MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Electronics & Communication Engg.

Part A : Institutional Information

1 Name and Address of the Institution

MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT,
MARRI EDUCATIONAL SOCIETY'S GROUP OF INSTITUTIONS, MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT, DUNDIGAL(V), QUTHBULLAPUR(M),RANGA REDDY(D), TELANGANA

2 Name and Address of Affiliating University

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABA

3 Year of establishment of the Institution:

2009

4 Type of the Institution:

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

5 Ownership Status:

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

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

Name of Institutions	Year of Establishment	Programs of Study	Location
MLR Institute of Pharmacy	2007	B. Pharama	Dundigal

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

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Bachelor of Technology	UG	2009	2009	60	Yes	180	Granted accreditation for 3 years for the period (specify period)	2019	2022	Yes	4

Sanctioned Intake for Last Five Years for the Bachelor of Technology

Academic Year	Sanctioned Intake
2021-22	180
2020-21	180
2019-20	180
2018-19	180
2017-18	180
2016-17	180

Master of Technology	PG	2012	2012	24	Yes	18	Eligible but not applied	--	--	No	2

Sanctioned Intake for Last Five Years for the Master of Technology

Academic Year	Sanctioned Intake
2021-22	18
2020-21	18
2019-20	18
2018-19	24
2017-18	24
2016-17	24

8 Programs to be considered for Accreditation vide this application:

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

9 Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2021-22		2020-21		2019-20	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	111	111	108	108	106	106
Faculty in Engineering (Female)	46	46	46	46	39	39
Faculty in Maths, Science & Humanities (Male)	52	52	37	37	33	33
Faculty in Maths, Science & Humanities (FeMale)	20	20	19	19	15	15
Non-teaching staff (Male)	71	71	62	62	59	59
Non-teaching staff (FeMale)	9	9	9	9	8	8

B. Contractual* Employees (Faculty and Staff):

Items	2021-22		2020-21		2019-20	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (FeMale)	0	0	0	0	0	0
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (FeMale)	0	0	0	0	0	0
Faculty in Engineering (Male)	4	4	4	4	4	4
Faculty in Engineering (Female)	0	0	0	0	0	0

10 Total number of Engineering Students:

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

Engineering and Technology- UG Shift-1

Items	2021-22	2020-21	2019-20
Total no. of Boys	2375	2173	1953
Total no. of Girls	1066	1069	693
Total	**3441**	**3242**	**2646**

Engineering and Technology- PG Shift-1

Items	2021-22	2020-21	2019-20
Total no. of Boys	49	41	51
Total no. of Girls	30	30	29
Total	**79**	**71**	**80**

Engineering and Technology- MBA Shift-1

Items	2021-22	2020-21	2019-20
Total no. of Boys	47	78	56
Total no. of Girls	74	40	38
Total	**121**	**118**	**94**

11 Vision of the Institution:

Institute Vision:

To establish ideal academic institutions in the service of the nation, the world and the humanity by graduating talented engineers to be ethically strong, globally competent by conducting high quality research, developing breakthrough technologies, and disseminating and preserving technical knowledge.

12 Mission of the Institution:

Institute Mission:

A. Contemporary and rigorous educational experiences that develop the engineers and managers;
B. An atmosphere that facilitates personal commitment to the educational success of students in an environment that values diversity and community;
C. Prudent and accountable resource management;
D. Undergraduate programs that integrate global awareness, communication skills and team building;
E. Leadership and service to meet society's needs;
F. Education and research partnerships with colleges, universities, and industries to graduate education and training that prepares students for interdisciplinary engineering research and advanced problem solving abilities;
G. Highly successful alumni who contribute to the profession in the global society.

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

Head of the Institution	
Name	Dr. K. Venkateswara Reddy
Designation	Principal & Professor
Mobile No.	9949863334
Email ID	principal@mlritm.ac.in

NBA Coordinator, If Designated

Name	K.Chaithanya
Designation	NBA Coordinator
Mobile No.	9550035671
Email ID	chaithanyakalangi@gmail.com

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	60.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	120.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	120.00
4	STUDENTS' PERFORMANCE	150	121.18
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	192.39
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	50	50.00
8	FIRST YEAR ACADEMICS	50	45.23
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
	Total	**1000**	**958**

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)

Total Marks 60.00

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

Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	**Institute Vision:** To establish ideal academic institutions in the service of the nation, the world and the humanity by graduating talented engineers to be ethically strong, globally competent by conducting high quality research, developing breakthrough technologies, and disseminating and preserving technical knowledge.
Mission of the institute	**Institute Mission:** A. Contemporary and rigorous educational experiences that develop the engineers and managers; B. An atmosphere that facilitates personal commitment to the educational success of students in an environment that values diversity and community; C. Prudent and accountable resource management; D. Undergraduate programs that integrate global awareness, communication skills and team building; E. Leadership and service to meet society's needs; F. Education and research partnerships with colleges, universities, and industries to graduate education and training that prepares students for interdisciplinary engineering research and advanced problem solving abilities; G. Highly successful alumni who contribute to the profession in the global society.
Vision of the Department	Imparting quality technical education through research, innovation and team work for a lasting technology development in the area of Electronics and Communication Engineering.
Mission of the Department	

Mission No.	Mission Statements
M1	Establish a unique learning environment to enable the students to face the challenges of the Electronics and Communication Engineering field.
M2	Promote the establishment of center of excellence in niche technology areas to nurture the spirit of innovation and creativity among faculty and students.
M3	Provide ethical and value-based education by promoting activities addressing the societal needs.
M4	Enable students to develop skills to solve complex technological problems of current times and also provide a framework for promoting collaborative and multidisciplinary activities.

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

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Have successful careers in Industry.
PEO2	Show excellence in higher studies/ Research.
PEO3	Show good competency towards Entrepreneurship.

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

Total Marks 10.00

Institute Marks : 10.00

All stakeholders are made aware of the Colleges Vision and Mission, as well as the Departments Vision, Mission, and PEOs, through various channels. The Colleges vision and mission are printed in the College Brochure and on the College website, **www.mlritm.ac.in.**

The Departments Vision, Mission, and PEOs are communicated in electronic and print media, as well as on display boards and handouts, to ensure that all stakeholders are aware of them. More details are given in Table 1.3.

Table 1.3 Dissemination of Vision, Mission & PEOs.

Media	Means	Stakeholders reached

Electronic	College website Emails	Students Alumni Faculty & Staff	Parents Employers Management
Print	College Brochure Department Newsletter	Students Alumni Faculty & Staff Parents	Employers Management Professional bodies
Display	HOD office Laboratories Conference Hall	Students Faculty	Staff Parents
Handouts	Printouts	Students Faculty Management	Governing council

Display Committee: The Vision, Mission, PEOs, POs, and PSOs of the Department of Electronics and Communication Engineering are published in suitable areas and forums by a committee comprised of the Head of the Department and two faculty members. The committee is also in charge of disseminating the information to various stakeholders and printing it in the Department News Letter and College Brochure. POs are provided on the College website for the benefit of all stakeholders because they are internationally recognised and acceptable outcomes that apply to all Engineering degrees.

Vision, Mission and PEOs of the Department

Dissemination to Internal Stakeholders is ensured as follows:

1. **Student**s:

- Post on the College website under the Electronics and Communication Engineering Department.Display in the Notice Board of the Department
- In the Head of Departments Office
- In the Departments Conference Hall
- In the Laboratories
- The Head of the Department reads out the same at student gatherings such as expert lectures, technical meets, parent-teacher meetings, and alumni meetings. HOD also encourages students to make comments so that they may think about the material and gain a deeper understanding of it.
- Published in the Department newsletter as well as the College Brochure.

2. **Parents**: Parents are explained about department's mission and vision during induction programme organized at the time of joining their wards in the college. Mission and vision are also explained to them during parent-teacher meetings
3. **Faculty**: A copy is given to each faculty member to be maintained in the Course file. Faculty are involved in the examination of the statements, and the HOD ensures that the statements of the College and the Department are given fair consideration.
4. **Support staff**: In the laboratories, on display.
5. **Management of the college**: Copies of the foregoing are distributed to all members of the Management during the colleges General Body meetings once a year.
6. **Governing Council members**: Every year, the departments PEOs are mailed to the members of the Governing Body.

Dissemination to External Stakeholders is ensured as follows:

External Stake holders:

1. **Alumni**: The college website and professors promoting the same at Department or college alumni meetings, as well as Department newsletters presented on the website, ensure alumni awareness. Each year in December, there is a regular contact meeting where perspectives on the success of the Vision and Mission components are exchanged.
2. **Employers**: The Placement and Training office provides prospective employers with college brochures as well as handouts outlining the departments Vision, Mission, and PEOs.
3. **Professional bodies**: The department has an IETE Student organisation that represents students participation in IETE activities and raises awareness of advanced technology. Regular exchange of information and opinions on how to improve the Departments contact with professional bodies, as well as their perspective on PEOs, Vision, and Mission.
4. I**ndustries**: Participation in technical events and workshops from the CDAC, AARK IC technologies, SiNano, etc., industries is closely coordinated. For guest lectures and industry connections, the department collaborates well with CDAC. Internships and visits to the industry environment are encouraged for students. Interaction between industry and institute is ensured in order to increase cooperation between the organisations and, as a result, aid in the achievement of the PEOs, Vision, and Mission.

The Department News letter, Brochure, and College Website generally have included Vision, Mission, and PEO Statements.

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

Total Marks 25.00

Institute Marks : 25.00

Process for defining Vision and Mission of the Department:

The Department of "Electronics and Communication Engineerings" Vision and Mission are in accordance with the Institutes Vision and Mission. The departments mission statements are immediate actionable statements targeted at attaining the Program Educational Objectives while keeping the departments overarching vision in mind. Both the Vision and Mission statements are the result of a lengthy process of thinking and discussion at several levels.

The Department Advisory Committee (DAC) plays an important role in defining the claims. Individuals from DAC serve as Program Coordinators, and the divisions Program Assessment Committees (PAC) provide comments on all of the divisions programmes. The final draught is presented to the Department Advisory Board (DAB) for discussion and approval. Table.1.4 outlines the composition and functions of the several committees involved.

1. **Program Assessment Committee (PAC):**

Feature	Details
Functions	To approve COs and PSOs; to regularly evaluate the curriculum, i.e., B. Tech (Electronics and Communication Engineering), for attainment of COs in each course from the first to the fourth year, in relation to the goals stated; and to suggest ways to improve the programs quality.
Members (10)	Faculty with specialisation (Analog Electronics, VLSI Design, Communication engineering, Digital Systems, Embedded Systems, Signal Processing, Microwave Engineering, Programming) (6); Department Alumni (1); and Employer / Industry Representative (1) are special invitees.
Aspects reviewed/ Considered	- All course outcomes and programme PSOs - Result analysis and CO attainments - PO attainments and deficits- Curricular gaps and recommendations -Schedule a meeting with key stakeholders -propose action plans for CO, PO, and PSO improvements.
Meeting Frequency	If necessary, once at the start of the school year or once per semester

2. **Department Advisory Committee (DAC):**

Feature	Details
Functions	This is a core committee constituted to help the decision-making process with respect to academics, infrastructure, facilities and student support systems for all programs in the department. The committee also helps in the process of defining short- and long-range goals including Vision, Mission and PEOs.

Members (7)	Program Coordinators, Head of Department, Senior Faculty from Major Specialization Areas .
Aspects reviewed / Considered	1. Labs for all programmes are being built. 2. Faculty and staffing needs 3. Faculty, staff, and student facilities 4. Identifying thrust areas and activities for R&D project proposals Identifying consulting areas and acquiring the appropriate equipment 5. Gathering feedback from stakeholders to write short- and long-term goals, the departments Vision and Mission statements, and PEOs and PSOs for the departments activities.
Frequency of meetings	Once a semester, or sooner if necessary.

3. **Department Advisory Board (DAB):**

Feature	**Details**
Functions	To review numerous inputs and make recommendations on how to improve COs, POs, PSOs, curricular gaps, extra training programmes, faculty, and infrastructure; to rethink the departments Vision, Mission, and PEOs for the programmes offered. HOD, DAC, and PAC are the sources of data.
Members (7)	HOD, Senior Faculty (2), University Professor (1), Industry Representative (1), and Alumni (2)
Aspects reviewed/ Considered	- Approve programme COs and PSOs, as well as modifications to the Departments Vision and Mission statements - Result analysis and CO attainments -Adequacy of faculty members -Laboratory equipment and modernization -budget allocation -research and development initiatives

Table 1.4: Functions of various Departmental Committees.

Steps involved:

1. Every three years, the Head of the Department considers changing the existing Vision and Mission statements after a meeting with senior academics.
2. The departments current Vision and Mission statements have been distributed to all faculty and senior support employees. At this point, the mission statements are extremely focused.The Program Assessment Committee compiles a summary of the statements (PAC).
3. Other stakeholders, including as alumni, parents, employers, and management, are sent the above draft of statements for feedback.
4. At the Colleges Parents and Alumni meetings, these subjects are also discussed.The Departmental Advisory Committee (DAC) is gathering input from stakeholders and the Program Assessment Committee (PAC) is preparing drafts for the departments Vision and Mission statements, as well as PEOs and PSOs for the departments program. The statements along with changes if any suggested by Stakeholders are put up for discussion in a meeting of the Departmental Advisory Board (DAB), which discusses the aptness of the statements and gives recommendations.
5. The revised statements are sent to the Colleges management for approval and suggestions.
6. The Vision and Mission Statements are published in the Department News Letter as well as the College Brochure.

Viewing the Mission and Vision of the Institute, the department Vision and Mission defining process are described below.

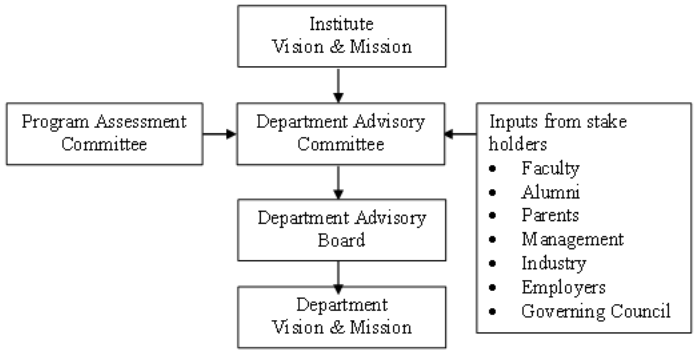


Fig. 1.4.1: Process for defining department Vision & Mission

Process for defining PEOs of the program:

Program Educational Objectives (PEOs) are key statements that describe the programs goal, stating the skills that students graduating from the programme acquire or are prepared to acquire in order to become capable practitioners or leaders in the profession, or to contribute to research toward the development of state-of-the-art technologies within a few years of graduation.

As a result, PEOs are broad statements that may be used to help build the curriculum, ensuring that all of the essential components are included in the syllabus and instructional process while also focusing on Program Outcomes.

Faculty members of the College contribute to periodic syllabus revisions with the goal of providing instruction that enables students to gain the necessary fundamentals as well as to seamlessly integrate into the industry by analysing, familiarising themselves with hardware, and developing software skills.

As a result, the Department Mission Statements actionable statements must represent the topic of PEOs in the instructional processes.Given the importance of PEOs, the Department initiates a consultative process every 3 to 4 years to assess the need for prospective adjustments.

Steps involved:

1. The PEOs are mentioned by the Head of Department in meetings with various stakeholders, and any suggestions for additions or changes to the PEOs are documented.
2. The PEOs are mentioned by the Head of Department in meetings with various stakeholders, and any suggestions for additions or changes to the PEOs are documented.Changes suggested in PEOs are discussed by DAC and a draft of new PEOs is prepared.
3. Stakeholders such as students, faculty, alumni, employers, and parent representatives are given the above copy to advise on the revisions.
4. The Universitys Board of Studies input is also solicited and considered.
5. The finalised PEOs are conveyed to the Executive Committee of Management and the Colleges Governing Council for approval. It should be mentioned that the Department considers curriculum revisions that will be discussed at the Universitys Board of Studies sessions.

The process of defining the PEOs is given in the following flow chart in Fig. 1.4.2.

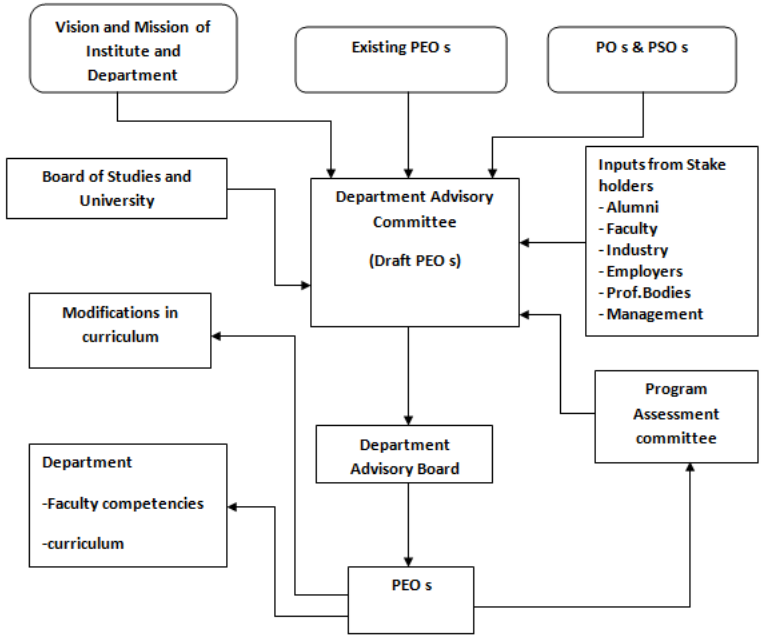


Fig. 1.4.2. Process for defining Program Educational Objectives (PEOs).

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

Total Marks 15.00

Institute Marks : 15.00

PEO Statements	M1	M2	M3	M4
Have successful careers in Industry.	3	3	2	3
Show excellence in higher studies/ Research.	3	3	3	2
Show good competency towards Entrepreneurship.	1	3	2	3

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120)

Total Marks 120.00

2.1 Program Curriculum (20) Total Marks 20.00

2.1.1 State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in AnnexureI. Also mention the identified curricular gaps, if any (10) Institute Marks : 10.00

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

2.1.1. A: Process for Curriculum design

- Marri Laxman Reddy Institute of Technology and Management which is affiliated to Jawaharlal Nehru Technological University, Hyderabad follows the university approved curriculum. The curriculum is revised by Board of Studies for every four years keeping in view the changing trends in technology. Subject experts from the affiliated Engineering colleges participate in the Board of studies meeting & design the contents of the Courses after a thorough discussion/brain storming. The Board of Studies is also represented by members from Industry.
- The curriculum maintains the balance in the composition of basic sciences / humanities and management sciences, engineering sciences, professional core, professional electives, open electives, internships, and projects work. The program curriculum is evolved by considering the Program Outcomes (POs) and Program Specific Outcomes (PSOs) and also by taking the inputs from the stake holders. There are 64 Courses designed for the present program, out of which 17 Courses are from Basic sciences mainly taught in first and second year of the program. About 47 Courses are distributed amongst, Professional core and Electives, Technical Seminars, Projects, Project Seminars and Industrial visit.

Theory Subjects

- Theory subjects on basic sciences, engineering sciences include Mathematics, Engineering Physics, Engineering Chemistry, English, Managerial economics and accountancy, Entrepreneurship, Industrial administration and financial management etc., are studied in the program.
- Professional core subjects cover fundamental concepts of Electronics & Communications Engineering like Electronic Devices, Analog & Digital Circuit design & Analysis, Electronic Instrumentation and Control systems, Signals & Systems, Electromagnetic theory, Antennas and Wave Propagation, VLSI Design, Analog & Digital Communications, Microwave Engineering, Wireless Communications.
- Service courses in Electrical & Electronics, Computer programming skills in Computer Science engineering are included in order to cater to the needs of interdisciplinary courses.
- There are 06 electives offered in final year of the course. Under electives, a choice among approximately 15 courses is available for selection by the students. The Courses covered under electives will focus on advanced technologies of Electronics & Communication Engineering.
- The Curriculum of each course is designed by the Board of Studies of JNTUH. The course is allotted to the faculty by Head of the Department based on the experience of the Faculty in the specific. Faculty handling the same course continuously for three years can have a choice to change his/her course. The basic core courses are allotted to the most experienced Faculty.
- Each course is designed for five units so as to provide sufficient fundamental concepts, design, analysis and applications.
- Emphasis is laid on the preparation of the subject/course and its delivery. The significance of the course in the Program and its industrial importance are highlighted in the content delivery.
- Faculty delivers the lectures in various modes like Class room lectures using Black board, OHP, LCD and model demonstrations.
- Latest developments in technology are introduced to students through guest lectures.
- Tutorial Classes are conducted in Analysis/ problem oriented courses for better understanding of the course.
- In each course two internal examinations are conducted to evaluate the performance of the student. The solutions to the questions of internal examinations are discussed in the class room and marks displayed on the Notice board. Five/Six assignments will be given and solutions for these questions will be discussed in the class room.

- Sufficient emphasis is laid on hands-on experience required for comprehensive understanding of the subjects. Department is fully equipped as per the Curriculum with respect to the laboratories, software, models, etc.
- Laboratory work is scheduled for 02(CBCS)(120 minutes) / 03(Non-CBCS) (150 minutes) periods per week per lab. Maximum student strength per batch for each laboratory is limited to 30/20 students. Experiments in laboratories are planned ahead for at least two to three cycles, each cycle comprising 6/8 experiments. Each group upto a maximum 2 students is provided with one experimental set up for performing experiments.
- Printed laboratory manual is provided to each student, which contains all the details about the experiments. The observations, necessary calculations and discussions are recorded in observation books.
- Blank lab records will be supplied to individual students for each lab. After each lab session the students will enter readings obtained in the experiment into the record along with details like brief theory, procedure, equipment/components required, graphs, results etc.
- Concerned Faculty regularly checks the observation books and evaluates the lab records.
- Faculty handling laboratory work is encouraged to introduce new experiments which are beyond curriculum.
- The Internal assessment of students in the laboratory is done based on student performance of the experiment in the regular class, lab record and internal exam / viva. The external examination in the concerned lab is conducted by two examiners viz., external examiner appointed by the University supported by the internal examiner.

Project Work

- As a partial fulfilment of the requirement to award of Degree, student should carry out a mini and major project work and submit a report in the 1st and 2nd semester of the final year respectively.
- Students are encouraged to carry out Design & Development of hardware or Simulation/software based projects mainly with the resources / facilities available in the College.
- Students are grouped as 1 to 3 nos. per team at the beginning of the final year course.

- Each Faculty member is assigned a maximum of three groups as an internal guide by the Project Review Committee for the necessary guidance in completing the Project work. Wherever applicable, an external guide is permitted from the Organization where project work is carried out.
- Regular reviews on Projects are held by the Project Review Committee. Projects are evaluated for internal assessment by the Project Review Committee and Internal Guide. Final assessment is done by External examiner appointed by University and Internal examiner based on the quality of project work and viva.

The Seminars and Project presentation expose the students to communicate and learn problem solving techniques while working in a group. Student projects carried out in the department and at reputed organizations help in strengthening the student knowledge and skills for promoting the attainment of POs/PSOs.

2.1.1. B: Process for identifying curricular gaps

The curriculum for Electronics and Communication Engineering program is designed by affiliated university in consent with subject experts of University, affiliated colleges, personnel from industry and R&D. The curriculum comprises 60% of theory and 40% of practical in tune with the current trends in the industry. The Course outcomes for each subject are stated in the printed syllabus copies. The syllabus copies are distributed to individual students and also uploaded in the college website for information to Stake holders. Course contents and scheme of instructions are revised for every four years by Board of Studies in consultation with faculty handling the subjects of all affiliated colleges.

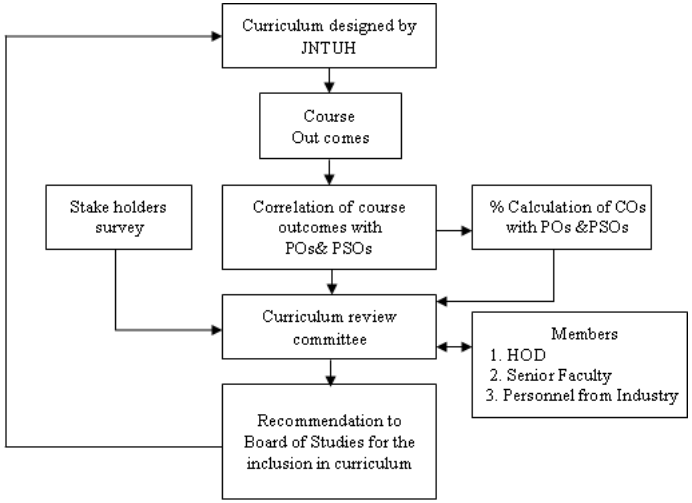


Figure: Process for Identifying Curricular Gap

Lectures are delivered as per the curriculum and almanac designed by JNTUH. Curriculum gaps are identified through surveys of students (course exit survey) and other stake holders like Alumni, Employers and Parents. The Survey formats are mapped with the POs and PSOs of the program. Thus identified are submitted to Board of Studies for the revision of courses shown in below Fig.

Procedure for establishing the correlation between the courses and POs& PSOs:

The Course Outcomes (COs) are defined for each course. Each CO may lead to attainment of one or more Program Outcomes (POs) or Program Specific Outcomes (PSOs). All the courses offered, as per the design of curriculum for the program, are expected to address all the POs to a significant extent. The PSOs are expected to be addressed by the curriculum directly or through specialized instructional methods and practices, particular to the department or program in the institution. A course is related to POs and PSOs, by establishing a relation between the Course Outcomes of the course and the POs/PSOs. POs and PSOs against each CO are represented as a level 3 (High), 2 (Moderate) and 1 (low), which is the expected or target level of attainment of that PO by the course. The expected level of attainment (or target level) is based on the number of periods of instruction devoted for the class.

