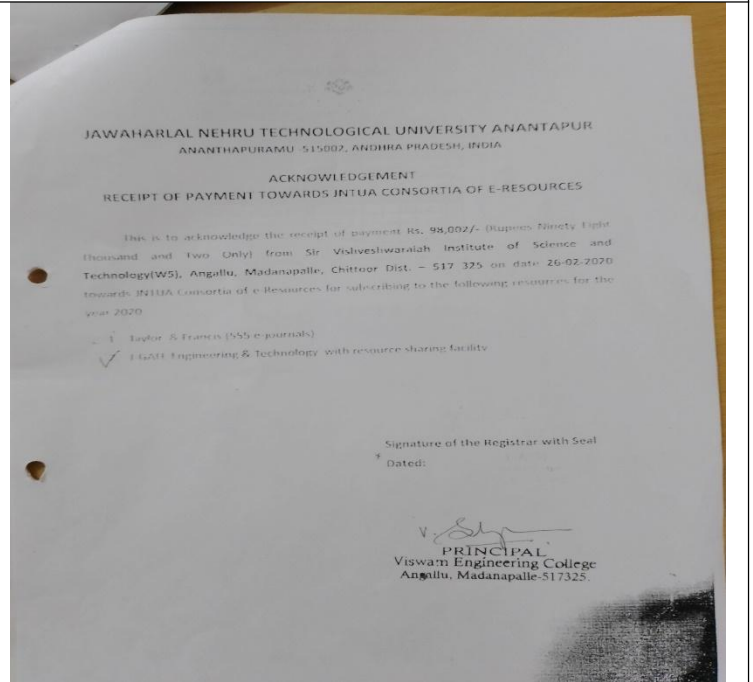
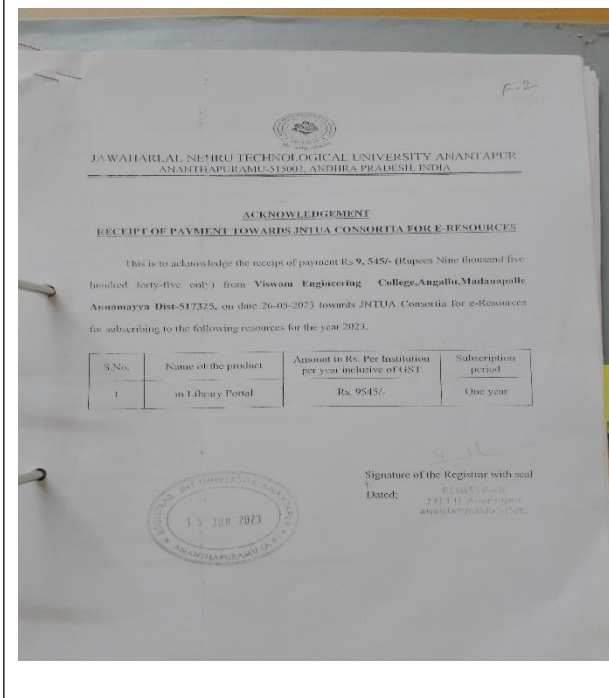
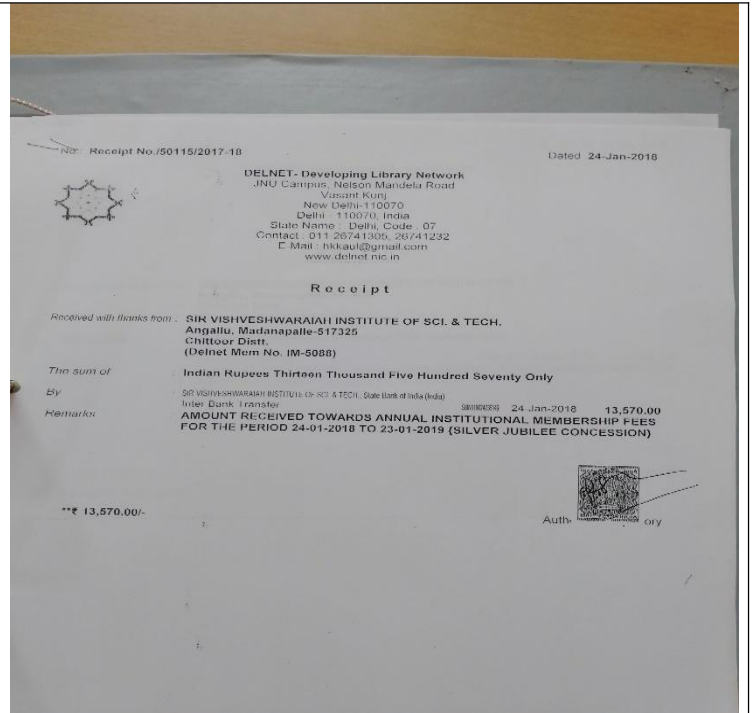
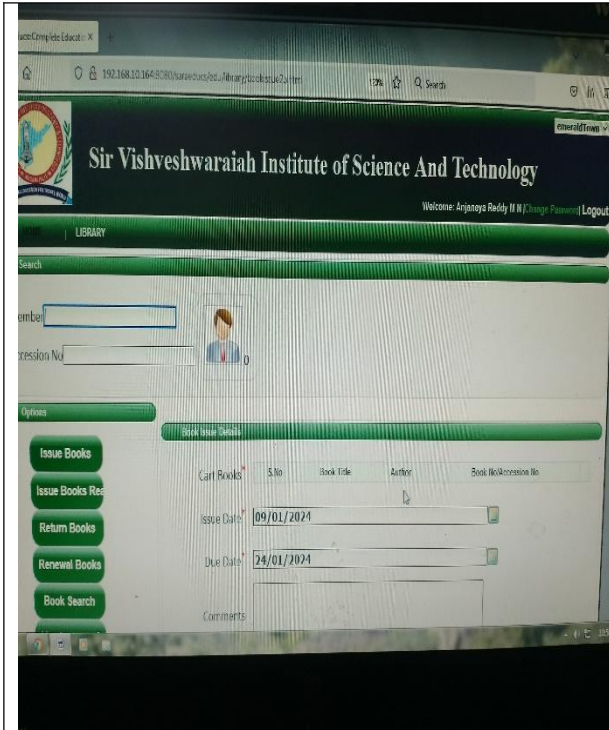
- Library facility
- Digital library with internet facility
- E- Learning: e- Resources
- Web based learning i. e (NPTEL, SWAYAM etc.)
- Professional bodies
- Seminars, workshops and hackathon
- Industrial visits
- Assignment

II. Detailed list of Self – Learning facilities:

s. no	Self-learning process	Description
1	Library Facility	The college library is enriched with vast collection of books, journals, periodicals, and research articles. College is having automated library management system to take care about book issue and return process (SARA). Library is also equipped with rare books, manuscripts, Project reports and back volumes etc.
2	Digital Library with internet facility	College is providing students a digital library equipped with 20 systems and also provided with internet facility.
3.	E-learning: e-resources	E-resources allow learners to enjoy a self-paced learning. They can study according to their own time, being easier to incorporate learning. College is providing faculty and students to have access to the following e-resources i. e. DELNET, J-GATE.

4	Web based learning	The internet is an open information system in which various sources of information, media and materials such as texts, images, video sequences can be linked together in diverse ways to form so-called self-learning environment.
5	Professional bodies	Joining a professional association will be one of the most important activities in a student's career. To increase knowledge in their own fields, expand networking possibilities or jump-start to job hunt, a professional association membership is an option, which is worth exploring.
6	Seminars, workshops and hackathon	A seminar is group meeting led by an expert that focuses on specific topic or discipline such as emerging technologies, job searches or a literature-based field. Benefits to a student like improving communication skills, gaining expert knowledge,

		networking with others and renewing motivation and confidence.
7	Industrial visits	<ul style="list-style-type: none"> • 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. • It provides an opportunity to plan, organize and engage in active learning experiences both inside and outside classroom. • provides an awareness and importance of industry in the real working world.



NPTEL Registered Students Data

S. No	H.T. No	Name of the Student	Title of NPTEL Course	Course Duration	Course Offered to Open Elective/Professional Elective	Status
1	20W51A 0401	AALLA ANUSHA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
2	20W51A 0404	ASANAPURAM VINOD KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
3	20W51A 0405	BADEDDULA JEEVANKUMAR REDDY	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
4	20W51A 0406	BALINENI MOUNIKA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
5	20W51A 0407	BANDARU CHARAN KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
6	20W51A 0408	BANDLAPALLI SAI KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
7	20W51A 0409	BANDREVVU VENKATESH	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
8	20W51A 0410	BATHALA VARSHITHA GOWD	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
9	20W51A 0411	BEERANGI PRATHAP SIMHA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
10	20W51A 0412	BETTAKONDA KIRAN	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
11	20W51A 0413	BUKKAPATNAM MANSOOR ALAM	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
12	20W51A 0414	CHAVIDI SARIKA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
13	20W51A 0415	CHIKKE MANJULA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
14	20W51A 0416	CHINNAGOONI VISHNU PRIYA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
15	20W51A 0417	CHINTHAPARTH I SATHISH KUMAR REDDY	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
16	20W51A 0418	CHOWDEPALLE NANDINI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Registered but not Completed

17	20W51A 0419	DAADIMI SUCHITHRA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
18	20W51A 0420	DASAMANDAM LAVANYA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
19	20W51A 0421	D. PRADEEP KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
20	20W51A 0422	DIGUVAPALLI SUNITHA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
21	20W51A 0423	E. YASWANTH KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
22	20W51A 0424	G NAGAMANI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
23	20W51A 0429	G. SURYAPRAKASH	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
24	20W51A 0430	GORRE PRANEETH	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
25	20W51A 0431	GUDLA MEGHANA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
26	20W51A 0432	GUDLA SREEMANJUNA DHA REDDY	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
27	20W51A 0433	GUNTI MADUGU NAHEELA BHANU	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
28	20W51A 0434	GUVVALA SUNILKUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
29	20W51A 0435	JAGADAM SUNIL	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
30	20W51A 0436	KOTHA CHAKALA LAVANYA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
31	20W51A 0437	KAATREDDY DEEPTHI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
32	20W51A 0438	KAMMASANI JAGADEESH	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
33	20W51A 0440	KANYAMADUGU JAHNAVI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
34	20W51A 0442	K. HIMAJA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
35	20W51A 0443	KONAPALLI SREEKANTH REDDY	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
36	20W51A 0444	KONDREDDY CHANDANA SREE	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
37	20W51A 0445	KOPPOLU SAI GURUKISHOR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered

38	20W51A 0446	K. JAGADEESH	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
39	20W51A 0447	KOTA NANDHINI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
40	20W51A 0448	K. DINESH REDDY	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
41	20W51A 0449	KUNCHAPOLLA SHIVA KRISHNA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
42	20W51A 0451	MALLARAPU KAVITHA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
43	20W51A 0452	MALLELA KESAVA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
44	20W51A 0453	MANYAM LOKESH	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Registered but not Completed
45	20W51A 0456	MULA NAVANEETHA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
46	20W51A 0457	MUSTURI INDRAKIRAN	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
47	20W51A 0458	MUTHYALA GIREESH KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
48	20W51A 0459	MUTTHARAYAPP A GARI BINDESH	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Registered but not Completed
49	20W51A 0460	NALAPAREDDY HARATHI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
50	20W51A 0462	N.VENKAT TEJA KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
51	20W51A 0463	NOOKALA MANIKANTA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
52	20W51A 0464	P NEELAVATHI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
53	20W51A 0466	PAMULA SANDHYA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
54	20W51A 0467	PAPAGARI PUSHPANJALI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
55	20W51A 0468	PAPANNAGARI PRAVEEN KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
56	20W51A 0469	PATAN AZAM KHAN	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
57	20W51A 0470	PEMMA VIDYASAGAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
58	20W51A 0471	PERAM APARNA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed

59	20W51A 0472	POGUNURU VARSHA KALYAN	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
60	20W51A 0474	PULA BHAVANA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
61	20W51A 0475	PULLA BHARGAVI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
62	20W51A 0476	PUTHA VENKATA SIVA NAGENDRA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
63	20W51A 0477	R. KRISHNAVENI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
64	20W51A 0478	S. GANESH KUMAR REDDY	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
65	20W51A 0479	S. JAYASRI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
66	20W51A 0480	S. BHARATH KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
67	20W51A 0481	S. MANASA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
68	20W51A 0482	SEETHI MANOHAR REDDY	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
69	20W51A 0483	SETTI ANIL KUMAR	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
70	20W51A 0484	SHAIK AHMED ALI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
71	20W51A 0487	SIDDA KARNA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Not Registered
72	20W51A 0488	Singam Roopa	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
73	20W51A 0489	S SAINISHWANTH	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
74	20W51A 0490	S. JYOTHSNA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
75	20W51A 0491	S MANOHAR REDDY	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
76	20W51A 0492	SYED DADAPEER	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
77	20W51A 0493	SYED ZAHEED BASHA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
78	20W51A 0495	T. PRAVALLIKA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
79	20W51A 0496	T. SURENDRA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed

80	20W51A 0497	T. ANUSHA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Registered but not Completed
81	20W51A 0498	T. CHAITHANYA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
82	20W51A 0499	U. DEVISHREE	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
83	20W51A 04A0	V.NANDINI	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
84	20W51A 04A1	V.PRASANNA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
85	20W51A 04A5	N MOHAN REDDY	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed
86	20W51A 04A6	E.SREEKANTH	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Registered but not Completed
87	21W55A 0401	AGGI NAGARJUNA	Introduction to Internet of Things (20A04701s1)	12 Weeks	Professional Elective	Completed

DEP

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

NPTEL COURSE ACADEMIC YEAR 2022-23

S. No	Name of the Student	Name of the Course	Duration
1	K. Lavanya	Introduction to internet of things	12 weeks
2	K. Deepthi	Introduction to internet of things	12 weeks
3	K. Jahnavi	Introduction to internet of things	12 weeks
4	K. Himaja	Introduction to internet of things	12 weeks
5	K. Srikanth Reddy	Introduction to internet of things	12 weeks
6	B. Mounika	Introduction to internet of things	12 weeks
7	B. Charan kumar	Introduction to internet of things	12 weeks
8	B. Sai kumar	Introduction to internet of things	12 weeks
9	B.Venkatesh	Introduction to internet of things	12 weeks
10	B.Pratap simha	Introduction to internet of things	12 weeks
11	B.Kiran	Introduction to internet of things	12 weeks
12	B.Mansoor Alam	Introduction to internet of things	12 weeks
13	C.Sarika	Introduction to internet of things	12 weeks
14	C.Manjula	Introduction to internet of things	12 weeks

15	C.Vishnu priya	Introduction to internet of things	12 weeks
16	C.Satish kumar reddy	Introduction to internet of things	12 weeks
17	D.Suchitra	Introduction to internet of things	12 weeks
18	D.Lavanya	Introduction to internet of things	12 weeks
19	D.Sunitha	Introduction to internet of things	12 weeks
20	E.Yaswanth kumar	Introduction to internet of things	12 weeks
21	G.Nagamani	Introduction to internet of things	12 weeks
22	G.Megahna	Introduction to internet of things	12 weeks
23	G.Sree manjunadha reddy	Introduction to internet of things	12 weeks
24	G. Naheela bhanu	Introduction to internet of things	12 weeks

HOD-ECE

Utilization and its effectiveness:

- The overall aim of this review is to evaluate the effectiveness of self-directed learning on the professional development of students.
- Students are motivated to improve their motivation in reaching their goals through self-learning, not depending on the traditional method of teaching.

- Students are encouraged to learn by themselves to meet the needs of fast-growing world.
- Students are able to do better in competitive exams and get placed in suitable companies

9.5 career guidance, training, placement (10)

The institution may specify the facility, its management and its effectiveness for career guidance including counseling for higher studies, campus placement support, industry interaction for training/ internship/ placement etc.

Training, Placements & Career Guidance Cell:

Vision

1. To develop national and international links with the business organizations to be able to create meaningful relationship & opportunities for the placement of the students in the global job markets.
2. To develop students who are globally employable & ready hands to the industry.

Mission

To provide effective training to enhance our student's technical, problem solving and inter-personal skills and to provide them 100% placement through dedication, enthusiasm, commitment and complete involvement.

Functions of the Cell:

F01: To **develop** the employability skills of the students through skill training Student Development Programs

F02: To **motivate** the students to actively participate in all skill development training programs and also to attend campus recruitment drives

F03: To **organize** campus recruitment drives by inviting the companies as per their requirements and eligibility criteria of the students

F04: To **make** a platform for the students to explore various campus recruitment opportunities through Assessment portals

F05: To **create** awareness among students about the requirements for foreign education.

Functions – PO Mapping

	P	P	P	P	PO	PO	PO
--	----------	----------	----------	----------	-----------	-----------	-----------

P / F	0 6	0 7	0 8	0 9	10	11	12
F 0 1	3	2	3	3	3	2	2
F 0 2	3	2	3	3	3	2	2
F 0 3	3	2	3	3	3		2
F 0 4	1	2	1	2	2	1	1
F 0 5	-	-	-	-	2	1	1

Facilities of the Cell:

- ✓ Training & Placement Dept Room (10 x 15) located at ground floor.
- ✓ Basic furniture: System Table, locker, Chair, Visitors chairs
- ✓ Desktop PC with Printer
- ✓ Internet (mbps: 87.2/ 92.85)

A. Committee Composition

The Cell is chaired by the Principal, Dean and Coordinator along with nominated faculty members and students from all programs offered by the college.

B. **Committee Members:** The college has constituted the following committee to

assist the Training & Placement cell (TPC) for the smooth conduct of Training & Placement activities.

	Role		Name	Department
1	Chairperson	1	Dr. D. Ramana Reddy	Principal
1.	Coordinator	1	Mr. K. Kedar. Gawrav	TPO
2.	Member		Dr. R. Vasanth Selva Kumar	CSE
3.	Member		Dr. B. D. Venkataramana Reddy	Dean
4	Faculty Member	1	Mrs. Y. Jyothsna	CSE
		2	Mr. R. Raj Kumar	CE
		3	Mr. J. Maheswara Reddy	ECE
		4	Mr. S. Anil	ME
		5	Mr. G. Anasuya	EEE
		6	Mrs. Vijayalakshmi	MBA
5	Student Members	1	20W51A0305 - SHAIK ADIL	ME
		2	20W51A0101-C. Shakheer Ahamed	CE
		3	20W51A0489-SAI NISHWANTH	ECE
		4	20W55A0203 - P.	EEE

		.	MOHAMMAD THAREK	
		5	20W51A0590- S SRAVANTH	CSE
		.		
		6	22W51E0016 - B BHANUPRASAD	MBA
		.		