The target level of each PO is determined from this percentage as Course - PO correlation:

To obtain the correlation level of the Course to POs, total periods devoted for a PO is used as a measure, using the formula

i. $\frac{\text{Total number of periods devoted to a particular PO across all COs}}{\text{Total number of periods devoted for the Course}}\%$

ii. Assignment of Level of Expected PO or target PO is on the basis:

Level 0: <5% **Level 1:** 5 to 40%; **Level 2:** 41 to 60%; **Level 3:** >= 60%

Correlation between the courses and POs& PSOs : CAY 2018-2019

S.No.	Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	MA101BS	Mathematics-I	3	2	1	-	-	-	-	1	-	-	-	-	1	-
2	AP102BS	Applied Physics	3	1	-	1	-	-	-	1	-	1	-	3	1	-
3	CS103ES	Programming for Problem Solving	2.25	2.25	2.25	-	-	-	-	-	-	-	-	-	2.25	0.8
4	ME104ES	Engineering Graphics	3	3	3	3	2	2	3	2	2	2	2	3	2	2
5	AP105BS	Applied Physics Lab	3	1	-	1	-	-	-	1	2	1	-	1	1	-
6	CS106ES	Programming for Problem Solving Lab	3	1	3	1	3	1	-	1	1	2	-	3	2	3
7	*MC109ES	Environmental Science	3		1.8	1		2.3	3	3	1		2		2.25	3
8	MA201BS	Mathematics-II	3	2	1	-	-	-	-	1	-	2	-	1	1	-
9	CH202BS	Chemistry	3	2	-	-	-	-	1	1	-	-	-	-	-	-
10	EE203ES	Basic Electrical Engineering	3	3	2	-	-	-	-	-	-	2	-	2	2	2
11	ME205ES	Engineering Workshop	3	2	2	1	-	-	-	-	3	2	-	2	1	3
12	EN205HS	English	-	-	-	-	-	1	-	-	-	-	-	-	-	-
13	CH206BS	Engineering Chemistry Lab	3	1	-	-	2	1	1	1	1	1	-	1	-	-
14	EN207HS	English Language and Communication Skills Lab	-	-	-	-	-	1	-	1		3	-	2	-	-
15	EE208ES	Basic Electrical Engineering Lab	3	3	2	-	-	-	-	2	-	2	-	2	2	2
16	EC301PC	Electronic Devices and Circuits	3	3	1	-	-	-	-	-	-	1	-	-	1	-
17	EC302PC	Network Analysis and Transmission Lines	3	3	2	-	-	-	-	-	-	2	-	2		
18	EC303PC	Digital System Design	3	3	3	3	-	-	-	-	-	3	-	3		-
19	EC304PC	Signals and Systems	3	2	1.5	1.5									3	3
20	EC305ES	Probability Theory and Stochastic Processes	2	2	2	-	-	-	-	-	-	2	-	-	2	-
21	EC306PC	Electronic Devices and Circuits Lab	3	3	3	3	3	3							3	3
22	EC307PC	Digital System Design Lab	3	3	3	3	-	-	-	-	-	3	-	3		-
23	EC308ES	Basic Simulation Lab	3	3	1	2	3								3	2
24	*MC309	Constitution of India												3		
25	MA401BS	Laplace Transforms, Numerical Methods &Complex Variables	3	3		1	-	-	-	1		2	-	1	2	-
26	EC402PC	Electromagnetic Fields and Waves	3	3		2									3	3
27	EC403PC	Analog and Digital Communications	3	3	3	3	3	-	-	-	1	3	-	1	3	3
28	EC404PC	Linear IC Applications	3	1	1.3										2.5	2.6
29	EC405PC	Electronic Circuit Analysis	3	3	3	2	3			2	1	3	3		3	2
30	EC406PC	Analog and Digital Communications Lab	3	3	3	3	3	-	-	-	1	3	-	1	3	3
31	EC407PC	IC Applications Lab	3	1.5	2	2.5					3	1			2	1

32	EC408PC	Electronic Circuit Analysis Lab	3	3	3	-	3	-	-	3	3	3	-	3	2	3
33	*MC409	Gender Sensitization Lab						3		3	3		2	3	1.3	
34	EC501PC	Microprocessors & Microcontrollers	3	2	1.8	1.75	3				2			2	3	3
35	EC502PC	Data Communications and Networks	3	3	2	2	1								1	1
36	EC503PC	Control Systems	3	2.5	1.5	1		3							2.25	3
37	SM504MS	Business Economics & Financial Analysis	3	1		1	3			3		3	3		3	3
38	EC513PE	Electronic Measurements and Instrumentation	3	1.5											2	2
39	EC505PC	Microprocessors & Microcontrollers Lab	2	2.6	2.7	2	3				3				3	3
40	EC506PC	Data Communications and Networks Lab	3	3	2	2	1								1	1
41	EN508HS	Advanced Communication Skills Lab					3	3				3		2		
42	*MC510	Intellectual Property -Rights	3	1	3	1	-	1	2	-	2	1	1	-	-	-
43	EC601PC	Antennas and Propagation	3	1.8	1.6	1									2.25	3
44	EC602PC	Digital Signal Processing	3	2.3	1.6	1									2.25	3
45	EC603PC	VLSI Design	3	2	2	1	2	-	-	-	-	2	-	2	2	3
46		PROFESSIONAL PRACTICE, LAW & ETHICS	1.4	1.2	0.6	0.4	0.6	0.2							1	0.4
47		Object Oriented Programming through Java	2.5	2	3	3	3									
48	EC604PC	Digital Signal Processing Lab	1.6	2.83		1										
49	EC605PC	e – CAD Lab	3	3	3	-	3	-	-	2	3	3	-	3	3	3
50	EC606PC	Scripting Languages Lab	3	3	3		2							2	1	2
51	*MC609	Environmental Science	3		1.8	1		2.3	3	3	1		2		2.25	3
52	EC701PC	Microwave and Optical Communications	2	3	2	3	2	-	-	-	-	3	-	2	3	2
53	EC713PE	Digital Image Processing	3	2.3	1.6	1									2.25	3
54	EC722PE	Database Management Systems	2	1.6	1.8	1	2							1.4	2.4	1
55		Fundamentals of Biomedical Applications	3	3	3	3	2	3	3	3	3	3	2	3	3	3
56	SM702MS	Professional Practice, Law & Ethics	1.4	1.2	0.6	0.4	0.6	0.2							1	0.4
57	EC703PC	Microwave and Optical Communications Lab	3	3	2	2	2	1	1	1			1	1	1	1
58	EC704PC	Industrial Oriented Mini Project/ Summer Internship	2	-	-	-	2	3	3	2	2	3	-	2	3	3
59	EC705PC	Seminar	2	3	3	2	3	2	1	3	3	3	2	3	3	3
60	EC706PC	Project Stage-I	2	2	2	2	2	2	2	1	2	1	2	1	-	-
61	EC811PE	Satellite Communications	3	2	3							3		3	1	3

62	EC822PE	Test and Testability	3	2	3		2						1	3	1
63	EI700OE	Fundamentals of Robotics	1	1	1	1	1						1	1	1
64	EC801PC	Project Stage-II	2	2	2	2	2	2	2	1	2	1	2	1	-	-
Sum of POs Mapped			161.1	126.5	104.4	70.5	70.2	37	25	43	45	73	24	70.4	103.9	96.2
Total No of POs Mapped			59	56	49	41	31	20	12	24	22	33	12	35	50	42
POs Attained Through-Curriculum			2.58	2.26	2.13	1.72	2.26	1.85	2.08	1.79	2.04	2.21	2	2.01	2.08	2.3
Gap In Curriculum			0.42	0.74	0.86	1.27	0.73	1.15	0.91	1.20	0.95	0.78	1	0.98	0.92	0.70
% of POs Covered In Curriculum			92.18	87.5	76.5	64.0	48.4	31.25	18.75	37.5	34.3	51.56	18.75	54.7	78.1	65.6
% Gap In Curriculum			7.82	12.5	23.4	35.9	51.56	68.75	81.25	62.5	65.6	48.4	81.25	45.3	21.9	34.3

Table: Gap Fulfillment: AY-2018-2019

	Gap	Action taken	Topic	Dates	Name of the Resource Person/ Organization	% Of students	Relevance to POs & (PSOs)
Guest Lectures							
1	Technological Advancements	Guest Lecture	Advanced Digital Signal Processing	01-03-2019	Ms.V. Radha, Nutrisnax Industries	B.Tech. 3/4 Students	PO 6,7,8,9, 10,12 (2)
2	Technological Advancements	Guest Lecture	VLSI Design	04-02-2019	Mr. D.Yadagiri, Advanced Micro Devices(AMD)Ltd.	B.Tech. 4/4 Students	PO 6,7,8,9, 10,12 (1)
3	Technological Advancements	Guest Lecture	Internet of Things	21-12-2018	Mr.PVN Pavan Kumar, SAP Labs	B.Tech. 2/4 students	PO 6,7,8,9,10,12
4	Technological Advancements	Guest Lecture	Machine Learning	08-11-2018	K.Sai Deep, TCS	B.Tech. 3/4 Students	PO 6, 7, 8,9, 10,12
5	Technological Advancements	Guest Lecture	Latest Technologies in Wireless Communication Systems	12-10-2018	Dr. N. Srinivas MLRITM	B.Tech. 2/4,3/4,4/4 Students	PO1,2, 6, 7,8,9, 10,12, PSO1
6	Technological Advancements	Guest Lecture	Latest trends, applications, Opportunities in Image Processing	15-09- 2018	Dr. A. Venkataramana, Prof., Dept. of Technical Education, Telangana	B.Tech. 2/4,3/4,4/4 Students	PO1,2,6,7,8,9,10,12, PSO1
Technical Events							
7	Model Exhibition: Practical approaches	Expo	IoT Challenges-2019	27-02-2019	Students of the Department	B.Tech. 2/4,3/4,4/4 Students	PO 1,3,4,6,7,8, 9,10,11,12,PSO1
8	Technical Skill Up gradation	Tech. Fest	VALOROUS 2018	19-11-2018	Students of the Department	B.Tech. 2/4,3/4,4/4 Students	PO 1,2,3,4,5,6,7,8,9, 10,11,12,PSO1,PSO2

9	Technological Developments-Industrial Design & Process	Workshop	PCB Design & Fabrication	13-08-2018to 15-08-2018	AGM TECHVIZ	B.Tech. 2/4Students	PO1,2,3,4,5,6,7,8,9,10,11,12, PSO1, PSO2
Short Term Courses							
10	Skill up gradations on Modern tools	FDP	XILINX VIVADO DESIGN SUITE	20-09-2018& 21-09- 2018	CoreEL Technologies	B.Tech. 4/4 Students	PO 1,2,3,4,5,6,7,8,9,10,11,12,PSO1, PSO2
11	Societal Needs	Guest Lecture	Inspirational Lecture	23-08- 2018	B. Swami. Vivekananda institute of Human Excellence	B.Tech. 2/4,3/4,4/4 Students	PO8, PO12.

Correlation between the courses and POs& PSOs : CAYm1-2017-2018 and CAYm2-2016-2017

S.No.	Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	MA101BS	Mathematics-I	3	3	1.9	2	2	0	0	0	0	0	0	2	2	2
2	CH102BS	Engineering Chemistry	3	2	0	0	1.3	2	0	1.6	0	1	1	1.2	1.16	1.16
3	PH103BS	Engineering Physics-I	1	2											1.33	2.16
4	EN104HS	Professional Communication in English	-	-				1	-	-	-	-	-	-		
5	ME105ES	Engineering Mechanics	3	2	2	1		1	2		2	1	-	-	1	1
6	EE106ES	Basic Electrical and Electronics Engineering	3	3	2	-	3	-	-	-	-	-	-	1	2	1
7	EN107HS	English Language Communication Skills Lab	-	-	-	-	-	2	-	1	2	3	-	3	-3	-
8	ME108ES	Engineering Workshop	3	2	2	1	-	-	-	-	3	2	-	2	3	1
9	*EA109MC	NSS	-	-	-	-	-	2	2	1	-	-	-	-	-	-
10	PH201BS	Engineering Physics-II	1	2											1.33	2.16
11	MA202BS	Mathematics-II	3	2.1	1.4	2	0	0	0	0	0	0	0	1.2	2	0
12	MA203BS	Mathematics-III	3	1.5	1	1									2.25	3
13	CS204ES	Computer Programming in C	2.2	2.2	2.2	-	-	-	-				-	-	2.2	0.8
14	ME205ES	Engineering Graphics	3	3	3	3	2	2	3	2	2	2	2	3	-	-
15	CH206BS	Engineering Chemistry Lab	2.6	2.1	2.3	0	3	2	0	0	0	0	0	1.3	0.83	1
16	PH207BS	Engineering Physics Lab	3	1	-	-	-	-	-	1	-	1	-	3	1	-
17	CS208ES	Computer Programming in C Lab	3	3	3	-	3	-	-	-	-	-	-	3	3	1
18	*EA209MC	NCC/NSO	-	-	-	-	-	2	2	1	-	-	-	-	-	-
19	MA301BS	Mathematics – IV	2.5	1.1		1									2.25	3
20	EC302ES	Analog Electronics	3	2.6	1	2.8	3	0	0	0	0	1	0	1	3	3
21	EC303ES	Electrical Technology	3	3	2	-	-	-	-	2		2	-	2	3	-
22	EC304ES	Signals and Stochastic Process	3	2	1.5	1.5									3	3
23	EC305ES	Network Analysis	3	3	-	3	-	-	-	-	-	3	-	-	3	-
24	EC306ES	Electronic Devices and Circuits Lab	3	3	3	3	3	3	0	0	0	0	0	0	3	3
25	EC307ES	Basic Simulation Lab	3	3	1	2	3								3	2

26	EC308ES	Basic Electrical Engineering Lab	3	3	2	-	-	-	-	2		2	-	2	3	-
27	*MC300ES	Environmental Science and Technology	3		1.8	1		2.3	3	3	1		2		2.25	3
28	EC401ES	Switching Theory and Logic Design	3	3	3	1	-	-	-	-	-	3	-	3	1	-
29	EC402ES	Pulse and Digital Circuits	3	1	1	1	3				1				2	2.4
30	EE404ES	Control Systems	3	2.5	1.5	1		3							2.25	3
31	EC405ES	Analog Communications	3	3	3	3	3	-	-	-	1	3	-	1	3	3
32	SM405MS	Business Economics and Financial Analysis	3	1		1	3			3		3	3		3	3
33	EC406ES	Analog Communications Lab	3	3	3	3	3	-	-	-	1	3	-	1	3	3
34	EC407ES	Pulse and Digital Circuits Lab	3	2.5	1.8	2	-	2	-	-	-	-	-	-	1	2
35	EC408ES	Analog Electronics Lab	3	3	3	3	3	-	-	-	1	3	-	1	3	3
36	*MC400HS	Gender Sensitization Lab						3		3	3		2	3	1.3	
37	EC501PC	Electromagnetic Theory and Transmission lines	3	3		2									3	3
38	EC502PC	Linear and Digital IC Applications	3	1	1.3										2.5	2.6
39	EC503PC	Digital Communications	3	3	3	2	3					1		2	2	2
40	SM504MS	Fundamentals of Management	1	1	1	1	3	1	1.4	2	1	1.5	1	1	2.25	3
41	EI511OE	Electronic Measurements and Instrumentation	3	1.5											2	2
42	EC505PC	Instrumentation	3	1.5	2	2.5					3	1			2	1
43	EC506PC	Digital IC Applications Lab	3	1.5	1.8	2.5					3	1			1.5	1.2
44	EC507PC	Digital Communications Lab	3	3	3	2	3					1		2	2	2
45	*MC500HS	Professional Ethics	-	-	-	-	-	3	-	3	1	-	-	-	-	-
46	EC612PE	Digital Image Processing	3	2.3	1.6	1									2.25	3
47	CS621OE	Java Programming	3	3	3	-	3	-	-	-	-	-	-	3		-
48	EC601PC	Antennas and Wave Propagation	3	1.8	1.6	1									2.25	3
49	EC602PC	Microprocessors and Microcontrollers	3	2	1.8	1.75	3				2			2	3	3
50	EC603PC	Digital Signal Processing	3	2.3	1.6	1									2.25	3
51	EC604PC	Digital Signal Processing Lab	1.6	2.8		1										
52	EC605PC	Microprocessors and Microcontrollers Lab	2	2.6	2.7	2	3				3				3	3
53	EN606HS	Advanced English Communication Skills Lab	-				3	3				3		2		
54	EC701PC	Microwave Engineering	2	3	2	3	2	-	-	-	-	3	-	2	2	3
55	EC721PE	Computer Networks	3	2.6	2	1		3							2.3	3
56	EC734PE	Embedded Sytem Design	3	2.6	1.8	1	3		3						3	3
57	EC744PE	Artificial Intelligence	2.6	2.5	1.5	1	3	1						3		3
58	EC702PC	VLSI Design	3	2	2	1	2	-	-	-	-	2	-	2	3	-
59	EC703PC	VLSI and E-CAD Lab	3	3	3	-	3	-	-	2	3	3	-	3	3	3
60	EC704PC	Microwave Engineering Lab	3	3	-	3	-	-	-	3	3	3	-	3	3	3
61	EC705PC	Industry Oriented Mini Project	2	3	3	2	3	2	1	2.7	3	3	2	3	-	-
62	EC706PC	Seminar	2	2	1	2	2	1	1	2	3	3	1	2	3	3

63	EI831OE	Sensors and Transducers	3	3	3	-	-	1	3	-	-	-	-	3	3	1
64	EC853PE	Optical Communications	1	2	2	1	3							3	2	
65	EC863PE	Global Positioning System	3	1.5	1	1								1	2.5	2.5
66	EC801PC	Major Project	2	3	3	2	3	2	1	3	3	3	2	3	3	3

Sum of POs Mapped	161	136	99	77.1	83	44	22.4	38	45	61.5	16	74.7	125	112
Total No of POs Mapped	56.0	55.0	46.0	43.0	31.0	24.0	12.0	19.0	22.0	29.0	9.0	36.0	57.0	48.0
POs Attained Through-Curriculum	2.87	2.5	2.2	1.79	2.7	1.8	1.87	2	2	2.12	1.78	2.08	2.19	2.33
Gap In Curriculum	0.13	0.5	0.8	1.21	0.3	1.2	1.13	1	1	0.88	1.22	0.93	0.81	0.67
% of POs Covered In Curriculum	84.8	83	70	65.2	47	36	18.2	29	33	43.9	13.6	54.5	86.4	72.7
% Gap In Curriculum	15.2	17	30	34.8	53	64	81.8	71	67	56.1	86.4	45.5	13.6	27.3

Table: Gap Fulfillment: AY-2017-2018

S. No	Gap	Action taken	Topic	Dates	Name of the Resource Person	Students Attended	Relevance to POs & PSOs
Guest Lectures							
1	Technological Developments	Guest lecture	IoT	12-02-2018	Mr.Ravi, MONITRA HEALTHCARE	B.Tech.2/4,3/4,4/4 Students	PO 1,2,3, 12
2	Technological Developments-Industrial Design & Process	Seminar	Recent Trends in Embedded System Design	29-01-2018	P. Mahesh, CDAC, Hyderabad	B.Tech.4/4 students	PO1,2,3,6,7, 8,9,10, 12, PSO1
3	Technological Developments	Guest Lecture	Microelectronics	02-12-2017	Dr. K. Srinivasa Rao KL University	B.Tech.2/4,3/4,4/4 Students	PO1,2,6,7,8,9, 10,12, PSO1
4	Technological Developments	Guest Lecture	MPMC	20-10-2017	P. Mahesh, CDAC HYD	B.Tech.3/4,4/4 Students	PO1,2,3,6,7,8,9, 10,12, PSO1
5	Skill up gradations	Guest Lecture	Digital Communications	16-08-2017	Mr. PVS Maruthi Rao, Vidcentum R & D Pvt.Ltd	B.Tech. 4/4 students	PO 5,10, 12
Technical Events							
6	Technical Skill Up gradation	Tech. Fest	VALOROUS2K17	29-03-2018	Students of the Department	B.Tech. 2/4,3/4,4/4 Students	PO 1,2,3,4,5,6,7,8,9, 10,11,12,PSO1,PSO2
7	Technological Developments-Industrial Design & Process	Workshop	PCB Design & Fabrication	17-07-2017to 19-07-2017	Entuple Technologies	B.Tech. 2/4Students	PO1,2,3,4,5,6,7,8,9,10,11,12, PSO1, PSO2
Short Term Courses							

8	Technological Developments Industrial Design & Process	FDP	Analog & Digital Circuit Design using CADENCE	22-01-2018, & 23-01-2018	MLRITM in association with CADENCE	BE 2/4,3/4,4/4 Students	PO 1,2,3,4,5,6,7,12, PSO1,PSO2
9	Technological Developments	FDP	MATLAB TOOLS	25-09-2017, & 26-09-2017	MLRITM in association with CADENCE	BE 2/4,3/4,4/4 Students	PO 1,2,3,4,5,6,7,12, PSO1,PSO2

Correlation between the courses and POs& PSOs : CAYm3-2015-2016

S. No	Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	A10001	English	-	-	-	-	-	1	-	-	-	-	-	-	-	-
2	A10002	Mathematics – I	3	2	1	-	-	-	-	1	-	-	-	-	1	-
3	A10003	Mathematical Methods	3	2	1	-	-	-	-	1	-	2	-	1	1	-
4	A10004	Engineering Physics	3	1	-	1	-	-	-	1	-	1	-	3	1	-
5	A10005	Engineering Chemistry	3	2	-	-	-	-	1	1	-	-	-	-	-	-
6	A10501	Computer Programming	2.25	2.25	2.3	-	-	-	-	-	-	-	-	-	2.25	0.8
7	A10301	Engineering Drawing	3	3	3	3	2	2	3	2	2	2	2	3	2	2
8	A10581	Computer Programming Lab.	3	1	3	1	3	1	-	1	1	2	-	3	2	3
9	A10081	Engineering Physics / Engineering Chemistry Lab.	3	1	-	-	2	1	1	1	1	1	-	1	-	-
10	A10083	English Language Communication Skills Lab.	-	-	-	-	-	1	-	1		3	-	2	-	-
11	A10082	IT Workshop / Engineering Workshop	3	2	2	1	-	-	-	-	3	2	-	2	1	3
12	A30007	Mathematics - III	2.5	1.1		1									2.25	3
13	A30405	Probability Theory and Stochastic Processes	2	2	2	-	-	-	-	-	-	2	-	-	2	-
14	A30407	Switching Theory and Logic Design	3	3	3	1	-	-	-	-	-	3	-	3	3	-
15	A30204	Electrical Circuits	3	2.6	1.2	1									2.16	2
16	A30404	Electronic Devices and Circuits	3	3	1	-	-	-	-	-	-	1	-	-	1	-
17	A30406	Signals and Systems	3	2	1.5	1.5									3	3
18	A30482	Electronic Devices and Circuits Lab.	3	3	3	3	3	3	0	0	0	0	0	0	3	3
19	A30481	Basic Simulation Lab.	3	3	1	2	3								3	2
20	A40215	Principles of Electrical Engineering	3	2.3	1.2	1		3							2	2
21	A40412	Electronic Circuit Analysis	3	2.7	1	3	3	0	0	0	0	1	0	1	3	3
22	A40415	Pulse and Digital Circuits	3	2.5	1.8	2		2							1	2
23	A40009	Environmental Studies	3		1.8	1		2.3	3	3	1		2		2.25	3
24	A40411	Electromagnetic Theory and Transmission Lines	3	3		2									3	3

25	A40410	Digital Design using Verilog HDL	3	3	3	3	-	-	-	-	-	3	-	3		-
26	A40288	Electrical Technology Lab.	3	3	2	-	-	-	-	-	-	2	-	2	2	2
27	A40484	Electronic Circuits and Pulse Circuits Lab.	3	3	3	-	3	-	-	3	3	3	-	3	2	2
28	A50217	Control Systems Engineering	3	2.5	1.5	1		3							2.25	3
29	A50516	Computer Organization and Operating Systems	3	2.6	2	1	3	3							2.3	3
30	A50418	Antennas and Wave Propagation	3	1.8	1.6	1									2.25	3
31	A50422	Electronic Measurements and Instrumentation	3	1.5											2	2
32	A50408	Analog Communications	3	3	3	3	3	-	-	-	1	3	-	1	3	3
33	A50425	Linear and Digital IC Applications														
34	A50482	Analog Communications Lab.	3	3	3	3	3	-	-	-	1	3	-	1	3	3
35	A50488	IC Applications and HDL Simulation Lab.														
36	A60010	Managerial Economics and Financial Analysis	3	1		1	3			3		3	3		3	3
37	A60117	Intellectual Property Rights	3	1	3	1	-	1	2	-	2	1	1	-	-	-
38	A60420	Digital Communications	3	3	3	2	3					1		2	2	2
39	A60432	VLSI Design	3	2	2	1	2	-	-	-	-	2	-	2	2	3
40	A60430	Microprocessors and Microcontrollers	3	2.1	1.6	1.5	3								3	3
41	A60421	Digital Signal Processing	3	2.3	1.6	1									2.25	3
42	A60494	Microprocessors and Microcontrollers Lab.	2	2.6	2.7	2	3				3				3	3
43	A60493	Digital Signal Processing Lab.	1.6	2.83		1										
44	A70014	Management Science	3			1	3			3		3	3		3	3
45	A70442	Microwave Engineering	2	3	2	3	2	-	-	-	-	3	-	2	3	2
46	A70515	Computer Networks	3	2.6	2	1		3							2.3	3
47	A70434	Cellular and Mobile Communications	3	3	2	3						3			3	
48	A70436	Digital Image Processing	3	2.3	1.6	1									2.25	3
49	A70440	Embedded Systems Design	3	2.6	1.8	1	3		3						3	3
50	A70086	Advanced Communication Skills Lab,	3	3	3	2	3					1		2	2	2
51	A70499	Microwave Engineering and Digital Communications Lab	2	3	2	3	2	-	-	-	-	3	-	2	3	2
52	A80452	Satellite Communications	3	3	3	-	-	3	3	-	-	-	-	-	3	3
53	A80450	Radar Systems	3	2	3	-	-	-	-	-	-	3	-	3	3	1
54	A80454	Wireless Communications and Networks	3	2.5	1.5	1.3		3							2.25	3
55	A80087	Industry Oriented Mini Project	2	-	-	-	2	3	3	2	2	3	-	2	3	3
56	A80089	Seminar	2	3	3	2	3	2	1	3	3	3	2	3	3	3
57	A80088	Major Project Work	2	2	2	2	2	2	2	1	2	1	2	1	-	-
58	A80090	Comprehensive Viva	3	2	2		1	1					2	1	3	2
Sum of POs Mapped			152	121	93	67.3	63	40.3	22	27	25	64	17	49	113.8	105.8

Total No of POs Mapped	54	51	45	41	24	20	10	15	13	29	8	25	48	41
POs Attained Through-Curriculum	2.82	2.37	2.1	1.64	2.63	2.02	2.2	1.8	1.92	2.21	2.13	1.96	2.37	2.58
Gap In Curriculum	0.18	0.63	0.9	1.36	0.38	0.99	0.8	1.2	1.08	0.79	0.88	1.04	0.63	0.42
% of POs Covered In Curriculum	93.1	87.9	78	70.7	41.4	34.5	17.2	25.9	22.4	50	13.8	43.1	82.76	70.69
% Gap In Curriculum	6.9	12.1	22	29.3	58.6	65.5	82.8	74.1	77.6	50	86.2	56.9	17.24	29.31

Some of the identified curricular gaps in the last three academic years are the following:

- Additional Laboratory courses / experiments are required to train the students to meet the requirements of the industry in the areas of Data communications, Robotics and Wireless Communications.
- Need for Interdisciplinary courses to mould the graduates to work in collaborative environments.
- Lack of theoretical knowledge and skills to students in contemporary technologies.
- Communicative English and Soft skills need to be addressed.

Based on needs in terms of Courses offered, current industry requirements, program outcomes, program educational objectives, Department administrative system takes appropriate action to revise the curriculum for addressing the curricular gaps.

Department administrative system consists of important committees like

- Program Assessment Committee (PAC)
- Department Advisory Committee (DAC)
- Department Advisory Board (DAB)
- Academic Audit Cell (AAC)
- Internal Evaluation & Result Analysis Committee (IE &RAC)
- Time Table Committee (TC)
- Student Interaction Committee

Departmental Committees

The department has **v**arious committees to look into different aspects in functioning of the department so that the required infrastructure, faculty and staff and instructional procedures are in place for proper attainment of Course Outcomes, Program and Program Specific Outcomes. The inputs from these committees also help towards fulfilling the Vision and Mission of the department. Details of each Committee like composition, functions are given in the following Tables

Program Assessment Committee (PAC):

Feature	Details
Functions	To approve COs and PSOs; to regularly evaluate the curriculum, i.e., B. Tech (Electronics and Communication Engineering), for attainment of COs in each course from the first to the fourth year, in relation to the goals stated; and to suggest ways to improve the programs quality.
Members (10)	Faculty with specialization (Analog Electronics, VLSI Design, Communication engineering, Digital Systems, Embedded Systems, Signal Processing, Microwave Engineering, Programming) (6); Department Alumni (1); and Employer / Industry Representative (1) are special invitees.
Aspects reviewed/ Considered	- All course outcomes and programme PSOs - Result analysis and CO attainments - PO attainments and deficits- Curricular gaps and recommendations -Schedule a meeting with key stakeholders -propose action plans for CO, PO, and PSO improvements.
Meeting Frequency	If necessary, once at the start of the school year or once per semester

Department Advisory Committee (DAC):

Feature	Details
Functions	This is a core committee constituted to help the decision-making process with respect to academics, infrastructure, facilities and student support systems for all programs in the department. The committee also helps in the process of defining short- and long-range goals including Vision, Mission and PEOs.
Members (7)	Program Coordinators, Head of Department, Senior Faculty from Major Specialization Areas.
Aspects reviewed / Considered	1. Labs for all programmes are being built. 2. Faculty and staffing needs 3. Faculty, staff, and student facilities 4. Identifying thrust areas and activities for R&D project proposals Identifying consulting areas and acquiring the appropriate equipment 5. Gathering feedback from stakeholders to write short- and long-term goals, the departments Vision and Mission statements, and PEOs and PSOs for the departments activities.
Frequency of meetings	Once a semester, or sooner if necessary.

Department Advisory Board (DAB):

Feature	Details
Functions	To review numerous inputs and make recommendations on how to improve COs, POs, PSOs, curricular gaps, extra training programmes, faculty, and infrastructure; to rethink the departments Vision, Mission, and PEOs for the programmes offered. HOD, DAC, and PAC are the sources of data.
Members (7)	HOD, Senior Faculty (2), University Professor (1), Industry Representative (1), and Alumni (2)
Aspects reviewed/ Considered	- Approve programme COs and PSOs, as well as modifications to the Departments Vision and Mission statements - Result analysis and CO attainments -Adequacy of faculty members -Laboratory equipment and modernization -budget allocation -research and development initiatives

Academic Audit Committee (AAC)

	Details
Functions	To study the fulfilment of academic norms stipulated by University and AICTE and give recommendations to make up the deficiencies
Members	HOD, Senior Faculty members (3) of whom one is from other dept. in the college.

Aspects reviewed/ Considered	• Faculty position w.r.t Student Faculty Ratio(SFR), qualifications and cadre ratio • Staff position • Class room adequacy w.r.t. number, area and ambience • Conduct of Laboratories and tutorials • Instruction material provided and quality, including service courses • Instruction timetables, and teaching loads • Student attendance records • Quality of question papers and assignments • Training programs to students, faculty and staff
Frequency of meetings	Once at the beginning of the academic year

Time Table Committee (TC)

	Details
Functions	To prepare timetables for all classes in the dept.
Members	Timetable Coordinator, and faculty representing each section including PG program (3)
Aspects reviewed/ Considered	• Scheme of instruction for the programs and of service courses to other depts. • University and college calendars • Classrooms and Laboratory batch size • Coordinators of other depts. having service courses • Special slots for student skill training
Frequency of meetings	Three/four times before commencement of semester and during the semester.

Student Interaction Committee (SIC)

	Details
Functions	To speak to student representatives on the committee and attend to their complaints regarding facilities in the department and college and to collect feedback from students on delivery of contents and syllabus coverage.
Members	HOD, Student affairs I/C, one faculty member, and student representatives one from each of II and III year classes, and two each from IV year classes (8).
Aspects reviewed/ Considered	• Complaints related to facilities in classroom, Laboratory equipment, library, academic or exam sections, sports or transport. • Discussion on possible remedial measures
Frequency of meetings	Twice in a semester.

Table: Functions of Departmental Committees

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

Institute Marks : 10.00

2.1.2 .A Steps taken to get identified gaps included in the curriculum

Based on the percentage contribution of curriculum calculations for three consecutive academic years, it is observed that the attainment of program outcomes PO6, PO7, PO11 is need to improvement. This indicates need to modify the program curriculum so as to introduce new courses to see that the above POs and PSOs could be improved to a larger extent. Formal letters have been sent to chairman, BOS (ECE) with a request to consider appropriate and necessary changes in the curriculum keeping the above target in view. In Consideration of our request chairman, BOS (ECE) has conducted the meetings for syllabus revision and the following changes have been incorporated.

Initiatives taken to address the curricular gaps through inclusion in curriculum

- Human values and Professional Ethics course has been introduced to address the gap PO8 (Ethics).
- Engineering graphics-I is revised with inclusion of AUTOCAD software.
- Business oriented communication and presentation skills introduced to train the students to listen, speak and write effectively.
- Computer skills Lab is introduced to train the students to learn & create documents in MS-office, LATEX effectively.
- Introduction of electives like Robotics, OOPS using JAVA, Sensors and Transducers, etc.
- Effective and Industry Collaborated mini and major projects and encouraging interdisciplinary projects.
- Summer Internships at reputed organizations in interdisciplinary projects.

The gap between the academic and Industry is taken care by Inviting experts from Industry, R&D Labs, and reputed national institutions like IITs, NITs, IIITs etc. Special workshops and seminars / conferences are periodically conducted to cater to the needs of the students for quality enhancement and skills up gradation.

2.1.2. B. Delivery details of Content beyond Syllabus:

The following co-curricular activities are conducted to minimize the curriculum gap:

- NPTEL Video Lectures
- Guest Lectures
- Personality Development Lectures
- Workshops
- Conferences
- Short Term Technical Training programs
- Technical Fest-Model Exhibition
- Activities of Student Professional chapters
- Internships
- e-Journals

In addition to these, exclusive Research Centre Lab facilities with high end softwares are provided for the students to carry out projects in Embedded/VLSI//ROBOTICS/Communications and students are encouraged to participate in National level competitions. In addition to the syllabus prescribed, teachers will highlight the latest advancements in the area of the subjects they are handling. Also a number of co-curricular activities like Guest lectures from Industry experts, workshops, conferences, video lectures etc., are organized to fill gaps if any in the curriculum for the attainment levels of POs/PSOs effectively. NPTEL course lectures are being arranged as part of courses beyond syllabus.

2.1.2. C. Content beyond Syllabus /Mapping with Pos & PSOs:

The following content beyond syllabus details show the mapping of content beyond syllabus with relevance to Pos & PSOs for gap attainment is shown in below Tables for academic year 2020-21, 2019-20, and 2018-19.

2020-21

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Image Enhancement in spatial and frequency domain, Image Compression (DCT,DWT)	Explained with the help of MATLAB examples	11/03/2021	K. Kavitha, Assistant Professor	80	PO:1,2,3,5,6,12, PSO:2
2	Interfacing Temperature Sensor & Real time clock for 8051 Microcontroller	Explained programs to interface Sensors to 8051 microcontroller	15/02/2021	R. Raja Kishore Assistant Professor.	70	PO:3,5,6,12, PSO:1,2
3	IC Fabrication Process	Using NPTEL Videos it is explained	14/12/2020	Dr. G. Amarnath Associate Professor	85	PO:1,2,3,12,7 PSO:1
4	Mini projects in the area of Robotics, AI, ML, VLSI, DSP, DIP and communications	Students have to choose and execute the Mini projects in the areas specified	21/05/2021	Dr. G. Amarnath Associate Professor & Dr. Srinivas Bachu Associate Professor	100	PO:1,2, 3,5,7,8,9,10, PSO:1,2
5	Digital Logic families	NPTEL videos	07/09/2020	B. Koteswara Rao, Assistant professor	90	PO:1,2 PSO:1
6	Satellite Communications	NPTEL videos	07/09/2020	D. Malathi Rani, Assistant professor	90	PO:1,2,12 PSO:2
7	LVDT---Electronic Instrumentation	NPTEL videos	23/09/2020	S. K. Hima Bindhu, Assistant professor	90	PO:1,2 PSO:1,2
8	Advance IC's	NPTEL videos	03/09/2020	Dr. S. Kishore , Assistant professor	90	PO:1,2,3, PSO:1

2019-20

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Image Histogram-- Demonstrate MATLAB not in curriculum	Explained with the help of MATLAB examples using PPT.	18/09/2019	Dr. B. Srinivas Associate Professor	85	PO:1,2,5,PSO:2
2	Multivibrators Design	Explained Monostable & Astable Multivibrators using Op-Amp IC 741	06/11/2019	K. S. Monica Assistant Professor	80	PO:1,2,3,12, PSO:1
3	Bit-Plane slicing to demonstrate Image compression---using MATLAB	Explained with the help of MATLAB examples using PPT	02/12/2019	N. Reshma Bindu, Assistant Professor	85	PO:1,2,5,PSO:2
4	Mini projects in the area of Robotics, AI, ML, VLSI, DSP, DIP and communications	Students have to choose and execute the Mini projects in the areas specified	24/12/2019	Dr. G. Amarnath Associate Professor & Dr. Srinivas Bachu Associate Professor	100	PO:1,2, 3,5,7,8,9,10, PSO:1,2

2018-19

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Image Enhancement in spatial and frequency domain----Demonstrate MATLAB not in Curriculum	Explained with the help of MATLAB examples using PPT.	10/04/2019	T. Immanuel, Associate Professor	75	PO:1,2,5,PSO:2
2	Analog Multipliers & Single slope ADC	Class taken to explain the concept of Analog Multipliers & Single slope ADC	19/04/2019	K. V. Suresh Kumar Assistant Professor	90	PO:1,2,3,12, PSO:1
3	Mini projects in the area of Digital Signal Processing, Image processing, Speech Processing----not in curriculum	Students have to choose and execute the Mini projects in the areas specified---as a part of DSP LAB	15/12/2018	Dr. N. Srinivas, Associate Professor I. Adum Babu, Associate Professor	30	PO:1,2, 3,5,7,8,9,10,PSO:2
4	Mini projects in the area of communications –Analog Communication Lab	Mini projects using MATLAB	09/12/2018	Dr. N. Srinivas, Associate Professor	30	PO:1,2,5,PSO:2

2.2 Teaching - Learning Processes (100) Total Marks 100.00

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

Institute Marks : 25.00

Department of ECE, Marri Laxman Reddy Institute of Technology and Management, adheres to Jawaharlal Nehru Technological University Curriculum and Almanac and formulate department academic calendar to fulfill the curriculum requirements. The Department identifies curriculum gaps and takes initiative to improve teaching-learning process in Theory, Lab., Project Works and Seminars. Department plans to work with various professional societies and organize other training Programs to improve soft skills & technical knowledge.

Figure: Process to Improve Quality of Teaching Learning Process

2.2.1. A: Adherence to academic calendar:

- The academic calendar includes Almanac, Internal & External examination schedule, Curricular and Co-Curricular activities, Workshops, Guest lectures, display schedule of attendance, parents teacher meet, display of Internal marks and start of the next Semester.
- Academic calender is prepared well in advance before the start of the semester and made available to all the students, teaching and non-teaching staff.
- Academic calender is also posted in the college website.

The University issued calendars for three academic years are shown below,

Academic Calendar for AY: 2020-2021

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
REVISED ACADEMIC CALENDAR 2020-21
For All Constituent & Affiliated Colleges of JNTUH
B. Tech./B.Pharm. II, III & IV Years I & II Semesters

B. Tech./B.Pharm. II, III & IV Years - I Semester

S. No	Description	Duration	
		From	To
1.	Commencement of I Semester classwork	01.09.2020	
2.	1st Spell of Instructions (including Dussehra Recess)	01.09.2020	31.10.2020 (9 Weeks)
3.	Dussehra Recess	19.10.2020	24.10.2020
4.	First Mid Term Examinations	02.11.2020	07.11.2020 (1 Week)
5.	Submission of First Mid Term Exam Marks to the University on or before	13.11.2020	
6.	Parent-Teacher Meeting	21.11.2020	
7.	2nd Spell of Instructions	09.11.2020	02.01.2021 (8 Weeks)
8.	Second Mid Term Examinations	04.01.2021	09.01.2021 (1 Week)
9.	Preparation Holidays and Practical Examinations	11.01.2021	16.01.2021 (1 Week)
10.	Submission of Second Mid Term Exam Marks to the University on or before	16.01.2021	
11.	End Semester Examinations	18.01.2021	30.01.2021 (2 Weeks)

B. Tech./B.Pharm. II, III & IV Years - II Semester

S. No	Description	Duration	
		From	To
1.	Commencement of II Semester classwork	01.02.2021	
2.	1st Spell of Instructions	01.02.2021	27.03.2021 (8 Weeks)
3.	First Mid Term Examinations	29.03.2021	03.04.2021 (1 Week)
4.	Submission of First Mid Term Exam Marks to the University on or before	09.04.2021	
5.	Parent-Teacher Meeting	17.04.2021	
6.	2nd Spell of Instructions	05.04.2021	29.05.2021 (8 Weeks)
7.	Second Mid Term Examinations	31.05.2021	05.06.2021 (1 Week)
8.	Preparation Holidays and Practical Examinations	07.06.2021	12.06.2021 (1 Week)
9.	Submission of Second Mid Term Exam Marks to the University on or before	12.06.2021	
10.	End Semester Examinations	14.06.2021	26.06.2021 (2 Weeks)
11.	Summer Vacation	28.06.2021	10.07.2021 (2 Weeks)

Note: All the laboratory courses shall be conducted once normalcy is restored.

Academic Calendar for AY: 2019-2020

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
REVISED ACADEMIC CALENDAR (2019-20)
FOR NON-AUTONOMOUS CONSTITUENT& AFFILIATED COLLEGES
B. TECH./B.PHARM. II, III & IV YEARS I & II SEMESTERS

I SEM

S. No	EVENT	DATE	Duration
1	Commencement of Instruction	15th July 2019	--
2	First Mid Term Examinations	12th to 14th Sept. 2019	--
3	Submission of First Mid Term Exam Marks to University on or before	20th Sept. 2019	--
4	Parent-Teacher Meeting	21st Sept. 2019	--
5	Dussehra recess	7th to 19th Oct. 2019	2 weeks
6	Last date of Instruction	20th Nov. 2019	17 weeks
7	Second Mid Term Examinations	21st to 23rd Nov. 2019	--
8	Preparation Holidays and Practical Examinations	25th to 30th Nov. 2019	1 week
9	Submission of Second Mid Term Exam Marks to University on or before	30th Nov. 2019	--
10	End Semester Examinations	2nd to 14th Dec. 2019	2 weeks

II SEM

S. No	EVENT	DATE	Duration
1	Commencement of Instruction	16th Dec. 2019	--
2	First Mid Term Examinations	10th to 12th Feb. 2020	--
3	Submission of First Mid Term Exam Marks to University on or before	19th Feb. 2020	--
4	Parent-Teacher Meeting	14th March 2020	--
5	Last date of Instruction	7th April 2020	16 weeks
6	Second Mid Term Examinations	8th to 11th April 2020	--
7	Preparation Holidays and Practical Examinations	13th to 18th April 2020	1 week
8	Submission of Second Mid Term Exam Marks to University on or before	18th April 2020	--
9	End Semester Examinations	20th April to 2nd May 2020	2 weeks
10	Summer Vacation	4th May to 4th July 2020	9 weeks

21.10.19
DIRECTOR

Academic Calendar for AY: 2018-2019

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
REVISED ACADEMIC CALENDAR (2018-19)
FOR NON-AUTONOMOUS CONSTITUENT& AFFILIATED COLLEGES
B. TECH. II, III & IV YEARS I & II SEMESTERS

I SEM

S. No	EVENT	DATE	Duration
12.	Commencement of Instruction	9th July 2018	--
13.	First Mid Term Examinations	4th to 6th Sept. 2018	--
14.	Submission of First Mid Term Exam Marks to University on or before	15th Sept. 2018	--
15.	Parent-Teacher Meeting	13th Oct. 2018	--
16.	Dussehra recess	15th to 20th Oct. 2018	1 week
17.	Last date of Instruction	10th Nov. 2018	16 weeks
18.	Second Mid Term Examinations	12th to 14th Nov. 2018	--
19.	Preparation Holidays and Practical Examinations	15th to 24th Nov. 2018	1 week
20.	Submission of Second Mid Term Exam Marks to University on or before	24th Nov. 2018	--
21.	End Semester / Supplementary Examinations	26th Nov. to 8th Dec. 2018	2 weeks
22.	Semester Break	10th to 15th Dec. 2018	1 week

II SEM

S. No	EVENT	DATE	Duration
11.	Commencement of Instruction	24th Dec. 2018	--
12.	First Mid Term Examinations	18th to 20th Feb. 2019	--
13.	Submission of First Mid Term Exam Marks to University on or before	27th Feb. 2019	--
14.	Parent-Teacher Meeting	9th March. 2019	--
15.	Last date of Instruction	20th April 2019	16 weeks
16.	Second Mid Term Examinations	22nd to 24th April 2019	--
17.	Preparation Holidays and Practical Examinations	25th April to 4th May 2019	1 week
18.	Submission of Second Mid Term Exam Marks to University on or before	2nd May 2019	--
19.	End Semester / Supplementary Examinations	6th to 18th May 2019	2 weeks
20.	Summer Vacation	20th May to 13th July 2019	8 weeks

17.12.18
DIRECTOR
ACADEMIC & PLANNING, JNTUH

Academic Calendar for AY: 2017-2018

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
ACADEMIC CALENDAR (2017-18)
FOR NON-AUTONOMOUS CONSTITUENT & AFFILIATED COLLEGES
B. TECH. & B. PHARM. II, III & IV YEARS I & II SEMESTERS

I SEM

S. No	EVENT	DATE	Duration
1.	Commencement of Instruction	12th July 2017	--
2.	First Mid-Term Examinations	6th to 8th Sept. 2017	--
3.	Submission of First Mid Term Exam Marks to University on or before	16th Sept. 2017	--
4.	Dussehra recess	25th to 30th Sept. 2017	1 week
5.	Parent-Teacher Meeting	14th Oct. 2017	--
6.	Second Mid Term Examinations	8th to 10th Nov. 2017	--
7.	Last date of Instruction	10th Nov. 2017	16 weeks
8.	Preparation Holidays and Practical Examinations	13th to 18th Nov. 2017	1 week
9.	Submission of Second Mid Term Exam Marks to University on or before	18th Nov. 2017	--
10.	End Semester & Supplementary Examinations (II Sem. of I, II & III years)	20th Nov. to 12th Dec. 2017	3 weeks

II SEM

S. No	EVENT	DATE	Duration
1.	Commencement of Instruction	14th Dec. 2017	--
2.	First Mid Term Examinations	7th to 9th Feb. 2018	--
3.	Submission of First Mid Term Exam Marks to University on or before	17th Feb. 2018	--
4.	Parent-Teacher Meeting	10th March 2018	--
5.	Second Mid Term Examinations	4th to 7th April 2018	--
6.	Last date of Instruction	7th April 2018	16 weeks
7.	Submission of Second Mid Term Exam Marks to University on or before	13th April 2018	--
8.	Preparation Holidays and Practical Examinations	9th to 14th April 2018	1 week
9.	End Semester & Supplementary Examinations (I Sem. of II, III & IV years)	16th April to 7th May 2018	3 weeks
10.	Summer Vacation	8th May to 7th July 2018	9 weeks

DIRECTOR
ACADEMIC & PLANNING, JNTUH

2.2.1 B: Use of Various Instructional methods &Pedagogical Initiatives

1. Collaborative Learning:

a) Industry Interaction

- Department has been collaborating with Industries and academic institutes for collaborative work, student projects etc.
- Experts from Industries are invited for delivering Guest Lectures for our students.
- National level Workshops, Conferences and Short-term courses are organized in association with various Professional Societies.
- Also the faculty from the program delivers expert lectures at outside organizations, chairing the sessions in international / national conferences, conducting viva voce examinations for B.Tech. / M.Tech. students in other colleges and providing consultancy support.

b) Professional Societies

- The technology gap between the Academic and Industry is taken care by associating with Professional Societies.
- Department is associated with IETE, IEEE.
- National level Workshops, Seminars & Conferences are periodically conducted in association with Professional societies to cater to the needs of the students for quality enhancement and skill up gradation.
- Hands on training programs are arranged to the students and faculty by experts from Industry and R & D labs.
- Students are encouraged to participate in National level competitions.

2. Pedagogical Initiatives

a) Curriculum Delivery Process

- Faculty prepares the lesson plan, course plan, course material as per syllabus, handouts, assignment questions, question bank for important topics, power point presentations etc. before the start of the semester.

- Hard copies of syllabi are distributed to all the students at start of the semester.
- The syllabi of all the courses are also available in the college website.
- The Department will announce the electives offered and the faculties are assigned for each of the courses. Electives are offered on student's choice.
- The course outcomes of all subjects are distributed to all the students at the start of the semester. They are made available in the college website.
- Faculty proposes final year Project work and briefs about the objective of the projects to the final year students. Students are also encouraged to carry out external projects from industry and R&D labs.
- Department allots the projects to all final year students as per their area of interest at the beginning of the academic year.
- The seminars and projects introduced in the curriculum have made the students to refer to the relevant literature in specific research areas.
- Guest lectures are delivered to third and final year students by industrial experts / Scientists from R&D labs, Professors from NITs & IITs.
- Learning materials of NPTEL available for use as e-learning facility.
- Industrial tours/visits are organized as per the curriculum.
- Short term courses are conducted during vacation period for skill up gradation on Modern tools.
- Third and Final year students are encouraged to take up Internship program in Industries etc.

b) Technical Festivals

- Seminars & Workshops are organized to expose students on the latest technologies.
- Students are encouraged to participate in Inter and Intra college Technical competitions.
- Students are encouraged to organize Technical festivals every year.

c) Faculty Development

- Faculties 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 is trained on Modern tools with 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.
- Faculty seminars on research works on recent trends in Electronics and Communication Engineering are organized within the department to inculcate the research and development among faculty.
- Faculty is encouraged to present papers in International/National conferences, seminars & workshops to exchange their ideas among academicians, scientists & researchers.
- Faculty is encouraged to apply Research Projects for various funding schemes. Facilities are provided in the laboratories to carry out projects & consultancy work.

3. Instructional Methods

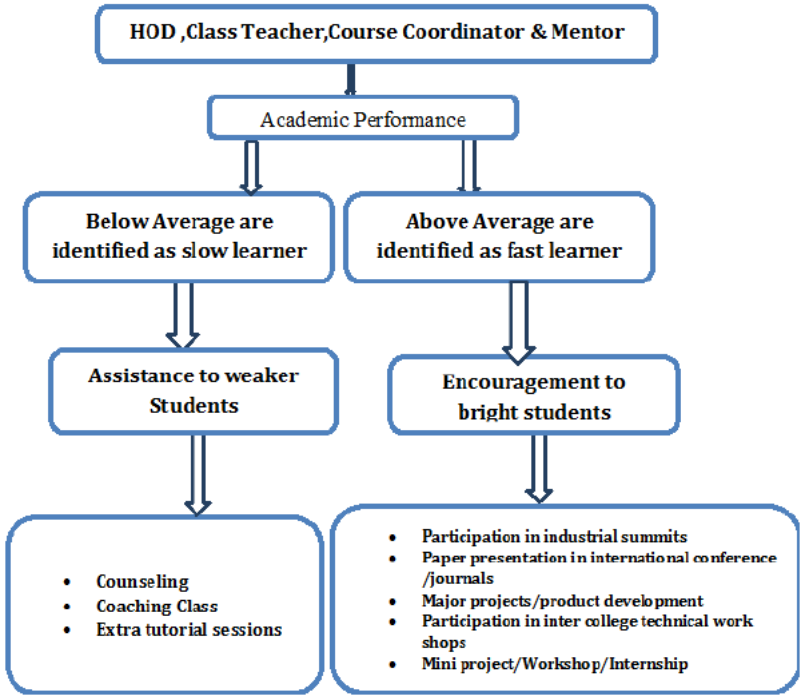
- Teaching – Learning using various Aids
- Black-board
- OHP- Transparencies
- LCD – PPT, Multimedia
- Collaborative Learning methods
  - · Discussion
  - · Document (Handouts/Others)
  - Reading followed by discussion

Course Name	Teacher Name	Pedagogical methods						Experiments	Projects		Seminar
		OHP	LCD	Collaborative Learning							
				Discussion	Work using		Reading followed by discussion		Mini	Main	
					Handouts	Document					

MPMC	R.RAJA KISHORE	-	-	√	√	√	√	√	-	-	-
	DR.P.S.SHIJIN KUMAR	-	-	√	√	√	√	√	-	-	-
AWP	I.ADUMBABU	-	-	√	√	√	√	-	-	-	-
	K.V.SURESH	-	-	√	√	√	√	-	-	-	-
DSP	DR.B.SRINIVAS	√	√	√	√	√	√	-	√	√	-
	Dr.K.NAVEEN KUMAR	√	√	√	√	√	√	-	√	√	-
	K.NAGABHUSHAN	√	√	√	√	√	√	-	√	√	-
DIP	B.N.SRINIVAS	-	-	√	√	√	√	-	-	-	-
	B.N .SRINIVAS	-	-	√	√	√	√	-	-	-	-
ST	DR.K.NAVEEN	-	-	√	√	√	√	√	√	√	-
	DR.G.AMARNATH	-	-	√	√	√	√	√	√	√	-
OC	DR.S.KISHORE	-	√	√	√	√	√	√	-	-	-
	Dr.N.SRINIVAS	-	√	√	√	√	√	√	-	-	-
	S.ARVINDKUMAR	-	√	√	√	√	√	√	-	-	-
GPS	DR.N.UDAYKUMAR	-	-	√	√	√	√	-	-	-	-
	Dr.K.NAVEEN	-	-	√	√	√	√	√	-	-	-
EMFW	Mr.T.VINAYKUMAR	√	√	√	√	√	√	-	-	-	-
	JAYAKUMAR	-	-	√	√	√	√	-	-	-	-
ADC	N. SYAMALA	-	-	√	√	√	√	-	-	-	-
	DR.N.SRINIVAS	-	-	√	√	√	√	-	-	-	-
	G.KIRANKUMAR	-	-	√	√	√	√	-	-	-	-
ECA	DR.S.KISHORE	-	√	√	√	√	√	√	-	-	-
	K.S. MONICA	-	√	√	√	√	√	√	-	-	-
	DR.G. AMARNATH	-	√	√	√	√	√	√	-	-	-
LICA	Mr. KOTESWARA RAO	-	√	√	√	√	√	√	-	-	-
	Mrs.S.K.HIMA BINDU	-	√	√	√	√	√	√	-	-	-
	K.RAMAMOHAN REDDY	-	√	√	√	√	√	√	-	-	-

2.2.1. C: Methodologies to support weak students and encourage bright students

Process to identify and support weak students and encourage bright Students



Category of learners	Method of categorization	Extra care taken for students
Slow learners	Current CGPA <6	• Identify the courses in which student is week • Additional time is provided by the faculty member for better understanding • Extra counseling to motivate students and guide students for better preparation • More test and assignment are given • Mentors are facilitated to understand personal and professional difficulties of students.
Fast learners	Current CGPA >6	• Supplementary assignments are provided to develop skills on complex problems solving • Fast learners are given practical applications scenario to implement in the laboratory • Extra classes for advance topics • Special guidance to publish papers and carried out innovative projects

1. Assisting Weak Students

- Based on the analysis of the unit test results remedial classes are arranged in various subjects to strengthen the concepts, knowledge and skills in concerned subject.
- Tutorial classes are conducted to improve the problem solving skills through interaction among the students and faculty members.
- A qualified Counsellor helps students to develop their academic pursuits by boosting their confidence and removing psychological barriers among them.
- Student Counsellors at department level also guides the students.

Identifying weak students is done based on the marks scored in the previous academic year and internal marks of the current academic year and Remedial classes are conducted on working Saturdays, sample of Time-Table for tutorial classes, classes engaged and topics covered is provided below.

Remedial Classes details for last three academic years

AY 2020-2021

S. No.	Course name	Dates	Faculty Name with Designation	% of Students
1.	Electronic Circuit Analysis	20/8/20 & 15/10/20	DR.G. AMARNATH	B.Tech.2/4-'B' (30)
2.	Analog &Digital Communications	2/9/20 & 9/9/2020	DR.N.SRINIVAS	B.Tech 2/4-'B' (30)
3.	Antenna & Wave Propagation	6/1/21,18/1/21,19/1/21,2/2/21,7/2/21, 18/2/21,31/3/21,19/4/ 21	I.Adum babu	B.Tech.3/4 B & C (30)
4.	Digital Image Processing	29/10/20,31/10/20	B.N.SRINIVAS	B.Tech.3/4-'B' (30)
5.	Microprocessors & Microcontrollers	8/3/21,9/3/21,15/3/21 ,23/3/21 & 1/4/21	DR.P.S.SHIJIN KUMAR	B.Tech.3/4-'C' (30)
6.	Linear Integrated Circuits & Applications	17/9/2020,24/9/20	K.Kavitha	B.Tech.3/4-'B' (25)
7	Digital Signal Processing	13/4/21,14/4/21,16/5/ 21, 17/5/21	DR.B.SRINIVAS	B.Tech.3/4-'C' (15)

AY 2019-2020

S. No.	Course name	Date	Faculty Name with Designation	% of Students
1	Digital Signal Processing	19/2/20,25/3/20,15/4/20	Dr.B.Srinivas	B.Tech.3/4-'C' (15)
2	VLSI Design	6/8/20,24/9/20	K.V.Suresh	B.Tech.4/4-'A' (10)
3	Antenna & Wave Propagation	30/1/20 & 8/2/20	I.Adum babu	B.Tech.3/4 B & C(30)
4	Microwave Engineering	30/10/19& 31/10/19	D.Jayakumar	B.Tech.4/4-B & C(30)
5	Electro Magnetic Theory	27/7/19 & 8/10/19	T.Vinaykumar	B.Tech.4/4- C (10)
6	Linear Integrated Circuits & Applications	1/9/2019,26/9/19, 17/10/19	B.Koteshwar rao	B.Tech.3/4-'B' (30)
7	Switching theory and Logic Design	20/2/20 & 5/3/20	Dr.S. Kishore	B.Tech.2/4-'B' (30)

AY:2018-2019

S. No.	Course name	Date	Faculty Name with Designation	% of Students
1	Digital Signal Processing	2/5/2019	K.NagaBhushan	30% of B.Tech. 3/4
2	Antenna & Wave Propagation	20/1/19,8/4/19,9/4/19	I.Adum babu	B.Tech.3/4 C (15)
3	Microwave Engineering	23/8/18	D.Jayakumar	B.Tech.4/4-B (15)
4	Linear Integrated Circuits & Applications	20/9/2018,18/9/2018 , 1/11/2018	B.Koteshwar rao	B.Tech.3/4 B (15)

Actions taken in assisting weak students

Identification Criteria	Actions Taken
Students scoring less marks	• Peer teaching is conducted by senior and fellow students. • Counseling is given to the students by subject handling faculty, concerned faculty advisors, Class Counselors and HoD. • Students' performances are intimated to parents. • Remedial measures (counseling, classes, retest, and tutorial) are taken.
Failures in Semester End Examinations	• Examination failure reasons are analyzed. • Counseling is given to the student. • Coaching classes are conducted before the commencement of semester end examination. • Discussion on important questions and question bank.

Impact Analysis of Weak Students:

- Improvement in Semester end examinations.
- Develops positive attitude among students.
- Improvement in analytical and communication skills.
- Improvement in programming skills.

2. Encouraging Bright Students

Bright students are found on the basis of their class performances, involvement in classroom, internal assessments and grades.

- The following facilities are there for bright students to apply their learning on various platforms:
- Extra assignment to enhance complex problems solving skills.
- Extra counseling to motivate students to take up advanced study or take-up projects.
- Involve fast learners for peer tutoring the slow learners.
- Students are motivated to take up one additional advanced level MOOC/SWAYAM / NPTEL in that course.
- They are encouraged to finding the solution of complex problem/innovative projects.
- Give open ended/challenging lab based problem.
- Students are encouraged to take up competitive exams like GATE, GRE, TOEFL, IELTS, CAT, PGCET etc.
- Students are encouraged to be members of professional bodies like and organize technical events.
- Bright and diligent students are motivated and inspired to get top ranks in their SEE and in competitive examinations.
- Students are encouraged to take part in various club activities.
- Best Academic Performance Award is given to top student of each class, for all the courses, based on their performance in University Examination in the preceding year.
- Prescribed text books for the succeeding semester/academic year are presented to the students for their best academic performance.
- College intends to pays the total fee for higher education of the students who secured Top 10 ranks in GATE.
- Best attendance awards are given to all those students who have secured top attendance percentage in the preceding academic year.
- Short term courses on topics beyond curriculum topics are organized.
- Innovative projects under Professional Societies are encouraged.

Impact Analysis of Bright students:

- Improvement in CGPA.
- Improvement in communication skills and interpersonal skills.
- Improvement in programming skills.
- Improvement in inter-institute event participation.
- Improvement in placement and higher studies.
- The students were able to do quality projects, present papers in conferences.