Roles & Responsibilities of the Committee Members:

A.Role of the Coordinator:

1. Identify the companies, which can come to Viswam Engineering College campus for freshers hiring as per the available Branches in the college.
2. Discuss with respective companies regarding conducting the recruitment event in the college, get their approval and schedule the event at a mutually convenient data/ time.
3. Do the planning for the event management, budget & infrastructure requirements, and take the approvals from relevant authorities.
4. Do the inter-departmental communication through the Placement Coordinators & Student coordinators about all the training & placements activities.
5. Serve as a spokesperson for the committee in all purposes.
6. Represent the committee and the college in matters involving the relevant Association.
7. To perform any other related duty assigned by the principal of the institution.

B.Role of the Faculty Member:

1. Act as the Placement coordinator of the respective branch.
2. Will serve as the SPOC of the said department for Training and Program cell.
3. Will communicate all necessary information from TPC about its events/ activities to the said department and its students.
4. Will provide required data from the department he/she is representing.

5. Will help the Training and Placement cell in conducting and implementing various Training & Placement activities.
6. Will maintain relevant department records & data as per the activities of the Cell

C. Role of the Student Member:

1. He/She will be the Student Representative from the respective Branch.
2. Act as a Student Coordinator from his/ her Branch for TPC.
3. Will interact with students of his/ her class and serve as a communication link between TPC and the said Branch.
4. Will coordinate with the Faculty Member of his/ her department on a regular basis about the events & activities of the TPC.
5. Will act as a volunteer and help the TPC in organizing various events/ activities.

D. Availability of Career Guidance Facilities:

- A full-fledged state of the art Training and Placement cell actively works and arranges on-campus placements and training to the students.
- The Training and Placement cell of the Institute imparts the requirements of the industry along with their curriculum through programs on preparation of resume, soft skills, communication skills, interview skills, and adapting to the corporate life.
- The Training and Placement cell also helps for students in choosing their Career by organizing various Career Guidance Programs.
- The Training and Placement Cell is headed by full-fledged Training and Placement Officer, Mr. K. Kedar Gawrav, who continuously takes care of all the training activities to be provided to the students.

E. Counseling for Higher Studies (Competitive exams / CIVIL Services, Opportunities in Abroad, etc.):

- The TPC organized various programs related to
 - Providing awareness on higher education as well as research programs.
 - Conducting awareness programs on Civil services and Competitive exams.
 - Providing information about notifications of admissions for higher studies at various Universities/ Institutions at India as well as abroad.

- The following are the various activities conducted by the Training and Placement cell for the benefit of students.

- **Table.9.5.2 List of Career Guidance Programs Organized**

S. No.	Event Name	Resource Person	Targeted Audience	Date
2022-23				
1.	How to prepare for Civils	Mr. Jagadeesh	Final year students	15-09-2022
2.	Carrier opportunities for B. Tech Students	Mr. B. Raja	Final year students	09-11-2022
3.	Civil Services Examinations	Mr. M. Satish	III, IV Year & MBA Students	30-11-2022
4.	Orientation Program on Competitive exams	Mr. Munikumar	B. Tech & MBA Students	26-12-2022
5.	Career opportunities in Abroad	Mrs. Lavanya	B. Tech & MBA Students	27-02-2023
6.	Opportunities for B.Tech Students in Management Sector	Mr. Karthik	B.Tech & MBA Students	19-03-2023
2021-2022				

9.	Technical-Interviews	Mrs. Pratushya	B.Tech & MBA Students	10-09-2021
10.	CAT (Common Aptitude Test)	Mr.Haswanth	B.Tech & MBA Students	20-11-2021
11.	Accounting Package for Engineering graduates	Mr.Balaji	B.Tech & MBA Students	15-12-2021
12.	Opportunities for B.Tech graduates in management sector	Mr.Krishna	B.Tech & MBA Students	02-01-2022
13.	Career opportunities in Abroad	Mr.Vinay	B.Tech & MBA Students	12-03-2022
14.	Role of Body Language in Interviews	Mrs.Sofia	B.Tech & MBA Students	25-05-2022
2020-2021				
16.	Career Counselling in IT Industry	Mr.Sandeep	B.Tech & MBA Students	20-08-2020
17.	Career Readiness program	Mr.Rajesh	B.Tech & MBA Students	10-09-2020
1	Career	Mr.Tulasiram	B.Tech & MBA	21-11-

8.	opportunities		Students	2020
1 9.	Civil Service Examination	Mr.Manjunath	B.Tech & MBA Students	08-10- 2020
20 .	Career opportunities for Physics Graduates	Mrs.Lavanya	B.Tech & MBA Students	09-03- 2021
2 1	CAT (common aptitude test) exam	Mr.Manoj	B.Tech & MBA Students	21-02- 2021



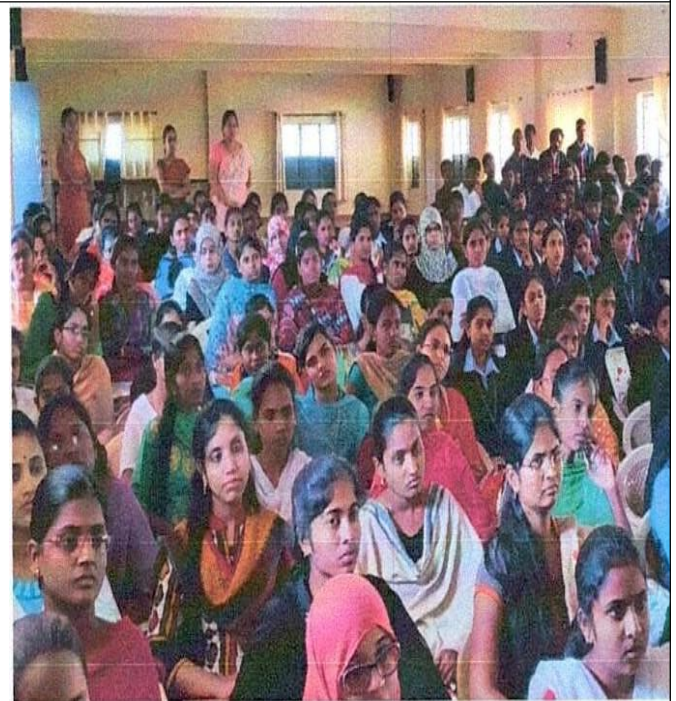
How to prepare for CIVILS



Civil Service Examination



Career Counseling in IT Industry



Career Readiness Program

Pre-Placement Training:**Table 9.5.3 List of Placement Training Organized**

S. No.	Name of the Resource Person	Date	Skills
2022-2023			
1.	Ms. Sofia	07-08-2022 To 07-08-2022	Awareness Program on how to face an interview
2.	Mr. Manoj Kumar	28-01-2023 To 28-01-2023	Career Counselling in the IT Industry
3.	Ms. Ramesh	09-02-2023 To 09-02-2023	Career Readiness Program
4.	Mr. Prabhakaran	23-04-2023 To 23-04-2023	Awareness Program on Reasoning Preparation to clear written tests on campus drives
2021-2022			
5	Mr. Jagadeesh	26-09-2021 To 26-09-2021	Guest Lecture on Facing interviews to clear Campus Drives
6	Mr. Vamsi Krishna	01-04-2022 To 01-04-2022	Awareness program on How to face HR Interview
7	Mr. Balaji	20-04-2022 To 20-04-2022	Awareness program on Reasoning preparation to clear Written Tests in Campus Drives

8	Mr. Niteesh	01-05-2022 To 01-05-2022	How to face an HR Interview
2020-2021			
9	Mr. Vinod	24-12-2020 To 24-12-2020	Career opportunity for commerce graduates.
10	Mr. Manohar	17-01-2021 To 17-01-2021	Awareness program on Aptitude Role to clear Written Tests in interviews
11	Mr. Vijay Kumar	18-02-2021 To 18-02-2021	Guest Lecture on LIC Jobs for graduates
12	Mr. Mansoor Alam	25-07-2020 To 25-07-2020	Communication crack interviews



Guest Lecture on LIC Jobs for Graduates



How to Face HR Interview



Career Counselling in the IT Industry



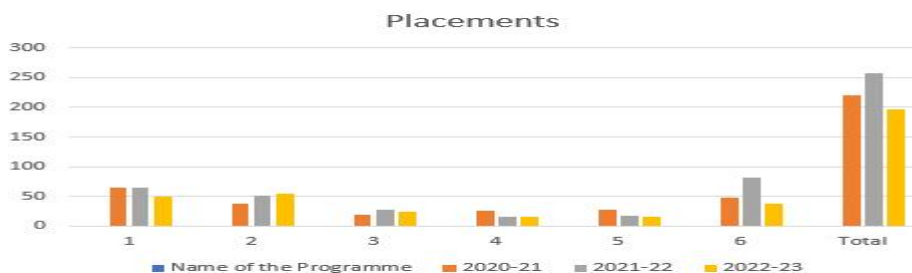
Communication crack interviews

F. Placement Process and Support:

- Final year eligible students will register for training with the Training and Placement cell.
- Training is provided for all eligible students.
- The students are provided with training like aptitude, group discussion, body language skills and interview skills.
- These activities are organized by the Training and Placement Cell with the help of Internal Faculty and External Training Experts.
- All registered students are advised to attend on and off-campus drives arranged by the T&P cell.
- The T&P cell also focuses on conducting mock interviews, group discussions, mock assessment tests, coding competitions, and arranging company-based orientation and interaction programs.

Table 9.5.4 Number of students placed in the past three years

S. No	Name of the Programme	2020-21	2021-22	2022-23
1	CSE	64	65	49
2	ECE	38	51	55
3	EEE	19	27	23
4	CIVIL	25	16	16
5	ME	27	17	16
6	MBA	48	82	38
Total		221	258	197

**Table 9.5.5 Number of companies visited and No. of students placed for past three years**

S. No	Academic Year	No. of companies visited	No. of students placed
1	2022-23	12	197
2	2021-22	07	258
3	2020-21	12	221
Total		31	676



9.6 Entrepreneurship cell

The Institution may describe the facility, its management and its effectiveness by encouraging entrepreneurship and incubation, Success stories for each of the assessment years have to be mentioned.

Vision:

“Our vision is to develop, enhance, and carve out the inner innovative and entrepreneurial potentials of the students by providing them an opportunity to present their views in front of EDC.

Mission:

“EDC aims to convert feasible ideas into absolute business propositions, which will not only add value to an individual but will also benefit the nation as a whole.”

Objectives of the cell

- To create an environment for self-employment and entrepreneurship development through formal and non-formal programs.
- To introduce the concept of entrepreneurship in curricula at diploma and degree levels.
- To develop management personnel at appropriate levels for the non-corporate and unorganized sectors like education, rural development, small- scale industry etc.
- To utilize the infrastructure facilities and technically trained manpower for the development of non-corporate and unorganized sectors.
- To promote employment opportunities.

Functions

F1: To promote the Entrepreneurship culture by organizing Entrepreneurship Awareness Campus, Entrepreneurship Development Programmed, Faculty Development Programmed and Skill Development Programmed in the institution.

F2: To initiate innovative student projects each year for new innovative product development.

F3: 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, information on technologies, etc. by creating a bridge between industries and the academic institution.

F4: To arrange interaction with entrepreneurs and create a mentorship scheme for student entrepreneurs to be a successful firm.

F5: To facilitate the creation of entrepreneur's clubs in each department to foster a culture of entrepreneurship amongst students.

F6: To encourage filing of patents among students and faculties.

Mapping of Functions (F) with Pos:

po/f	p o 1	p o 2	p o 3	p o 4	p o 5	p o 6	p o 7	p o 8	p o 9	p o 1 0	p o 1 1	p o 1 2
F1	2	2	3	3	2	-	-	-	2	2	3	1
F2	2	3	3	3	2	-	-	-	2	2	3	1
F3	2	2	2	3	3	-	-	-	3	2	3	-
F4	1	2	2	3	3	-	-	-	2	2	3	1
F5	2	2	2	2	3	2	-	-	3	2	3	1
F6	3	2	3	3	2	1	-	-		2	3	1
F	2 . 0	2 . 3	2 . 5	2 . 8	2 . 5	2 . 0	-	-	2 . 3	2. 0	3. 0	1. 0

Entrepreneurship Initiatives:

- The Institute strongly believes that original and innovative ideas are born in the minds of young people.
- The Entrepreneurship Development Cell (EDC) at Viswam Engineering College has been established to develop entrepreneurial spirit among the students and help them to realize their dreams.
- An effort is made to inculcate these skills from student days, and to provide a holistic education, which includes this kind of orientation.
- In order to fulfill self-awareness, EDC cell has been formed in the College with the following objectives:
 - To conduct various entrepreneurship programmes like Training programmes, Seminars and awareness camps have to be conducted in order to promote entrepreneurship skills among the students.
 - To create awareness of entrepreneurship among the students.
 - To motivate and develop entrepreneurship abilities among the students.
 - To create awareness regarding the sources of help and support available to potential entrepreneurs.

s.n	Name of the student	Roll no	branch	Passed out year	Name of the firm	Place of the firm
1	THOTA DURGA PRASAD	16W51A044 0	ECE	2020	Aedaa Equipments Pvt Ltd	Bangalore
2	DEVARINTI BHARGAV REDDY	19W51A041 6	ECE	2023	Arrow Gaming Zone	Madanapalle

9.7 co-curricular and extra – curricular activities (10/10)

The institution may specify the co-curricular and extra-curricular activities) (Quantify

activities such as NCC, NSS etc.

Extra-Curricular Activities:

National Service Scheme (NSS)

The **National Service Scheme** (NSS) is an Indian government-sponsored public service program conducted by the Department of Youth Affairs and Sports of the Government of India. Popularly known as NSS, the scheme was launched in Gandhiji's Centenary year, 1969. Aimed at developing student's personality through community service, NSS is a voluntary association of young people in Colleges, Universities and at +2 level working for a campus-community linkage. The cardinal principle of the NSS programme is that it is organized by the students themselves, and both students and teachers through their combined participation in community service, get a sense of involvement in the tasks of nation building.

Functions:

All round Personality Development of students through community service.

1. Create awareness about the community in which they work
2. Develop a sense of social and civic responsibility.
3. Identify the needs and problems of the community and involve them in problem solving process.
4. Utilize their knowledge in finding practical solution to individual and community problems.
5. Practice national integration and social harmony.
6. Acquire leadership qualities and democratic attitude

Motto:

The Motto of NSS "**Not Me but You**", reflects the essence of democratic living and upholds the need for self-less service. NSS helps the students develop appreciation to other person's point of view and also show consideration to other living beings. The philosophy of the NSS is well doctrine in this motto, which underlines on the belief that the welfare. of an individual is ultimately dependent on the welfare of the society on the whole and therefore, the NSS volunteers shall strive for the well-being of the society.

PO/ FO	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	PO 9	P O 10	PO 11	PO 12
F01	-	-	-	-	-	3	3	2	3	2	-	-
F02						3	1	1	1	1	-	-
F03	-	-	-	-	-	3	1	1	1	1	-	-
F04	-	-	-	-	-	3	2	2	2	2	-	-
F05	-	-	-	-	-	1	-	-	-	-	-	3
F06	-	-	-	-	-	1	-	1	3	2	-	-

Facilities for NSS Cell

The management of Viswam Engineering College provided many facilities to promote NSS events in and outside the college campus.

1. Special room for NSS cell.
2. Computer with LAN.
3. Conveyance for events outside.
4. Seminar hall for events.
5. Mementos and Certificates.
6. Banners and flexis.
7. Stationery
8. Xerox Machine

NSS COMMITTEE

NSS Cell consists of one coordinator with one faculty member from each department and one student from each class.

CO-ORDINATOR/PROGRAMME OFFICER

S. NO	NAME	DESIGNATION	DEPARTMENT	PHONE NO
1	Mr. S. Arshad Ali	Asst. Professor	H&S	8555089502

FACULTY MEMBERS

S. no	Name	Designation	Department	Phone No
1	Mr. A. Srinivasan	Assistant professor	CSE	8489698104
2	Mr. N. Nagendra	Assistant professor	ECE	9573013478
3	Mr. R. Raj Kumar	Assistant professor	CE	7305585427
4	Dr. B. Reddi Ramu	Assistant professor	MBA	8897892659

5	Mr. G. Pratap	Assistant professor	AIDS	9440883 245
6	Mr. S. Anil	Assistant professor	ME	9885777 956
7	Mr. G. Anasuya	Assistant professor	EEE	9618248 646

STUDENTS MEMBERS

S. N O	NAME	YE AR	DEPARTMEN T	ROLL NUMBER
1	M. Kalyani	III	ECE	21W51A0439
2	N. Nandini	III	ECE	21W51A0444
3	R. Nagamani	III	ECE	21W51A0453
4	T. Someswari	III	ECE	21W51A0461
5	V. Himaja	III	ECE	21W51A0463
6	V. Manjunath	III	ECE	21W51A0465

7	Y. Narasimhulu	III	ECE	21W51A0468
8	Y. Reddybabu	III	ECE	21W51A0471
9	Y. Chaitanya Kumar	III	ECE	22W55A0410
10	H. Fareeha	IV	CSE	20W51A0522
11	J. Mounika	IV	CSE	20W51A0524
12	K. Naveen	IV	CSE	20W51A0527
13	K. Srinath Reddy	IV	CSE	20W51A0529
14	K. Bunny	IV	CSE	20W51A0531
15	G. Dora babu Naidu	III	CSE	21W51A0528
16	G. Ravi Teja	III	CSE	21W51A0525
17	G. Farnaz	III	CSE	21W51A0523
18	E. Varun	III	CSE	21W51A0521

19	G. Reedy Prakash	III	CSE	21W51A0532
20	A. Pawan Kumar	III	CE	22W55A0101
21	G. Balaji	III	CE	22W55A0104

Roles & Responsibilities of Committee Members

Role of the Coordinator

The Programme Coordinator is responsible for the success of NSS activities at the college level. He is most important person in the college level who will be the medium between the students, Faculty members and society. The attitude of Programme Officer should be positive to implement the NSS activities. The Programme officer makes the coordination between the students and the society.