CAY 2020-21

Top 10 Students

3/4 B.Tech				2/4 B.Tech			
S.No	**Roll No**	**Name**	**CPI**	**S.No**	**Roll No**	**Marks**	**CPI**
1	197Y1A0418	KONDA LAXMIPRIYA	9.61	1	207Y1A04C2	MALLAK AJAY KUMAR	9.56
2	197Y1A0458	APPARI AKSHAYA	9.56	2	207Y1A0467	CHEERLA ARCHANA	9.33
3	197Y1A0474	ELISHA MANOJ HAZARI	9.56	3	207Y1A04C9	POTHYREDDY DEEKSHITHA	9.33
4	197Y1A0471	S KUSUMA KUMARI	9.44	4	207Y1A0426	DEVASANI NIKITHA	9.33
5	197Y1A04F0	KAVITI SRAVANA SANDHYA	9.44	5	207Y1A0412	VADDIREDDY HIMAJA	9.33
6	197Y1A0445	SUVVARI SUDHA RANI	9.39	6	207Y1A0436	SADAM RAVI	9.33
7	197Y1A04B4	ANKITA PANDEY	9.39	7	207Y1A0496	MAIDAM ROHITH	9.25
8	197Y1A0454	KALISETTY VIDHYA BHARATHI	9.33	8	207Y1A0499	RAGAM SAI TEJA	9.25
9	197Y1A0408	BRAHMADEVARA BHARGAVI	9.21	9	207Y1A04G7	THANDU SINDHU	9.11
10	197Y1A04A3	BAIROJU SRIVARDHAN	9.22	10	207Y1A04E0	POTNURU NANDINI	9.11

2.2.1.D: Quality of Class Room Teaching

Quality of teaching is a very important factor for quality learning. The following aspects are considered to ensure a good quality classroom teaching:

- Classroom ambience is made interactive.
- Smart board is established across the institution for effective delivery

- Smart boards allow integration of various technologies and interaction in order to improve the learning experience.
- Smart board helps Faculty members to bring lessons to life with rich, powerful activities that grabs students attention, blending real time assessment and real world experience into the learning process.
- Real components and models are taken by the faculty to the class room to demonstrate the concepts in a clear way to the students.
- Real time examples are cited in the form of videos.
- Complex tutorial problems are solved in the class rooms by the Faculty and students together.
- Principal, Deans and Head of Department regularly visit classes to observe the teaching process and convey their suggestions and appreciations to the Faculty member.
- Quality of content delivery in live lectures is evaluated randomly by visiting ongoing lecture classes.
- The department members will visit the live classes for evaluation of quality content delivery in prescribed format.
- The evaluation parameters broadly include the plan of presentation, communication skill, delivery methods and awareness of students.
- On the basis evaluation report, necessary feedback is given to the faculty members to improve the quality of lectures.

2.2.1.E: Laboratory Courses

Conduct of experiments

- Curriculum is designed in such a way that sufficient emphasis is laid on hands-on experience required for comprehensive understanding of the subjects.
- Orientation programs are conducted for teaching & non-teaching staff to train them for conduct of experiments recording observations, analysis of data and evaluation procedures.
- Department is fully equipped as per the curriculum with respect to the laboratories, softwares, models etc.
- Experiments in laboratories were planned in two cycles, each cycle comprising of 6 to 7 experiments.
- Single or group of 2 students is provided with one experimental set up for conducting experiments.
- Printed laboratory manuals are provided to each student, which covers all the details about the experiments.
- The observations, necessary calculations and discussions are recorded in printed manuals and observation books.
- Faculty handling laboratory work is encouraged to introduce new experiments which are beyond curriculum.

A sample data of Conducting of Experiments is given below:

- Laboratory courses
  - Laboratory Practices
    - Design of Experiments
    - Observations
    - Analysis
    - Discussion
    - Conclusion

Table: Teaching Learning Process (LAB) CAY 2020-21

Teacher Name	Name of the lab	Year	Design of Experiments	Observations	Analysis	Discussion	Conclusion
G.SURESH KUMAR	PPS LAB	I/I	√	√	√	√	√
DR.G.NARSING RAO	APPLIED PHYSICS LAB	I/I	√	√	√	√	√
DR.K.SURESH BABU	ENGINEERING CHEMISTRY LAB	I/II	√	√	√	√	√
G.VIJAY SINGH	ENGLISH LANGUAGE AND COMMUNICATION SKILLS LAB	I/II	√	√	√	√	√

RAVINDRA KUMAR	BASIC ELECTRICAL ENGINEERING LAB	I/II	√	√	√	√	√
B.KOTESHWAR RAO	EDC LAB	II/I	√	√	√	√	√
V.KOTESHWAR	DSD LAB	II/I					
K.HIMA BINDU	BS LAB	II/I	√	√	√	√	√
N.RESHMA BINDU	ADCLAB	II/II	√	√	√	√	√
K.MONICA	ICALAB	II/II	√	√	√	√	√
K.MALATHI	ECA LAB	II/II	√	√	√	√	√
V.KOTESHWAR	MPMC LAB	III/I	√	√	√	√	√
G.SURESH KUMAR	DCN LAB	III/I	√	√	√	√	√
	ACS LAB	III/I	√	√	√	√	√
T.TANUJA	DSP LAB	III/II	√	√	√	√	√
K.V SURESH	E-CAD LAB	III/II	√	√	√	√	√
	SL LAB	III/II	√	√	√	√	√
T.VINAY KUMAR	MOC LAB	IV/I	√	√	√	√	√

2.2.1.F: Continuous assessment in laboratory

- 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 oral viva voce questions and participation in performing the experiment. Neatness of the laboratory record book is also given weightage in the assessment.
  - Concerned faculty regularly evaluates the lab records.
  - The internal Assessment of students in the laboratory is evaluated based on their performance of the experiment in the regular class, lab report and internal viva.
  - The external examination in the concerned lab is conducted by two examiners viz., and external examiner appointed by the University and internal examiner from the college.

2.2.1.G: Student Feedback of teaching learning process and actions taken

Student's feedback is taken from students on the effectiveness of teaching and subject learning at different points of time during the semester. Initially, feedback is taken from representative students from each class informally by HOD after 1-2 weeks of commencement of class work. If students are facing difficulty in any subject, the concerned faculty member is informed of the same. Necessary guidance and support is given by HOD and another senior subject faculty member. Besides the above, on-line students Feedback is taken anonymously once every month in the respective semester. The feedback is summarized and communicated to all faculty members.

On-Line Students Feedback Link:

https://mlritmexams.com/BeesERP/StudentLogin/Student/StudentFeedBackForEmployee.aspx (https://mlritmexams.com/BeesERP/StudentLogin/Student/StudentFeedBackForEmployee.aspx)

Feedback Format /Performance Parameters:

Table indicates different performance parameters.

Question	Question Type
1	Are the topics been covered as per the given schedule
2	Assess the level of language proficiency and communication skills of the faculty. (or) teachers language and communication skill

3	Did the tutorials and other assignments help you in understanding the course/subject
4	Does the classroom decorum followed
5	Does the faculty include suitable examples and illustration while dealing with specific content
6	Is class pro active and Open for questioning
7	Is the faculty allocating additional time to clarify your doubts after class room activity?
8	Is the preparation adequate by the faculty in completion of the syllabus
9	Punctuality of the faculty in engaging the class.
10	To what extent the faculty is helping you to understand the concepts and principles thoroughly

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

Institute Marks : 20.00

2.2.2.A: Process for internal semester question paper setting and evaluation and effective process implementation (5)

Quality of Internal semester Question papers:

- Scheme of instructions are decided by Board of studies of affiliating University, in consultation with Heads of the Department of respective affiliating colleges, who in turn take feedback from subject experts of the respective departments.
- There are 64 courses offered under this program for Semester I & II put together. 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 rules of affiliating university, the academic schedule stipulates conduct of two internal examinations, five assignments / Quiz.
- The first internal examination is conducted after 8 weeks of the start of the semester and teacher ensures that about 2.5 units syllabus is covered for I Internal Examination.
- The second internal examination is conducted after 15 Weeks of the start of the semester and the teacher ensures that the remaining 2.5 units syllabus is covered for II Internal Examination.
- The question papers for internal examinations are set using Bloom’s taxonomy following the order of cognitive levels. Each question is set to cover the course outcome of the respective topic.
- The internal examination papers consist of both short and long answers and each internal examination is evaluated for 20 marks. Accordingly the marks are distributed. The time duration of examination is one hour.
- One set of question paper in each subject is set by the respective staff member for the internal examinations. The staff member submits the same in a sealed cover to the Department Internal Examination Coordinator.
- Head of the Department along with a member of senior members examines the question papers before the conduct of the examination and ensures that the quality of the question paper is on par with the affiliating University examination papers set as per the syllabus and duly following the requirement of course outcomes for the purpose of evaluation.
- The key for the internal examination question paper is displayed on the notice board immediately after the exam is completed for ready reference to students. Also the same is discussed in detail in the respective classrooms.

Students are permitted to see the evaluated answer scripts and clarify their doubts regarding the award of marks.

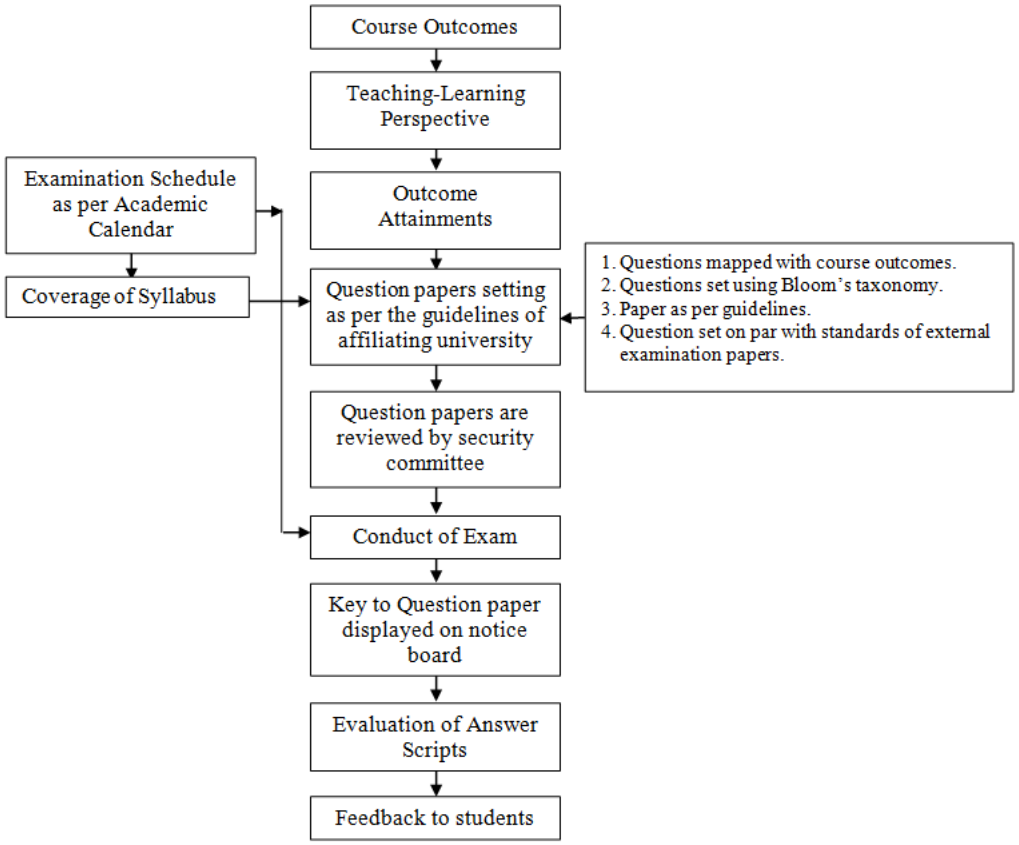


Fig: Process for ensuring Quality of Internal Question Paper Setting & its Evaluation

Quality of Assignment:

· Five assignments are given to students 1 from reach unit before the conduct of internal examinations. Each assignment is evaluated for 5 marks and an average of the five for 5 marks is considered. First 2 Assignments are evaluated for internal 1 and rest three assignments are evaluated for internal 2 exam.

Assignment questions are set using Bloom's Taxonomy and cognitive levels. Each question is mapped with the course outcome of the respective topic.

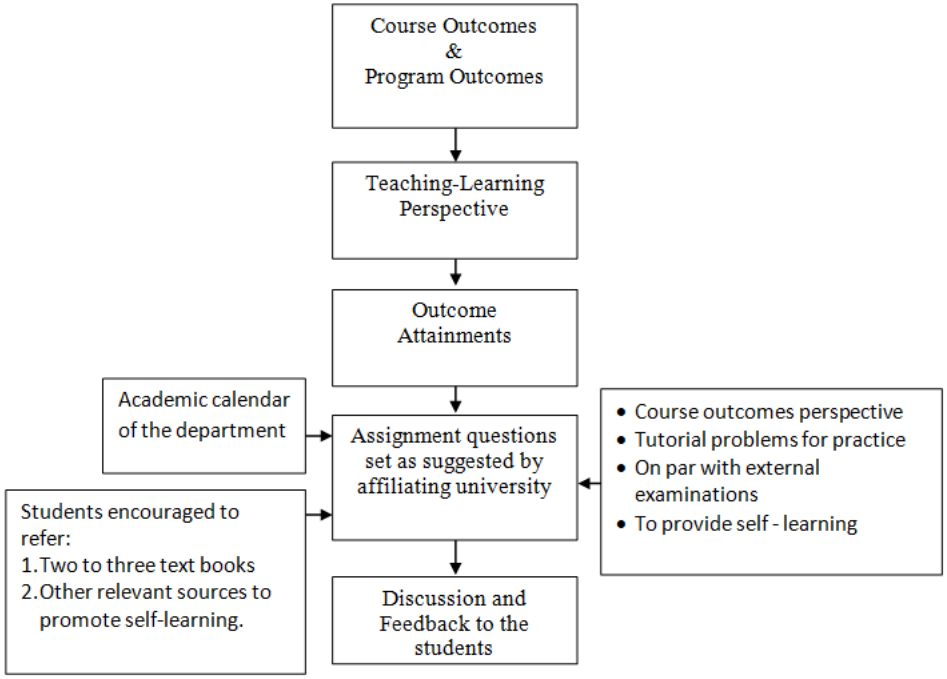


Fig: Process for ensuring Quality of Assignment Setting & its Evaluation

Evaluation Procedure:

- The internal examination paper is set for 20 Marks and the examination is conducted for one hour and half hr duration. About 30 minutes duration is assigned to short answer questions which carry nearly 30% of total marks and the remaining 60 minutes duration is assigned to long answer questions which carries nearly 70% of total marks.
- Five home assignments are given for 5 marks each with an open book practice. The students are encouraged to refer two to three text books and submit these assignments.
- The assignment copies are returned back to students after evaluation for their reference for final external examinations.
- At the end of the semester, the internal performance is evaluated for a total of 25 Marks comprising of average of two internal examinations (20Marks) and average of five assignments (5marks).

External Examinations:

- University conducts the external examinations at the end of the semester as per the academic calendar issued by the affiliated university.
- Paper setting, conducting of examinations, examination center allotment for the students and valuation are done by the university examination cell.
- Results are announced by the university after the completion of the evaluation. Provision exists in the scheme to address the grievances related to evaluation. The student has an option to go for revaluation.
- After the announcement of results to all affiliated colleges, University declares the University top 10 rankers in the respective programs.

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

Each question in internal test is mapped to COs and Blooms Taxonomy (BT) levels in each subject. The marks obtained by each student in each COs for each internal assessment component is considered and CO-PO attainment is calculated based on that.

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

All faculty members who set the question papers follow the format given by the exam branch along with the BT levels and the Cos.

Unit Test Question Paper Pattern:

MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section2(f) & 12(B)of the UGC act,1956

I/II/III/IV/IV/V UNIT TEST – MONTH YEAR **SET NO: I/II/III/IV**

Programme	B.Tech - Bachelor of Technology	**Academic Year**	2021-22
Year/Sem – Reg	(JNTUH – R18)	**Total Marks**	10 Marks
Course Code		**Date of Exam**	
Course Name		**Time of Exam**	
Code – Branch		**Day of Exam**	

PART - A				
ANSWER ALL THE QUESTIONS (SHORT ANSWER TYPE)		**(10 M)**	**COS**	**BL**
1	Unit -1/2/3/4/5	1 M	CO1/2/3/4/5	BL
2	Unit -1/2/3/4/5	1 M	CO1/2/3/4/5	BL
3	Unit -1/2/3/4/5	1 M	CO1/2/3/4/5	BL
4	Unit -1/2/3/4/5	1 M	CO1/2/3/4/5	BL
4	Unit -1/2/3/4/5			
PART - B				
ANSWER ALL THE QUESTIONS (LONG ANSWER TYPE)		**(10 M)**	**CO**	**BL**
6	a) Unit -1/2/3/4/5	5 M	CO1/2/3/4/5	BL
	OR			
	b) Unit -1/2/3/4/5	5 M	CO1/2/3/4/5	BL

Format MID Term Question Paper:

MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section2(f) & 12(B)of the UGC act,1956

I MID TERM (UG) EXAMINATIONS – NOVEMBER 2021 SET NO: I

Programme	B. Tech - Bachelor of Technology	**Academic Year**	2021-22
Year / Sem – Reg	IV-I (JNTUH-R18)	**Total Marks**	20 Marks
Course Code		**Date of Exam**	
Course Name		**Time of Exam**	
Code - Branch		**Day of Exam**	

		10M	CO	BL
	PART – A			
	ANSWER ALL THE QUESTIONS (SHORT ANSWER TYPE)			
1	UNIT – I	1M		
2	UNIT – I	1M		
3	UNIT – I	1M		
4	UNIT – I	1M		
5	UNIT – II	1M		
6	UNIT – II	1M		
7	UNIT – II	1M		
8	UNIT – II	1M		
9	UNIT – III (HALF UNIT)	1M		
10	UNIT – III (HALF UNIT)	1M		
	PART – B	**10M**	**CO**	**BL**
	ANSWER ALL THE QUESTIONS (LONG ANSWER TYPE)			
11.	a) UNIT – I	8M		
	OR			
	b) UNIT – I	8M		
12.	a) UNIT – II	8M		
	OR			
	b) UNIT – II	8M		
13.	a) UNIT – I or II	4M		
	OR			
	b) UNIT – III (HALF UNIT)	4M		

Sample MID-I Question Paper :

MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section2(f) & 12(B)of the UGC act,1956

I MID TERM (UG) EXAMINATIONS MAY-2022 SET NO: II

Programme	B. Tech - Bachelor of Technology	**Academic Year**	2021-22
Year/Sem – Reg	IV-II (JNTUH-R18)	**Total Marks**	20 Marks
Course Code	EC811PE	**Date of Exam**	
Course Name	SATELLITE COMMUNICATION	**Time of Exam**	
Code - Branch		**Day of Exam**	

		10 M	CO	BL
	PART – A			
	ANSWER ALL THE QUESTIONS (SHORT ANSWER TYPE)			
1	Define Apogee and Perigee.	1M	1	L1
2	The bandwidth of TELESTAR satellite is……	1M	1	L1
3	Expand LEO, GEO and MEO	1M	1	L1
4	Name the Satellite which relay computer data along with television and radio broadcasts.	1M	1	L1
5	Identify the elements of satellite communication systems	1M	2	L2
6	What are the two methods used in Attitude control subsystem	1M	2	L1
7	How the Duplexer is used in Transponders?	1M	2	L2
8	Classify the elements present in Payload of the space segment.	1M	2	L2
9	Write the formula for Noise power and explain all the terms.	1M	3	L1
10	What is Multiple access?	1M	3	L1
	PART – B	**10 M**	**CO**	**BL**
	ANSWER ALL THE QUESTIONS (LONG ANSWER TYPE)			
11.	a) Illustrate Azimuth and Elevation angles in satellite communication.	3M	1	L4
	OR			
	b) List the applications of satellites.	3M	1	L1
12.	a) Explain about Power systems used in satellite communication.	3M	2	L2
	OR			
	b) Explain types of transponders in satellite communication.	3M	2	L2
13.	a) Examine the orbital perturbations in detail.	4M	1	L3
	OR			
	b) Distinguish between TDMA and FDMA.	4M	3	L4

Sample Semester External Question Paper

R18

Code No: 153AT

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year I Semester Examinations, October - 2020

ELECTRONIC DEVICES AND CIRCUITS

(Common to ECE, EIE, MCT)

Time: 2 hours Max. Marks: 75

Answer any five questions

All questions carry equal marks

- - -

1.a) Explain the operation of Full Wave Rectifier with necessary graphs.
b) Derive the expression for transition capacitance of a diode. [8+7]

2.a) Derive the expression for Ripple factor for Full Wave Rectifier with L-section filter.
b) Explain the working of p-n diode in forward and reverse bias conditions. [8+7]

3.a) Derive the operating point using AC and DC load lines.
b) Explain about Punch through and Base width modulation. [8+7]

4.a) Draw and explain the CE characteristics of a transistor.
b) The reverse leakage current of the transistor when in CB configuration is 0.3μA while it is 16μA when the same transistor is connected in CE configuration. Determine α, β and γ. [9+6]

5.a) With the help of neat diagram explain the voltage divider biasing method for FET.
b) Explain the construction and emitter characteristics of UJT. [8+7]

6.a) Why we call FET as a Voltage Controlled Device.
b) Draw the circuit diagram of SCR and explain its operation along with its characteristics. [7+8]

7.a) Draw and Explain BJT small signal model, compare the performance of CE, CB, CC amplifier.
b) Given I_E= 2.5mA, h_{fe}= 140, h_{oe}= 20μs and h_{ob}= 0.5μs. Determine the common-emitter hybrid equivalent circuit. [8+7]

8.a) Explain the working of MOSFET amplifier and discuss the gain and frequency response characteristics?
b) An n-channel JFET has I_{DSS} =10mA and V_P = - 2V. Determine the drain source resistance r_{ds} for (i) V_{GS} =0V. (ii) V_{GS} = - 0.5V. [8+7]

2.2.3 Quality of student projects (25) Institute Marks : 25.00

The students pursue their project work and submit a dissertation for fulfillment of the course requirements. The project work is executed under the guidance of a faculty member. The student is evaluated for the successful performance of the work by a committee constituted for this purpose. The student utilizes the technical knowledge learnt during the course work in the execution of the project. He also utilizes the various software tools for the project implementation and execution. The project work involves collection of literature, design / analysis and collection of experimental data, consolidation of results, preparation of report, presentation of the work carried out at different phases in front of the duly constituted committees. These activities fulfill most of the programme outcomes. A committee is constituted for identifying the best projects each year.

The projects are mandatory for VII semester and VIII semester students. Students make their **minor and major projects** under the supervision of their respective Guide Faculties. In VII semester student make their minor project which carries 100 marks in JNTUH curriculum. The student may extend the minor project into major project in VIII semester which carries 200 marks in JNTUH curriculum.

2.2.3.A: Identification of Projects and allocation methodology to Faculty Members (3)

The student's projects are selected in line with department Vision, Mission and Program Outcomes. Students are provided with brief introduction of various fields for selecting the project ideas. The list of previous year projects is displayed at notice board which ensures no repetition of project work and also encourages students to enhance the previous works. The faculties encourage the students to carry out in-house projects and support will be provided with all necessary software and hardware.

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.

Students are allowed to do project either in house or in industry with the approval from the department level project coordinator and the head of the department. Faculty members declare In-House project statements and interested students approach them. Once mutually decided between faculty and students it will be approved by the department level project coordinator and students starts working on the same.

The faculties encourage students to participate in project exhibitions. The project exhibition is aimed to provide common platform to exhibit their innovations and their work towards excellence in latest technology. The students are also encouraged to publish their project work in reputed journals/conferences.

Performance of student is evaluated by project monitoring team and is communicated to the student for further improvement. The project monitoring committee consisting of Head of the Department, reviewer, supervisor and project coordinator are responsible to identify the merits and demerits to decide the quality of the project.

Procedure for final year project work:

Project is categorized as two phases as shown in table below and they have to undergo process

- Project Group Formation
- Process for Identification/allocation of projects

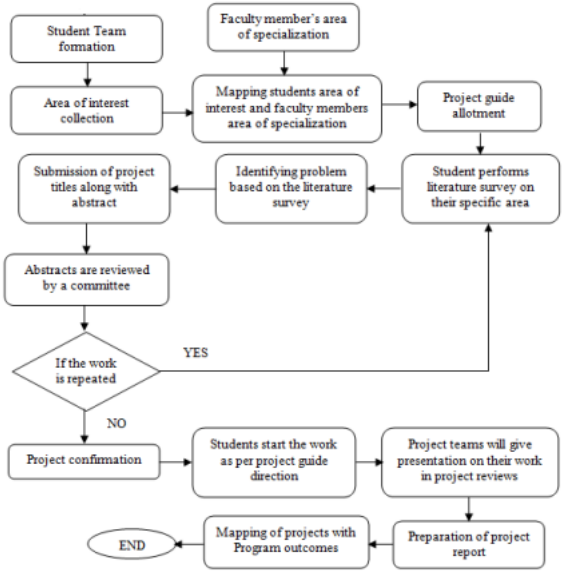
Phase	Subject code	Semester	Nature of Work	Assessment
Phase -I		VII	Team Formation and Guide Allocation	Team Formation
			Project Idea and Abstract Submission	Problem Definition
			· Finalize Project Area/Theme/Title · Define Objectives · MileStone Preparation	Progress Presentation
			Reviews(0-3)	Project Evaluation (Can be done in all stages)
			Project Implementation	Project Demonstration
			· Final Report Submission · University VIVA	Project Report
Phase -II		VIII	Team Formation and Guide Allocation	Team Formation
			Project Idea and Abstract Submission	Problem Definition
			· Finalize Project Area/Theme/Title · Define Objectives · Mile Stone Preparation	Progress Presentation
			Reviews(0-3)	Project Evaluation (Can be done in all stages)
			Project Implementation	Project Demonstration
			· Final Report Submission · University VIVA	Project Report

Table: Project Process

Project Group Formation:

- Students of IV Year are sorted in chronological order on the basis of their academic performance.
- The students are divided into four categories namely Topper Student List (A), Average Student List (B), Below Average Student List (C) and Bottom Student List (D). Each category contains 25% of total final year students.
- Display the list of faculty members according to their area of interest.
- Select one student from each category and make a team.
- Each team selects one guide according to their area of interest and asks the guide for their project approval after showing the abstract of the project.

Identification of the projects and allocation methodology to faculty



Process for Identification/allocation of projects

Process	Description of process
Formation of project batches	• Students can form into batches with batch size of 2 to 4 students.
Project Identification	• The list of the projects being offered by the faculty of the department will be displayed for the final year students at the start of the semester. • Student can also propose project ideas they wish to undertake and submit project abstracts. • Students can also take up the project work in external organization which are located around Hyderabad.
Allotment of project topics	• The allocation of the project for each group will be completed within two weeks for the commencement of final year 1st semester. • Three periods of contact load will be assigned to each project guide.
Preparing of project seminar schedules	• Project seminar schedule are to be prepared and informed to the students. Guidelines for the Presentation of Project Seminar are given to students.
Continuous monitoring and evaluation	• For the review of the project work, the student is required to give two power point/OHP presentations. Project guide is required to monitor the progress of the project work being carried out regularly and to get evaluated. • 1st and 2nd reviews are to be evaluated by a committee consisting of HOD, internal guide,project coordinator, two subject experts from the department.

Demonstration of project	• The progress made by the students and the demonstration is evaluated by a committee consisting of senior faculty members of the department. • At the beginning of the second semester, the students are ready to work on their project. • The quality of the work is monitored on a fortnightly basis by a senior faculty member designated as a Project Coordinator. • The students make demonstration of their work and quality is evaluated by the Departmental committee as mentioned earlier.
Project Evaluation	• Projects are evaluated for 50marks as internal assessment by the project review committee and external assessment is based on final grades given by external examiner appointed by Board of Studies.

Areas of research interests by the faculty

Name of the Special Interest Group: VLSI System Design			
S.No	**Name of the faculty**	**Designation**	**Area of research**
1	Dr.B.Srinivas	Professor, Head of ECE	VLSI Design
2	K. Naga Bhushanam	Associate Professor	VLSI, Microelectronics
3	G. Amarnath	Associate Professor	VLSI Design
4	Dr. A. Nallathambi	Associate Professor	VLSI Design
5	J. Narender	Assistant Professor	VLSI Design
6	S. Arvind	Assistant Professor	VLSI Design
7	M. Viswanath	Assistant Professor	VLSI Design
8	B. Koteswara Rao	Assistant Professor	VLSI Design
9	N. Syamala	Assistant Professor	VLSI Design
10	D. Srinu	Assistant Professor	VLSI Design
Name of the Special Interest Group: Communication Systems			
S.No	**Name of the faculty**	**Designation**	**Area of research**
1	V. Koteswara Rao	Assistant Professor	Electronics and Communications
2	R. Raja Kishore	Assistant Professor	Electronics and Communications
3	K. Naga Bhushanam	Associate Professor	Digital Electronics & Communication systems
4	BN. Srinivas	Assistant Professor	Digital Electronics & Communication systems
5	G. Kiran Kumar	Assistant Professor	Digital Electronics & Communication systems
6	S.K. Hima Bindu	Assistant Professor	Digital Electronics & Communication systems
7	T. Immanuel	Assistant Professor	Digital Electronics & Communication systems

8	K. S. Monica	Assistant Professor	Digital Electronics & Communication systems
Name of the Special Interest Group: Embedded Systems & IoT			
S. No	**Name of the faculty**	**Designation**	**Area of research**
1	Dr. P. S. Shijin Kumar	Associate Professor	Communication systems
2	I. Adum Babu	Assistant Professor	Wireless Communication Technologies for IoT
3	S. Arvind	Assistant Professor	Pattern Recognition
4	Dr. K. Thirupathaiah	Associate Professor	Microwave and Fiber Optics
5	K. Kavitha	Assistant Professor	Embedded Systems
6	J. Uma Maheshwar	Assistant Professor	Embedded Systems
Name of the Special Interest Group: Signal Processing			
S. No	**Name of the faculty**	**Designation**	**Area of research**
1	E. Sreenivasulu	Assistant Professor	Biomedical Signal Processing
2	T. Tanuja	Assistant Professor	Systems and Signal Processing
3	G. Indrasena Reddy	Assistant Professor	Systems and Signal Processing
4	P. Sandhya	Associate Professor	Image Processing
5	S. Sindhu Rekha	Assistant Professor	Signal Processing
6	D. Mahesh	Assistant Professor	Signal Processing
7	Dr.B.Srinivas	Professor, Head of ECE	VLSI Design

Sample of Project Batch Formation, Guide Allocation and Title allocatation

MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY & MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
NAAC Accredited Institution with 'A' Grade & Recognized Under Section2(f) & 12(B)of the UGC act,1956

Department of Electronics and Communication Engineering

Major Projects (2018-2022 Batch)

A.Y: 2020-21 **Section: B** Date: 29.09.2021

S. No.	Batch No. (Sec.-No.)	Roll Number	Name of the Student	Name of the Guide	Title of the Project
1	B-1	187Y1A04B2	PENUGONDA SRISAISUNDER	Dr. KISHORE SANAPALA	A CARRY LOOK-AHEAD ADDER BASED ON HYBRID CHOS-MEMRISIOR LOGIC CIRCUIT
2	B-2	177Y5A0417	NICHANAKOLLA SATHISH	H. SANGEETHA	DUAL AXIX SOLAR TRACKING WITH WEATHER
3	B-3	187Y1A0473	RACHULURI CHAITANYA	K. VIJAY KUMAR	ADJUSTEMENT OF PANELS TO UTILIZE THE MAXIMUM SOLAR ENERGY USING ARDUINO UNO
4	B-4	187Y1A0489	LINGAM NIKHIL	K. NAGAMANI	DEVELOPMENT OF AN AUTONOMOUS FIRE DETECTING & EXTINGUISHING ROBOT
5	B-5	187Y1A0480	GONGATI JYOTHIRMAYEE	NAGARAJU KAKATI	VIRTUAL MOUSE
6	B-6	187Y1A04B7	MALLAREDDY VENKATA SAHITHI	V. CHANDANA	SMART WERABLE DEVICE FOR WOMEN SECURITY
7	B-7	187Y1A04B3	SRIYA CH	Dr. G. AMARNATH	AC ANALYSIS OF FD_SOI TRANSISTOR USING TCAD SIMULATION
8		187Y1A04B4	KOCHERLA SWAPNA		
9	B-8	187Y1A0488	MAHIPATH NANDINI	Dr. N. SRINIVAS	IoT BASED CAR PARKING SYSTEM USING AURDINO AND NODE MCU ESP8266
10		187Y1A0490	BORRA NIKHITHA		
11	B-9	187Y1A0468	TATIKONDA ANVITHA	A. ANIL KUMAR	AUTOMATIC NOISE LEVEL MONITOR & CONTROLLER SYSTEM
12		187Y1A0474	BONTHU CHINDU		
13	B-10	187Y1A0466	ANAUSHKA GULLAPUDI	D. RUPA KUMAR	BINARY TO GRAY CONVERTER IMPLEMENTATION USING QCA TECHNOLOGY
14		187Y1A0476	MANUKONDA HARIKA		
15	B-11	187Y1A0479	VADLA JYOSHNA	M. SUPRIYA	DEVELOPMENT OF SMART ANNOUNCEMENT BOARD UDING BLUETOOTH TECHNOLOGY
16		187Y1A04B0	PALLE SHIVANI		

2.2.3.B: Types and relevance of the projects and their contribution toward attainment of Pos and PSOs (5)

Projects are attaining POs/PSOs in such way that they are like paving stone for future career either in the industry or in academic research fields. Projects provide an opportunity to the students in order to utilize the acquired academic knowledge in identifying the problem related to various areas of VLSI System Design, Signal processing, communications systems, and embedded systems. Students will be able to design, implement real time/research problems using various simulation tools and prototypes. The following Tables shows the relevance of the projects and the attainment of POs and PSOs.

S. No.	Project work outcomes	Correlation with POs and PSOs													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1.	Review acquired technical knowledge on the selected topic	2	3	3	2	-	2	1	3	3	3	2	3	-	-
2.	Undertake problem identification, formulation and find optimal solution	2	3	3	2	3	2	1	3	3	3	2	3	3	3
3.	Identify suitable hardware and software requirements and design engineering solution to complex problems utilizing a systematic approach.	2	3	3	2	3	2	1	3	3	3	2	3	3	3
4.	Conduct an Engineering project using the state of art hardware and Electronics Design & Automation tools.	2	3	3	2	3	2	1	3	3	3	2	3	3	3
5.	Exhibit teamwork and Communicate with Engineers and the community at large.	-	-	-	-	-	2	-	3	3	3	2	3	-	-

6.	Prepare project report/thesis	2	3	-	-	-	2	-	3	3	3	-	3	-	-

Table: Relevance of the projects towards the attainment of Pos and PSOs

Sample student projects carried out during the academic year 2020-21

S.No	Title of the Project	Roll No	Supervisor	Domain	Related Pos and
1	GSM based home security system	177Y1A0417 177Y1A0453	Dr. N. UDAYA KUMAR	Embedded Systems & IoT	PO 1 to 12, PSO1, PSO2
2	Digital Score Board	177Y1A0442 177Y1A0450	D. RUPA KUMAR	Embedded Systems & IoT	PO 1 to 12, PSO1, PSO2
3	GSM based Automatic railway gate control system	177Y1A0443 177Y1A0426	Dr. S. KISHORE	Embedded Systems & IoT	PO 1 to 12, PSO1, PSO2
4	Real Time-Based Heater Switching using Cloud	177Y1A0409 177Y1A0430	Dr. N. SRINIVAS	Telecommunication Engineering	PO 1 to 12, PSO1, PSO2
5	Bike ignition system using Radio-frequency	177Y1A0431 177Y1A0436	K. NAGARAJU	VLSI	PO 1 to 12, PSO1, PSO2
6	Home Automation using NodeMCU	177Y1A0438 177Y1A0452	B.N SRINIVAS	Digital Systems & Computer	PO 1 to 12, PSO1, PSO2
7	OTP based smart wireless locking system using	177Y1A0403 177Y1A0455	K. NAGARAJU	VLSI	PO 1 to 12, PSO1, PSO2
8	Image processing for identification of gender and	177Y1A0401 177Y1A0459	Dr. N. UDAYA KUMAR	Embedded Systems & IoT	PO 1 to 12, PSO1, PSO2
9	Women safety security system using GPS and	177Y1A0422 177Y1A0446	T. TANUJA	Systems and Signal Processing	PO 1 to 12, PSO1, PSO2
10	Designing of Parasitic Aware Automatic CMOS	187Y5A0409	Dr. G. AMARNATH	VLSI	PO 1 to 12, PSO1, PSO2

Sample student projects carried out during the academic year 2019-20

S.No	Title of the Project	Roll No	Supervisor	Domain Relevance	Related Pos and PSOs
1	Design of a weed detection system for cotton field	167Y1A0485 167Y1A0482	BN. Srinivas	VLSI System Design	PO 1 to 12, PSO1, PSO2
2	Early flood detection and avoidance	167Y1A0484 167Y1A04B4	K. S. Mounika	Digital Systems & Computer	PO 1 to 12, PSO1, PSO2
3	Multilinguistic character recognition	167Y1A04A6 167Y1A04B2	Dr. Srinivas Bachu	VLSI System Design	PO 1 to 12, PSO1, PSO2
4	Automatic Attendance System Using Artificial	167Y1A0486 167Y1A04B5	H.Sangeetha	Digital Systems & Computer	PO 1 to 12, PSO1, PSO2
5	Robotics arm using arduino	167Y1A0491 167Y1A0493	Chandrika Saxena	Embedded Systems	PO 1 to 12, PSO1, PSO2
6	Number plate scanner using MATLAB	167Y1A0488 167Y1A0489	E. Sreenivasulu	Embedded Systems	PO 1 to 12, PSO1, PSO2
7	Design and Implementation of Wireless Rechargeable	177Y5A0423 177Y5A0416	K. V. Suresh Kumar	Embedded Systems	PO 1 to 12, PSO1, PSO2
8	Neural talk 2 automatic sentence generation.	167Y1A04B0 167Y1A0498	P. Snadhya	Embedded Systems	PO 1 to 12, PSO1, PSO2
9	Smart Irrigation System using NodeMCU	167Y1A0471 167Y1A0468	D. Sreenu	VLSI System Design	PO 1 to 12, PSO1, PSO2
10	Measure the Diameter of an Object within an Image	167Y1A0467	P. Snadhya	Embedded Systems	PO 1 to 12, PSO1, PSO2

Sample student projects carried out during the academic year 2018-19

S.No.	Title of the Project	Roll No	Supervisor	Domain	Related Pos and PSOs
1	Design of Voice Controlled Robot Using ARDUINO	157Y1A0423 157Y1A0413	S.ARAVIND KUMAR	 Embedded Systems	PO 1 to 12, PSO1, PSO2
2	Performance of hard Decision & soft Data fusion	157Y1A0406 157Y1A0411	Dr.N.SRINIVAS	 Telecommunication	PO 1 to 12, PSO1, PSO2
3	Design of 8*8 Vedic Multiplie	157Y1A0429 157Y1A0414	K.NAGABHUSHANAM	Digital Systems & Computer	PO 1 to 12, PSO1, PSO2
4	Design of Ultra Wideband Antenna at Optical	157Y1A0455 157Y1A0445	Dr.K.THIRUPATHAIAH	Telecommunication Engineering	PO 1 to 12, PSO1, PSO2
5	Design & Implement of GSM Based Home Security	157Y1A0416 157Y1A0428	G.KIRAN KUMAR	Digital Electronics & Communication	PO 1 to 12, PSO1, PSO2
6	improving Computing time in digial libraries using wavelet	157Y1A0430 157Y1A0419	R RAJA KISHORE	 ECE	PO 1 to 12, PSO1, PSO2
7	Implementation of Low Power 16*16 bit wallace tree	157Y1A0427 157Y1A0409	K.S.MONICA	Digital Electronics & Communication	PO 1 to 12, PSO1, PSO2
8	Implementation of self adjusting & staires climbing	157Y1A0425 167Y5A0401	J.UMA MAHESHWAR	Embedded Systems	PO 1 to 12, PSO1, PSO2
9	Development of Voice Controlled Flame Detection	157Y1A0449 157Y1A0421	E.SREENIVASULU	 Embedded Systems	PO 1 to 12, PSO1, PSO2
10	Development of IOT Based Smart Grass Cutter Robot	157Y1A0442	I ADUM BABU	Embedded Systems	PO 1 to 12, PSO1, PSO2

2.2.3.C: Process for Monitoring & Evaluation of Projects (5)

As per the academic regulations, the project implementation includes the following phases:

Ø Industry oriented mini project

Ø Major Project

Industry oriented mini project evaluation

- A student has to undergo an industry oriented mini project, in collaboration with an industry of their specialization, during the summer vacation after sixth semester (III-year II semester) of the B.Tech. programme.
- Industry oriented mini project is carried out for a minimum period of 04 weeks and maximum of 06 weeks.
- Evaluation of the mini project is carried out by Project Review Committee (PRC) consisting of the Head of the Department, faculty supervisor and senior faculty members of the department.
- The industry oriented mini project is submitted in a report form and presented before a committee, which is evaluated for 100 marks.
- The Project Review Committee evaluates the industry oriented mini project work during the final year first semester as per the format shown in Table.

Table: Template of Industry oriented mini project evaluation

Course Code	**H. T. No.**	**Literature Survey**			**Design / Model Development (Software/Hardware/ Analysis)**			**Conclusions**			**Delivery of Presentation & Answer to Queries**			**Technical Report**		
		(15M)			**(25M)**			**(25M)**			**(20M)**			**(15M)**		
		(CO-1)			**(CO-2)**			**(CO-3)**			**(CO-4)**			**(CO-5)**		
		H*	S*	F*	H*	S*	F*	H*	S*	F*	H*	S*	F*	H*	S*	F*
Course Outcomes: **CO-1:** Understand the formulated industry / technical problem **CO-2:** Analyse and / or develop models for providing solution to Industry / Technical problems **CO-3:** Interpret and arrive at conclusions from the project carried out **CO-4:** Demonstrate effective communication skills through oral presentation **CO-5:** Engage in effective written communication through project report																
H* **= Head of the Department**					S* **= Supervisor**							F* **= Senior Faculty**				

Project work review schedules are displayed and reviewed by the project committee consisting of head of the department, senior faculty/project coordinator and supervisor. The project is carried-out under the guidance of faculty members. Regularly project work progress is monitored by the supervisor and reviewed periodically by the project review committee for improvement.The Project Review Schedule shown in Table

Project work Review Schedule:

Project Group formation	Beginning of 4th Year 1st semester (August 1st Week)
Submission of synopsis	1st Semester (August 4th Week)
Guide Allocation	1st Semester (August)

Project Phase – I 1st Review	1st Semester (September 2nd Week)
Project Phase – I 2nd Review	1st Semester (October 2nd Week)
Project Phase – I Final Review	1st Semester (November 1st Week)
Project Phase – II 1st Review	2nd Semester (January 3rd Week)
Project Phase – II 2nd Review	2nd Semester (March 1st Week)
Final Presentation and Demonstration	End of 2nd Semester (March-April)
Submission of Draft report	March-April
Exhibit the project at college exhibition	April 1st Week
Submission of final report	April 2nd Week
Final Viva voce	April 3rd or 4th Week

Project work Evaluation:

a) ***Internal Evaluation:*** The project work and the report will be evaluated by internal committee at Phase-1, Phase-2.

b) ***External Evaluation:*** The project work and the report will be evaluated by internal and external examiners appointed by the College.

c) The external examiner will be from other JNTUH affiliated Institutions or Industry experts.

d) The examiners will take presentation and demonstration followed by Viva-Voce on the project work carried out by students. The students need to defend their project work.

Based on the presentation and Viva-Voce, the marks will be awarded for the students, which will be sent to university.

Rubrics for Project Internal Evaluation:

The Rubrics for project evaluation is shown in Table

Rubrics for Project Evaluation Rubric 1 (R1): Review -1 Evaluation (10 Marks)

Parameters	**Low** (0-35%)	**Medium** (36% - 65%)	**High** (66% – 100%)	**Max Marks**
Identification of Domain, Problem definition, and Objectives	Less clarity in the domain choosing and problem identification (1)	Having chosen the domain and needs more effort to define the problem (2-3)	Well defined problem with clarity of objectives (4-5)	5
Literature Survey	Inadequate survey of literature which can substantiate the objectives defined (1)	Survey of literature done with less relevant articles and needs to justify the existing work (2)	Extensive survey of literature survey and existing systems/methods (3)	3

Methodology proposed and time management	Not feasible method and lack of time management (0)	Moderate Proposed methodology and time schedule (1)	Well defined methodology and time schedule (2)	2
			Total	**10**

Rubric 2 (R2): Review -II Evaluation (20 Marks)

Criteria	**Achievement Levels**				
	Inadequate (0-35%)	Good (36% - 65%)	Excellent (66% – 100%)	CO	Max. Marks
Methodology followed and meeting of Time Schedules	Inadequate/non proposed methods followed with an extension of time schedule (0 – 1)	Followed different methodology and able to justify with little extension of time schedule. (2 – 3)	Strictly followed the methodology proposed and finished in the stipulated time. (4 – 5)	**CO 1**	5
Use of Modern Tools	Has not used relevant modern tools for the design & experimentation (1)	Has used relevant modern tools with inadequate knowledge and has not obtained optimized results. (2-3)	Has applied tools effectively to design/ analyze/debug/t o get optimized solution for the problem. (4 – 5)	**CO 2**	5
Teamwork	Minimal contribution to the team. (1)	Contributed considerably to the team. (2)	Has effectively contributed in achieving optimized results (3 – 4)	**CO 4**	4
Lifelong Learning	No understanding of the requirements for lifelong learning in the engineering profession. (0)	Can present examples of the impact of lifelong learning in the engineering industry. (1)	Can present examples of the impact of lifelong learning, along with the requirement of skills updation in the modern engineering profession. (2)	**CO 3**	2
Communication	Unable to communicate the work carried out (1)	Could communicate the information to a limited extent (2)	Has effectively communicated the work carried out (3 – 4)		4
				Total	**20**

Rubric – III: Fortnight progress (20 marks)

Parameter	Low	Medium	High	Max. Marks
Attendance (>85%)	Attendance (75% to 80%)	Attendance (80% to 85%)	Attendance (>85%)	**10**
Progress in Project	Progress not according to the schedule (0-2)	Progress not according to the schedule but with justification (3 – 6)	Progress as per the schedule (7 – 10)	**10**
			Total	**20**

Rubric – IV: Project Evaluation by the guide (20 marks)

Parameter	Low	Medium	High	Max. Marks
Self motivation	Less	Moderately	Highly	
to learn new technologies	motivated to learn (0 – 3)	motivated to learn new technologies (4 – 6)	motivated to (7 – 10)	10
Technical	Has less understanding	Has the knowledge	Excellent knowledge of	
awareness of the project and	about the working of	of the working of project and	Project working and the	10
working	the project	technology used (3	technology used.	
	(0-2)	– 6)	(7 – 10)	
			Total	**20**

Rubric – V: Project Report Evaluation (20 marks)

Parameter	Low	Medium	High	Max. Marks
Quality of report with respect to format specified by the university	Report not meeting the specifications prescribed by the university (0-1)	Report does not deviate much from the specification but needs fine adjustments (2 - 3)	Report Meets the required specification and formats (4 – 5)	5

Content of report	The contents of the report does not completely explain the project or contains irrelevant materials (0 – 1)	The content of the report explains the project work with some unnecessary documents (2 – 3)	The report completely explains the project work and contains all relevant material. (4 – 5)	5
Analysis of results and conclusion	Report fails to do the result analysis/ improper conclusion (0-1)	Result analysis is done with less justification to the objectives defined and the conclusion is not appropriate (2)	Result analysis justifies the objectives defined with the proper conclusion (3)	3
Language usage	Report has large number of spelling and grammatical errors (0)	Free of spelling errors and minor errors in grammar (1)	The language usage in the report is satisfactory (2)	2
			Total	**20**

Format for monitoring project status

MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY & MANAGEMENT
(Affiliated to JNTU, Hyderabad, Approved by AICTE, New Delhi)
Accredited by NBA, Accredited by NAAC with 'A' Grade & Recognized Under section 2(f) & 12(B) of the UGC act, 1956
Dundigal (Vill .& Mandal), Medchal District, Hyderabad - 500043, Telangana.

MONTHLY PROJECT STATUS REPORT

Name of the Internal Guide - **Month:** **A.Y:**

A - Project attendance details

HT NO	Date of project work during the month -																			% of attendance in the month
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
DATE(S)																					

B - Availability of Internal guide in the lab /room

GUIDE NAME	Date of project work during the month -																			Guide Sign
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
DATE(S)																					

C - Conduct of project review meeting-availability of Intenal Guide

Available / not available **HOD Signature:** **Director Signature:**

D -Breif report about the progress of project work

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

The project review committee assesses the individual and team performance by continuous reviews and semester end examination. The assessment of final year students' project work is done considering criteria's such as

- Definition of problem, aim and objectives
- Inferences from literature review
- Usefulness& societal applications/industry and plan of action
- Content & relevance
- Design & analysis
- Implementation
- Presentation & answer to queries
- Documentation

The sample copies of team wise marks allotment by PRC for the internal review and semester end examination. The project guide inputs are considered by the PRC during the reviews to assess the individual student performance working in a team.

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

At the semester end evaluation, the quality of the student projects is assessed by a committee consisting of an external examiner (industry expert), head of the department and internal examiner. The committee observes the following criteria.

- Solution for societal problems
- Innovative ideas implemented in the project
- Working prototype models
- Presentation and final report

The quality of the project is assessed through project quality assessment sheet. A sample copy of Project Quality Assessment sheet is provided below. Based on the scores thus obtained, best student projects are selected.

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Project Quality Assessment Sheet for Under Graduate Programme

Name of the Project: Year:
Class: IV Year Section:
Name of the Guide: Place of Work:
Roll Nos:
Type: Application / Product Development / Research / Review

S. No.	Focus Areas	Criterion	Excellent (3)	Good (2)	Satisfactory (1)	Unsatisfactory (0)	SCORE
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 impact on society and environment with commercial viability / research scope					
2	**Design**	**Understanding the Design Process and -Problem Solving:** Needs, specifications, concept and methodology to solve					
3	**Fabricate/ Build**	**Implementing Design Strategy and Evaluating Final Design:** using appropriate hardware /software					
4	**Deploy / Results**	Confirm the functioning of the final design; to deploy the project on the target environment					
5	**Environment, Safety, Society**	Consideration of these aspects					
6	**Ethical responsibility**	Recognize, understand and apply proper ethical use of intellectual property, copyrights and research.					
7	**Project Presentation**	**Technical Writing Skills** Communicate the main idea with clarity, and **Communication Skill**					
8	**Cost & Project Management**	**Monitoring and Controlling the Project**					
9	**Innovation / IPR**	**Extend Scope of Work:** through implementation in other study areas, leading Patent or publication					
		Total					

Project Coordinator **HOD**

The following table gives the list of few quality of completed projects/working prototypes.

S. No.	Project title	Related POs/PSOs
	Academic Year 2020-21	
1.	GSM based Automatic railway gate control system	PO-6,9,10,11,12, PSO-1

2.	Implementation of a Portable Device For Real-Time ECG Signal Analysis	PO-6,9,10,11,12, PSO-1
3.	Real Time-Based Heater Switching using Cloud Services	PO-6,9,10,11,12, PSO-1
4.	Design And Implementation of Different Grip Patterns in Prosthetic Hand Using Voice Dependent System	PO-6,9,10,11,12, PSO-1
5.	IOT enable biometric access control	PO-6,9,10,11,12, PSO-1
6.	A Smart System Connecting E-Health and The Cloud	PO-6,9,10,11,12, PSO-1
7.	Monitoring of Time and Attendance with fingerprint Biomentric Solution	PO-6,9,10,11,12, PSO-2
8.	The Raspberry Pi Controlled Multi Environment Robot For Surveillance & Live Streaming	PO-6,9,10,11,12, PSO-1
Academic Year 2019-20		
1	OTP based smart wireless locking system using arduino	PO-6,9,10,11,12, PSO-1
2	Smartphone Accessed Vending Machine Using Raspberry Pi	PO-6,9,10,11,12, PSO-1
3	Image processing for identification of gender and age from images	PO-6,9,10,11,12, PSO-3
4	Enhancement Of ECG Signal Using Hybrid Algorithm	PO-6,9,10,11,12, PSO-1
5	RFID based Missing People Identification System	PO-6,9,10,11,12, PSO-1
6	Image forgery detection	PO-6,9,10,11,12, PSO-2
7	Android application-controlled locker with password security	PO-6,9,10,11,12, PSO-1
8	Design and Implementation of Wireless Rechargeable Remote Batteries for modern technology	PO-6,9,10,11,12, PSO-1
9	Smart Irrigation System using NodeMCU	PO-6,9,10,11,12, PSO-1
10	Biometric based vehicle security system with GSM and GPS technology	PO-6,9,10,11,12, PSO-1
Academic Year 2018-19		
1	Development of Replica Robot Using Clone ARM	PO-6,9,10,11,12, PSO-2
2	Implementation of Alexa Voice Services In Raspberry Pi3	PO-6,9,10,11,12, PSO-1
3	Design & Implementation of Automated Trash Bin Using ARDUINO	PO-6,9,10,11,12, PSO-1
4	Implementation of Microcontroller Based Gesture Vocalizer	PO-6,9,10,11,12, PSO-2
5	Development of Automatic Licence Plate Recognition (ALPR)	PO-6,9,10,11,12, PSO-2
6	Design of Fall Detection of A Person Using GSM And GPS	PO-6,9,10,11,12, PSO-2
7	Implementation of Car Parking Slot Availability using Verilog HDL	PO-6,9,10,11,12, PSO-2
8	Development of Coin Based Mobile Charging Unit	PO-6,9,10,11,12, PSO-1
9	Implementation of Brain Tumour Detection In Medical Imaging Using Matlab	PO-6,9,10,11,12, PSO-2
10	Color Balance & Fusion for Underwater Image Enhancement	PO-6,9,10,11,12, PSO-2

2.2.3.F: Evidences of Papers published/Awards received by projects etc.

Department supports the students to participate and present their research work in various international conferences/journals. The list of publications of students which are published as part of the project work is shown in below table.

Sl. No.	Authors	Title of the paper	Publication details	Month/ Year of publication	ISSN /ISBN No.
1.	M.Risheek Sharma and Adepu Aravind Dr.K.Naveen and Dr.Srinivas Bachu	Design of Home Automation using Internet of Things	Volume-8 Issue-4, IJRTE Journal	November 30, 2019	2277-3878
2.	G. Amarnath (https://ieeexplore.ieee.org/author/37088839719) D. Sudha (https://ieeexplore.ieee.org/author/37088838427) D.Krishna (https://ieeexplore.ieee.org/author/37088838743) Srinivas Ghanate (https://ieeexplore.ieee.org/author/37088837956) Sreeram Karthik (https://ieeexplore.ieee.org/author/37088840149) A Vinod (https://ieeexplore.ieee.org/author/37088838445)	Analytical Model Development for Channel Potential in Junction-less Double-Gate FETs	2020 IEEE International Conference on Advent Trends in Multidisciplinary Research and Innovation (ICATMRI) (https://ieeexplore.ieee.org/xpl/conhome/9398329/proceeding)	30 December 2020	**DOI:** 10.1109/ICATMRI51801.2020.9398468 (https://doi.org/10.1109/ICATMRI51801.2020.9398468)
3.	G. Amarnath (https://ieeexplore.ieee.org/author/37088839719) D. Sudha (https://ieeexplore.ieee.org/author/37088838427) D.Krishna (https://ieeexplore.ieee.org/author/37088838743) Srinivas Ghanate (https://ieeexplore.ieee.org/author/37088837956) Sreeram Karthik (https://ieeexplore.ieee.org/author/37088840149) A Vinod (https://ieeexplore.ieee.org/author/37088838445)	Developement of Threshold-Voltage Analytical-Model for Double-Gate-Junction-less FETs	2020 IEEE International Conference on Advent Trends in Multidisciplinary Research and Innovation (ICATMRI) (https://ieeexplore.ieee.org/xpl/conhome/9398329/proceeding)	30 December 2020	**DOI:** 10.1109/ICATMRI51801.2020.9398504 (https://doi.org/10.1109/ICATMRI51801.2020.9398504)
4.	V. Chandralekha, L. Navya, Kishore. Sanapala and N. Syamala	Performance Analysis of GDI based Arithmetic Circuits	2020 IEEE 5th International Conference on Computing Communication and Automation (ICCCA), Greater Noida, India.	2020	doi: 10.1109/ICCCA49541.2020.9250890
5	V. Chandralekha, L. Navya, N. Syamala and Kishore. Sanapala	Design of 8 bit and 16 bit Reversible ALU for Low Power Applications	2020 IEEE 5th International Conference on Computing Communication and Automation (ICCCA), Greater Noida, India.	2020	doi: 10.1109/ICCCA49541.2020.9250876

6	Dinesh P., Kishore Sanapala., Jyothi G.N., Sakthivel R	Comparative Review of MAC Architectures. In: Marriwala N., Tripathi C.C., Jain S., Mathapathi S. (eds) Soft Computing for Intelligent Systems	Algorithms for Intelligent Systems. Springer, Singapore.	2021	Springer

In each academic year, best project projects are being awarded based on the quality and student's performance. The list of best projects awarded during last three academic years is shown in below table.

S. No.	Name	Event	Position	Location	Date of Event
1.	Mr.SaiManohar, Mr.KesavaPrakash, Mr.Shashikanth of Mr.Karthik, Mr.Pradeep	POSEIDON	4th Position	IIT Roorkee	29th MARCH ,2018
2.	Mr.P.Abhishek Mr.G.Nandhu of Mr.K.Eshwar and Mr.S.Mallesh	TECHNICAL QUIZ COMPETETION	First prize	DEPARTMENT OF ECE, MLRIT	11th AUGUST 2018
3.	Mr.A.SumanthReddy, Mr.M.Ajay, Mr.S.Karthik, Mr.K.HemanthPhani Kumar	TECHNICAL QUIZ COMPETETION"	First Prize	DEPARTMENT OF ECE, MLRIT	15th SEPTEMBER 2018
4.	Miss.Diksha	ROLE OF AN ENGINEERING STUDENT IN THE SOCIETY	First Prize	DEPARTMENT OF ECE, MLRIT	15TH SEPTEMBER 2018
5.	Mr.Keshav, Miss.Sanjana, Miss.Niharika	I-NAVIAGATE	First Prize	BITS Hyderabad	28th OCTOBER 2018.
6.	Mr.SaiManohar, Mr.Keshav of Mr.Kaushik Mr.Krishna	JATLAAZ	5th position	NIT Warangal	30th NOVEMBER 2018
7.	Mr.SaiManohar, Mr.Krishna, Mr.Aditya	DTMF	4th position	NIT Warangal	30th NOVEMBER 2018.
8.	Miss .Chandu Priyanka and Miss.Niharika	YOUNG INNOVATION CHALLENGE	3rdPosition	Bangalore	17thJanuary 2019.