The Programme Officers is to motivate student youth to understand the moral and ethical values of NSS. The overall function of Programme Officer is to help the students to plan, implement, and evaluate the activities of NSS and give proper guidance and directions to the student volunteers. The Programme Officer plays prominent role for the success of NSS activities like Coordinator, Educator, Administrator, Supervisor, Organizer and as a Public Relations Officer.

Role of Member

The role of a committee member is to participate at committee meetings and extends his support to any task. He has to attend committee meetings and carry out agreed actions set by the coordinator. Communicating with the volunteers when events are organized. Enrolling the students as NSS volunteer by

motivation. To make decisions as a collective group and hold joint responsibility for decisions and actions taken by the committee, even in their absence. They are responsible for ensuring that all decisions are taken in the best interests of the committee and that their role is carried out effectively.

S. No	Occasion	Date & Month
1	National Youth Day & Week	12 th to 19 th January
2	National Voters Day	12 th January
3	Republic Day	26 th January
4	World Cancer Day	4 th February
5	National Science Day	28 th February
6	Water Awareness Day	1 st to 7 th March
7	International Women's Day	8 th March
8	Worlds Handicapped Day	15 th March
9	World Disabled Day	19 th March
10	World Forrest Day	20 th March
11	World Health Day	7 th April
12	Fire Prevention Day	14 th April
13	Swachh Bharath Pakhwada	1 st to 15 th May
14	Nutrition Day	1 st to 7 th May
15	World Mother's Day	10 th May
16	Anti-Terrorism Day	21 st May
17	World Tobacco Day	31 st May
18	World Environment Day	5 th June
19	World Against Child Labor Day	12 th May
20	World Blood Donors Day	14 th June
21	International Day of Yoga	21 st June
22	Vana Mahotsav Week	1 st to 7 th July
23	World Population Day	11 TH July
24	Campaign Against nuclear weapons	6 th August
25	Independence Day	15 th August
26	Women's Equality Day	26 th August
27	Teacher's Day	5 th September

28	International Literacy Day-Week	8 th to 14 th Sep
29	N.S.S. Foundation Day	24 th September
30	Celebrations of Gandhi Jayanthi as promotion of Kadhi Day/ International Day of Non-Violence and Peace/Swachh Bharat	2 nd October
31	World Eye Sight Day	12 th October
32	World Food Day	16 st October
33	International Coastal Cleanup Day	21 st October
34	Rastriya Ekta Diwas (National Unity Day/Saving Day/National Integration Day)	31 st October
35	Mother's Day	19 th November
36	Worlds AIDS Day	1 st December
37	International Volunteers Day	5 th December
38	Human Rights Day	10 th December

Role of NSS volunteer

An NSS Volunteer is a student, enrolled his name in the National Service Scheme. The roles of the NSS volunteers are very important according to the National Service Scheme. The NSS volunteers must actively participate in the NSS activities. The volunteer's coordination is important to the advisory committee for the smooth execution of the NSS activities.

The NSS volunteers are performing the role of mediator between the education system and the community which is helpful for the nation building.

**YEAR PLANNER List of International and National Days/Weeks to be observed
by NSS Unit Appreciations for the Events Conducted**

AY	2022-23	2021-22	2020-21
No. of Awards and Appreciations Received	4	5	4

S. No.	AY	Name of the Award and Appreciation	Awarding agency	Date of receipt of the award
1	2022-2023	Clean and green environment	Tettu Grama panchayat office	01.03.2023
2	2022-2023	Distributing stationary to the students	sri Goodwill Computers	02.02.2023
3	2022-2023	Awareness among the students on dental and eye care	Rotary Club Madanapalle	11.11.2022
4	2022-2023	Swachha Bharat	Tettu Grama panchayat office	12-10-2022
5	2021-2022	Blood Donation Camp	Lions Club Madanapalle	16-03-2022
6	2021-2022	Massive Tree Plantation Day	Tettu Grama panchayat office	05-02-2022
7	2021-2022	Promotions of the clean and green Environment programme	Helping minds Society	06-11-2021
8	2021-	Free Medical	Rotary Club	5-10-2021

	2022	Camp	Madanapalle	
9	2021-2022	Computer Learning and Small Savings	Sri Goodwill Computers	24-09-2021
10	2020-2021	Adult Education and Drill-Yoga	Rotary club Madanapalle	05-03-2021
11	2020-2021	Tree Plantation Programme	Tettu grama panchayat office	05-08-2020
12	2020-2021	Awareness Rally on Corona Virus	Tettu grama panchayat office	15-07-2020
13	2020-2021	Awareness Programme on World Cancer Day	Helping Minds Society	04-06-2020

<p style="text-align: center;">TETTU GRAMA PANCHAYAT OFFICE (Sachivalayam) Tettu, Kurabalakota Mandal.</p> <p>Subject: Appreciation Letter to Viswam Engineering College, Angalla – For the “Massive Tree Plantation Day”.</p> <p>Respected Sir,</p> <p style="text-align: center;"><u>Letter of Appreciation</u></p> <p>This is to appreciate the efforts of NSS volunteers of your ‘Viswam Engineering college’ for participating in the “Massive Tree Plantation Day” in Tettu Grama Panchayat area, Kurabalakota Mandal on 05-06-2022. We hope to do more green activities with the support of your NSS volunteer team in future too.</p> <p>Thanking you,</p> <p style="text-align: center;">   (Sarpanch) </p> <p style="text-align: center;">   (Panchayat Secretary) </p> <p style="text-align: center;">  </p>	<p style="text-align: right;">Regd. No.215/2014</p> <p style="text-align: center;">  Helping Minds Society being human... respect humanity... </p> <p style="text-align: right;">Date: 16-11-2021</p> <p>Shaik Abubakar Siddiq Founder + 91 950 246 1515</p> <p>Subject: Appreciation Letter to Viswam Engineering College, Angalla, for the “Promotions of Clean & Green Environment”</p> <p>Respected Sir,</p> <p style="text-align: center;"><u>Letter of Appreciation</u></p> <p>This is to appreciate the efforts of NSS volunteers of your ‘Viswam Engineering college’ for participating in the “Promotions of Clean & Green Environment Programme” in Tettu Grama Panchayat area, Kurabalakota Mandal on 16-11-2021. The Programme was highly successful as the people of our area expressed their gratitude, as they came to know the importance of Clean & Green Environment and the wonderful benefits of it. And they expect such programmes need to be conducted now and then. Hence, we appreciate your efforts for your active participation and the valuable time you spent to enlighten the people about the importance of Clean & Green Environment.</p> <p>Thanking you,</p> <p style="text-align: right;">   </p> <p style="text-align: center;">  </p> <p style="text-align: center;"> # 4-2-16, Krishna Nagar, MADANAPALLE - 517 325, Chittoor Dist., A.P. e-mail : helpingmindsociety.mpi@gmail.com Cell : 950246 1515, 8099 513 517 </p>

 <p>ROTARY CLUB, MADANAPALLE Rotary Children's Library, Baby Welcome Home MADANAPALLE - 517 325, Annamayya Dist., A.P. email : rotarympk@gmail.com</p> <p>To The Principal Viswam Engineering College, Madanapalle -517325</p> <p>05.10.2021</p> <p>Dear Sir</p> <p>Sub: Appreciation letter for conducting a Health awareness camp in your college campus in connection with National Health Protection Initiative – Regarding</p> <p>Ref: Our request to NSS Officer to conduct this program on 05.10.2021.</p> <p>We thank all the participants in the above program conducted by our Rotary club, Madanapalle to create awareness among the students about the dental and eye care in your college campus on 05.10.2021. We appreciate all the heads of department of the college to encourage the students to participate in this program.</p> <p>We appreciate the efforts of Dr. Anil Kumar Reddy, BDS and Dr. Vamsidhar Reddy, Ophthalmist for participating and making the students to know the ways and means to keep good health of their teeth and eyes.</p> <p>We also thank the NSS Officer for his support and appreciate the management for their support for all Rotary initiated programs for the benefit of the students.</p> <p>Thanking you  (P.V.Prasad) President, Rotary Club, Madanapalle</p>	 <p>An ISO : 9001:2015 DIRECTLY AUTHORIZED BY Tally EDUCATION PVT. LTD. BENGALURU A.P. Govt. Regd. No. 205/2018</p> <p>SRI GOODWILL COMPUTERS The Institute of Computers and Accounts</p> <p></p> <p>C. Ajay Kumar, M.Com., PGDCA Managing Director</p> <p>Subject: Appreciation Letter to Sir Vishveshwaraiah Institute of Science & Technology – Angalla – for the "Distributing Stationery to The Students on Special Camp"</p> <p>Respected Sir,</p> <p style="text-align: center;">Letter of Appreciation</p> <p>This is to appreciate the efforts of NSS Unit of your Sir Vishveshwaraiah Institute of Science & Technology for participating in the "Distributing Stationery to The Students on Special Camp" in Tetta Grama Panchayat area, Kimbakhota Mandal on 05-09-2017. The Programme was highly successful as the people of our area expressed their gratitude for the NSS Unit distributed stationery to all the students on Special Camp on behalf of Sri Goodwill Computers. And we sincerely welcome you to conduct such important programmes often.</p> <p>Thanking you,</p> <p style="text-align: right;"> MANAGING DIRECTOR SRI GOODWILL COMPUTERS Educational Welfare Society MADANAPALLE - 517 325</p> 

A. Availability of sports and cultural Facilities:

- Sport is an integral part of the curriculum. Various sports facilities are provided to the students within the campus.
- The college is committed to create a balanced atmosphere of academic, cultural, and sports activities for the overall personality development of its students.
- Various sports competitions such as Inter-departmental, intercollegiate, Inter-University, etc. help in developing team spirit in students.
- Their interpersonal relationship is enhanced in a very healthy manner. Students are provided with honors like medals, trophies, and certificates.
- The college has a separate hall for conducting and practicing indoor games and with necessary sports materials like Caroms, chess, and table tennis.
- The college has well-established and separate courts for outdoor games like basketball, volleyball, shuttle, tennikoit, throwball, cricket, etc.
- All these sports and games are conducted and organized by a qualified Physical Director.

Table.9.7.1 Details of Sports Facilities available

S. N o	Name of the Area	Open Ground/ Plinth Area in Sq. Mtrs.
1	Basketball	423.52
2	Volley ball	201.72
3	Throw ball	213.26
4	Tennikoit	155.33
5	Shuttle badminton	292.00
6	Cricket	2910.00

Broad activities of the department:

- Preparation of Play fields for the use of players from time to time.
- Conduct selection trials to pick-up talented players for participation in Inter-collegiate tournaments, practice matches, and invitation tournaments of students and staff.
- Providing coaching to the participating teams.
- Providing games and sports material for regular practice.
- Inviting quotations for the purchase of quality sports material.
- Organizing practice matches for different events from time to time.
- Guiding students/players towards academic accomplishments.
- Providing sports uniforms for the students for participation in tournaments.
- Conducting intramural games and sports competitions for men and women students separately in volleyball, cricket, football, table tennis, badminton, throwball, tennikoit, athletic events, etc.
- Presenting meritorious certificates and mementos to the winners and runners in intramural competitions for students and staff on college annual sports day celebrations
- Providing T.A., D.A., and sports Uniforms to the college team players for participation in inter-collegiate and other recognized tournaments.

- Grant of attendance to the participating students in the competitions.

NSS Cell:

- The institute has an active NSS Cell, which facilitates in organizing various programs like Swachh Bharath, Blood donation camps etc.
- Every year students enroll for the NSS work and participate in the activities as per the academic Convenience.
- College organized many blood donation camps, medical camps, and health awareness camps, as part of the social responsibility under National Service Schemes.

Table 9.7.1 List of NSS activities organized

S. No	Name of the programme	Name of the organization	Date
2022-23			
1.	Awareness program on the Disha App	Viswam Engineering College	13.09.2022
2.	Computer learning and small savings	Viswam Engineering College	24.09.2022
3.	Free Medical Camp	Viswam Engineering College	05.10.2022
4.	Promotions of clean & green environment	Viswam Engineering College	16.11.2022
5.	Awareness of World AIDS Day	Viswam Engineering College	01.12.2022
6.	Awareness on Covid-19	Viswam Engineering College	20.02.2023

7.	Adult education & Drill Yoga	Viswam Engineering College	06.01.2023
2021-22			
1.	Awareness program on Yoga Day	Viswam Engineering College	17.10.2021
2.	Special camp	Viswam Engineering College	07.02.2022
3.	Adult education & Drill Yoga	Viswam Engineering College	05.03.2022
4.	Free mega medical	Viswam Engineering College	12.03.2022
5.	Blood group special camp	Viswam Engineering College	08.04.2022
2020-21			
1.	Road safety week	Viswam Engineering College	15.11.2020
2.	Awareness rally on corona virus	Viswam Engineering College	15.02.2021
3.	Special camp	Viswam Engineering College	08.03.2021
4.	Blood group special camp	Viswam Engineering College	08.04.2021

Table.9.7.2 List of NSS activities organized



Awareness program on World Cancer Day



Donation for Medical Expenses for School Kid Suffering from Dengue



Awareness Program on Yoga Day



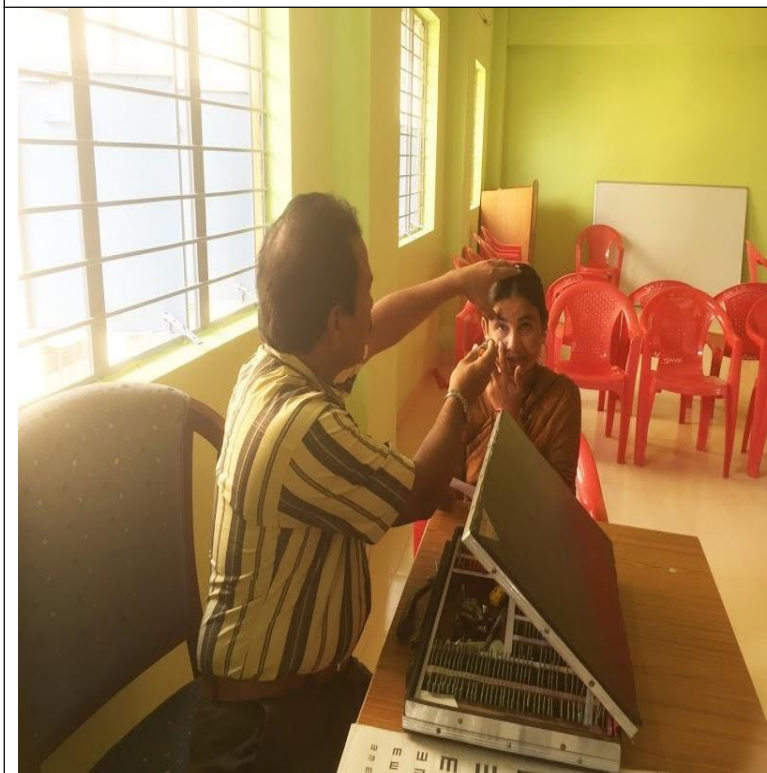
Awareness Rally on Corona Virus



Clean and Green Program on Plant Power Day



Road safety week (Special Camp)



One Day Medical Camp



Blood Donation Camp



National Voters Day



Adult Education & Drill-Yoga



Tree Plantation on NSS Day



(Tank Bund Cleaning)



Road safety



Special camp



Meditation class



Plantation day

B. Annual day students activities:

- Viswam Engineering College gives much importance to activities apart from curriculum through well-structured Co-curricular and Extra-curricular activities.
- These activities are integrated and spread over the entire academic year, as they have profound impact in shaping up the overall personality of a student.
- All activities are pre-planned and included in the college curricular calendar.
- All activities are well planned and executed by the students with the support of faculty when it is needed.
- **Orientation Day** (for I-B. Tech students and their parents), **Traditional Day** (UDHBAV-2K22), **TECHNOPHILIA-2K23** (the tech fest) and **AAGAMANA** (the College Day) are the major annual attractions.
- Students actively participate in programs conducted on important days like Republic Day, Independence Day, Engineers Day etc.
- They also participate in sports and cultural activities every year.



AAGAMANA



ADVITIYA



UDBHAV-2K22



TECHNOPHILIA



Orientation Day



C.Cultural Committee

The cultural committee is one of the crucial Committees of the college as far as the co-curricular and extra-curricular activities are concerned. Colleges believe in all round personality development of the students as a goal of education. It aims to provide rich cultural experiences and innovations so that student appreciates the multi-cultural diversity of the society. The committee is responsible for organizing any kind of cultural activity in and outside of the campus. committee members comprising of both staff and students, meet together at regular intervals to initiate, formulate, and plan the co-curricular activities and cultural programs besides their academic activities. The committee takes initiative to find out and include new talents of the students in extra-curricular disciplines, as well as prepare and provide a platform for the students to project their talents through various cultural programs.

Functions of the Committee

FO1 To encourage the students to participate in Youth Fests and intercollegiate events

FO2 To motivate and involve the students in co-curricular activities for their holistic development as a human being.

FO3 To plan and schedule cultural events for the academic year.

FO4 To create opportunities for students where they can portray their talents besides the academic activities

FO5 Supervise the cultural growth in student community in terms of the practice of innovative co-curricular activity.

FO6 To enhance the campus life experience of every student through cultural and extracurricular activities

FO7 To have student clubs, and /communities in all areas of importance for student development.

Cultural Committee Members 2022-23

S. N o.	Name of the Member	Designation	Committee Designation
1	Mrs. B. Jyothsna	Associate professor	Coordinator
2	Mrs. K. R. Gayathri	Assistant Professor	Faculty Member
3	Mrs. W. J. Himabindu	Assistant Professor	Faculty Member
4.	Mrs. K. Haritha	Assistant Professor	Faculty Member
5.	Mrs. G. M. Anasuya	Assistant Professor	Faculty Member
6	Ms. V. Himaja	III Yr ECE	Student Member
7	Mr. V. Manjunath	III Yr ECE	Student Member

Roles and Responsibilities of the Committee

- The Committee is responsible to design and finalize the list of cultural events, participants related to the specific cultural programme.
- The Committee is responsible to do all preparations like sending information to the people, gathering of students-parents, making arrangements for the functions or programmes, dealing with event managers.
- Coordinator and assistant coordinator chalk out the cultural activities and arrange for rehearsals
- Students' in-charges shall inspect the rehearsals and make it a place for all the people willing to perform/participate
- Monitoring the discipline during cultural activities.

Roles and Responsibilities of Coordinator.