9.	Miss.A.TejanjaniMiss .D.Manasa, Mr.Siva Kumar	CIRCUIT DESIGN COMPETETION	First Prize	Institute Of Aeronautical Engineering for SAE TIER-II	16th February 2019

2.2.4 Initiative related to industry interaction (15)

Institute Marks : 15.00

The department of ECE has made efforts in the direction of making students ready for industry by enhancing their skill sets through training on recent tool and technologies. Industry interactions help the students to acquire the practical knowledge. In order to improve the technical abilities, various industrial activities are carried out. The department has taken the following initiatives for establishing and nurturing good relations with industry and research laboratories

- Invited Guest lectures/talks- Resource person from industries in specific domain of ECE
- Established Industry supported Laboratories
- Faculty are encouraged to visit the industries in their relevant area of interest.
- Faculty are encouraged to visit Industrial/International exhibitions for the students to exposure the industrial environment and work ethics
- Student Development Programs/ Workshops - in collaboration of industry for skill/curriculum development.
- Internships
- Industry experts invited as judges for project Exhibition.
- Faculties are invited as resource person from academia/industry to provide training.
- Inviting the industrial persons as the members in Board of Studies (BoS).
- To strengthen interaction with industries and to keep the students updated with the latest trends being followed in the industry, MoUs were signed with the companies.

2.2.4.A: Industry supported laboratories (5)

The industry supported laboratories develops best teaching-learning process using a comprehensive understanding of industry's best practices for both students and faculty. This initiative to absorb the professionalism, behavior aspects and awareness about industry expectation and aligns aspirations of the students with the needs of the industries and promotes career counseling by senior corporate personnel. The industry supported laboratories are given in below table.

Table: Industry supported laboratories

Sl. No.	Industry Name	Name of the supported laboratory	Type of support
1	CoreEL Tech. Pvt. Ltd.	VLSI Design Laboratory	Supported the following equipment: • Mentor Graphics HEP-1 • Xilinx Vivoda system edition **Total Cost Rs. 3,73,000/-**
2	CoreEL Tech. Pvt. Ltd.	VLSI Design Laboratory	Supported the following equipment: • Nexys 4DDR Artix 7 FPGA **Cost Rs. 70,000/-**

3	CoreEL Tech. Pvt. Ltd.	Embedded System Laboratory	Supported the following equipment: • Zynq Zed development board • Electronic Explorer **Total Cost Rs. 2,26,000/-**
4	SS Lab Equipment. Pvt. Ltd.	Communications Laboratory	Supported the following equipment: • Spectrum Analyzer (9kHz -1GHz) **Cost Rs. 1,25,000/-**

2.2.4.B: Industry involvement in the program design and partial delivery of any regular courses for students (5)

The department revises the curriculum to meet the industrial and societal needs and it ensures that industry personnel take an active role in the design of curriculum. Experts from Industry are invited as the members of Board of Studies (BoS) provide inputs related to industrial needs as part of the curriculum design. The list of BoS members reflecting the industry expert's contribution towards the development of curriculum is given in below table.

In addition to the BoS, industry personals are involving in design of curriculum in different manners as mentioned below.

- It has been stated in the process for designing the program curriculum important feedback is sought from industry so that the performance of the students is enquired. Necessary changes are made in the curriculum depending upon the performance as revealed by the feedback of the employer.
- In regular interactions like guest lectures, FDPs, training programs etc., industry personnel give their inputs for curriculum improvements with respect to the latest changes in the technologies.

Table: Industry experts involved in Board of Studies (BoS)

S No.	**Name of the Industry Expert**	**Name of the Industry and Designation**	**Name of the course Module Involved**
1.	Mr. Vamsi Krishna	Sr. Technical Officer CSIR-NGRI, Hyderabad.	Communications
2.	P. Suresh Babu	Software Engineer One Convergence Device Pvt. Ltd.	Embedded Systems

- The department faculty members are encouraged the students to carry out their project work in industry/research laboratories under the guidance of both faculty and industry expert.
- National Workshops, Seminars and Short term courses are organized in collaboration with Industry personnel
- Guest lecturers for third and final year students are delivered by eminent industrial persons.

Few Collaborative projects with Supervisor list as shown in below table.

Table: List of few projects carry out in Industry

Academic year 2020-21

S.No	**Title of the Project**	**Roll No**	**Supervisor**	**Place of Work**
1	GSM based Automatic railway gate control system	177Y1A0443 177Y1A0426	Dr. S. KISHORE	UTS Technologies

2	Bike ignition system using Radio-frequency identification	177Y1A0430 177Y1A0431 177Y1A0436 177Y1A0452	H.Sangeeta	AARK IC Technologies
3	OTP based smart wireless locking system using arduino	177Y1A0403 177Y1A0455 177Y1A0459	D. Rupa Kumar	UTS Technologies
4	Women safety security system using GPS and GSM	177Y1A0422 177Y1A0446	T. TANUJA	UTS Technologies
5	Designing of Parasitic Aware Automatic CMOS Analog Circuit Using Evolutionary algorithms	187Y5A0409	Dr. G. AMARNATH	Si Nano Technologies

Academic year 2019-20

S.No	Title of the Project	Roll No	Supervisor	Place of Work
1	Automatic Attendance System Using Artificial Intelligence	167Y1A0486 167Y1A04B5	S.ARAVIND KUMAR	AGM TechViz
2	Probability driven multi bit flip flop integration with clock gating	167Y1A0453 167Y1A0454 167Y1A04H5	G.KIRAN KUMAR	Si Nano Technologies
3	Biometric based vehicle security system with GSM and GPS technology	167Y1A0460 167Y1A0495	D. SREENU	UTS Technologies
4	Development of Deep Machine Learning System for an Analog VLSI Implementation	167Y1A04G3	DR. G. AMARNATH	Radiant Semi-Conductors

Industry involvement in partial delivery of any courses for students

Apart from knowledge and experience obtained in the classroom and the laboratory, expert lectures enrich the students and faculty with the latest updates in the industry. The eminent personalities of various fields in the industry are invited to lend valuable information from their first-hand experience which serves as an ideal platform for the students. This helps the students and faculty to understand the real time problems and share their ideas with the industry experts. The department organizes expert lectures on various topics and issues related to the curriculum of engineering in which distinguished technocrats are invited to deliver their expert lecture for the scholastic enhancement of the students and the staff.

2.2.4.C: Impact Analysis of industry institute interaction and action taken thereof (5)

The flowing observations are made as an impact of industry institute interaction.

- Internship opportunities are improved.
- Practical knowledge is improved, which in turn helps to elevate their career opportunities.
- Placement opportunities are improved.
- Research and consultancy opportunities are improved.

- The effectiveness of this practice can be gauged by the great response of the participants for the workshops/FDPs/Training Programs.
- Faculty are trained by the industry experts and Industry persons gets trained by faculty.

Department has signed Memorandum of Understanding (MoU) with industries to improve the quality of education & career opportunities of the students. As part of MoUs signed, the following activities are being implementing in association with the industries.

- Industrial visits
- Training Programs to students and faculty
- Training to industry persons by faculty
- Partial delivery of the syllabus
- Student Internships
- Collaborative projects/consultancy projects
- Industry personnel as project mentors
- Student Placements

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

Institute Marks : 15.00

2.2.5.A: Industrial Training/Tours for students

Academic Year	Visit place	Date	No of students
2020-2021			
2019-2020	NGRI, Hyderabad	22-01-2020	52+2(staff)
	NUCLEONIX, Hyderabad	04-10-2019	48+2(staff)
	NRSC, Hyderabad	24-08-2019	45+2(staff)
2018-2019	NGRI, Hyderabad	08-02-2019	44+2(staff)
	BSNL, Hyderabad	15-11-2018	50+2(staff)
	NRSC, Hyderabad	22-07-2017	48+2(staff)

Table: Details of Industrial Visit for three academic years

2.2.5. B. Industrial / Internship details including Impact Analysis

Students of second and third year are encouraged to undergo Internship training at various industries. The details of students who have undergone internship in various organizations are given below and the Impact of the Training/Internship is also specified.

AY 2020-2021

S. No.	Roll Number	Name of the Student	Internship firm	Date of Letter	Internship/Training period (1 Month)	Purpose	Impact analysis
1	177Y1A0404	RASALA ARCHANA	AGM Techviz, Hyderabad	13.06.2020	15-06-2020 to 27-06-2020	Internship	• Exposure to Industry environment • Work Experience on Real Time problems. • Improvement in CoreCompetency. • Better Placement opportunities. • Hands on experience • on Latest technology **Relevance of** POs: PO1,PO2,PO3,PO5, PO6,PO7,PO8, PO9,PO11,PO12, PSO1,PSO2
2	177Y1A0406	K. CHENNA KRISHNA	Doordarshan, Hyderabad	13.06.2020	08-06-2020 to 13-06-2020	Internship	
3	177Y1A0418	K MANOHAR	NSIC, Hyderabad	16.06.2020	22-06-2020 to 04-07-2020	Internship	
4	177Y1A0426	M.PRIYANKA	ECIL,Hyderabad	20.06.2020	22-06-2020 to 27-06-2020	Internship	
5	187Y5A0402	M.AJAY KUMAR	Radiant Semiconductors	20.06.2020	22-06-2020 to 04-07-2020	Internship	
6	177Y1A0462	PATLORI AKHIL	Doordarshan, Hyderabad	13.06.2020	08-06-2020 to 13-06-2020	Internship	
7	177Y1A0471	PALADI BHAVYA	AGM Techviz, Hyderabad	10.11.2020	11.12.2020 To 31.12.2020	Internship	
8	177Y1A0485	SAPPA LIKHITHA				Internship	
9	177Y1A04A1	B.SHIRISHA				Internship	
10	187Y5A0424	CHIMMA VIJENDER	UTS Technologies, Hyderabad	18.11.2020	14.12.2020 To 31.12.2020	Internship	
11	177Y1A04D2	METTU KAVYA					
12	177Y1A04D4	SIRGANAGARI MADHURI REDDY	NSIC, Hyderabad	14.12.2020	21-12-2020 to 02-01-2021	Internship	
13	177Y1A04D5	D.MANASA					
14	177Y1A04F5	KAMMARI SANJAY KUMAR					
15	177Y1A04F6	HOSPET SHIVA KUMAR	Nucleonix, Hyderabad	09.12.2020	12.12.2020 To 31.12.2020	Internship	
16	187Y5A0430	NIKHILA BADRI					

AY - 2019-20

S. No	Roll Number	Name of the Student	Internship firm	Date of Letter	Internship/ Training period	Purpose	Impact analysis
1	167Y1A0407	N.Bhuvana	RCI, Hyderabad	08.06.2019	10-06-2019 to 22-06-2019	Internship	• Exposure to Industry environment • Work Experience on Real Time problems. • Improvement in Core Competency.
2	167Y1A0412	K.Haripriya	Nucleonix, Hyderabad	19.06.2019	29.06.2019 to 04.07.2019	Internship	
3	167Y1A0422	Narendra Reddy					
4	167Y1A0423	NIHARIKA KOTTURI					

5	167Y1A0435	ROHAN MISHRA	ECIL, Hyderabad.	19.06.2019	06.07.2019 to 11.07.2019	Internship	• Better Placement opportunities. • Hands on experience on Latest technology • **Relevance of** POs: PO1,PO2,PO3, PO5, PO6,PO7, PO8,PO9,PO11, PO12,PSO1,PSO2
6	167Y1A0450	167Y1A0450					
7	167Y1A0451	167Y1A0451					
8	167Y1A0492	SAI PRIYA GUNUKULA	RTTC, Hyderabad	19.06.2019	22.06.2019 to 27.06.2019	Internship	
9	167Y1A0494	RUMANDLA SAI VIVEK					
10	167Y1A04E2	M.NAGASAI RISHEEK	L & T, Hyderabad.	19.06.2019	13.07.2019 to 18.07.2019	Internship	
11	167Y1A04F4	THOKALA SAI DIVYA	UTS Technologies Hyderabad	17.06.2019	22.06.2019 to 05.07.2019	Internship	
12	167Y1A04G6	M.SRUJAN	AGM Techviz, Hyderabad	15.06.2019	18.06.2019 to 19.07.2019	Internship	
13	177Y5A0404	TADURI SAMATHA					
14	177Y5A0405	N MAMTA					
15	167Y1A0409	Belidedivya	Nucleonix, Hyderabad	19.06.2019	22.06.2019 To 19.07.2019	Internship	
16	167Y1A0410	K.GNANASREE					
17	167Y1A0414	Jampalamamatha					
18	167Y1A0443	BONTHAPALLY SANTHOSHI	RTTC, Hyderabad	22.06.2019	24-060-2019 to 29-06-2019	Internship	
19	167Y1A0455	B.Vineela	Doordarshan , Ramanthapur , Hyd	22.06.2019	25.06.19 To 19.07.19	Internship	
20	167Y1A0456	M.Vishnu Vardhan Reddy	ECIL, Hyderabad.	24.06.2019	06.07.2019 to 11.07.2019	Internship	
21	167Y1A0464	Arja Guna Sai Ram	BSNL, Hyderabad	24.06.2019	29.06.19 To 13.07.19	Internship	

AY - 2018-2019

S.No	Roll Number	Name of the Student	Internship firm	Date of Letter	Internship/Training period (1 Month)	Purpose	Impact analysis
1	157Y1A0403	KOLLURI AJAY KUMAR	ECIL, Hyderabad				• Exposure to Industry environment • Work Experience on Real Time problems. • Improvement in Core Competency.
2	157Y1A0405	VOOTURI ASHRITHA		27.06.2018	July'2018	Internship	
3	157Y1A0430	KADUDULA NIKHITHA	Nucleonix, Hyderabad.	05.07.2018	08-07-2018to 14-07-2018	Internship	

4	157Y1A0434	KUKKALA PRAVALLIKA	UTS Technologies, Hyderabad.	10.07.2018	16-07-2018 to 28-07-2018	Internship	• Better Placement opportunities. • Hands on experience on Latest technology • **Relevance of** POs: PO1,PO2,PO3, PO5, PO6,PO7, PO8,PO9,PO11, PO12,PSO1,PSO2
5	157Y1A04E0	SALVER MANIDEEP	AGM Techviz, Hyderabad	03.01.2018	22.12.2018 To 06.03.2018	Internship	
6	157Y1A0466	P BHAGYA LAXMI					
7	157Y1A0483	M.LAXMI BHAVANI					
8	157Y1A0474	KASA HARI NIVAS					
9	157Y1A04A8	ORSU SURESH					
10	157Y1A04A9	K TRINATH KUMAR					

Table: Details of Internships for three academic years

2.2.5.C: Impact Analysis of Industry Institute interaction (Relevance of POs & PSOs in collaboration with Industry).

	Criterion	Relevance to POs & PSO
1.	Electives	PO4,PO5,PO6,PO7,PO11,PO12,PSO1
2,	Projects	PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1
3.	Industrial visits	PO6,PO7,PO10,PO12
4.	Workshops /Short-term	PO2,PO3,PO4,PO5,PO9,PO10,PO12,PSO1,PSO2
5.	Industry Internship	PO3, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1.
5.	Consultancy	PO2,PO3,PO4,PO5,PO6,PO8,PO9,PO11,PO12,PSO1,PSO2

Table: Impact Analysis of Various Criterions

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

Total Marks 120.00

Define the Program specific outcomes

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

Total Marks 20.00

:

PSO1	Analyze and design analog & digital circuits or systems for a given specification and function.
PSO2	Implement functional blocks of hardware-software co-designs for signal processing and communication applications.

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

Institute Marks : 5.00

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

Course Name :	**C2 17**	**Course Year :**	**2017-2018**

Course Name	Statements
C2 17.1	Articulate to generate various signals and sequences.
C2 17.2	Understand the difference between Auto Correlation and Cross Correlation between Signals and Sequences.
C2 17.3	Understand to verify the linearity and time invariant properties of a given continuous and discrete signals.
C2 17.4	Calculate the Fourier transform of a given signal and plotting its magnitude and phase spectrum.
C2 17.5	Illustrate to locate zeros and poles and plotting the pole-zero maps in s-plane and z-plane for given transfer function.
C2 17.6	Verify sampling theorem.

Course Name :	C2 24	Course Year :	2017-2018

Course Name	Statements
C2 24.1	Learn the baseband signal and system and understand of the concepts of analog communication system.
C2 24.2	Identify various elements, processes, and parameters in communication systems, and their functional effects & interrelationship.
C2 24.3	Design procedure of AM Transmission & Reception, measure, and evaluate the performance of a communication system against given criteria
C2 24.4	Understand basic knowledge of FM Transmission & Reception
C2 24.5	Study various types of SSB Transmission & Reception.
C2 24.6	Develop typical telecommunication systems that consist of basic and essential building blocks.

Course Name :	C3 11	Course Year :	2018-2019

Course Name	Statements
C3 11.1	Understand the basic laws and their proofs related to electrostatic and magneto static fields.
C3 11.2	Distinguish between the static and time-varying fields, Invent the corresponding sets of Maxwell’s Equations and Boundary Conditions, and use them for solving engineering problems.
C3 11.3	Analyze the Wave Equations for good conductors and good dielectrics, and evaluate the UPW Characteristics for several practical media of interest.
C3 11.4	Determine the Transmission Line parameters for different lines, characterize the distortions and estimate the characteristics for different lines.
C3 11.5	Analyze the RF Line features and configure them as SC, OC Lines, QWTs and HWTs, and design the same for effective impedance transformation.
C3 11.6	Understand the Smith Chart profile and stub matching features, and gain ability to practically Use the same for solving practical problems.

Course Name :	C3 24	Course Year :	2018-2019

Course Name	Statements
C3 24.1	Understand the internal architecture and organization of 8086
C3 24.2	Analyze the Assembly language programs of 8086
C3 24.3	Analyze the internal architecture and real time control of 8051

C3 24.4	Discuss the input /output, memory interface, Serial Communication and Bus Interface devices
C3 24.5	Analyze the internal architecture of ARM Processors
C3 24.6	Classify the internal architecture of CORTEXARM Processor and MAP ARM Processor

Course Name :	**C4 13**	**Course Year :**	**2019-2020**

Course Name	**Statements**
C4 13.1	Expected to Understand basic concept of embedded systems and Design of embedded systems leading to 32-bit application development
C4 13.2	Expected to Understand hardware-interfacing concepts to connect sensors and develop embedded hardware and software development cycles, tools
C4 13.3	Apply and analyze the applications in various processors and domains of embedded system
C4 13.4	To design various controllers and compensators to improve system performance
C4 13.5	Review and implement the protocols used by microcontroller to communicate with external sensors and actuators in real world.
C4 13.6	Analyze to RTOS, Embedded Networking and IoT concepts based upon connected MCUs

Course Name :	**C4 22**	**Course Year :**	**2019-2020**

Course Name	**Statements**
C4 22.1	Understand and analyze the constructional parameters of optical fibres.
C4 22.2	Be able to design an optical system
C4 22.3	Estimate the losses due to attenuation, absorption, scattering and bending.
C4 22.4	Compare various optical detectors and choose suitable one for different applications
C4 22.5	Analyze the characteristics of different optical sources
C4 22.6	Evaluate the performance of various optical transmitters, receivers and optical systems

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

Institute Marks : 5.00

1 . course name : C217

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C217.1	3	3	1	2	3	-	-	-	-	-	-	-
C217.2	3	3	1	2	3	-	-	-	-	-	-	-
C217.3	3	3	1	2	3	-	-	-	-	-	-	-
C217.4	3	3	1	2	3	-	-	-	-	-	-	-
C217.5	3	3	1	2	3	-	-	-	-	-	-	-
C217.6	3	3	1	2	3	-	-	-	-	-	-	-
Average	**3.00**	**3.00**	**1.00**	**2.00**	**3.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2 . course name : C224

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C224.1	3	3	3	-	3	-	-	-	-	3	-	1
C224.2	3	3	-	-	3	-	-	-	1	3	-	1
C224.3	3	3	3	-	3	-	-	-	1	3	-	1
C224.4	3	-	-	-	3	-	-	-	1	3	-	-
C224.5	-	2	-	-	-	-	-	-	1	-	-	-
C224.6	3	3	3	3	-	-	-	-	-	-	-	-
Average	**2.50**	**2.33**	**1.50**	**0.50**	**2.00**	**0.00**	**0.00**	**0.00**	**0.66**	**2.00**	**0.00**	**0.50**

3 . course name : C311

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311.1	3	3	-	-	3	-	-	-	-	-	-	-
C311.2	3	-	-	2	-	-	-	-	-	-	-	-
C311.3	3	-	-	2	-	-	-	-	-	-	-	-
C311.4	-	1	1	1	-	-	-	-	-	-	-	-
C311.5	-	3	1	-	3	-	3	-	-	-	-	-
C311.6	3	3	1	1	-	-	3	-	-	-	-	-
Average	**2.00**	**1.66**	**0.50**	**1.00**	**1.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4 . course name : C324

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C324.1	3	2	2	1	-	-	-	-	-	-	-	-
C324.2	3	3	2	2	-	-	-	-	-	-	-	-
C324.3	-	3	3	2	3	-	-	-	2	-	-	2
C324.4	3	1	-	1	3	-	-	-	-	-	-	2
C324.5	3	1	1	-	3	-	-	-	-	-	-	-
C324.6	3	-	1	-	3	-	-	-	2	-	-	2
Average	**2.50**	**1.66**	**1.50**	**1.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.66**	**0.00**	**0.00**	**1.00**

5 . course name : C413

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C413.1	3	3	3	-	-	-	-	-	-	-	-	-
C413.2	3	-	3	-	3	-	-	-	-	-	-	-
C413.3	-	3	2	-	-	-	-	-	-	-	-	-
C413.4	-	1	1	1	-	-	-	-	-	-	-	-
C413.5	-	3	1	-	3	-	3	-	-	-	-	-
C413.6	3	3	1	1	-	-	3	-	-	-	-	-
Average	**1.50**	**2.16**	**1.83**	**0.33**	**1.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

6 . course name : C422

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C422.1	1	3	-	-	-	-	-	-	-	-	-	-
C422.2	-	3	3	-	-	-	-	-	-	-	-	3
C422.3	-	3	3	1	-	-	-	-	-	-	-	3
C422.4	-	-	-	1	3	-	-	-	-	-	-	3
C422.5	-	3	3	-	-	-	-	-	-	-	-	-
C422.6	-	-	3	-	-	-	-	-	-	-	-	3
Average	**0.16**	**2.00**	**2.00**	**0.33**	**0.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**

1 . Course Name : C217

Course	PSO1	PSO2
C217.1	3	-
C217.2	-	2
C217.3	3	-
C217.4	3	-
C217.5	3	-
C217.6	-	-
Average	**2.00**	**0.33**

2 . Course Name : C224

Course	PSO1	PSO2
C224.1	-	3
C224.2	3	-

C224.3	3	3
C224.4	-	3
C224.5	3	-
C224.6	3	3
Average	**2.00**	**2.00**

3 . Course Name : C311

Course	PSO1	PSO2
C311.1	-	-
C311.2	-	-
C311.3	3	-
C311.4	3	-
C311.5	3	3
C311.6	-	-
Average	**1.50**	**0.50**

4 . Course Name : C324

Course	PSO1	PSO2
C324.1	3	3
C324.2	3	3
C324.3	3	3
C324.4	3	3
C324.5	3	3
C324.6	3	3
Average	**3.00**	**3.00**

5 . Course Name : C413

Course	PSO1	PSO2
C413.1	3	-
C413.2	-	3
C413.3	3	3
C413.4	3	-
C413.5	-	3

C413.6	3	3
Average	**2.00**	**2.00**

6 . Course Name : C422

Course	PSO1	PSO2
C422.1	2	-
C422.2	-	-
C422.3	-	-
C422.4	-	-
C422.5	-	-
C422.6	-	-
Average	**0.33**	**0.00**

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

Institute Marks : 10.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC111	3	3	1.9	2	2	PO6	PO7	PO8	PO9	PO10	PO11	2
EC112	3	2	PO3	PO4	1.3	2	PO7	1.6	PO9	1	1	1.2
EC113	1	2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC114	PO1	PO2	PO3	PO4	PO5	1	PO7	PO8	PO9	PO10	PO11	PO12
EC115	3	2	2	1	PO5	1	2	PO8	2	1	PO11	PO12
EC116	3	3	2	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	1
EC117	PO1	PO2	PO3	PO4	PO5	2	PO7	1	2	3	PO11	3
EC118	3	2	2	1	PO5	PO6	PO7	PO8	3	2	PO11	2
EC119	PO1	PO2	PO3	PO4	PO5	2	2	1	PO9	PO10	PO11	PO12
EC121	1	2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC122	3	2.1	1.4	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.2
EC123	3	1.5	1	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC124	2.2	2.2	2.2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC125	3	3	3	3	2	2	3	2	2	2	2	3
EC126	2.6	2.1	2.3	PO4	3	2	PO7	PO8	PO9	PO10	PO11	1.3
EC127	3	1	PO3	PO4	PO5	PO6	PO7	1	PO9	1	PO11	3
EC128	3	3	3	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	3
EC129	PO1	PO2	PO3	PO4	PO5	2	2	1	PO9	PO10	PO11	PO12

EC211	2.5	1.1	PO3	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC212	3	2.6	1	2.8	3	PO6	PO7	PO8	PO9	1	PO11	1
EC213	3	3	2	PO4	PO5	PO6	PO7	2	PO9	2	PO11	2
EC214	3	2	1.5	1.5	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC215	3	3	PO3	3	PO5	PO6	PO7	PO8	PO9	3	PO11	PO12
EC216	3	3	3	3	3	3	PO7	PO8	PO9	PO10	PO11	PO12
EC217	3	3	1	2	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC218	3	3	2	PO4	PO5	PO6	PO7	2	PO9	2	PO11	2
EC219	3	PO2	1.8	1	PO5	2.3	3	3	1	PO10	2	PO12
EC221	3	3	3	1	PO5	PO6	PO7	PO8	PO9	3	PO11	3
EC222	3	1	1	1	3	PO6	PO7	PO8	1	PO10	PO11	PO12
EC223	3	2.5	1.5	1	PO5	3	PO7	PO8	PO9	PO10	PO11	PO12
EC224	3	3	3	3	3	PO6	PO7	PO8	1	3	PO11	1
EC225	3	1	PO3	1	3	PO6	PO7	3	PO9	3	3	PO12
EC226	3	3	3	3	3	PO6	PO7	PO8	1	3	PO11	1
EC227	3	2.5	1.8	2	PO5	2	PO7	PO8	PO9	PO10	PO11	PO12
EC228	3	3	3	3	3	PO6	PO7	PO8	1	3	PO11	1
EC229	PO1	PO2	PO3	PO4	PO5	3	PO7	3	3	PO10	2	3
EC311	3	3	PO3	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC312	3	1	1.3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC313	3	3	3	2	3	PO6	PO7	PO8	PO9	1	PO11	2
EC314	1	1	1	1	3	1	1.4	2	1	1.5	1	1
EC315	3	1.5	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC316	3	1.5	2	2.5	PO5	PO6	PO7	PO8	3	1	PO11	PO12
EC317	3	1.5	1.8	1.5	PO5	PO6	PO7	PO8	3	1	PO11	PO12
EC318	3	3	3	2	3	PO6	PO7	PO8	PO9	1	PO11	2
EC319	PO1	PO2	PO3	PO4	PO5	3	PO7	3	1	PO10	PO11	PO12
EC321	3	2.3	1.6	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC322	3	3	3	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	3
EC323	3	1.8	1.6	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC324	3	2	1.8	1.75	3	PO6	PO7	PO8	2	PO10	PO11	2
EC325	3	2.3	1.6	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC326	1.6	2.83	PO3	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

EC327	2	2.6	2.7	2	3	PO6	PO7	PO8	3	PO10	PO11	PO12
EC328	PO1	PO2	PO3	PO4	3	3	PO7	PO8	PO9	3	PO11	2
EC411	2	3	2	3	2	PO6	PO7	PO8	PO9	3	PO11	2
EC412	3	2.6	2	3	PO5	3	PO7	PO8	PO9	PO10	PO11	PO12
EC413	3	2.6	1.8	1	3	PO6	3	PO8	PO9	PO10	PO11	PO12
EC414	2.6	2.5	1.5	1	3	1	PO7	PO8	PO9	PO10	PO11	3
EC415	3	2	2	1	2	PO6	PO7	PO8	PO9	2	PO11	2
EC416	3	3	3	PO4	3	PO6	PO7	2	3	3	PO11	3
EC417	3	3	PO3	3	PO5	PO6	PO7	3	3	3	PO11	3
EC418	2	3	3	2	3	2	1	2.7	3	3	2	3
EC419	2	2	1	2	2	1	1	2	3	3	1	2
EC421	3	3	3	PO4	PO5	1	3	PO8	PO9	PO10	PO11	3
EC422	1	2	2	1	3	PO6	PO7	PO8	PO9	PO10	PO11	3
EC423	3	1.5	1	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
EC424	2	3	3	2	3	2	1	3	3	3	2	3

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

Course	PSO1	PSO2
EC111	2	2
EC112	1.16	1.16
EC113	1.33	2.16
EC114	PSO1	PSO2
EC115	1	1
EC116	2	1
EC117	3	PSO2
EC118	3	1
EC119	PSO1	PSO2
EC121	1.33	2.16
EC122	2	PSO2
EC123	2.25	3
EC124	2.2	0.8
EC125	PSO1	PSO2
EC126	0.83	1
EC127	1	PSO2

EC128	3	1
EC129	PSO1	PSO2
EC211	2.25	3
EC212	3	3
EC213	3	PSO2
EC214	3	3
EC215	3	PSO2
EC216	3	3
EC217	3	2
EC218	3	PSO2
EC219	2.25	3
EC221	1	PSO2
EC222	2	2.4
EC223	2.25	3
EC224	3	3
EC225	3	3
EC226	3	3
EC227	1	2
EC228	3	3
EC229	1.3	PSO2
EC311	3	3
EC312	2.5	2.6
EC313	2	2
EC314	2.25	3
EC315	2	2
EC316	2	1
EC317	1.5	1.2
EC318	2	2
EC319	PSO1	PSO2
EC321	2.25	3
EC322	PSO1	PSO2
EC323	2.25	3
EC324	3	3

EC325	2.25	3
EC326	PSO1	PSO2
EC327	3	3
EC328	PSO1	PSO2
EC411	2	3
EC412	2.3	3
EC413	3	3
EC414	PSO1	3
EC415	3	PSO2
EC416	3	3
EC417	3	3
EC418	PSO1	PSO2
EC419	3	3
EC421	3	1
EC422	2	PSO2
EC423	2.5	2.5
EC424	3	3

3.2 Attainment of Course Outcomes (50) Total Marks 50.00

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10) Institute Marks : 10.00

SETTING CO ATTAINMENT TARGETS:

- Targets set in terms of performance levels of present year students and previous year course attainment
- Targets are set for each Course Outcome of a course separately
- The target can be “the class average marks > 60 marks”

CO ASSESSMENT PROCESS:

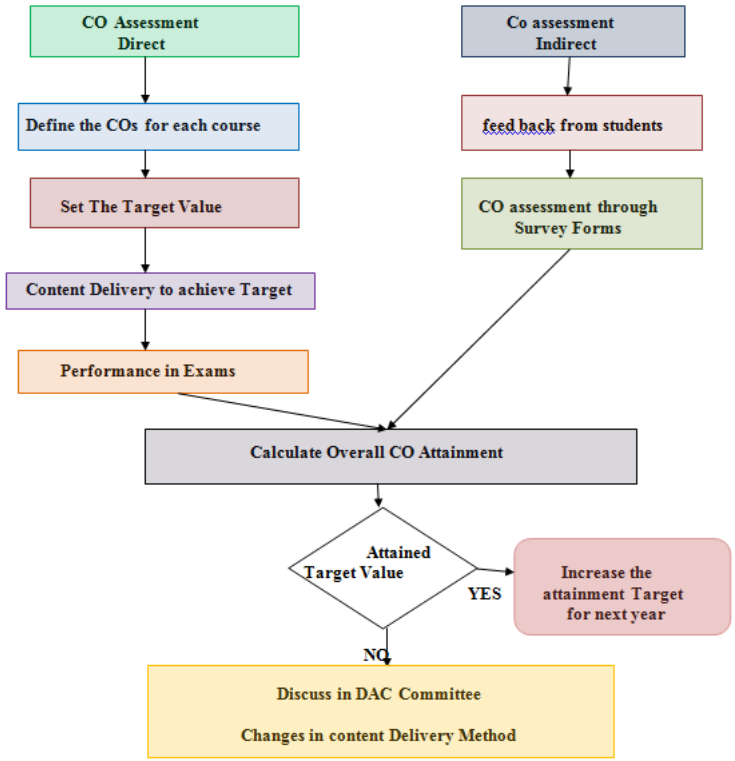


Fig.CO Assessment Process

Direct Assessment Tools:

Internal Exams: For theory subjects during the semester there are 2 mid terms examinations. first mid examination is conducted for 1,2,and 3 units half syllabus and second mid examination is conducted for3 unit remaining half syllabus, 4 and 5 units. Each midterm examination consists subjective (i.e., Descriptive questions) for 10 marks. Objective questions for 10 marks. Objective paper containing 10 bits of multiple choice questions & 10 fill in the blanks. The subject teacher set the question paper by covering the all defined course outcomes spreading in two mids.

Semester End examinations : The performance of a student in each semester shall be evaluated subject wise with a maximum of 75 marks for theory and for 50 marks for practical examinations & conducted by affiliated university.

Assignments: Assignments are more valuable assessment procedure. In this process students will gain a thorough knowledge on the methods used and approaches taken in considering an issue. The faculty will give assignments to the students on different topics covering all course outcomes involved in the course syllabus. Each assignment is evaluated for 5 marks and the average of these marks will be included in the internal examinations under assignments topic.

Practical Tests: for practical subjects there will be a continuous evaluation during the semester for 25 sessional marks and 50 end examination marks. Out of the 25 marks for internals day to day work in the laboratory shall be evaluated for 15 marks and internal examination for practical shall be evaluated for 10 marks conducted by the concerned laboratory faculty. The external examiner shall be appointed from the cluster colleges as decided by the affiliating university.

Seminar Presentations: In the time table a seminar hour is also included on every week. For the seminar the students shall collect the information on a specialized topic and prepare a technical report, showing his understanding over the topic and submit abstract to the department which will be evaluated by the departmental committee consisting of Head of the department and two senior faculty members. They assess the student's oral presentational skills, understanding of the content, and ability to organize and structure material of the student learning process. The seminar report will be evaluated for 50 marks.

Comprehensive viva: A comprehensive exam is conducted at the end of the students academic career (during the final semester prior to graduation). The exam is generally conducted to determine student's acquisition and application for a particular type or form of knowledge or skill, as well as his ability to integrate knowledge from various disciplines. This will be conducted as online test containing 100 multiple choice questions. This is evaluated for 100 marks

Industrial training: Industry oriented mini project is an important academic activity where students are exposed to real work life and to equip themselves with the necessary skills so that they would be able to get jobs immediately after they graduate. It enhance the students to develop their employability skills, intellectual skills, core or key skills, personal attributes and knowledge about how organisations work. For this purpose there is an Industry-Oriented mini project, in collaboration with an industry of their specialization. It is taken up during the vacation after III Year II Semister examination. The industry oriented mini project shall be submitted in report form and should be presented before

the committee consisting of head of the department, the supervisor of mini project and a senior faculty member of the department. The report is evaluated for 50 marks.

Project work: Major project work gives students a chance to go deeper with the material to put the knowledge that they have acquired to use or create something new from it. This level of application is an extremely important and often overlooked part of the learning process. For this purpose project work is introduced in IV year II semester in the curriculum and is evaluated for 200 marks . Out of these 200 marks 50 marks shall be for internal evaluation. For The internal evaluation, every month a review meeting will be conducted. In this meeting the student will present their work before the review committee containg head of the department, one subject expert coming from affiliated university or from industry, two senior faculty and a project supervisor. The committee will review the students project work and give their suggestions for improvement or modifications if necessary. It is evaluated to 150 mark. The end semester project work viva-voice examinations. The end semester examination shall be evaluated by a committee. The committee consists of an external examiner appointed by affiliated university, head of the department, senior faculty and project supervisor.

Certification programmes: certification programmes are introduced with an objective to enhance the knowledge of the students on different cutting edge technologies. In this programme students will undergo training on a particular technology. Thereafter they would be executing a small live project work under the guidance of the Project manager. At the end of the program each trainee would need to submit a „Project Report" on the work done, and also would be required to make an oral presentation. A participation certificate will be given to each student on appreciating their participation.

Making different working models: Designing of working models is introduced with a motto of addressing the practical exposure of the students in prevalent civil engineering studies. Civil engineering deals with the different structures and drawings which includes laying of roads, construction of buildings, bridges, airports, tunnels, dams, break waters, ware houses, power plants, treatment plants, canals, drains, water supply and sewage systems, harbours, docks, and so many other structures both in Private and Public sector. Therefore in every semester a model making competition was conducted for the civil engineering students. For winners a cash prize and a memento is given to the winners at the time of institution/college annual day celebrations.

Workshops/guest lectures: The department organise guest lectures/workshops on regular intervals. The eminent persons working in well-known civil based industries, research organizations, are called by our institute to motivate and help our students and also to faculty to understand current trends in various aspects, which leads to attainment of Pos. The talk of these persons becomes a bridge to fill the gaps and also develop a rapport for meeting the future need of the industries, research organizations and universities

Indirect assessment tools:

course end survey:

The course end survey form should filled by the students at the end each semester. the form contain the questionnaire about instructor and all course outcomes. The students give the rating for each CO depend on their learning level of CO. Computation of indirect attainment of COs is based on the perceptions of students. Hence, the percentage weightage to indirect attainment kept at as 20%.

Feedback from students: Feedback from students regarding faculty teaching courses and coverage of syllabus and new topics beyond scope of syllabus undertaken.

Alumni Survey: Surveying program alumni can provide information about program satisfaction, preparation (transfer or workforce), employment status, skills for success. Surveys can ask alumni to identify what should be changed, altered, maintained, improved, or expanded. The survey is conducted on every semester.

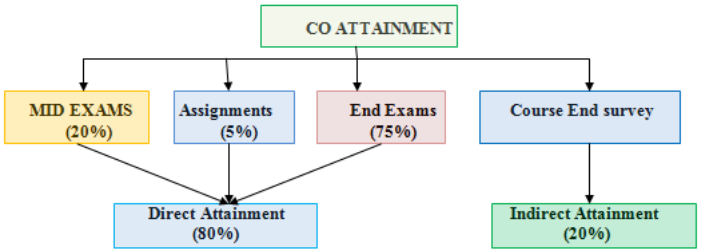
Student's Exit feedback: Feedback from passing graduates is taken once they are about to graduate.

Feedback from employer: Feedback from employer is taken regarding performances of students in different sectors.

Feedback from parents:

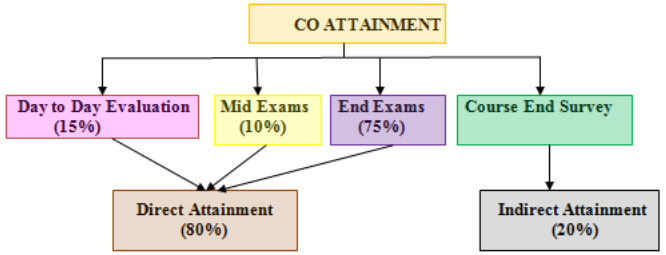
CO ATTAINMENT FOR THEORY COURSES

In the Calculation of Course Outcomes (CO) attainment, Marks obtained by the students in their internal exams, assignments and university exams are considered.



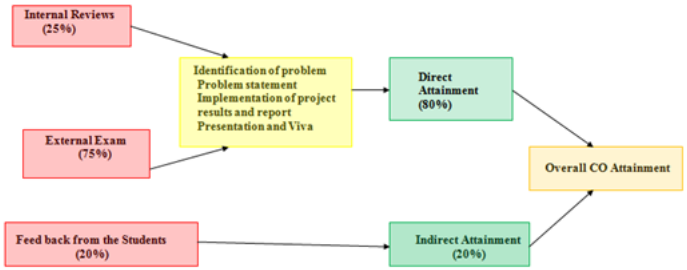
CO ATTAINMENT FOR LABORATORY COURSES

In the Calculation of Course Outcomes (CO) attainment, The daily performance of the student in completing the experiments (include result of the experiment, report of the results, and viva to assess understanding levels); Marks obtained by the students in their internal exams, and university exams are considered.



CO ATTAINMENT FOR PROJECTS/SEMINARS

In the Calculation of Course Outcomes (CO) attainment, The daily performance of the student in completing the experiments (include result of the experiment, report of the results, and viva to assess understanding levels); Marks obtained by the students in their internal exams, and university exams are considered.



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

Institute Marks : 40.00

Step 1: Course Outcome attainment levels: The CO attainment levels are set for each course depending on the performance of the student in Internal Assessment and previous results of the subject.

Step 2: Criteria for setting and improvement of the target levels: For every course the target level for an assessment year is set on the basis of the target achieved in the previous year. For any course, achieving the maximum attainment level of 3 during the assessment year, the attainment level for the subsequent year shall be redefined by increasing the target marks.

If targets are not achieved, measures are taken in next year to improve student performance through conducting remedial classes, attachment of bright student to poor student etc.

Step 3: Attainment Levels:

Attainment level 0- The total attainment level is <55%

Attainment level 1- The total attainment level is in between 56-65%

Attainment level 2- The total attainment level is in between 66-75%

Attainment level 3- The total attainment level is >75

Course Name	Course Code	Target	Direct Attainment	Indirect Attainment	80% Direct Attainment	20% Indirect Attainment	Total Attainment	Achieved Attainment Level
Mathematics-I	EC111	2.5	68	85	54	17	71	2.5

Engineering Chemistry	EC112	3	73	70	58	14	72	2.5
Engineering Physics-I	EC113	3	76	83	61	16	77	3
Professional Communication in English	EC114	3	88	86	70	17	87	3
Engineering Mechanics	EC115	2	65	86	52	17	69	2.4
Basic Electrical and Electronics Engineering	EC116	2	63	88	50	17	68	2.3
English Language Communication Skills Lab	EC117	3	95	90	76	18	94	3
Engineering Workshop	EC118	3	94	89	75	17	93	3
NSS	EC119	3	**95**	**95**	**76**	**19**	**95**	**3**
Engineering Physics-II	EC121	3	68	83	54	16	71	2.4
Mathematics-II	EC122	2.5	66	86	53	17	70	2.3
Mathematics-III	EC 123	2	70	85	56	17	73	2.8
Computer Programming in C	EC 124	2	68	85	54	17	71	2.45
Engineering Graphics	EC 125	2	75	85	60	17	77	3
Engineering Chemistry Lab	EC 126	3	90	89	72	17	89	3
Engineering Physics Lab	EC 127	3	90	90	72	18	90	3
Computer Programming in C Lab	EC 128	3	82	85	66	17	83	3
NCC/NSO	ECE 129	3	95	90	76	18	94	3
Mathematics – IV	EC211	2.8	69	79	55	16	71	2.6
Analog Electronics	EC212	3	71	80	57	16	73	2.8
Electrical Technology	EC213	2.7	70	74	56	15	71	2.6
Signals and Stochastic Process	EC214	3	78	82	62	16	78	3
Network Analysis	EC215	3	73	77	58	15	73	2.8

Electronic Devices and Circuits Lab	EC216	3	76	88	61	18	79	3
Basic Simulation Lab	EC217	3	81	86	65	17	82	3
Basic Electrical Engineering Lab	EC218	3	85	88	68	18	86	3
Environmental Science and Technology	EC219	3	79	81	63	16	79	3
Switching Theory and Logic Design	EC221	3	71	82	57	16	73	2.8
Pulse and Digital Circuits	EC222	2.4	64	77	51	15	66	2.1
Control Systems	EC223	2.7	68	76	54	15	69	2.4
Analog Communications	EC224	3	71	81	57	16	73	2.8
Business Economics and Financial Analysis	EC225	2.5	67	74	54	15	69	2.4
Analog Communications Lab	EC226	3	74	84	59	17	76	3
Pulse and Digital Circuits Lab	EC227	3	87	90	70	18	84	3
Analog Electronics Lab	EC228	3	84	87	67	17	84	3
Gender Sensitization Lab	EC229	2.5	69	72	55	14	69	2.4
Electromagnetic Theory and Transmission Lines	EC311	3	72	86	58	17	75	3
Linear and Digital IC Applications	EC312	2.7	69	83	55	17	72	2.7
Digital Communications	EC313	2.6	67	81	54	16	70	2.5
Fundamentals of Management	EC314	2.7	70	79	56	16	72	2.7
Electronic measurement and instrumentation	EC315	2.4	65	74	52	15	67	2.2
Linear IC Applications Lab	EC316	3	81	87	65	17	82	3

Digital IC Applications Lab	EC317	2.6	68	81	54	16	70	2.5
Digital Communications Lab	EC318	3	77	79	62	12	74	2.9
Professional Ethics	EC319	2.3	69	85	55	11	66	2.1
Java Programming	EC321	2.5	67	80	54	11	65	2
Digital Image Processing	EC322	2.5	66	77	53	11	64	1.9
Antennas and Wave Propagation	EC323	2.4	65	86	52	10	62	1.7
Microprocessors and Microcontrollers	EC324	2.3	63	85	50	10	60	1.5
Digital Signal Processing	EC325	2.4	61	86	49	10	59	1.4
Digital Signal Processing Lab	EC326	3	81	80	65	13	78	3
Microprocessors and Microcontrollers Lab	EC327	2.9	78	81	62	12	74	2.9
Advanced English Communication Skills Lab	EC328	3	87	86	70	14	84	3
Microwave Engineering	EC411	2.5	66	85	53	11	64	1.9
Computer Networks	EC412	2.3	63	84	50	10	60	1.5
Embedded System Design	EC413	2.5	71	86	57	11	68	2.3
Artificial Intelligence	EC414	3	87	86	70	14	84	3
VLSI Design	EC415	2.7	73	86	59	12	71	2.6
VLSI and E-CAD Lab	EC416	3	90	84	72	14	86	3
Microwave Engineering Lab	EC417	3	87	83	70	14	84	3
Industry Oriented Mini Project	EC418	3	91	86	73	15	88	3
Seminar	EC419	3	90	87	72	14	86	3
Sensors and Transducers	EC421	2.6	71	84	57	11	68	2.3
Optical Communications	EC422	2.5	69	84	55	11	66	2.1
Global Positioning System	EC423	2.3	65	85	52	10	62	1.7

Major Project	EC424	3	92	86	74	15	89	3

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

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

PO and PSO Assessment & Attainment Process:

- Mapping the CO-PO for all courses
- Once CO-PO mapping of all the courses are completed, the cumulative average of mapping to all the PO and PSOs are analyzed and Set attainment target will be fixed for each PO and PSO.
- Through Direct Assessment tools, achievement of each PO and PSO will be calculated by taking the cumulative average of all the courses which contributes to each PO and PSO.
- Through Indirect Assessment tools, achievement of each PO and PSO will be calculated by focusing the questionnaire in the survey forms and student portfolio which contributes to each PO and PSO.
- The final PO attainment is calculated by taking 80% of PO and PSO achievement from Direct method and 20% of PO and PSO achievement form Indirect method.
- The obtained values will be compared with the set attainment target fixed for each PO and PSO.
- If the target is achieved, then the same process will be continued for further batches.
- If the target is not achieved, then continuous improvement action will be taken for each PO and PSO.
- The results of evaluation are discussed in DAC meeting. Based on the attainment, the improvements to be done are discussed among the members.
- Continuous improvement action includes Action to be taken for improving the teaching learning process based on the attainment gap or by improving learning facilities or organizing programs to fill the attainment gap.
- If both the above said actions will lead to no change in the attainment of PO and PSO, then curriculum / syllabus will be ratified/ revised and the same will be forwarded to Board of Studies for approval.

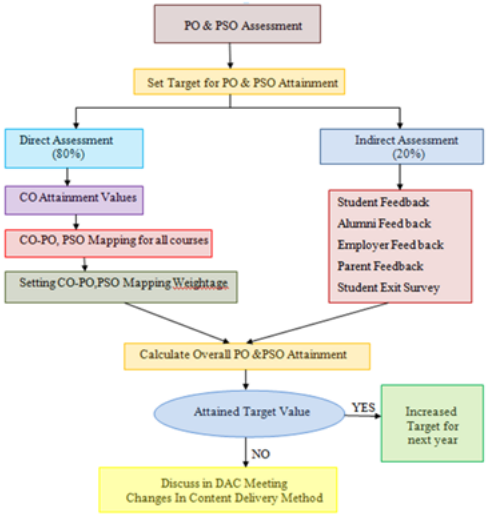


Fig.PO & PSO Attainment Process

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

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC111	2.4	2.4	2	1	1.5	PO6	PO7	PO8	PO9	PO10	PO11	1

EC112	2.9	2.8	PO3	PO4	1.6	2	PO7	1.3	PO9	1.1	0	1.1
EC113	1.1	1.9	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC114	PO1	PO2	PO3	PO4	PO5	1	PO7	PO8	PO9	PO10	PO11	PO12
EC115	2.1	1.9	1.5	1	PO5	1	1.3	PO8	1.6	1.1	PO11	PO12
EC116	2.1	1.8	1.2	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	1
EC117	PO1	PO2	PO3	PO4	PO5	1.9	PO7	1	1.7	1.9	PO11	2.1
EC118	3	1	1.8	1.8	0	PO6	PO7	PO8	3	1.3	PO11	2.4
EC119	PO1	PO2	PO3	PO4	PO5	1.8	1.8	0	PO9	PO10	PO11	PO12
EC121	0	1.1	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC122	2.2	1	0	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
EC123	2.5	1	0	0	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC124	1	1.1	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC125	2.9	3	3	3	1.1	1	3	1	1	1	1.8	3
EC126	3	2	2.5	PO4	3	1.5	PO7	PO8	PO9	PO10	PO11	PO12
EC127	3	1	PO3	PO4	PO5	PO6	PO7	0	PO9	0	PO11	3
EC128	3	3	3	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	3
EC129	PO1	PO2	PO3	PO4	PO5	1.7	1.7	1	PO9	PO10	PO11	PO12
EC211	1.2	0	PO3	0	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC212	2.6	1.9	0	2.2	2.1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC213	2.6	2.6	1	PO4	PO5	PO6	PO7	1	PO9	1.2	PO11	1.1
EC214	3	1.3	1	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC215	3	2.4	PO3	2.1	PO5	PO6	PO7	PO8	PO9	2.4	PO11	PO12
EC216	3	3	1.9	1.6	3	1	PO7	PO8	PO9	PO10	PO11	PO12
EC217	3	3	0	1	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC218	3	3	1.6	PO4	PO5	PO6	PO7	1.6	PO9	1.2	PO11	1.7
EC219	1.6	PO2	1.1	0	PO5	2.1	3	1.3	0	PO10	1	PO12
EC221	2.7	2.3	2.4	1	PO5	PO6	PO7	PO8	PO9	1.8	PO11	2.8
EC222	2	1	1	1	2.1	PO6	PO7	PO8	0	PO10	PO11	PO12
EC223	3	3	1.1	1	PO5	1.1	PO7	PO8	PO9	PO10	PO11	PO12
EC224	1.9	2.6	2.2	1.3	2.6	PO6	PO7	PO8	1	2.3	PO11	0
EC225	2.1	1	PO3	1	2.1	PO6	PO7	3	PO9	2.1	1.9	PO12
EC226	2.2	2.8	1.9	1.8	2.1	PO6	PO7	PO8	1	2.4	PO11	1
EC227	2.7	1.9	1.3	1.6	PO5	1.1	PO7	PO8	PO9	PO10	PO11	PO12
EC228	2.6	2.7	2.1	2.3	1.9	PO6	PO7	PO8	1	2.1	PO11	1
EC229	PO1	PO2	PO3	PO4	PO5	3	PO7	2.8	2.8	PO10	1.7	2.6

EC311	3	2.8	PO3	1.6	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC312	2.4	1	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC313	2.2	2.2	2.2	1.3	2.3	PO6	PO7	PO8	PO9	1	PO11	1.8
EC314	0	1	1	1	1.6	1	1.2	1.4	1	1.3	1	1
EC315	2.4	1	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC316	3	1.1	1.8	2.3	PO5	PO6	PO7	PO8	3	1	PO11	PO12
EC317	2.4	1.1	1.3	1.6	PO5	PO6	PO7	PO8	2.3	1	PO11	PO12
EC318	3	3	3	1	3	PO6	PO7	PO8	PO9	1	PO11	1.3
EC319	PO1	PO2	PO3	PO4	PO5	3	PO7	3	1	PO10	PO11	PO12
EC321	2.6	1.8	1.1	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC322	2.1	2.3	2.1	PO4	2.2	PO6	PO7	PO8	PO9	PO10	PO11	1.9
EC323	2.4	1.2	1.1	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC324	2.1	1	1.1	1	2.5	PO6	PO7	PO8	1.6	PO10	PO11	1.6
EC325	3	2.3	1.6	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC326	3	3	PO3	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC327	1.6	1.4	2.1	1.3	1.4	PO6	PO7	PO8	2.6	PO10	PO11	PO12
EC328	PO1	PO2	PO3	PO4	3	3	PO7	PO8	PO9	3	PO11	1.3
EC411	1.7	2.1	1.4	2.6	1.7	PO6	PO7	PO8	PO9	1.9	PO11	1.7
EC412	1.9	1.6	1.1	0	PO5	1.6	PO7	PO8	PO9	PO10	PO11	PO12
EC413	2.8	1.9	1.1	0	1.6	PO6	1.9	PO8	PO9	PO10	PO11	PO12
EC414	3	2.1	1	0	1.9	0	PO7	PO8	PO9	PO10	PO11	3
EC415	2.4	1.8	1.8	0	1.6	PO6	PO7	PO8	PO9	1.6	PO11	1.9
EC416	3	3	3	PO4	3	PO6	PO7	1.9	2.8	2.8	PO11	PO12
EC417	2.4	2.7	PO3	2.8	PO5	PO6	PO7	2.8	3	3	2	3
EC418	2	2	1	2	2	1	1	2	3	3	1	2
EC421	3	3	3	PO4	PO5	1	3	PO8	PO9	PO10	PO11	3
EC422	1	2	2	1	3	PO6	PO7	PO8	PO9	PO10	PO11	3
EC423	3	1.5	1	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
EC424	2	3	3	2	3	2	1	3	3	3	2	3

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	2.55	2.21	1.96	1.76	2.42	1.85	2.09	2.03	2.22	2.01	1.79	2.12
Direct Attainment	2.44	2.01	1.71	1.48	2.27	1.64	1.89	1.87	2.02	1.82	1.55	1.94
InDirect Attainment	3	3	2.94	2.86	3	2.67	2.89	2.68	3	2.75	2.74	2.84

PSO Attainment

Course	PSO1	PSO2
EC111	1.1	1.2
EC112	1	1
EC113	1.1	2
EC114	PSO1	PSO2
EC115	1	1
EC116	1.4	1
EC117	2.1	PSO2
EC118	3	0
EC119	PSO1	PSO2
EC121	1.1	1
EC122	1.1	PSO2
EC123	1.1	2.5
EC124	1.1	0
EC125	PSO1	PSO2
EC126	PSO1	PSO2
EC127	1	PSO2
EC128	2.6	0
EC129	PSO1	PSO2
EC211	1	3
EC212	2.6	1.8
EC213	2.6	PSO2
EC214	3	2.4
EC215	3	PSO2
EC216	3	3
EC217	1.2	1
EC218	3	PSO2
EC219	1.6	1.7
EC221	0	PSO2
EC222	1.8	1.8
EC223	1.7	2.7
EC224	2.1	2.4
EC225	2.4	2.8
EC226	2.6	2.6

EC227	0	1.4
EC228	2.4	2.6
EC229	1	PSO2
EC311	2.7	1.9
EC312	1.8	1.7
EC313	1.7	1.8
EC314	1.4	1.1
EC315	1.3	1.3
EC316	1.1	1
EC317	1.1	1
EC318	1.1	1.1
EC319	PSO1	PSO2
EC321	1.6	1.9
EC322	PSO1	PSO2
EC323	1.8	2.1
EC324	3	3
EC325	2.2	3
EC326	PSO1	PSO2
EC327	2.1	3
EC328	PSO1	PSO2
EC411	1.9	2.7
EC412	1.8	2.1
EC413	1.9	1.8
EC414	PSO1	3
EC415	2.8	PSO2
EC416	2.4	2.4
EC417	3	2.8
EC418	PSO1	PSO2
EC419	2.8	2.8
EC421	2.6	0
EC422	1.8	PSO2
EC423	1.4	2.1
EC424	2.1	2.5

PSO Attainment Level

Course	PSO1	PSO2

CO Attainment	2.08	2.17
Direct Attainment	1.91	2.02
InDirect Attainment	2.75	2.75

4 STUDENTS' PERFORMANCE (150) Total Marks 121.18

:

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2021-22 (CAY)	2020-21 (CAYm1)	2019-20(CAYm2)	2018-19(CAYm3)	2017-18(CAYm4)	2016-17 (CAYm5)	2015-16 (CAYm6)
Sanctioned intake of the program(N)	180	180	180	180	180	180	180
Total number of students admitted in first year minus number of students migrated to other programs/ institutions plus No. of students migrated to this program (N1)	180	180	161	180	180	179	180
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	18	37	18	37	22	14
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	180	198	198	198	217	201	194

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2021-22 (CAY)	180	0	0	0	0
2020-21 (CAYm1)	198	110	0	0	0
2019-20 (CAYm2)	198	101	115	0	0
2018-19 (CAYm3)	198	96	100	100	0
2017-18 (LYG)	217	116	126	125	124
2016-17 (LYGm1)	201	115	120	118	118
2015-16 (LYGm2)	194	99	109	108	108

Table 4.3

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2021-22 (CAY)	180	0	0	0	0
2020-21 (CAYm1)	198	158	0	0	0
2019-20 (CAYm2)	198	150	158	0	0
2018-19 (CAYm3)	198	146	155	154	0
2017-18 (LYG)	217	152	171	169	169
2016-17 (LYGm1)	201	146	165	161	161
2015-16 (LYGm2)	194	152	162	159	158

4.1 Enrolment Ratio (20)

Total Marks 20.00

Institute Marks : 20.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2021-22 (CAY)	180	180	100.00
2020-21 (CAYm1)	180	180	100.00
2019-20 (CAYm2)	180	161	89.44

Average [(ER1 + ER2 + ER3) / 3] : 96.48

Assessment : 20.00

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

Total Marks 26.20

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

Institute Marks : 14.25

Item	Latest Year of Graduation, LYG (2017-18)	Latest Year of Graduation minus 1, LYGm1 (2016-17)	Latest Year of Graduation minus 2 LYGm2 (2015-16)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	217.00	201.00	194.00
Y Number of students who have graduated without backlogs in the stipulated period	124.00	118.00	108.00
Success Index [SI = Y / X]	0.57	0.59	0.56

Average SI [(SI1 + SI2 + SI3) / 3] : 0.57

Assessment [25 * Average SI] : 14.25

4.2.2 Sucess rate in stipulated period (15)

Institute Marks : 11.95

Item	Latest Year of Graduation, LYG (2017-18)	Latest Year of Graduation minus 1, LYGm1 (2016-17)	Latest Year of Graduation minus 2 LYGm2 (2015-16)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	217.00	201.00	194.00
Y Number of students who have graduated in the stipulated period	169.00	161.00	158.00
Success Index [SI = Y / X]	0.78	0.80	0.81