- To plan and schedule cultural events for the academic year. (Tentative dates to be included in the academic calendar of the institute.)
- To obtain formal permission from the College authorities to arrange the program
- To prepare a budget for all cultural events and take necessary steps for its approval.
- To invite the Chief Guest and other dignitaries
- Conduct meetings of the committee to discuss and delegate tasks.

Roles and Responsibilities of Faculty Member.

- One cultural in-charge and faculty member from each department schedules the cultural events at different times throughout the year.
- To arrange the venue and logistics (audio/video system, dais, podium, etc.)
- To arrange mementos for guests and gifts/certificates for the participants
- Ensuring student and volunteer participation for making the events/fests successful.
- External artist and supporting staff-related issues will be addressed by faculty members from each department and cultural in-charge.

Roles and Responsibilities of Student Members.

- Members from the student community will be giving continuous support to the teachers as well as the students to keep them informed about the upcoming cultural activities.
- To display on the Notice Board/Website information about festivals to be celebrated
- To ensure adequate PR and Publicity of the event(s)

Events/ Activities of the cell

Singing (Solo)

Singing (Group)

Instrumental Music

Dance(solo) Dance (Group). Mehandi

Rangoli

Utti Striking

Drawing

List of events organized in 2022-2023

S. No	Date	Occasion	Event/Description	Participants
1	21 st June 2022	Yoga Day	Yoga Asanas	VISM faculty members participated
2	19 th July 2022	Orien tation Day	Welcoming First Year Students.	All B. Tech First Year VISM Students participated
3	05 th September 2022	Teach er's Day	Felicitation to Teachers by Students.	All the students of B. Tech and MBA of VISM participated in the event
4	15 th September 2022	Engin eer's Day	1. Poster presentation 2. Mini projects	All the students of B. Tech II nd , III rd , IV th year of VISM participated in the event
5	22 nd September 2022	Fresh er's Day	1. Mr. and Miss Fresher	All MBA First Year and Second Year VISM Students participated
6	29 th September 2022	Grad uatio n day	Issuing Graduation Certificate to passed out Students	All the VISM 2018 passed out batch students attended the event.
7	09 TH JANUARY 2023	SANK RANT HI SAMB ARAL	Mehandi Competition Rangoli Competition	All the students of B. Tech II nd , III rd , IV th year and MBA of MCET participated in the event

		U		
8	09 th FEB 2023	Tradit ional Day	1.Mr. And Miss Traditional 2. Rangoli Competition 3. Mehendi Competition 4.Utti Striking	All the students of B. Tech and MBA of VISM participated in the event
9	25 TH MARCH 2023	Natio nal Scien ce Day	1.Essay Writing 2. Elocution 3. Poster Presentation	All the students of B. Tech 1st year participated in the event.
10	29 TH JANUARY 2022	Fresh er's Day	Mr & Miss Fresher	All B. Tech First Year and Second Year VISM Students
11	MAR 17 TH 2022	Tradit ional Day	Rangoli Competition Mehandi Competition .Utti Striking	All the students of B. Tech and MBA of VISM participated in the event

List of events organized in 2021-2022

S . N o	Date	Occa sion	Event/Descrip tion	Participants
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1	21 st June 2021	Yoga Day	Yoga Asanas & Surya Namaskars	All VISM faculty members participated
2	22 nd July 2021	Orientat ion Day	Welcoming the First Years	All B. Tech First Year VISM Students participated
3	05 th September 2021	Teacher 's Day	Felicitation to Teachers by students.	All the students of B. Tech and MBA of VISM participated in the event
4	15 th OCTOBER 2021	Enginee r's Day	1. Poster presentation 2. Mini projects	All the students of B. Tech II nd , III rd , IV ^t h year of VISM participated in the event
5	20 TH NOVEMB ER 2021	Bathuk amma Celebra tion	1. Mehandi Competitio n 2. Rangoli Competitio n	All the students of B. Tech II nd , III rd IV ^t h year and MBA of VISM participated in the event
6	30 th September 2021	Fresher' s Day	1. Mr. and Miss Fresher	All B. Tech First Year and Second Year VISM Students participated
7	05 th JANUARY 2022	Traditio nal Day	1. Mr. And Miss Traditional 2. Rangoli Competition 3. Mehandi Competition	All the students of B. Tech and MBA of VISM participated in the event

			4.Utti Striking	
8	28 th February 2022	Nationa 1 Science Day	1.Essay Writing 2.Elocution 3.Poster Presentation	All the VISM and Stanley College of Engineering and Technology students participated

List of events organized in 2020-2021

S . N o	Date	Occas ion	Event/Descripti on	Participan ts
1	30 th July 2020	Orient ation Day	Welcoming the First years Students .	All B. Tech First Year VISM Students participated
2	05 th September 2020	Teach er's Day	Felicitation to Teachers by students.	All the students of B. Tech and MBA of VISM participated in the event
3	17 TH h September 2020	Engin eer's Day	1.Elocution 2.Essay Writing	All the students of B. Tech II nd , III rd ,IV ^{t h} year VISM participated in the event
4	15 th October 2020	Tradit ional Day	1. Mr. And Miss Traditional 2. Rangoli Competition 3. Mehandi Competition 4. Utti Striking	All the students of B. Tech and MBA of VISM participated in the event

5	12 th November 2020	Bathu kamm a Celebr ation	1. Mehandi Competition Rangoli Competition	All the students of B. Tech II nd , III rd , IV th year and MBA of VISM participated in the event
6.	03 rd December 2020	Fresh er's Day	1.Mr. and Miss Fresher	All B. Tech First Year and Second Year VISM Students participated
7.	28 th February 2021	Natio nal Scien ce day	1.Essay Writing 2. Quiz 3.Elocution 4.Poster Making	All B. Tech 1 st year students.
8	11 th March 2021	Annu al Day- Methr ic Utsav	Solo Singing Group Dance Painting	All the students of B. Tech and MBA of VISM participated in the event

AY	2022- 23	2021- 22	2020- 21
Total No. regional festivals celebrated	11	08	08





D. Sports and Games Cell:

Sports and Games Cell is basically constituted to improve, develop and create awareness of sports and games for an individual. As the saying goes “Health is Wealth”, we strive to inculcate the habit of exercising and keeping good health. All sports and games help in achieving the best physical fitness and good health.

Functions of the Cell

FO 1	To develop the spirit of sportsmanship & leadership qualities among the students in college.
FO 2	To create an environment this encourages the students to actively participate in various sports and games competitions outside the college.
FO 3	To create awareness about the benefits of physical exercises to maintain a good physical and mental health among students.
FO 4	To evaluate fair results of the games conducted
FO 5	To schedule and apply the events/planner for the academic year in consultation with the student’s representative and management.

Roles & Responsibilities of Sports Cell**Role of the Coordinator**

1. Ensure all necessary tasks for day to day running of the game and sports activities of the college are carried out.
2. To Chair Committee Meetings ensuring that they are running efficiently and effectively
3. To represent the committee and the college involving all sports matters.
4. Submit an annual report to the college management.

5. Ensure transparency in the related activities

Role of the Faculty Member

1. Maintain records of the Committee and ensure effective management of committee's records.
2. Formulate and update the yearly calendar of events under the observation of coordinator of the committee.
3. Communicate with respective Head of the Department regarding the activities of the cell.
4. Identify the students who have leadership quality and propose their name to the coordinator as student representative.
5. Report all the related day to day activities to the coordinator of the committee.

Role of the Student Member

1. To communicate to the fellow students about the scheduled games and sports in/out side campus.
2. To follow up and implement the instructions periodically given by Coordinator and Faculty members of the committee.
3. To help members in organizing sports & games in/out side campus events under the guidance of the faculty member.

Role of the Physical Director:

1. To maintain a stock ledger of all available items and equipment related to the cell.
2. To ensure the purchase and service of any item or equipment related to the cell.
3. To maintain and upkeep the sports facilities of the college including the ground.
4. To provide First Aid facility during the sports and games activities.

Facilities of the Cell**Outdoor Facilities**

S 1. N o	Name of the Facility	Qua ntit y	Dimens ion	Occu pancy
1	Shuttle Badminton Court	1	13.4m x 6.1m	4
2	Volleyball	2	18m x 9m	24
3	Throw Ball Court	2	18.30m x 12.20m	18

Indoor Facilities

S. No	Name of the Facility	Quan tity	Dimension
1	Table tennis board	1	2.74m x 1.525m x 15.25cm(net)
2	Carom Board	2	Standard
3	Chess	7	Standard

Faculty Committee:

Co-Ordinator: B. Bhaskar

S. No	Name of the Faculty	Department
1	Mrs. B. Keerthi	ECE
2	Mrs. G. M. Anasuya	EEE
3	Mr. S. Anil	MECH
4	Mr. R. Raj Kumar	CE
5	Mr. A. Srinivasan	CSE
6	Mr. S. Jaya praksah	H&S
7	Mr. V. R. Rama Krishna	MBA

Student Committee:

S. No	Name	Roll No	Department
1	Y. Reddy babu	21W51A0471	ECE
2	Y. Chaitanya Kumar	22W55A0410	ECE
3	H. Fareeha	20W51A0522	CSE
4	J. Mounika	20W51A0524	CSE
5	K. Naveen	20W51A0527	CSE
6	K. Srinath Reddy	20W51A0529	CSE
7	A. Pavan Kumar	22W55A0101	CE
8	M. Manasa	23W55A0209	EEE
9	P. Hareesh	23W55A0302	ME



VISWAM ENGINEERING COLLEGE

(Formerly Sir Vishveshwaraiah Institute of Science & Technology)

Madanapalle – 517 325

Summary – Sports events conducted

AY	2022-23	2021-22	2020-21
Total No. events conducted	15	17	14

S. No.	AY	Name of the Event	Date of Event
1	2022-23	Leg To Leg	31/8/2023
2		Kabaddi	2/3/2023
3		Tennikoit	18/4/2023
4		Badminton	13/4/2023
5		Carrom Board	3/4/2023
6		Chess	27/3/2023
7		Disc Throw	8/3/2023
8		Chess	10/11/2022
9		Throw Ball	10/3/2023
10		Cricket Tournament	20/3/2023
11		Leg To Leg	15/10/2022
12		Badminton	16/09/2022
13		Hockey	2/6/2022
14		Cricket Tournament	6/7/2022

15		Essay Writing	8/8/2022
S. No.	AY	Name of the Event	Date of Event
1	2021-22	Cricket Tournament	20/3/2022
2		Kho Kho	1/2/2022
3		Kabaddi	15/02/2022
4		Running	21/7/2022
5		Long Jump	28/2/2022
6		High Jump	20/3/2022
7		Shotput	15/03/2022
8		Volley Ball	18/04/2022
9		Basket Ball	18/04/2022
10		Tennikoit	15/03/2022
11		Volley Ball	21/7/2022
12		Running	15/02/2022
13		Kabaddi	21/7/2022
14		Leg To Leg	20/3/2022
15		Badminton	14/04/2022
16		Hockey	16/04/2022
17		Lemon Spoon	18/04/2022
S. No.	AY	Name of the Event	Date of Event
1	2020-21	Essay Writing	27/2/2021

2		High Jump	16/04/2021
3		Shotput	14/03/2021
4		Volley Ball	21/7/2021
5		Basket Ball	15/02/2021
6		Tennikoit	21/7/2021
7		Volley Ball	26/2/2021
8		Running	27/2/2021
9		Kabaddi	19/3/2022
10		Leg To Leg	13/04/2021
11		Badminton	15/04/2021
12		Hockey	16/04/2021
13		Cricket Tournament	14/04/2021

Student Clubs:

STUDENT ACTIVITIES CLUB (SAC)

Opening eyes to more than just studies

The SAC is committed to achieving a pluralistic community and to assist the student body in developing rational, critical and creative capabilities. More specifically, it seeks to engage students in active learning, to assist them in establishing a meaningful value based and futuristic quality system, and ethical standards, and to set high expectations for each student.

Through our programs and personal interactions, we collaborate with students, faculty and staff members to provide diverse and a balanced technical, intellectual, cultural and social program. We aim for these programs to encourage student learning and holistic development, awareness and responsible living, and enhance the vision of the college. By offering effective programs and participation in all College venues and by encouraging and supporting activities that include student clubs and organizations, provides opportunities for students to inculcate values and lifelong learning attitude.

SAC Activities

We conduct various events and sessions throughout the year to bring out the Techie in students of Viswam Engineering College.

Projects Currently few students are working on their major/minor projects under the club.

Lectures & Workshops

Watch, Learn and Practice. Each club conducts lectures and workshop round the year covering various topics of Electronics.

Compete with your Batch mates

Competitions/ Quiz among students conducted weekly

Test your Potentiality

Show/ test your potentiality

SAC Coordinators:

1.S. Sai Nishwanth

2.T. Pravallika

3.A. Vinodh Kumar

The list of Student activity clubs in the department of ECE

- NEXT GENERATION COMMUNICATION NETWORKS (NGCN) CLUB
- VAIDYUKTHA (ELECTRONICS) CLUB

Criterion 10	Governance, Institutional Support and Financial Resources	120/120
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10.1 Organization, Governance and Transparency (40/40)

10.1.1 State the Vision and Mission of the Institute (5/5)

Vision of Viswam Engineering College Madanapalle

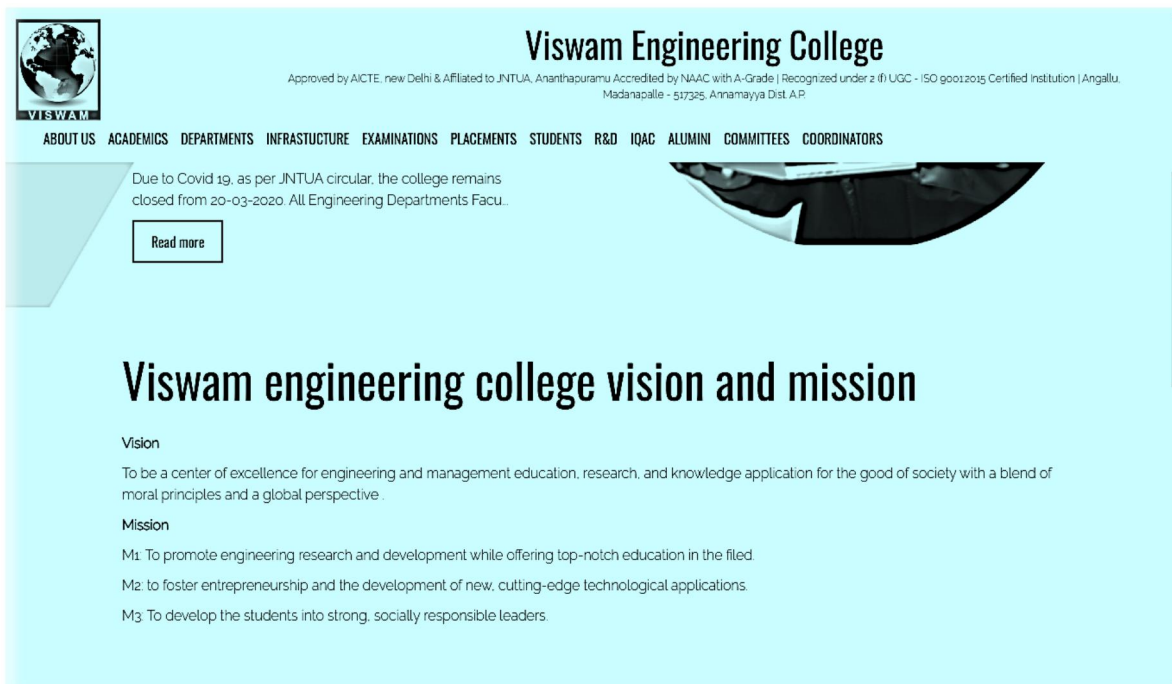
Vision To be a center of excellence for engineering and management education, research, and knowledge application for the good of society with a blend of moral principles and a global perspective. Mission of Viswam Engineering College Madanapalle

Mission

M1 To promote engineering research and development while offering top-notch education in the field.

M2 To foster entrepreneurship and the development of new, cutting-edge technological applications.

M3 To develop the students into strong, socially responsible leaders



Viswam Engineering College
Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu Accredited by NAAC with A-Grade | Recognized under 2 (f) UGC - ISO 9001:2015 Certified Institution | Angallu, Madanapalle - 517325, Annamayya Dist.A.P.

ABOUT US ACADEMICS DEPARTMENTS INFRASTRUCTURE EXAMINATIONS PLACEMENTS STUDENTS R&D IQAC ALUMINI COMMITTEES COORDINATORS

Due to Covid 19, as per JNTUA circular, the college remains closed from 20-03-2020. All Engineering Departments Facu..

[Read more](#)

Viswam engineering college vision and mission

Vision
To be a center of excellence for engineering and management education, research, and knowledge application for the good of society with a blend of moral principles and a global perspective.

Mission

M1: To promote engineering research and development while offering top-notch education in the field.
M2: to foster entrepreneurship and the development of new, cutting-edge technological applications.
M3: To develop the students into strong, socially responsible leaders.

Figure 10.1.1 the Institute Vision and Mission



Figure 10.1.2 the Institute Vision and Mission

Mapping of Vision and Mission

Viswam Engineering College's Vision and Mission			PEOs		
			1	2	3
Vision		To be a center of excellence for engineering and management education, research, and knowledge application for the good of society with a blend of moral principles and a global perspective.			
Mission	M 1	To promote engineering research and development while offering top-notch education in the field			
	M 2	To foster entrepreneurship and the development of new, cutting-edge technological applications.			
	M 3	To develop the students into strong, socially responsible leaders			
Vision and Mission of the Department			PEOs		
			1	2	3
Vision		The Vision of Electronics and Communication Engineering is to produce globally competent and socially responsible electronics and communication engineers with high academic knowledge, ethical values, leadership skills and a passion to contribute to the society and also to be a center of excellence in emerging technologies to carry scientific research for the society.			
Mission	M 1	To establish high quality learning environment comparable to world class standards.			
	M 2	To foster innovation, creativity, integrity, development activities and apply knowledge on			

		Electronics and Communication Engineering.			
	M 3	To promote innovative research in cutting edge technologies and establish industry-institute-interactions and equip the students to apply engineering principles to The society development.			

Department of Electronics and Communication Engineering

Justification of Department Vision in correlation with Institute Vision

Vision of the Department	Vision of the Institute	Justification
The Vision of Electronics and Communication Engineering is to produce globally competent and socially responsible electronics and communication engineers with high academic knowledge, ethical values, leadership skills and a passion to contribute to the society and also to be a center of excellence in emerging technologies to carry scientific research for the society.	To be a center of excellence for engineering and management education, research, and knowledge application for the good of society with a blend of moral principles and a global perspective.	The electronics and communication engineering department strongly follows the Mission and vision for the department in providing in depth knowledge to obtain outstanding education and ethical values, leadership skills and a passion to contribute to the society and also to be a center of excellence in emerging technologies to carry scientific research for the society.

Department Mission in Correlation with Institute Mission

Electronics and Communication Engineering				
Mission of Department	Mission Statements	Mission of the Institute		
		M1	M2	M3
		To promote engineering research and development while offering top-notch education in the field	To foster entrepreneurship and the development of new, cutting-edge technological applications.	To develop the students into strong, socially responsible leaders
Department Mission 1 (DM1)	To establish high quality learning environment comparable to world class standards.	2	2	2
Department Mission2 (DM2)	To foster innovation, creativity, integration, development activities and apply knowledge on Electronics and	3	3	2

	Communicatio n Engineering.			
Department Mission 3 (DM3)	To promote innovative research in cutting edge technologies and establish industry- institute- interactions and equip the students to apply engineering principles to The society development.	3	3	2

Note :- Correlation levels : 1- Average ,2- Medium, 3 -Strong

Electronics and Communication Engineering			
Justification of department mission in correlation with Institute Mission			
Department Mission	Institute Mission	Justification	
Department Mission 1 (DM1)	Institute Mission 1 (IM1)	DM 1 and IM 1 are strongly correlated because M1 addresses the opportunity for the staffs to teach and assess using the student centric methodologies as per the New norms of education.	For the innovative teaching, we need a rapid change in the teaching methodologies that can be attained through the efficient assessment to the students and effective teaching by the faculties using ICT Tools.
	Institute Mission 2 (IM2)	DM 1 and IM2 are strongly correlated because M2 Addresses the industry and government organization, collaboration, which is comparatively Good.	Many hardware and software industries are coming forward to give the priority of career opportunities to the students in all aspects of their genuine and surplus internship training, implant training etc., Students projects are based on problem statement provided by industries.
	Institute Mission 3 (IM3)	DM 1 and IM3 are strongly correlated because M3 address on nurturing leadership qualities in young men and women.	Lots of placement classes, hackathon programs and career guidance are conducted to the students to enhance the qualities of young men and women as for the technological expectations.

Department Mission2 (DM2)	Institute Mission 1 (IM1)	DM2 and IM1 are strongly correlated because M1 addresses innovation and entrepreneurship in the college premises	In our college, to motivate and strengthen the ideas of the students, Atal incubation center helps them in all aspects to come with their new ideas and project proposals. With the guidance to them, a product or patent which will be useful to the people and society is finally implemented.
	Institute Mission 2 (IM2)	DM2 and IM2 are strongly correlated because M2 addresses of socially responsible, ethical professionals for the welfare of the society.	For the industry and government organizations collaborations and curriculum alignment and focused, the interest of the students to come forward for any type of job opportunities to gain their experience is moderate. CSR Activities are conducted to inculcate the social needs in the professional work.
	Institute Mission 3 (IM3)	DM2 and IM3 are strongly correlated because M3 addresses on the good leadership and innovation which the institution provides to the faculties and students to	Skill based training, effective group discussions in placement classes and management related elective papers are chosen by the students according to their interest to accelerate their

		inculcate them.	professional escalation.
Department Mission 3 (DM3)	Institute Mission 1 (IM1)	DM3 and IM 1 are correlated strongly because M3 Promote innovative research in cutting edge technologies.	Providing opportunities through industrial collaboration to promote research and development with endless learning habit to acquire recent updates.
	Institute Mission 2 (IM2)	DM3 and IM 2 are correlated strongly because M2 addresses to foster entrepreneurship, development activities and apply knowledge.	To provide high quality technical education to students that will enable life long learning and build expertise in advanced technologies in Electronics and Communication Engineering
	Institute Mission 3 (IM3)	DM3 and IM3 are strongly correlated because M3 addresses on the good leadership and innovation which the institution provides to the faculties and students to inculcate them.	To encourage professional development of students that will inculcate ethical values and leadership skills while solving real-time socio-economic problems.

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

a) Governing body:

Viswam Engineering College has well established organizational structure to execute out smooth functioning of administrative and academic processes. Various bodies are formulated which constitutes the organization chart. The governing body is the highest decision-making body constituting members of the management, Principal and nominated faculty members. College Development Committee includes representatives of members of society, Principal, three members elected from teaching faculty and one member of non-teaching staff. The constituents of the organization structure are as follows: Every department has Department Advisory committee to direct policies to excel students in academics and in work environments. It comprises one member each from industry, research establishment, and academic institute of repute, alumni, student, and parents and from management. Principal, Heads of the Departments, sectional heads and co-ordinators of various committees have adequate participation in making decisions in academic and administrative processes under their preview. Members of Governing body, College development committee, Internal quality assurance cell and institute level committees are shown in the tables below:

Members of the Governing Body:

Governing Body of Institute	
Chairman	To be nominated by the society
Member	Two to five members (Industrialist / Technologist / Educationalist) to be nominated by Society
Member	Nominee of the affiliating university
Member	Nominee of AICTE (Ex – Officio)

Member	Nominee of State Government
Member	Industrialist / Technologist / Educationalist from the Region to be nominated by the society
Member Secretary	Principal of the college.
Member	Two faculty members to be nominated from the regular staff, one at the level of professor and one at the level of Assistant Professor.

Table No. 10.1.1 Constitution of Governing Body

S. No.	Name	Designation
1	Sri.M.Prabhakar Reddy	Chairman (Society)
2	Mrs.M.Amaravathamma	Member (Society)
3	Mr.M.Krishna Reddy	Member (Society)
4	DTE Nominee	Nominee
5	AICTE Nominee	Nominee
6	Dr. S Krishnaiah	University Nominee
7	Dr.G L Samuel	Academician
8	Dr.K Venkatramana	Industry
9	Dr. D Ramana Reddy	Member Secretary
10	Dr. B D Venkatramana Reddy	Member
11	Dr.D Sai Lakshmi	Member

Table No. 10.1.2 List of Governing Body Members **for** the Academic year **2022-23**







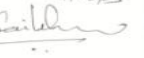

S.No.	Academic Year	Number of Meetings
1	2023-24	02
2	2022-23	02
3	2021-22	02

Table No. 10.1.3 Number of meetings of Governing Body

Functions and Responsibilities of the Governing Body:

1. Formulate academic aims and objectives of the institution.
- 2 Prepare strategic plans for financial, infrastructural and staffing areas
- 3 Examine the recommendations of College Academic Advisory committee and prepare a road map for achieving the goals of the institution.
4. To monitor the academic and other related activities of the college
5. To consider the recommendations of the staff selection committee.
6. To consider the important communications, policy decisions received from the University, Government, AICTE etc.
7. To monitor the student and faculty development programs.
8. To consider the recommendations of the College Academic Committee of the college for implementation
9. Examine the budget proposals and accord approval.
10. To pass the annual budget of the college.
11. To check the audited income and expenditure accounts and approve the same for the college annually.

MOM of GB

 VISWAM ENGINEERING COLLEGE <small>(Formerly Sir Vishveshwararajah Institute of Science & Technology) Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu An ISO 9001:2015 Certified Institution ANGALLU, MADANAPALLE-517325, CHITTOOR DIST., A.P Mob: 9505021075, 9505021077 Web: www.viswamgroup.com</small>	
Minutes of the Governing Body Meeting held on 31st May 2023	
A meeting of the Governing Body was convened on 31 st May 2023 at 10.30 AM and the following members were attended	
<u>Name & Details of the Governing body Member</u>	<u>Designation</u>
1. Sri.M.Prabhakar Reddy, Chairman Viswam Educational Society	Chairman 
2. Mrs.M.Amaravathamma Viswam Educational Society	Member 
3. Mr.M. Krishna Reddy Legal Advisor	Member <u>Absent</u>
4. DTE Nominee	Nominee <u>Absent</u>
5. AICTE Nominee	Nominee <u>Absent</u>
6. Dr. S Krishnaiah, Professor of CIVIL dept. JNTUA University	University Nominee 
7. Dr.G L Samuel Professor of Mechanical,IIT Madras	Academician <u>Absent</u>
8. Dr.K Venkatramana Director,Shree Bhalaji Industries Pvt.Ltd.	Industry 
9. Dr. D Ramana Reddy Principal,VEC	Member Secretary 
10. Dr. B D Venkatramana Reddy Prof of ECE, VEC	Member 
11. Dr.D Sai Lakshmi Professor of English, VEC	Member 

MINUTES OF THE GOVERNING BODY OF THE VISWAM ENGINEERING HELD AT 10.30 AM ON MONDAY,31st MAY 2023, IN THE BOARD ROOM AT VISWAM ENGINEERING COLLEGE, ANGALLU, MADANAPALLE

Sri M. Prabhakar Reddy, The Chairman, College Governing Body, welcomed all the members of the Governing body and all the members were introduced to the Governing Body.

The Member Secretary and Principal, Viswam Engineering College presented a brief of activities and elaborated about the points of agenda and other important activities of Viswam Engineering College, Madanapalle.

RESOLUTIONS

1. Confirmation of the minutes of the previous meeting

The minutes of the previous Governing Body meeting were circulated to all the members, have been read-out, re-confirmed and approved.

2. Progress of NAAC Accreditation Process

The Governing body discussed the progress of NAAC Accreditation process and

3. Introduction of New Courses in the upcoming Academic years.

The Governing body approved the proposal of introducing new courses in the upcoming academic years.

4. Introduction of MCA program

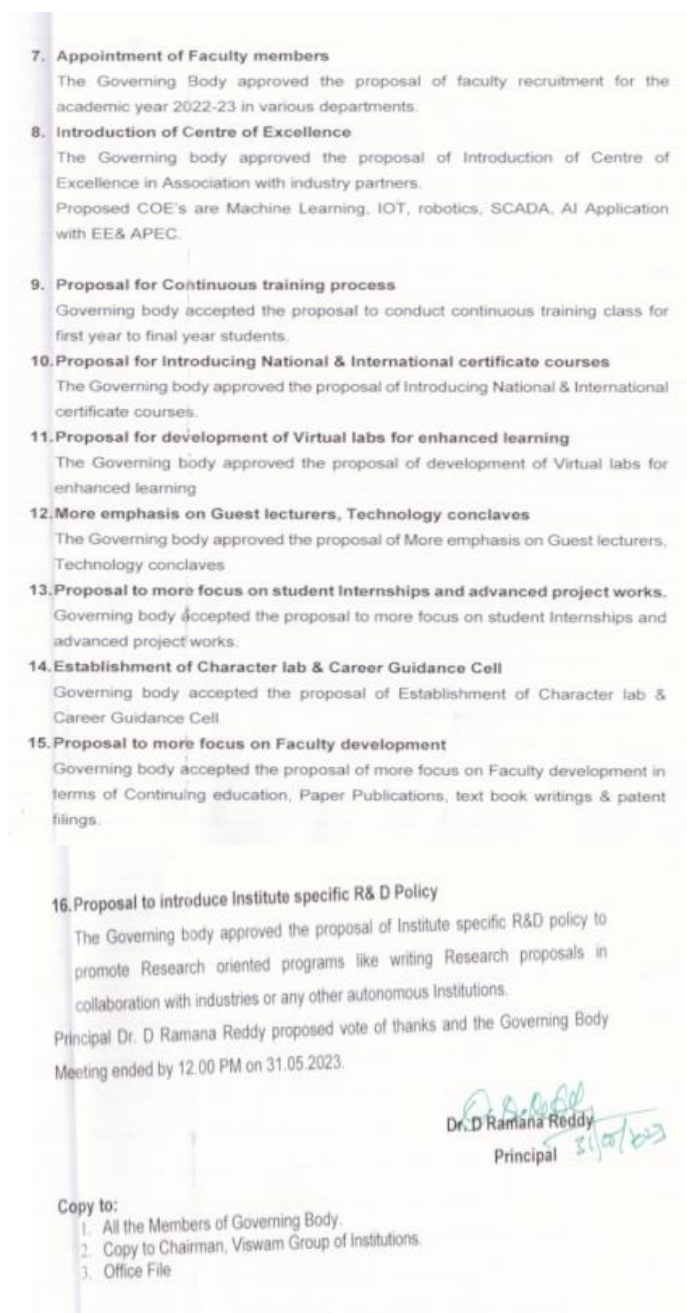
The Governing body approved the proposal of introducing MCA Program for the next Academic year.

5. Change of course name for MBA

The Governing body approved the proposal of change of course name from Master of Business Management (MBM) to Master of Business Administration (MBA).

6. Procurement of additional equipment for laboratories

The Governing body approved the proposal of updating the laboratories in ECE & EEE departments to meet the new JNTUA Regulations.



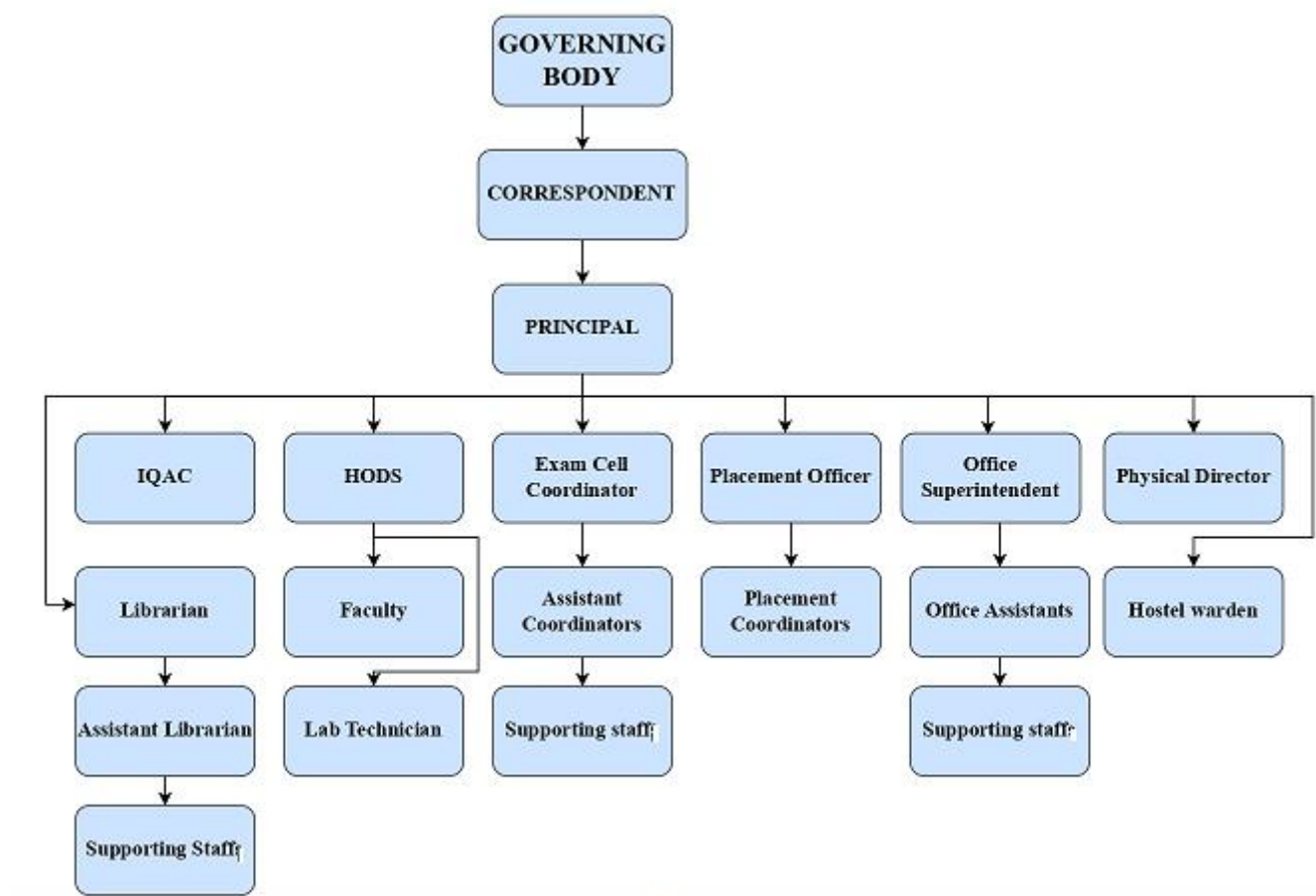
b). Administrative set up

Viswam Engineering College believes in a perfect decentralization of activities and delegation of authorities, which is the proven key concept in the success achieved by the institute on different counts. The Institute is student centric and the whole system is built around this fundamental concept of making best students. Involvement of each and everyone in the decision-making at their respective levels is ensured through decentralization and delegation of powers. Hence there are various institutional committees consisting of faculty staff members and students. Viswam Engineering College, Madanapalle

Transparency associated therein also forms an important feature of the work culture.

The Principal, Head of the Departments and various committees participate in decision making which create an organizational democracy. Powers and responsibilities are delegated to faculty on the basis of their competence, commitment and their ability to meet the institutional objectives, All academic and administrative activities are decentralized and decisions are taken based on discussion and deliberations in departmental meetings, monthly faculty meetings and HOD's meeting with Principal taking into consideration the student feedback wherever necessary.

Organizational Structure



1. Governing Body is the Apex body of the institution. It mainly looks after overall growth of institution.

2. The Principal is the head of the institution and an associate between the Management, Staff & Students.
3. The Principal has equitable autonomy to take financial decisions in consultation with the management, related to procurement of lab equipment, funding seminars, workshops, Departmental expenditure etc.
4. HOD is responsible for the functioning of the respective Department as per the policies of the college.
5. The office superintendent looks after the day-to-day administration of the college office and helps the Principal in complying with the regulatory bodies.
6. Committees formed will have a coordinator and members of the committee are faculty members drawn from all the departments. The coordinator ensures that the committee meet its responsibilities.
7. The committees formed at departmental level report to their respective Head of the Departments who in turn will report the findings of the committee to the Principal for further necessary action.
8. To effectively plan and implement various academic matters relating to the welfare of the students, decentralization is the method used. Allotment of course work, monitoring of syllabus coverage, planning and organizing seminars, guest lectures, workshops, industrial tours, student development programs, staff orientation programs, remedial sessions, Personality development programs, project works etc are taken care by various committees (of faculty members) formed by the head of the Department.

c). Functions of Key Administrative/ Academic Committees

Committee Name	Functions
Academic Advisory Body	✓ Attend bi-annual/need based meetings and review agenda and supporting documents before attending meeting.

	<ul style="list-style-type: none"> ✓ Provide support in planning program and identifying resource persons for meeting the identified gaps in the curriculum/industry requirements and also assist in identifying the resources for funding R & D Projects/ seminar grant / student innovative projects.
College Academic Committee	<ul style="list-style-type: none"> ✓ To review the academic, students, faculty development programs and other related activities of the college.
	<ul style="list-style-type: none"> ✓ To visualize and formulate perspective plans, Master Plan for the development and growth of the college.
	<ul style="list-style-type: none"> ✓ To formulate and plan for resource mobilization through industry interaction, consultancy and extra-mural funding.
	<ul style="list-style-type: none"> ✓ To promote research and extension activities, teaching innovations and student placement programs in the college campus.
	<ul style="list-style-type: none"> ✓ To plan for sustaining the quality of education, quality improvement and accreditation of the college.
	<ul style="list-style-type: none"> ✓ To recommend schemes to promote participation of academic departments in community development activities in the region.
	<ul style="list-style-type: none"> ✓ To consider such other activities for furtherance of academic excellence

Public relations, press and Media Publication, Newsletter coordination committee	<ul style="list-style-type: none"> ✓ Development of rapport, goodwill, understanding and acceptance as the chief end result sought by public relations activities.
	<ul style="list-style-type: none"> ✓ Public Relations are for establishing the relationship among the two groups (organization and public).
	<ul style="list-style-type: none"> ✓ Conducting Press - Meets, Clarifications & Press releases, media alerts, and press conferences – For timely/breaking news by making suitable programs.
	<ul style="list-style-type: none"> ✓ Printing the News Letter with a view to disseminate the Vision and Mission of the department as well as the institute
Purchase/stores Committee	<ul style="list-style-type: none"> ✓ To allot the yearly budget department wise by discussing with the Principal/Management.
	<ul style="list-style-type: none"> ✓ Prioritizing requirements by discussing with corresponding department purchase committee
R&D and Consultancy Committee	<ul style="list-style-type: none"> ✓ To identify thrust areas of research and encourage the faculty to carry out research.
	<ul style="list-style-type: none"> ✓ To identify the budgetary requirements and resources for funding the research and periodically reviewing the progress of research.
Training & Placements and Career Guidance	<ul style="list-style-type: none"> ✓ Identifying training needs and facilitating career guidance to students

Cell Committee	✓ Assessing training requirements of faculty as per the recommendations of department heads
	✓ Evaluating the participation and learning process during the programs
Hostel Committee	✓ To create an atmosphere of harmony and co-operation amongst the boarders of hostel and provide the boarders a peaceful and congenial environment to enable them to excel in their studies and personality development
Canteen / House Keeping/ Hygiene/ Sanitation Committee	✓ To establish and Implement the canteen policy and to monitor the discipline in canteen.
	✓ To provide quality food at reasonable / subsidized prices.
NSS Committee	✓ To encourage the students to participate and utilize their knowledge in finding practical solution to individual and community problems.
	✓ To motivate the students to actively participate in various NSS activities inside and outside the college campus.
	✓ To make the students aware about the NSS schemes in India.
	✓ To sort out any NSS related issues.
	✓ To schedule events/planner for the academic year in consultation with the

	<p>Student's representative and management</p> <ul style="list-style-type: none"> ✓ Develop capacity to meet emergencies and natural disasters. ✓ To inculcate the value of keeping Environment Clean and Green by participating in lectures / seminars related to NSS.
<p>Social Welfare(BC/SC/ST) Committee</p>	<ul style="list-style-type: none"> ✓ Maintain database of students who belongs to BC/ SC/ST community. ✓ To Make the students aware of the various schemes/Assistances/Scholarships available for students. ✓ Committee continuously monitors the effective implementation of the social welfare Policies intended for BC/SC/STs Welfare by the Govt. of Andhra Pradesh.
<p>Sports & Games Committee</p>	<ul style="list-style-type: none"> ✓ To device and implement a mechanism for sports activities including students coaching, ground preparation, procurement of sports material and scheduling of the games. ✓ To device and implement a mechanism for publicizing and motivating the students for participation in games and sports activities and organize inter-departmental sports and games events. ✓ To coordinate with the university sports division and arrange for the, participation

	<p>in regional/state/national level sports events.</p>
	<p>✓ To device and implement a mechanism for liaison with the government agencies for grants in sports/gymnasium etc.</p>
	<p>✓ To work out and execute any other activity related with the sports & games. The ultimate objective shall be to provide an environment that enhances the student's personality keeping them fit & healthy.</p>
	<p>✓ To develop team work, management and leadership skills in the students which helps them to keep their positive attitude and be disciplined and confident in their future endeavors.</p>
Transport Committee	<p>✓ To allocate bus routes for the students and staff and allot busses for Industrial visits/ Placement and Training activities/ Co-curricular activities.</p>
	<p>✓ To monitor over all maintenance of the transport.</p>
General Maintenance Committee	<p>✓ Reviewing proposed resolutions by the governing body.</p>
	<p>✓ Facilitating the dissemination of information in the institute.</p>
	<p>✓ To look after the general maintenance of the buildings, generators etc</p>

Cultural Committee	<ul style="list-style-type: none"> ✓ To promote the awareness regarding the Arts and Culture.
Department Associations Committee	<ul style="list-style-type: none"> ✓ To conduct various events like Traditional Day, Rangoli competition, Dance, Singing competitions etc. ✓ To promote synergy among the students by promoting interactions and exchange of ideas and co-ordinate the non-academic functions like organizing Group Discussions, debates & quiz, preparation for campus interviews and Seminars by eminent personalities from the various industries/fields, within the departments
Examination Committee	<ul style="list-style-type: none"> ✓ To conduct examinations as per the rules and regulations of the university ✓ Finalizing the internal marks and attendance and forwarding the attendance to university including condonation and detention lists.
Time Table Committee	<ul style="list-style-type: none"> ✓ To consolidate the roll list as per the university guide lines. ✓ Maintaining of university curriculum course wise and branch wise by preparing the academic calendar day wise.
Library Committee	<ul style="list-style-type: none"> ✓ Serve as an interpreter of the requirements of the library and recommend for funds needed. ✓ Provide support to the librarian in taking important decisions having implications

	for the users.
Industry Institute Interaction Cell Committee	✓ To create awareness on industry systems quality, safety and other working standards of the industry by conducting seminars and guest lectures.
	✓ To facilitate the process of identifying the internship opportunities for the desired students.
Entrepreneurship Development Cell (EDC) Committee	✓ To develop and introduce curriculum on Entrepreneurship Development at various levels including degree/diploma courses of the parent institution and conduct skill development training programs leading to self/wage employment
Website/ICT/Internet Committee	✓ To design and maintain college website with up to date information.
	✓ To recommend, design and deploy new ICT tools & policies when required and review, monitor the existing ICT plans of the college.
	✓ To procure and install industry specific software when and where required
Alumni Coordination Committee	✓ To conduct Alumni meet once in a year and collect feedback from alumni in order to contribute to the quality policies of the institute.
	✓ To coordinate the different departments and maintain the alumni data.

Internal Quality Assurance Cell Committee	<ul style="list-style-type: none"> ✓ Development and application of quality benchmarks/parameters for the various academic and administrative activities of the institution.
	<ul style="list-style-type: none"> ✓ Dissemination of information on the various quality parameters of higher education.
	<ul style="list-style-type: none"> ✓ Acting as a nodal agency of the institution for quality-related activities
Women Welfare/ Sexual Harassment Eradication Cell Committee	<ul style="list-style-type: none"> ✓ Women's Empowerment through Education.
	<ul style="list-style-type: none"> ✓ Creating awareness and preventive steps towards protection of women staff / female students from sexual harassment in the college.
Student Counselling Committee	<ul style="list-style-type: none"> ✓ To improve the quality of counseling and conduct awareness program on counseling process.
Professional Societies Activities Committee	<ul style="list-style-type: none"> ✓ Conduct awareness programs on recent trends in Engineering and Technology and organize national and international seminars
Electrical / Computer Network Maintenance Committee	<ul style="list-style-type: none"> ✓ Develop, implement, and maintain policies, procedures, and associated training plans for network resource administration and appropriate use.
	<ul style="list-style-type: none"> ✓ Negotiate with vendors, outsourcers , and contractors to secure

	network products and services
Students, Faculty/Staff Grievance Cell Committee	✓ To solve student's grievances, relate to Assessment/ Victimization/Attendance/Harassment by other students or the teachers etc.
	✓ To solve faculty issues arising from their employment/in-disciplinary action among staff members/termination/ allegations
Anti-Ragging Committee	✓ The Institution follows the policy of zero tolerance to ragging.
	✓ The main function of the cell is to keep vigilance and avoid ragging among students
Right to Information Cell Committee	✓ To receive the application regarding seeking of information from the person approached in proper format along with application fee
	✓ To provide assistance in filling the application in case of language barrier of the applicant
	✓ To check whether the information sought or part thereof is exempted from disclosure under section 8 or 9 of the act.
	✓ To accept or reject the application, if rejected has to be conveyed to the applicant with the reason of rejection
	✓ If accepted to make necessary arrangements for the collection of

	data.
Medical Cell Committee	✓ To provide the medical facility in the case of emergency

**Table No. 10.1.4 Functions Administrative/
Academic Committees**

Service rules, Procedures, Recruitment and Promotional policies

Service Conditions

- a) A person shall be deemed to have been appointed to a post at **Viswam Engineering College** provided the post is in accordance with the existing AICTE / Government of Andhra Pradesh norms, but shall exclude staff appointed on deputation/ adhoc / on contract or temporarily.
- b) Every person appointed shall be certified to be of sound mental health and physically sound for service by medical authority as specified from time to time.
- c) The pay scales of teaching faculty shall be fixed by the Selection Committee as per the scales promulgated by the AICTE from time to time. Currently, the following are the scales as per the Sixth Pay commission prescribed by the AICTE.

CATEGORY	BASIC PAY BAND	GRADE PAY
Assistant Professor	Rs.15600-39100	Rs. 6000
Assistant Professor (Senior Scale)	Rs.15600-39100	Rs. 7000
Associate Professor	Rs.15600-39100	Rs. 8000
Associate Professor (Senior Scale)	Rs.37400-67000	Rs. 9000

Professor	Rs.37400-67000	Rs. 10000
Professor (Senior Scale)	Rs.37400-67000	Rs. 12000

Annual Increment

1. 3% of the Basic Salary (Basic Pay+ Grade Pay) with compounding effect
2. 4% of the Basic Salary (Basic Pay+ Grade Pay) with compounding effect for 2 years for a select few 25% in the Pay Band Rs. 15600-39100 on the basis of better teaching and research performance. Fresh appraisals are to be made after two years.

Stagnation Removals

- An incumbent after reaching the top of the scale in the pay band shall move to the next pay band without any change in the grade pay.
- Pay of non-teaching staff shall be as fixed by the Selection Committee.

Probation

- (a) All appointments of candidates selected will be temporary and deemed to be on probation for a period of 18 months. After the completion of the period, the services of the employee shall be reviewed and if found satisfactory, his / her services will be confirmed. His / her service conditions will be governed by the rules and regulations of **Viswam Engineering College** in force.
- (b) In the case of tenure or contractual assignments, employees would be deemed to be on probation for a period of 12 months and this period could be extended.

- (c) If candidates are appointed purely on temporary basis in any vacancy, they have no right or lien to claim a permanent post. However such candidates may apply for such posts in a regular procedure as for open competition.
- (d) If a person initially appointed on a temporary vacancy is subsequently appointed to a regular position, he/she Shall commence probation from the date fixed for appointment on probation.

Increments

- a. Increments will be sanctioned only on satisfactory performance review.

In Teaching Staff, the increment is sanctioned based on the

(a1) Annual Appraisal Report of the employee by:

- (i) Feedback from Students
- (ii) HOD concerned
- (iii) Principal
- (iv) Management

(a2) Course Files maintained by the faculty

(a3) Academic results

(a4) Academic and Administrative Task/Actives delegated by the superiors to complete within the date on day-to-day basis, which it is withheld and if so whether the postponement shall have the effect of postponing future increments also leave periods shall be taken into account for the postponement.

Promotions

Promotion to a higher level of service shall be made subject to availability of posts, eligibility of staff on the basis of merit / efficiency, the commitment / dedication of the faculty to the all-round development / improvement of the corporate ambience of the institution. Seniority will be the deciding criteria. If Ph.D. is obtained

while working at the Institute, an incentive up to three increments/ promotion could be considered.

Retirement

An employee of the college shall be retired on superannuation on attaining the age of 60 years provided the authority shall have the right to issue orders of retirement of an employee who has attained the age of fifty-eight (58) years for reasons of inefficiency, ill health and the like. The superannuation age may be extended to 70 years in certain exceptional cases as decided by the management.

- (a) This rule stated in (a) is however not applicable to those who are appointed on contract basis by the Management.

Resignation

Any member of the faculty in permanent service shall give three months' notice of his/her intention to resign or three month's salary in lieu thereof. The resignation shall be effective from the date of acceptance by the Authority Normally, they will not be relieved in the middle of the academic year.

- (i) Any member of the supporting staff in permanent service shall give one month's notice of his/her intention to resign or shall pay one month's salary in lieu, thereof.
- (ii) Any member during probation shall give one month's notice in case he / she desired to be relieved or one month's salary in lieu thereof.
- (iii) The appointing authority reserves the right to waive the notice period or the compensation thereof.

Termination

- (a) The services of a temporary employee are liable to be terminated at any time without notice and without assigning any reasons whatsoever.
- (b) The Management reserves the right to terminate the service of an employee on medical grounds giving suitable notice / suitable

salary in lieu, as it may deem fit.

- (c) The Management may terminate an employee whether temporary or permanent if he / she is involved in political activity / a criminal case / has failed to do his duty leading to moral turpitude / negligence of duty.
- (d) Interpretation of rules, notwithstanding anything said anywhere, subject to availability of funds, decision of the Management will be final.

10.1.3 Decentralization in working and grievance redressal mechanism (10/10).

We at Viswam Engineering college believe in decentralization of activities and delegation of authorities is the key concept in the success achieved by the institute on different platforms. Basically, overall working methodology at institute level is student centric and involvement of each and everyone in the decision-making at their respective levels is ensured through decentralization and delegation of powers. There are various bodies, committees and key administrative positions at institute and department level. In order to ensure transparency in the working of all these committees, code of conduct and process manual is available with all key administrative officers and central library of the institute.

Various portfolio in-charges have been delegated powers for taking administrative decisions.

S.No.	Name of Faculty member	Decision Authority
1	Dr. D. Ramana Reddy	Principal
2	Dr.L Thimmaiah	Coordinator, IQAC
3	Dr. R Vasantha Selvakumar	H.O.D (CSE)

4	Mr M Raveendra	H.O.D(ECE)
5	Mr. P Anjappa	H.O.D(EEE)
6	Mr.G Prathap	H.O.D(AIDS)
7	Mr. R. Rajkumar	H.O.D(Civil)
8	Mr. S B Anjappa	H.O.D(MECH)
9	Dr. B Sankar Naik	H.O.D(MBA)
10	Dr.CH. Kalyani	H.O.D(H & S)

Table No. 10.1.5 Faculties delegated with administrative powers

In addition to this, various Institute Level administrative committees have been formed for effective administration.

Details of coordinator and committee members are published on institute website, also, functions and responsibilities of the committees are also available on the institute website.

Coordinators of all the institute level committees are delegated with administrative powers for effective functioning of respective committee.

Institute level Decision making Authorities:			
S.no	Name of the committee	Position/ Designation	Name of the coordinator
1	College Academic Committee	Coordinator	Mr.M Raveendra
2	Public relations, press and Media Publication committee	Coordinator	Mr.Kedar Gowrav

3	Purchase/stores Committee	Coordinator	Dr. S. Krishna veni
4	R&D and Consultancy Committee	Coordinator	Dr. B D Venkatramana reddy
5	Training & Placements and Career Guidance Cell	Coordinator	Mr.Kedar Gowrav
6	Canteen Committee/ House Keeping/Hygiene/ Sanitation	Coordinator	Mrs. K V Nandini
7	NSS Committee	Coordinator	Mr.S Arshad ali
8	Social Welfare(BC/SC/ST) Committee	Coordinator	Dr. B Sankar naik
9	Sports & Games Committee	Coordinator	Mr. N Nagendra
10	Departmental association Committee	Coordinator	Dr.M Reddi ramu
11	General Maintenance Committee	Coordinator	Mr. J Maheswar reddy
12	Cultural Committee	Coordinator	Mrs. B Jyothsna
13	Examination Committee	Coordinator	Mr. V. Vijay kumar
14	Time Table Committee	Coordinator	Dr. G .Venkata subbaiah
15	Library Committee	Coordinator	Mrs I Deepika

16	Industry Institute Interaction Committee	Coordinator	Dr. R Vasanth selva kumar
17	Innovations and Entrepreneurship Development Cell (IEDC)	Coordinator	Dr.G L Meenaz
18	Website/ICT/Internet Committee	Coordinator	Mr. D Sanjeeva reddy
19	Alumni Coordination Committee	Coordinator	Dr. B D Venkatramana reddy
20	Internal Quality Assurance Committee	Coordinator	Dr.L Thimmaiah
21	Sexual Harassment / Women Welfare Committee	Coordinator	Mrs.N Rajani
22	Student Mentoring Committee	Coordinator	Dr V Hemasree
23	Professional Societies Activities Committee	Coordinator	Dr G Sankar
24	Electrical Maintenance Committee /Computer Network	Coordinator	Mr. P Anjappa
25	Students, Faculty/Staff Grievance Committee	Coordinator	Mr. P Viswanatha reddy
26	Anti-Ragging Committee	Coordinator	Dr. T Sreenivasulu reddy
27	Right to Information Committee	Coordinator	Mr.V R Ramakrishna
28	Medical Committee	Coordinator	Dr. D Sailakshmi

29	Transport Committee	Coordinator	Mr N. Vijay kumar
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Table No. 10.1.6 Various Institute level administrative committees and coordinators

- ⇒ Other than the above-mentioned committees, at department level, committees are formed for the smooth and efficient management of activities at department level. The committees are constituted by the HOD in consultation with faculty.
- ⇒ For effective implementation of various initiatives and for effective decentralization, committees such as department advisory board and program assessment and quality improvement committees are formed at department level.

S. No.	Name of the member	Representation	Designation and organization
1	Mr.M Raveendra	chairman Academics	HOD (ECE) , Viswam Engineering College
2	Dr. A. Sreenivasulu	Member Academics	DEAN -R&D , Mohan Babu University , Tirupati
3	Dr K.Padma Priya	Member Academics	Professor of ECE, Director, Green Campus Initiatives, JNTUK ,Kakinada.
4	Y.Sekhar	Industrial person	Scientist Engineer , SDSC,ISRO, Sriharikota.
5	Dr.P Karunakar	Member	Associate Professor
6	Dr.K S Srikanth	Member	Associate Professor

7	Dr. B D Venkatramana Reddy	Member	Professor
8	Dr. G .Venkata Subbaiah	Member	Professor

Table No. 10.1.7 Department advisory board members

S.N.	Name of Member	Representation	Designation
1	Mr M. Raveendra	HOD (ECE) , Viswam Engineering College	Chairperson
2	Mrs B.Keerthi	Module Co-Ordinator I	Member
3	Mrs T. Reddi Rani	Departmental NAAC Co-Ordinator	Member
4	Dr. J. Kaliappan	Module Co-Ordinator II	Member
5	Mr J Maheswar Reddy	Departmental Industry Institute Coordinator	Member
6	Mr N Nagendra	Departmental exam Co-Ordinator	Member
7	Dr. G .Venkata Subbaiah	Departmental academic Co-Ordinator	Member

Table No. 10.1.8 Program Assessment and Quality Improvement Committee (PAQIC) members

B) Grievance Redressal Mechanism:

Grievance redressal is systematically carried out by the members of grievance redressal committee under the guidance of Principal of the institution. List of faculty members who are administrators'/ decision makers' /committee members for various responsibilities are shown in the tables given below.

A Grievance Redressal Committee (GRC) at the College level is constituted for providing guidance and counselling on the problems related to faculty, staff and students.

The Committee redresses all kinds of grievances, academic or non - academic.

S. No	Faculty Name and Designation	Position
1	Dr C H Kalyani (HOD), Professor in Humanities and science	Coordinator
2	Mr S Rathnaswamy Assistant Professor & HOD in Civil Engineering	Member
3	Mr. A Srinivasan, Assistant Professor in CSE.	Member
4	Mr. S B Anjappa, Assistant Professor & HOD Mechanical Engineering	Member
5	B.Suresh Babu, Finance Officer	Member
6	S. Sai Nishwanth , IV year ECE	Student Member

Table No. 10.1.9 Members of Grievance Redressal Committee (GRC)

Grievance Redressal committee shall meet within a week from the date of receipt of any petition/complaint from anybody and initiate necessary action for solving the problem.

Mechanism of Grievance Redressal committee

- a) An aggrieved stakeholder who has the grievance or grievances shall make a written complaint first to the Head of the Department (HOD). The HOD after verifying the facts, will try to redress the grievance

with in a reasonable time. If the stakeholder is not satisfied with the solution of the HOD, then the written complaint should be forwarded to the Principal through HOD. The Principal then refers the complaint to the Internal Grievance Redressal Committee.

- b) On receiving the complaint from the Principal, Internal Grievance Committee meeting is called by the Chairman. The complaint is studied by the Committee. The Committee at all levels observes the law of natural justice.
- c) The Committee arranges meeting with the aggrieved party first, he/she expresses their views. Similarly meeting with all aggrieved members is scheduled. Thus, all the concerned, are given opportunity, one by one to express their viewpoint. Each one is requested to give their say in writing. The committee gives a patient hearing to both sides and counsels them. The committee also enlightens them based on their SWOC.
- d) After verifying the facts based on actual data and after deliberations, the report of the committee's findings and remedial measures is prepared and submitted to Principal .
- e) Final decision is communicated to the both parties through the Principal.
- f) The Committee, if needed, may recommend to the Principal, necessary corrective action as it may deem fit, to ensure avoidance of recurrence of similar grievance.

Anti-Ragging Committees:

With reference to AICTE (Prevention and Prohibition of ragging in Technical Education, Universities including Deemed to be Universities imparting technical education) Regulations 2009 and as per as per the clause No.6(a) of this AICTE Regulations - 2009, Anti-Ragging Committee is formed comprising of experts, faculty members, parents, students, etc. to look into any kind of ragging matter reported to them from time to time. The Committee takes immediate action in the matter reported to them,

following all the guidelines given in the referred AICTE Regulation - 2009. The Committee also take review of the activities of Anti-Ragging Squad and suggest measures to effectively monitor the anti-ragging activities.

Anti-Ragging Committee for The academic year 2023-24

S. No	Name of the Member	Designation	Position
1	Dr. D Ramana Reddy	Principal	Chairperson
2	Mrs. S. Mubeen Taj	Sub- Inspector	Mudivedu, Police Station.
3	Mr .M. Bheemeswara Rao	Mandal Revenue Officer	MRO office ,Kurabalakota.
4	Mr Kodandareddy	Press Reporter	Media Member
5	Mr. Syed Mohammed	Assistant Professor in Mechanical Department	Member
6	Mrs. Y Basanthi	Assistant Professor in Computer Engineering	Member
7	S.Sreenivasulu	Parent Representative	Member
8	Dr C H Kalyani (Add)	HOD (H&S)	Member
9	D.Pavan kumar Reddy,	III-year CSE	Student Member

Table No. 10.1.10 Members of anti-ragging committee

ANTI RAGGING COMMITTEE (SQUAD)

- With reference to AICTE (Prevention and Prohibition of ragging in Technical Education, Universities including Deemed to be Universities imparting technical education) Regulations 2009 and as per as per the clause No.6(a) of this AICTE Regulations - 2009, Anti-ragging Squad is formed to look in to the matters of ragging.

- The squad will continuously maintain vigil in the College campus and monitor the activities of the students. If any activity of students is found suspicious then immediate action is to be taken. The squad will conduct patrolling of canteen area, parking area, the College building and Ladies hostel. The patrolling of outside area near to College will also be done.
- The students can contact Committee members at any time regarding any kind of problem faced by them from any students in the campus or outside the campus. Also, students can personally meet any of the above members in the College during working hours.

S. No	Name of the Member	Designation	Position
1	Dr. D Ramana Reddy	Principal	Chairperson
2	Dr.T Sreenivasulu Reddy	Professor (HOD) in H&S	Coordinator
3	Dr.B Sankar naik	Professor (HOD) in MBA	Member
4	Mrs. T Reddi Rani	Associate Professor in ECE	Member
5	Mr. V R Ramakrishna	Associate Professor in MBA	Member
6	Mrs. B Jyothsna	Associate Professor, Computer Engineering	Member
7	Mr R.Rajkumar	Assistant Professor, Civil Engineering	Member
8	Mr.B Bhaskar	Physical Director	Member

Table No. 10.1.11 Members of anti-ragging squad

Sexual Harassment Committee

S.No	Faculty Name and Designation	Position
1	Mrs. N Rajani, Assistant Professor in MBA	Coordinator
2	Mrs. B Jyothsna, Assistant Professor in CSE	Member
3	Mr N Anjaneya Reddy, Librarian	Member
4	Dr.S Geethan Kumar, Associate Professor in H&S	Member
5	Mrs. K Haritha, Assistant Professor In H&S	Member
6	Mrs .K Vijaya Lakshmi, Assistant Professor in MBA	Member

Table No. 10.1.12 Members of Sexual Harassment Committee

- The complaint received by Principal office from any ladies' staff members or student will be forwarded to the above committee. The said committee will look into the complaint and call the concerned complainant personally for hearing the grievance. The Chairman of the committee will forward their report in the sealed envelope to the Principal within one week from the date of receipt of complaint.

10.1.4 Delegation of financial Power. (10)

In accordance with the Institution Rules and the management has agreed to delegate the following financial powers to the Principal and Head of the Departments to facilitate them.

S.n o	Designati on	Financial Power	Purpose
1	Principal	Rs 20,000/-	To purchase consumables, Stationery, Expenditure connected with the conduct of Seminars, Workshops and other petty contingent expenditure connected with academic activity
2	HOD	Rs 5,000/-	To purchase consumables and other petty contingent Expenditure

The Heads of the Department are given an amount of Rs 5,000 towards the purchase of consumables

and other petty contingent expenditure. After that amount is spent and bills are settled another

advance amount of Rs 5,000 will be given.

Note: For All Purchases above Rs. 20,000 must be with the approval of the Purchase Committee.

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

1. Unambiguous information is displayed on all general notice boards including department notice boards, Center for information, training and placement cell (CITP), student section, library, and other important areas.
2. Copies of official notices are circulated to the entire faculty, technical and non-technical staff and students.
3. The institute website is continuously updated for disseminating all the information about policies, students, faculty and relevant information. Institute website is www.viswamengg.in

10.2. Budget Allocation, Utilization, and Public Accounting at Institute level (30)

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)

CFY

FY 2023-2024							
Total Income: 67705950		Actual expenditure (till ...): 7,34,66,213					Total No. of students: -1313
Fee	Gov t	Gra nt (s)	Other Sources	Recurring including Salaries	Non- Recurring	special Projects/A ny other, specify	Expendit ure per student: -
658565 39	--	--	18,49,4 11	5,31,37,007	2,03,29,2 06	--	55,952

CFYm1

FY 2022-2023							
Total Income: 5,15,35,184		Actual expenditure (till 7,59,34,300)					Total No. of students: -1046
Fee	Govt	Grant (s)	Other Sources	Recurring including Salaries	Non-Recurring	special Projects/Any other, specify	Expenditure per student:-
4,97,93,110	--	--	17,42,074	3,84,08,846	3,75,25,454	--	72,595

CFYm2

FY 2021-2022							
Total Income: 52005122		Actual expenditure (till 6,01,41,570)					Total No. of students: - 1170
Fee	Govt	Grant (s)	Other Sources	Recurring including Salaries	Non-Recurring	Special Projects/Any other, specify	Expenditure per student:-
5,14,94,417	--	--	5,10,705	2,71,75,697	3,29,65,873	--	51,403

CFYm3

FY 2020-2021							
Total Income:- 6,39,88,413		Actual expenditure (till 6,49,32,016					Total No. of students: -1339
Fee	Govt	Grant (s)	Other Sources	Recurring including Salaries	Non Recurring	Special Projects/ Any other, specify	Expenditure per student :-
6,24,63,713	--	--	15,24,700	2,59,76,937	3,89,55,079	--	48,493

Table B.10.2a

Items	2023-2024		2022-2023		2021-2022		2020-2021	
	Budgeted in 2023-24	Actual Expenses in 2023-24	Budgeted in 2022-23	Actual Expenses in 2022-23	Budgeted in 2021-22	Actual Expenses in 2021-22	Budgeted in 2020-21	Actual Expenses in 2020-21
Infrastructure Built-Up	75,00,000	55,95,037	85,00,000	67,37,444	40,00,000	36,16,019	70,00,000	58,87,220
Library	385000	2,34,000	240000	1,91,166	2,25000	1,87,560	1,26,500	98475
Laboratory Equipment	7,50,000	5,48,466	440000	37,23,589	500000	-	500000	-
Laboratory	7,50,000	5,52,600	600000	4,97,500	3,50000	2,86,100	300000	2,76,900

CRITERION -10	ECE- SAR							
Consumables	00	58	00	35	00	04	0	33
Teaching and non-teaching staff salary	5,50,000	4,11,49,920	3,85,00000	3,19,49,561	2,80,00000	2,34,10,245	2,90,00000	2,25,61,435
Maintenance and spares	20,00,000	15,24,175	22,00000	19,06,278	9,75000	8,14,259	900000	8,27,635
R &D	12,00,000	8,23,600	1200000	11,32,985	1000000	74,050	3,85,000	3,19,850
Training and Travel	18,00000	14,78,521	450000	3,80,015	3000000	2,59,212	2000000	1,61,329
Miscellaneous expenses	2,60,000	2,00,750	2000000	1,72,000	2000000	1,54,000	2000000	1,67,000
Others recurring	95,00000	83,20,558	50,00000	44,54,704	30,00000	28,88,307	26,00000	24,21,608
Total	79145000	60427685	612900000	51145277	376500000	31689756	41211500	32721485

Table B.10.2b

*** Items to be mentioned.**

10.2.1 Adequacy of budget allocation (15/15)

Funds are adequately allocated to

1. For the various department activities.
2. For purchasing equipment for the laboratories for conducting experiments as per syllabus and beyond the syllabus.
3. For installing new laboratories
4. For the purchase of books, subscription of journals and other library

requirements.

5. For conducting annual technical student functions, seminars, guest lectures, Workshops, games & sports, etc.

10.2.2 Utilization of allocated funds (15/15)

Each department HOD after receiving the approved budget convene a meeting and discuss the step by step procedure for procuring the equipment and consumables required for the department. Faculty who are in charge of the laboratories and course coordinators are nominated to involve in the purchase of equipment. The nominated faculty members identify the companies/ agencies to receive the quotations and then prepare a comparative statement. The comparative statement will be submitted to the purchase Committee to get approval from the management and then place orders to procure the items. The HoD periodically monitors the faculty members involved in the purchase and take necessary efforts to see that the purchase of items is complete in all respects.

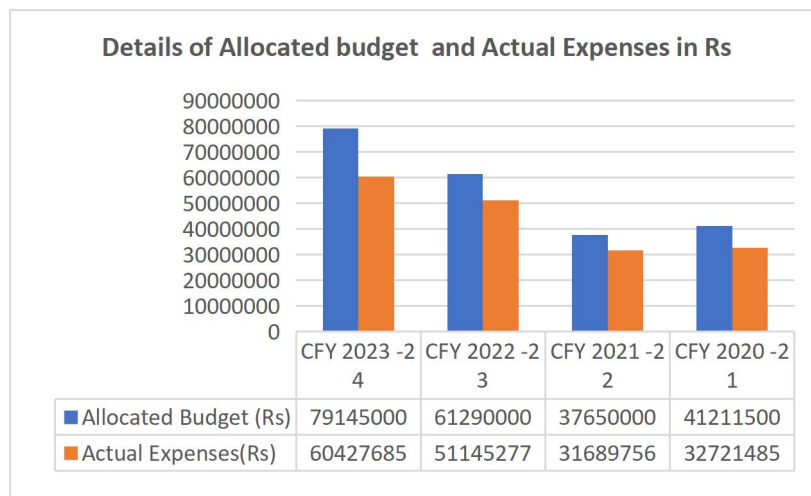


Fig.10.1.3 Allocated Budget and Actual expenses

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

(The institution needs to make audited statements available on its website)

Yes, Audit Statements are available in the institute website :- www.viswamengg.in

10.3. Program Specific Budget Allocation, Utilization (30/30)

Total Budget at program level: For CFY, CFYm1, CFYm2 & CFYm3

CFY: Current Financial Year, CFYm1 (Current Financial Year minus 1), CFYm2 (Current Financial Year minus 2) and CFYm3 (Current Financial Year minus 3).

For CFY

FY 2023-24				
Budgeted: Rs.1,43,00,000		Actual Expenses: Rs. 87,22,164		Total No. of students: 356
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
91,00,000	52,00,000	54,81,623	3,24,0541	24,500

For CFYm1

FY 2022-23				
Budgeted: Rs.1,35,00,000		Actual Expenses: Rs.11,22,7402		Total No. of students: 267
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1,15,00,000	20,00,000	95,78,677	1648725	42050

For CFYm2

FY 2021-22				
Budgeted: Rs 1,25,00,000		Actual Expenses: Rs.1,01,71,632		Total No. of students: 324
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1,10,00,000	15,00,000	91,29,000	10,42,632	31,393

For CFYm3

FY 2020-21				
Budgeted: Rs 1,35,00,000		Actual Expenses: Rs.1,10,43,639		Total No. of students: 349
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1,25,00,000	10,00,000	1,01,53,340	8,90,299	31,643

Table B.10.3a

Note: Similar tables are to be prepared for CFYm1, CFYm2 & CFYm3.

Items	2023-2024		2022-2023		2021-2022		2021-2020	
	Budgeted in 2023-24	Actual Expenses in 2023-	Budgeted in 2022-23	Actual Expenses in 2022-	Budgeted in 2021-22	Actual Expenses in	Budgeted in 2021-20	Actual Expenses in 2021-

		24		23		2021- 22		20
Laboratory Equipment	3,00,000	2,50,000	3,50,000	3,16,920	2,00,000	-	2,00,000	-
Software	10,00000	686435	3,00,000	-	2,00,000	-	1,00,000	-
Laboratory Consumables	50,000	37,808	50,000	27,412	80,000	79,230	80,000	72,180
Maintenance and spares	4,50,000	4,13,255	5,00,000	4,86,592	2,50,000	2,25,487	2,50,000	2,15,715
R &D	3,50,000	2,94,660	5,50,000	4,49,000	1,00,000	74,050	2,00,000	1,66,850
Training and Travel	4,50,000	4,00,878	1,50,000	97,000	80,000	71,780	60,000	42,050
Miscellaneous expenses *	80,000	54,430	.60,000	43,900	60,000	42,646	60,000	43,527
Total	2680000	2137466	1960000	14,20,824	970000	4,93,193	950000	5,40,322

Table B.10.3b**10.3.1 Adequacy of budget allocation (10/10)**

Funds are adequately allocated to the department

1. For various departmental activities.
2. For the purchase of books, subscription of journals and other library requirements.
3. For installing new labs and procuring softwares

4. For purchasing equipment for labs for conducting experiments as per syllabus and beyond the syllabus.
5. For conducting Annual Technical Student Functions, Seminars, Guest Lectures, Workshops ,etc.

10.3.2. Utilization of allocated funds (20/20)

Based on the number of students and the fee fixation the income increases, accordingly the budget allocation is done. The budget allocation is adequate as it is distributed based on the number of students in the department. The budget allocation is also done based on the proposals submitted by the respective department heads as well as committee conveners. The proposed budget which is submitted to the governing body is approved and accordingly utilized.

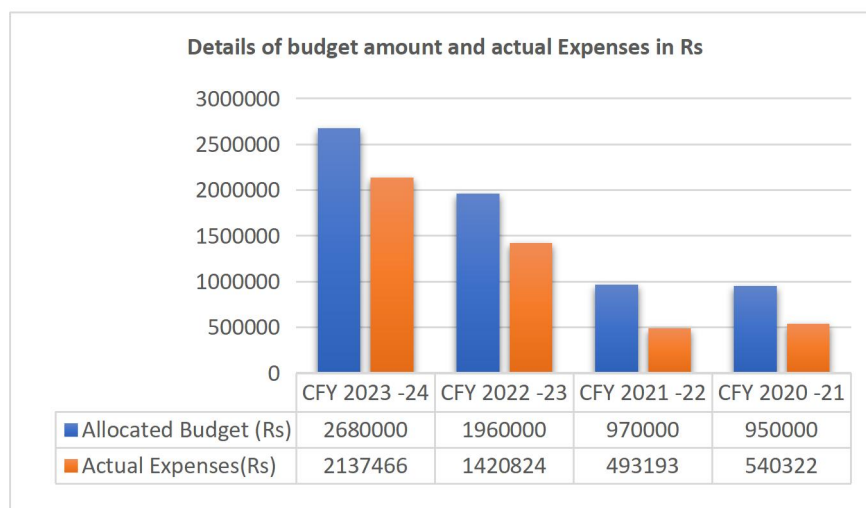


Fig.10.1.4 Allocated Budgeted and Actual expenses

10.4. Library and Internet (20/20)

10.4.1 Quality of learning resources (10/10)

The Learning Resource Center, the Central Library of Viswam Engineering College with its state-of-the art facilities and excellent resources plays proactive role in providing excellent user services, optimal use of resources supporting quality enhancement in teaching-learning, research and extension. keeping pace with the developments in the ICTs, Institute library works as a digitized knowledge Center for accessibility with print and e-resources and provides focused services to the students and faculty. The Library has significant

collection of books, journals, e-books, e-journals, secondary sources, databases, digital primary sources. Integrated **Sara Educa** is used to manage different functions of library for improving accessibility to students. Institute Central Library is using commercial software as well as Open Source software for Automation of Library Services. With **Sara Educa** retrieval of information becomes easy and even a catchy phrase in the description of the catalogued item can be used for searching. **Sara Educa** supports flexible workflow to cover activities related to acquisition of books, serials control, and funds monitoring. Relevance of available learning resources including e-resources

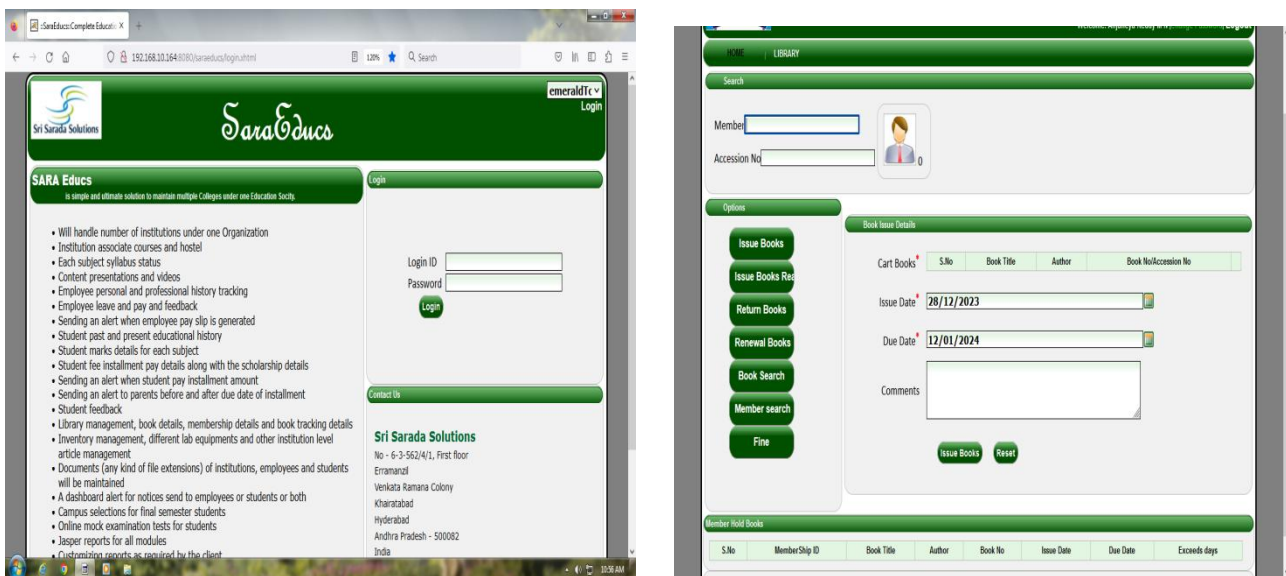


Figure 10.1.5: Sara Educa Software Screenshots

With the growing popularity of e-resources, library is gradually migrating from print documents to e- resources. Qualified and experienced staff plays important role in providing easily accessible and cost-effective information services. Institute library has subscribed / implemented learning and e-learning resources as shown in below tables.

Learning Resources	Number of resources
Books	27954
e- Journals	555
Titles/ e-Books	1807

List of print journals/Magazine	35 & 9
List of Newspapers	4
CD/DVD	513

Table 10.1.13 Learning resources available in Library

Year	No of New Titles added	No of new Editions added	No of new volumes added	Expenditure in Rs
CFY- 2023-24	75	35	612	189956
CFYm1-2022-23	87	18	483	191161
CFYm2-2021-22	73	14	535	172810
CFYm3-2020-21	-	-	-	-

Table 10.1.14 Expenditure in last three years on learning resources

Year	Name of the e- Journals with Number	Expenditure in Rs
CFY- 2023-24	Knimbus	9545
CFYm1-2022-23	-	-
CFYm2-2021-22	Taylor and Francis & J-GET(555)	14750
CFYm3-2020-21	Taylor and Francis and JGET(555)-	98002

Table 10.1.15 Expenditure in last three years on E-Journals Subscription

Institute Library has made the following online resources available to the staff and students.

VISWAM E-Resource	Contents
Digital Library	555 e-Journals
Access Engineering	35 e- journals/ e- Books Access
DELNET	Purchased Membership
Knimbus	e-Journal

Table 10.1.16 Various online resources available in Viswam Engineering College Library

For the easy access, all the online resources are subscribed as IP Based access subscription. This helps users to access any resource from any computer connected

in the Viswam Engineering Campus LAN and also through Wi-Fi enabled devices. This helps users for searching multiple database at a stretch.

Library user tracking students and faculty

Library user tracking for students and faculty is done through ERP system. Daily visit to library reports can be download through ERP system



2	Sir Vishveshwaraiah Institute of Science And Technology	C Programming and Data Structure Balagurusamy E Computer Science and Engineering 193	K Vijaya lakshmi kadem(801102210) Employee	anj	SVIST/Issue /89637/2023 SVIST/Return /89638/89637/2023	05/09/2023 26/11/2023	27/09/2024	Return		0.0	Unpaid
3	Sir Vishveshwaraiah Institute of Science And Technology	C Programming Language Kamphui V Brain, Ritchie M Denis Computer Science and Engineering 1768	Geethani Kumari G S(8010821101) Employee	han	SVIST/Issue /89652/89654/2023 SVIST/Return /89655/89656/2023	22/09/2023 26/12/2023	25/10/2024	Return		0.0	Unpaid
4	Sir Vishveshwaraiah Institute of Science And Technology	Signals and Systems Oppenheim V Alan, Wilksy S Alan, Electronics and communications Engineering 1794	shah priyos shah (22W51A0425) Student	anj	SVIST/Issue /89653/2023 SVIST/Return /89653/2023	08/13/2023 20/12/2023	23/12/2023	Return	5	0.0	Unpaid
5	Sir Vishveshwaraiah Institute of Science And Technology	Microelectronic Circuits Seda S Adal, Smith C Kenneth Electronics and communications Engineering 2167	VENKATRAMANA REDDY BALAM DQJ/KATHATTU4010513101 Employee	anj	SVIST/Issue /89664/2023 SVIST/Return /89664/2023	25/09/2023 27/12/2023	25/10/2024	Return		0.0	Unpaid
6	Sir Vishveshwaraiah Institute of Science And Technology	Marketing Management Savana Rajan MBA 100002	TEJASWINI Y(3010317101) Employee	anj	SVIST/Issue /89662/2023	15/12/2023	27/12/2024	Issue		0.0	
7	Sir Vishveshwaraiah Institute of Science And Technology	Human Resource Management Gary Dessley, Biju Varkey MBA 100147	pedaballa manthasree pedaballa (22W51E0094) Student	anj	SVIST/Issue /89607/89607/2023 SVIST/Return /89607/89607/2023	01/11/2023 14/11/2023	16/11/2023	Return	42	0.0	Unpaid
8	Sir Vishveshwaraiah Institute of Science And Technology	Human Resource Management Gary Dessley, Biju Varkey MBA 100147	jalakam mamatha jalakam (22W51E0053) Student	han	SVIST/Issue /89608/89608/2023 SVIST/Return /89608/89608/2023	02/11/2023 16/11/2023	17/11/2023	Return	41	0.0	Unpaid

S.No	Institution Name	Book Details	Member Details	Transition User	Transition ID's	Transition Date's	Due Date	Status	Exceed Days	fine	fine status
11	Sir Vishveshwaraiah Institute of Science And Technology	Human Resource Planning Dipak kumar, Bhattacharyya MBA 100366	pillagolla nayya pillagolla (22W51E0098) Student	anj	SVIST/Issue /89611/89611/2023 SVIST/Return /89611/89611/2023	03/11/2023 21/11/2023	18/11/2023	Return	40	3.0	Unpaid
12	Sir Vishveshwaraiah Institute of Science And Technology	Financial Management Theory and Practice Pazanna Chandra MBA 100408	kottakolla aswini kottakolla (22W51E0067) Student	anj	SVIST/Issue /89618/89618/2023 SVIST/Return /89618/89618/2023	21/11/2023 27/11/2023	06/12/2023	Return	22	0.0	Unpaid
13	Sir Vishveshwaraiah Institute of Science And Technology	Communication Systems Haykin Simon Electronics and communications Engineering 2515	VENKATRAMANA REDDY BALAM DQJ/KATHATTU4010513101 Employee	anj	SVIST/Issue /89667/2023	27/12/2023	31/01/2025	Issue		0.0	
14	Sir Vishveshwaraiah Institute of Science And Technology	Organizational Behavior Robbins P Stephen, Timothy A Judge, Sanghi Saena MBA 100952	M REDDI RAMU MADAKA MAJAKAR(10823101) Employee	anj	SVIST/Issue /89666/2023	19/12/2023	03/01/2024	Issue		0.0	
15	Sir Vishveshwaraiah Institute of Science And Technology	Training For Development Rolf P Lynton, Udal Pareek MBA 100929	battala bhagya lakshmi battala (22W51E0015) Student	han	SVIST/Issue /89610/89610/2023 SVIST/Return /89610/89610/2023	02/11/2023 21/11/2023	17/11/2023	Return	41	4.0	Unpaid
16	Sir Vishveshwaraiah Institute of Science And Technology	Performance Appraisal and Management Dorenda sharma MBA 101026	syed mohammed aliender syed (22W51E0067) Student	anj	SVIST/Issue /89621/89621/2023 SVIST/Return /89621/89621/2023	27/11/2023 06/12/2023	12/12/2023	Return	16	0.0	Unpaid

Figure 10.1.6: Library user tracking system

20/7/2023

G. S. Guddannur Kumar	CSE	2:10	
E. Raju	MBA	12:00	12:50
A. H. Harishitha	BBA	2:00	3:20
A. H. Harishitha	HAS	2:48	4:20
G. S. Guddannur Kumar	CSE	2:00	4:20
V. Hemapree	CSE	2:20	4:20
N. Anandakrishna	CSE	1:55	3:35
A. Deepika	CSE	2:20	
K. Vijaya Lakshmi	MBA	12:00	12:50
G. S. Guddannur Kumar	CSE	2:07	2:15
Dr. P. Vasanthakumari	CSE	9	
N. Anandakrishna	CSE	9	
Dr. S. Anandakrishna	CSE	10:00	10:30

25/7/2023

K. Vijaya Lakshmi	CSE	9:30	10:10
D. S. Guddannur Kumar	CSE	10:00	11:20
N. Rajan	MBA	10:30	11:30
Dr. S. Anandakrishna	BBA	10:30	11:20
D. Ravi	MBA	10:30	11:30
D. Suresh	BBA	10:45	11:20
G. S. Guddannur Kumar	MBA	10:50	11:30
Dr. P. Vasanthakumari	MBA	11:12	11:26
K. R. Gangaiah	MBA	11:30	11:45
K. N. Nishitha	MBA	11:30	11:50
R. Suresh Babu	P.D	11:35	12:00
R. Jayaraj	MBA	12:00	12:50
K. S. Suresh	K	12:10	12:40
G. S. Guddannur Kumar	CSE	12:10	12:30
T. Anurag	CSE	12:30	13:30

E. Maheshwari	Civil	12:45	1:00 PM
S. H.	HES	1:00	1:30 PM
C. Praveen	CSE	1:05	1:30 PM
V. Hemapree	CSE	2:30	3:15
V. Hemapree	CSE	2:00	12:40
A. H. Harishitha	HES	12:10	12:35
M. Suresh	HES	12:00	12:30
G. S. Guddannur Kumar	BBA	2:30	3:00
R. Rajkumar	CIVIL	3:00	3:45
R. Velumani		3:15	3:30

26/7/2023

R. Jyothsna	CSE	9:30	10:00
S. Guddannur Kumar	CSE	9:40	10:10
Dr. S. Anandakrishna	BBA	9:50	10:20
B. Karthi	CSE	10:00	10:30
B. Karthi	CSE	11:00	11:30
B. Karthi	CSE	11:00	11:20
R. Reddy Haritha	CSE	11:30	12:00
S. Guddannur Kumar	MBA	12:40	13:00
M. Anand	CSE	12:00	12:40
D. Suresh	HES	12:05	12:45
S. Anand	HES	12:15	12:45
K. Haritha	HES	12:20	12:50
C. Maheshwari	CSE	1:00	1:30
G. M. Anand	CSE	2:30 PM	3:00 PM
S. Guddannur Kumar	CIVIL	3:00 PM	3:45 PM
N. Anand	CSE	3:00 PM	3:45 PM
T. Anand	CSE	4:00 PM	4:30 PM

Figure 10.1.7 Faculty Library Access Register

6. S. Purnadeswari	10:00	11:00	S. Purnadeswari
7. P. Vysnavi	"	"	P. Vysnavi
8. Y. Suresh	"	"	Y. Suresh
9. P. Bhargava Prakash	"	"	P. Bhargava Prakash
10. S. Anand	"	"	S. Anand
11. H. Suresh	"	"	H. Suresh
12. S. Dilip Kumar Reddy	"	"	S. Dilip Kumar Reddy
13. S. Anand	"	"	S. Anand
14. V. Anandakrishna Reddy	"	"	V. Anandakrishna Reddy
15. V. Suresh Reddy	"	"	V. Suresh Reddy
16. V. Suresh	"	"	V. Suresh
17. S. Suresh	"	"	S. Suresh
18. P. Suresh	"	"	P. Suresh
19. S. Suresh	"	"	S. Suresh
20. S. Suresh	"	"	S. Suresh
21. P. Suresh	9:29	"	P. Suresh
22. M. Suresh	"	"	M. Suresh
23. M. Suresh	"	"	M. Suresh
24. D. Suresh	10:10	"	D. Suresh
25. S. Suresh	12:10	12:50	S. Suresh
26. M. Suresh	12:10	12:50	M. Suresh
27. P. Suresh	12:10	"	P. Suresh
28. M. Suresh	12:10	12:50	M. Suresh
29. U. Suresh	12:10	12:50	U. Suresh
30. K. Suresh	12:10	12:50	K. Suresh
31. K. Suresh	12:10	12:50	K. Suresh
32. M. Suresh	12:10	12:50	M. Suresh
33. S. Suresh	12:10	12:50	S. Suresh
34. B. Suresh	12:10	12:50	B. Suresh
35. C. Suresh	12:10	12:50	C. Suresh

A. Suresh	12:10	12:50	A. Suresh
G. Suresh	12:10	12:50	G. Suresh
A. Suresh	12:10	12:50	A. Suresh
D. Suresh	12:10	12:50	D. Suresh
S. Suresh	12:10	12:50	S. Suresh
K. Suresh	12:10	12:50	K. Suresh
S. Suresh	12:10	12:50	S. Suresh
S. Suresh	12:10	12:50	S. Suresh
P. Suresh	12:11	12:50	P. Suresh
S. Suresh	12:11	12:50	S. Suresh
S. Suresh	12:11	12:50	S. Suresh
B. Suresh	"	"	B. Suresh
S. Suresh	"	"	S. Suresh
S. Suresh	"	"	S. Suresh
S. Suresh	12:12	12:50	S. Suresh
S. Suresh	12:12	12:50	S. Suresh
M. Suresh	12:12	12:50	M. Suresh
P. Suresh	12:12	12:50	P. Suresh
G. Suresh	12:12	12:50	G. Suresh
M. Suresh	12:12	12:50	M. Suresh
S. Suresh	12:12	12:50	S. Suresh
K. Suresh	12:12	12:50	K. Suresh
S. Suresh	12:12	12:50	S. Suresh
K. Suresh	12:12	12:50	K. Suresh
P. Suresh	12:12	12:50	P. Suresh
A. Suresh	12:12	12:50	A. Suresh
V. Suresh	12:12	12:50	V. Suresh
R. Suresh	12:12	12:50	R. Suresh
S. Suresh	12:12	12:50	S. Suresh
V. Suresh	12:12	12:50	V. Suresh

Figure 10.1.8 Student Library Access Register

Support to students for self-learning

Institute Library supports students for self-learning activities by creating and making available various platforms for learning. Following resources are accessible to the students:

- 3000 + NPTEL Videos
- 100+ Subjects NPTEL Text Content
- 1500+ E-Books
- Access to previous year question papers

Digital library has been established by library for the effective use of these self-learning resources. Additional facilities created in the library for improving accessibility and support to students for self-learning are as follows

- Wi-Fi accessible across the Library.
- Library e-resources Remote Access (off-campus access) through Knimbus remote access platform.
- Print, Scan Services.
- Access to previous year question papers and syllabus

10.4.2 Internet (10/10)

Name of the Internet Provider	BSNL
Available Bandwidth	120MBPS Broadband
WiFi Availability	Yes
Internet access in labs, classrooms, library, offices of all departments	Internet available in all the Labs, Classrooms, Library, office of all department and administrative office
Security arrangements	Password Protected