Average SI[(SI1 + SI2 + SI3) / 3]: 0.80

Assessment [15 * Average SI] : 11.95

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

4.3 Academic Performance in Third Year (15)

Total Marks 10.13

Institute Marks : 10.13

Academic Performance	CAYm3 (2018-19)	LYG (2017-18)	LYGm1 (2016-17)
Mean of CGPA or mean percentage of all successful students(X)	6.91	6.87	6.76
Total number of successful students(Y)	154.00	169.00	161.00
Totalnumber of students appeared in the examination(Z)	155.00	171.00	165.00
API [X*(Y/Z)]:	6.87	6.79	6.60

Average API [(AP1 + AP2 + AP3)/3] : 6.75

Assessment [1.5 * AverageAPI] : 10.13

4.4 Academic Performance in Second Year (15)

Total Marks 9.12

Institute Marks : 9.12

Academic Performance	CAYm2 (2019-20)	CAYm3 (2018-19)	LYG (2017-18)
Mean of CGPA or mean percentage of all successful students(X)	6.84	6.79	6.67
Total number of successful students (Y)	158.00	155.00	171.00
Total number of students appeared in the examination (Z)	187.00	164.00	189.00
API [X * (Y/Z)]	5.78	6.42	6.03

Average API [(AP1 + AP2 + AP3)/3] : 6.08

Assessment [1.5 * AverageAPI] : 9.12

4.5 Placement, Higher Studies and Entrepreneurship (40)

Total Marks 35.73

Institute Marks : 35.73

Item	LYG (2017-18)	LYGm1 (2016-17)	LYGm2 (2015-16)
Total No of Final Year Students(N)	169.00	161.00	159.00
No of students placed in the companies or government sector(X)	137.00	124.00	115.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	10.00	15.00	13.00
No of students turned entrepreneur in engineering/technology (Z)	5.00	7.00	11.00
x + y + z =	152.00	146.00	139.00
Placement Index [(X+Y+Z)/N] :	0.90	0.91	0.87

Average Placement [(P1 + P2 + P3)/3] : 0.89

Assessment [40 * Average Placement] : 35.73

Program Name :
Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	S.ABHISHEK	16401A0456	hyundai	hyundai/2021
2	GUNDA ABHISHEK KUMAR	177Y1A0401	INFOSYS	INFOSYS/2021
3	RASALA ARCHANA	177Y1A0404	CAPGEMINI	CAPGEMINI/2021
4	K CHENNA KRISHNA	177Y1A0406	ASHOK LEYLAND	ASHOK LEYLAND/2021
5	R VAMSHI	177Y1A0407	COGNIZANT	COGNIZANT/2021
6	MADIGA HARIKANTH	177Y1A0410	TCS	TCS/2021
7	A JAGADEESH	177Y1A0411	TCS	TCS/2021
8	BIKKAVOLU JAGADEESH	177Y1A0412	SMEA	SMEA/OL/2021
9	KAUSHIK KAITOJU	177Y1A0414	hyundai	hyundai/2021
10	NANGUNOORI MADHUMITHA	177Y1A0417	ACCENTURE	ACCENTURE/2021
11	MATHEWS SAM	177Y1A0419	SMEA	SMEA/OL/2021
12	PUPPALA NAGENDRA BABU	177Y1A0420	COGNIZANT	COGNIZANT/2021
13	CHOPPADANDI NAVEEN KUMAR	177Y1A0421	ACCENTURE	ACCENTURE/2021
14	NIKY GUPTA	177Y1A0422	MULTIPLIER SOLUTIONS	MULTIPLIER SOLUTIONS/2021
15	R PAVANI	177Y1A0424	ACCENTURE	ACCENTURE/2021
16	KESIREDDY RAHUL REDDY	177Y1A0428	UCAL	UCAAL/OL-21/MLRITM-09
17	SAI AKASH KOLLATI	177Y1A0430	COGNIZANT	COGNIZANT/2021
18	NUNA MUNTHALA SAI GANESH GOUD	177Y1A0431	ACCENTURE	ACCENTURE/2021
19	GUDIPUDI SAI UDAY KUMAR	177Y1A0434	SMEA	SMEA/OL/2021
20	JILLA SAISHANKER	177Y1A0436	ACCENTURE	ACCENTURE/2021
21	K S D. SAMARDH SASANK	177Y1A0438	UCAL	UCAAL/OL-21/ MLRITM- 10
22	M D SAMEER AHMED	177Y1A0439	ACCENTURE	ACCENTURE/2021
23	GADDAM SANDHYA	177Y1A0442	TCS	TCS/2021

24	NALLA SATHWIKA	177Y1A0444	CAPGEMINI	CAPGEMINI/2021
25	SHIVASREE AMBAVARAM	177Y1A0446	COGNIZANT	COGNIZANT/2021
26	SIRIGADDE SOWJANYA	177Y1A0447	INFOSYS	INFOSYS/2021
27	VELPUCHARLA SRAVANI	177Y1A0448	GENZEON	GENZEON/2021
28	KULKARNI SREE KAVYA	177Y1A0449	COGNIZANT	COGNIZANT/2021
29	DEVARAKONDA SREESHMA	177Y1A0450	COGNIZANT	COGNIZANT/2021
30	MALLEPALLY SRIJAN REDDY	177Y1A0451	COGNIZANT	COGNIZANT/2021
31	MANNEM SUMANTH	177Y1A0452	SMEA	SMEA/OL/2021
32	MANNEM SWATHI	177Y1A0453	SMEA	SMEA/OL/2021
33	ALLAPALLI SYED SAMEENA	177Y1A0454	NTT DATA	NTT DATA/2021
34	MUDADLA VASUNDHARA	177Y1A0455	UCAL	UCAAL/OL-21/MLRITM-11
35	GURRALA VIVEK REDDY	177Y1A0459	NTT DATA	NTT DATA/2021
36	DWARASALA YOGESHWAR REDDY	177Y1A0460	TCS NINJA	TCS NINJA/2021
37	G ADITYA CHANDRA REDDY	177Y1A0461	STAART BUILDTECH PVT LTD	STAART BUILDTECH PVT LTD/2021
38	PATLORI AKHIL	177Y1A0462	ACCENTURE	ACCENTURE/2021
39	GANGAM ANUSHA	177Y1A0465	CAPGEMINI	CAPGEMINI
40	N ANVESH REDDY	177Y1A0466	UCAL	UCAAL/OL-21/MLRITM-12
41	S ARIVANANDAM	177Y1A0467	SMEA	SMEA/OL/2021
42	CHAPPIDI ASWINI REDDY	177Y1A0469	ACCENTURE	ACCENTURE/2021
43	PALADI BHAVYA	177Y1A0471	COGNIZANT	COGNIZANT/2021
44	PURRA DINESH	177Y1A0474	MULTIPLIER SOLUTIONS	MULTIPLIER SOLUTIONS/2021
45	B. HARSHA VARDHANA KRISHNA SAI	177Y1A0475	CAPGEMINI	CAPGEMINI/2021
46	G HARSHA VARDHAN	177Y1A0476	ACCENTURE	ACCENTURE/2021
47	GATADI HITESH KUMAR	177Y1A0477	indotronix	indotronix/2021
48	BODIGA KARTHIK GOUD	177Y1A0482	indotronix	indotronix/2021
49	SAPPA LIKHITHA	177Y1A0485	TCS DIGITAL	TCS DIGITAL/2021
50	MAKTEDAR MEGHANA	177Y1A0487	indotronix	indotronix/2021
51	G NITHIN KUMAR	177Y1A0489	indotronix	indotronix/2021
52	SHUNSHETTY PRANAVI	177Y1A0490	ACCENTURE	ACCENTURE/2021
53	MUKKALA PRASHANTHI MARY	177Y1A0491	UCAL	UCAAL/OL-21/MLRITM-13
54	M PRAVALIKA	177Y1A0492	indotronix	indotronix/2021
55	SAI POOJITHA AKVETI	177Y1A0496	ACCENTURE	ACCENTURE/2021
56	GOVERYCHETTY SAMHITHA	177Y1A0498	indotronix	indotronix/2021
57	BADDAM SHIRISHA	177Y1A04A1	TCS	TCS/2021
58	PINNAPUREDDY SHIVA KRISHNA REDDY	177Y1A04A2	MEDPLUS	MEDPLUS/2021

59	BUSAM SHIVA PAVANI	177Y1A04A3	MPHASIS	MPHASIS/2021
60	HANMANOLLA SHIVA PRASAD REDDY	177Y1A04A4	ACCENTURE	ACCENTURE/2021
61	GUNTI SHIVAPRASAD SAGAR	177Y1A04A5	TCS NINJA	TCS NINJA/2021
62	KONAKATI SOUMYA	177Y1A04A6	TCS NINJA	TCS NINJA/2021
63	SOWJANYA UNGARALA	177Y1A04A7	MPHASIS	MPHASIS/2021
64	SRAVANI K	177Y1A04A8	COGNIZANT	COGNIZANT/2021
65	NANTA SRUJANA	177Y1A04A9	MULTIPLIER SOLUTIONS	MULTIPLIER SOLUTIONS/2021
66	YARLAGADDA TRIVENI	177Y1A04B3	CAPGEMINI	CAPGEMINI/2021
67	PULI VAMSHI KRISHNA	177Y1A04B4	UCAL	UCAAL/OL-21/MLRITM- 14
68	CHIDRAPU VASANTHA	177Y1A04B6	CAPGEMINI	CAPGEMINI/2021
69	PENMETSA VENKATA SRI MANOGNA	177Y1A04B7	indotronix	indotronix/2021
70	KOTHAPALLY VINAYKUMARGOUD	177Y1A04B8	COGNIZANT	COGNIZANT/2021
71	VYDRUTHI POTTIGARI	177Y1A04C0	COGNIZANT	COGNIZANT/2021
72	PEESARI ANURADHA REDDY	177Y1A04C2	hyundai	hyundai/2021
73	ANUSHA BICHAL	177Y1A04C3	ACCENTURE	ACCENTURE/2021
74	KOSHGIKAR BINDU SHREE	177Y1A04C4	COGNIZANT	COGNIZANT/2021
75	NANDYALA DEVIPRIYA	177Y1A04C5	COGNIZANT GENC NEXT	COGNIZANT GENC NEXT/2021
76	BATTULA HARSHAVARDHAN REDDY	177Y1A04C7	COGNIZANT	COGNIZANT/2021
77	BHOSLE HARSHITH	177Y1A04C8	KPIT	KPIT/2021
78	KADAM HARSHITHA RANI	177Y1A04C9	UCAL	UCAAL/OL-21/MLRITM- 14
79	NARRA HEMA BHARATH KUMAR	177Y1A04D1	ACCENTURE	ACCENTURE/2021
80	SIRGANAGARI MADHURI REDDY	177Y1A04D4	WILEY MTHREE	WILEY MTHREE/2021
81	SARAKANAM MANOJ KUMAR	177Y1A04D8	ACCENTURE	ACCENTURE/2021
82	LINGOJU MOUNIKA	177Y1A04D9	INCAPSULATE	INCAPSULATE/2021
83	MARRY PRAVEENA	177Y1A04E5	MULTIPLIER SOLUTIONS	MULTIPLIER SOLUTIONS/2021
84	D. RAHUL KUMAR	177Y1A04E7	hyundai	hyundai/2021
85	AMARAGANI SAI KIRAN	177Y1A04F0	SOFT SUAVE	SOFT SUAVE/2021
86	CH. SAI NITHIN	177Y1A04F2	next step	NSSPL/CR/2021/MLRITM-1 I
87	SAI SHUBHAM K	177Y1A04F3	hyundai	hyundai/2021
88	KAMMARI SANJAY KUMAR	177Y1A04F5	RESOLUTE	RESOLUTE/2021
89	HOSPET SHIVA KUMAR	177Y1A04F6	MPHASIS	MPHASIS/2021
90	VADDE SHIVA KUMAR	177Y1A04F7	next step	NSSPL/CR/2021/MLRITM-12
91	VADLA SOWMYA	177Y1A04F9	MULTIPLIER SOLUTIONS	MULTIPLIER SOLUTIONS/2021
92	G SRAVANI REDDY	177Y1A04G1	TCS DIGITAL	TCS DIGITAL/2021
93	ANNADEVARA SREEJUHITHA	177Y1A04G2	WIPRO	WIPRO/2021

94	MUPPAVARAM SAI SREE HARSHA	177Y1A04G3	COGNIZANT	COGNIZANT/2021
95	VAIDHYA SRILEKHA	177Y1A04G4	TCS NINJA	TCS NINJA/2021
96	NISTALA SURYA ABHIRAM	177Y1A04G6	TCS NINJA	TCS NINJA/2021
97	GUNDA SWATHI	177Y1A04G7	CAPGEMINI	CAPGEMINI/2021
98	B TEJA SAI	177Y1A04G9	indotronix	indotronix/2021
99	ACHANTA TEJANJANI	177Y1A04H0	VIRTUSA	VIRTUSA/2021
100	ALIGETI USHA	177Y1A04H1	hyundai	hyundai/2021
101	VALAVOJU VAMSHI KRISHNA	177Y1A04H3	L & T INFOTECH (Level 1)	L & T INFOTECH (Level 1)/2021
102	G V VIDHUL	177Y1A04H6	hyundai	hyundai/2021
103	BANDI VIJAYA DURGA	177Y1A04H7	L & T INFOTECH (Level 1)	L & T INFOTECH (Level 1)/2021
104	MUNNUR VINEETH KUMAR	177Y1A04H8	hyundai	hyundai/2021
105	MANDHA AVINASH	187Y5A0401	TECH MAHINDRA	TECH MAHINDRA/2021
106	GURIJALA DILEEP	187Y5A0403	PREMIER ENERGIES LTD	PREMIER ENERGIES LTD/2021
107	KONDRA ESHWAR	187Y5A0404	COGNIZANT	COGNIZANT/2021
108	CH RAMYA KRISHNA	187Y5A0405	TCS NINJA	TCS NINJA/2021
109	SUNCHU MALLESH	187Y5A0406	BS TECHNOLOGIES PVT LTD	BS TECHNOLOGIES PVT LTD/2021
110	Y NARESH GOUD	187Y5A0407	hyundai	hyundai/2021
111	DASARI ROHITH KUMAR	187Y5A0408	hyundai	hyundai/2021
112	AKULA SHIRISHA	187Y5A0409	WIPRO	WIPRO/2021
113	KADARI SUPRIYA	187Y5A0410	PREMIER ENERGIES LTD	PREMIER ENERGIES LTD/2021
114	CH USHAMANI	187Y5A0412	ACCENTURE	ACCENTURE/2021
115	KOVVURI VIDYASAGAR	187Y5A0413	MULTIPLIER SOLUTIONS	MULTIPLIER SOLUTIONS/2021
116	BURRA MANEESHA	187Y5A0415	ACCENTURE	ACCENTURE/2021
117	CHAKALI REVATHI	187Y5A0418	WIPRO	WIPRO/2021
118	GAJAVELLI RAMYASHREE	187Y5A0419	next step	NSSPL/CR/2021/MLRITM-13
119	LINGAMPELLY RAMYA	187Y5A0420	CADSYS	CADSYS/2021
120	PUNTIKURA SRIDHAR GOUD	187Y5A0423	COLRUYT IT CONSULTANCY INDIA PVT LTD	COLRUYT IT CONSULTANCY INDIA PVT LTD/2021
121	VEMULA VANDANA	187Y5A0425	MULTIPLIER SOLUTIONS	MULTIPLIER SOLUTIONS/2021
122	PATTHI AKASH	187Y5A0426	next step	NSSPL/CR/2021/MLRITM-I 4
123	MUDRABOINA KAVYA	187Y5A0428	COGNIZANT	COGNIZANT/2021
124	PINEEM SETTY KEERTHI	187Y5A0429	PREMIER ENERGIES LTD	PREMIER ENERGIES LTD/2021
125	E.SAI PRAVEEN	187Y5A0431	next step	NSSPL/CR/2021/MLRITM-15
126	ANNAM SUPRIYA	187Y5A0434	ACCENTURE	ACCENTURE/2021
127	GUDIDA SRILEKHA	187Y5A0437	hyundai	hyundai/2021
128	GUDA SAIPRIYA	177Y1A0435	next step	next step/2021

129	PEESARI VINISHA REDDY	177Y1A0458	next step	next step/2021
130	ANTHIREDDYGARI ASHWINI REDDY	177Y1A0468	next step	next step/2021
131	SUSHMA MALLEPALLY	177Y1A04B2	next step	next step/2021
132	G. VASANTH KUMAR	177Y1A04B5	next step	next step/2021
133	YESHWANTH KOMMU	177Y1A04H9	hyundai	hyundai/2021
134	MANGALI SHANTHI PRIYA	187Y5A0411	hyundai	hyundai/2021
135	POTHULA HARINATH	187Y5A0414	hyundai	hyundai/2021
136	INDARAPU PREETHI	187Y5A0417	hyundai	hyundai/2021
137	CHIMMA VIJENDER	187Y5A0424	hyundai	hyundai/2021

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	G. MALLESHWARI	16401A0420	WESTAGILE IT LABS	WESTAGILE IT LABS/202
2	MARAM AKHIL REDDY	167Y1A0401	Akash	AKASH/ CAMPUS/ 508/ 2019-20
3	MARINA AMULYA	167Y1A0402	MPHASIS	MPHASIS/2020
4	KOPPISETTI ANILKUMAR	167Y1A0403	RANDSTAD	RANDSTAD/2020
5	YEMBADI AVINASH REDDY	167Y1A0405	UCAL	UCAAL/OL-20/MLRITM-07
6	N BHUVANA	167Y1A0407	ACCENTURE	ACCENTURE/2020
7	BELIDE DIVYA	167Y1A0409	PWC	PWC/2020
8	KESANA GNANA SREE	167Y1A0410	INFOSYS	INFOSYS/2020
9	MANDA GOUTHAM REDDY	167Y1A0411	KADEVI	KEC/MLRIT/19-20/ OFFER/01
10	JAMPALA MAMATHA	167Y1A0414	SMEA	SMEA/o/2020
11	VATHUMILLI MANASA	167Y1A0415	TCS	TCS/2020
12	ERRARAM MANASA	167Y1A0416	CAPGEMINI	CAPGEMINI/2020
13	PONNALA MANISHA REDDY	167Y1A0418	VSPLASH	VSPLASH/2020
14	GANTA NANDU	167Y1A0421	WIPRO	WIPRO/2020
15	NANDHYALA NARENDARREDDY	167Y1A0422	Hyundai	Hyundai/2020
16	KOTTURI NIHARIKA	167Y1A0423	MPHASIS	MPHASIS/2020
17	BYRAPAKA PARIMALA	167Y1A0425	Akash	AKASH/CAMPUS/509/2019-20
18	VANAPAMULA PHANEENDRA	167Y1A0426	CAPGEMINI	CAPGEMINI/2020
19	GANGA SARAM PRAGATHI	167Y1A0428	Hyundai	Hyundai/2020
20	ODELA PASANNA LAXMI	167Y1A0429	VIRTUSA	VIRTUSA/2020
21	BOWRAMPET PRATHYUSHA	167Y1A0430	DXC TECHNOLOGIES PVT LTD	DXC TECHNOLOGIES PVT LTD/2020
22	RAVIKIRAN PALERLA	167Y1A0432	CAPGEMINI	CAPGEMINI/2020
23	M.RAVITEJA REDDY	167Y1A0433	CAPGEMINI	CAPGEMINI/2020
24	REETHIKA NARAMALLA	167Y1A0434	CAPGEMINI	CAPGEMINI/2020
25	ROHAN MISHRA	167Y1A0435	TCS	TCS/2020

26	THALLA SAICHARAN GOUD	167Y1A0436	next step	NSSPL/CR/2020/MLRITM-08
27	EPPA SAIKIRAN	167Y1A0438	TECH MAHINDRA	TECH MAHINDRA/2020
28	MALLIPUDI SAILOKESH	167Y1A0439	DXC TECHNOLOGIES PVT LTD	DXC TECHNOLOGIES PVT LTD/2020
29	DAMMALAPATI SAI PRANAY KUMAR	167Y1A0440	Hyundai	Hyundai/2020
30	DONDAPATI SAI ROHITH	167Y1A0441	SMEA	SMEA/o/2020
31	KODAKANCHI SANTHOSH KUMAR GOUD	167Y1A0442	CAPGEMINI	CAPGEMINI/2020
32	BONTHAPALLY SANTHOSHI	167Y1A0443	CAPGEMINI	CAPGEMINI/2020
33	GARI SATHISH KUMAR	167Y1A0444	DELOITTE	DELOITTE/2020
34	PAGADALA SIVA PRASAD	167Y1A0446	MPHASIS	MPHASIS/2020
35	GHANATE SRINIVAS	167Y1A0447	MPHASIS	MPHASIS/2020
36	JATOTHU SURESH	167Y1A0449	KADEVI	KEC/MLRITM/19-20/ OFFER/02
37	CHELLEDI SUSHMITHA	167Y1A0450	CAPGEMINI	CAPGEMINI/2020
38	PADIGELA TEJASHWINI	167Y1A0451	COGNIZANT	CAPGEMINI/2020
39	GANTA VENKAT NISHANTH	167Y1A0452	UCAL	UCAAL/OL-20/MLRITM-08
40	GANGADHARI VIJAYKUMAR	167Y1A0453	Hyundai	Hyundai/2020
41	BANDELA VINEELA	167Y1A0455	next step	NSSPL/CR/2020/MLRITM-09
42	MALREDDY VISHNUVARDHAN	167Y1A0456	CAPGEMINI	CAPGEMINI/2020
43	ATHAL SUMA MOUNIKA	167Y1A0457	MPHASIS	MPHASIS/2020
44	PERICHARLA AKANKSHA	167Y1A0458	SHELL INFOTECH	SHELL INFOTECH/2020
45	ATHMAKURI BADRINATH	167Y1A0460	next step	NSSPL/CR/2020/MLRITM-I 0
46	BONALA CHANDU PRIYANKA	167Y1A0461	DXC TECHNOLOGIES PVT LTD	DXC TECHNOLOGIES PVT LTD/2020
47	KADEM DEEPAK GOUD	167Y1A0462	DXC TECHNOLOGIES PVT LTD	DXC TECHNOLOGIES PVT LTD/2020
48	S GEETHIKA REDDY	167Y1A0463	Akash	AKASH/CAMPUS/510/2019-20
49	A GUNA SAI RAM	167Y1A0464	MIND TREE	MIND TREE/2020
50	K KALYAN	167Y1A0466	TECH MAHINDRA	TECH MAHINDRA/2020
51	ALLADI SAI NAGA LAKSHMI PRIYANKA	167Y1A0469	COGNIZANT	COGNIZANT/2020
52	KARLI MAHARSHI	167Y1A0472	COGNIZANT	COGNIZANT/2020
53	VARIKUPPALA MAHESH	167Y1A0473	KADEVI	KEC/MLRITM/19-20/ OFFER/03
54	SARIPUDI MANOJ KUMAR	167Y1A0476	SMEA	SMEA/Oo/2020
55	KORADHALA NAVEEN KUMAR	167Y1A0479	INFOSYS	INFOSYS/2020
56	M PRANAY TEJA GOUD	167Y1A0481	TCS	TCS/2020
57	CH PRIYANKA	167Y1A0482	LTI INFOTECH	LTI INFOTECH/2020
58	METTU PRIYANKA REDDY	167Y1A0483	TCS	TCS/2020
59	KONDURI RAJU	167Y1A0485	CAPGEMINI	CAPGEMINI /2020
60	D RANJITH REDDY	167Y1A0486	SMEA	SMEA/OL/2020

61	TANNEDI V N S SAI KUMAR	167Y1A0488	CAPGEMINI	CAPGEMINI /2020
62	PEDDINTI SAI MANOHAR	167Y1A0489	Hyundai	Hyundai/2020
63	SAI PRIYA GUNUKULA	167Y1A0492	CAPGEMINI	CAPGEMINI/2020
64	RUMANDLA SAIVIVEK	167Y1A0494	CAPGEMINI	CAPGEMINI/2020
65	SANJANA PULAPA	167Y1A0496	TCS	TCS/2020
66	KOMMALAPATI SHASHIKANTH	167Y1A0498	UCAL	UCAAL/OL-20/MLRITM-09
67	N SHIVANAND	167Y1A0499	next step	NSSPL/CR/2020/MLRITM-I I
68	RAYAROTH KARIPOL SREYA	167Y1A04A0	CAPGEMINI	CAPGEMINI /2020
69	SAMALLA SRUJAN KUMAR	167Y1A04A2	KADEVI	KEC/MLRITM/19-20/ OFFER/04
70	KOTA UDAYA SRI	167Y1A04A5	SMEA	SMEA/OU/2020
71	GANDLAPATI USHA SREE	167Y1A04A6	COGNIZANT	COGNIZANT/2020
72	M S VARSHINI	167Y1A04A8	CAPGEMINI	CAPGEMINI/2020
73	VINEETHA BURRA	167Y1A04B0	MPHASIS	MPHASIS/2020
74	M HEMANTH SAI KUMAR	167Y1A04B3	WIPRO	WIPRO/2020
75	K AKHIL VARDHAN	167Y1A04B5	UCAL	UCAAL/OL-20/MLRITM-10
76	ADEPU ARAVIND	167Y1A04B7	TCS	TCS/2020
77	ADHI ARCHANA	167Y1A04B8	MPHASIS	MPHASIS/2020
78	BHANU PATLORI	167Y1A04C0	MPHASIS	MPHASIS/2020
79	J SAI BHANU PRAKASH	167Y1A04C1	CAPGEMINI	CAPGEMINI/2020
80	RAJNALA BHARGAVI	167Y1A04C3	GENTEK TECHNOLOGIES	GENTEK TECHNOLOGIES/2021
81	CHINGULLAPALLY BHAVANA	167Y1A04C4	KADEVI	KEC/MLRITM/19-20/ OFFER/05
82	VUPPALA CHANDRALEKHA	167Y1A04C5	CAPGEMINI	CAPGEMINI/20220
83	CHILUKURI DEVISREE	167Y1A04C6	CAPGEMINI	CAPGEMINI/2020
84	RAMAVATH GANESH NAYAK	167Y1A04C7	MPHASIS	UCAAL/OL-20/MLRITM-11
85	GOWTHAMI SINGAMSHETTY	167Y1A04C8	CAPGEMINI	CAPGEMINI/2020
86	KACHAM HARI SAI	167Y1A04C9	VIRTUSA	VIRTUSA/2020
87	NAGALLA HEMANTH KUMAR	167Y1A04D1	Hyundai	Hyundai/2020
88	KONDIPARTHY HEMANTH PHANI KUMAR	167Y1A04D2	[24]7.AI	[24]7.AI/2020
89	P JYOSHITHA YADAV	167Y1A04D3	next step	NSSPL/CR/2020/MLRITM-I 2
90	G MAMATHA GOUD	167Y1A04D6	DELOITTE	DELOITTE/2020
91	V MANEESHA	167Y1A04D7	KADEVI	KEC/MLRITM/19-20/ OFFER/06
92	V MANISHA REDDY	167Y1A04D8	KADEVI	KEC/MLRITM/19-20/ OFFER/07
93	KALIKAI MOUNIKA	167Y1A04E0	Akash	AKASH/CAMPUS/511/2019-Z0
94	S. NAGA SAI AKHILA	167Y1A04E1	CAPGEMINI	CAPGEMINI/2020
95	M NAGA SAI RISHEEK	167Y1A04E2	Hyundai	Hyundai/2020

96	G PRIYANKA	167Y1A04E5	UCAL	UCAAL/OL-20/MLRITM-12
97	K N S RAMYA SMRUTHI	167Y1A04E8	KADEVI	KEC/MLRITM/ 19-20/ OFFER/08
98	WARIK SACHIN	167Y1A04E9	Hyundai	Hyundai/2020
99	SAMALA SAI TEJA	167Y1A04F3	UCAL	UCAL/2020
100	THOKALA SAI DIVYA	167Y1A04F4	CAPGEMINI	CAPGEMINI/2020
101	SHRAVYA THIRUNAHARI	167Y1A04F7	next step	NSSPL/CR/2020/MLRITM-I 3
102	BATTULA SINDHUJA	167Y1A04F8	CAPGEMINI	CAPGEMINI/2020
103	SREERAM KARTHIK	167Y1A04G0	WIPRO	WIPRO/2020
104	SRI PURUSHOTTAM AKHIL	167Y1A04G1	WIPRO	WIPRO/2020
105	GAMPALA SRI VALLI	167Y1A04G3	UCAL	UCAAL/OL-20/MLRITM-14
106	MENGARTHI SRUJAN	167Y1A04G6	Hyundai	Hyundai/2020
107	A SUMANTH REDDY	167Y1A04G7	TECH MAHINDRA	TECH MAHINDRA/2020
108	G THIRUPATHI REDDY	167Y1A04G9	UCAL	UCAAL/OL-20/MLRITM-15
109	MALLA VENU GOPAL	167Y1A04H0	CAPGEMINI	CAPGEMINI/2020
110	VIKRAM PRASAD	167Y1A04H1	CAPGEMINI	CAPGEMINI/2020
111	PADALA SAI RAM	177Y5A0401	TCS	TCS/2020
112	TADURI SAMATHA	177Y5A0404	KADEVI	KEC/MLRITM/19-20/ OFFER/09
113	C HARISH	177Y5A0406	next step	NSSPL/CR/2020/MLRITM-I 4
114	S VEERENDRA SAINATH	177Y5A0410	Hyundai	Hyundai/2020
115	PEDDYREDDY BHARATH REDDY	177Y5A0413	UCAL	UCAAL/OL-20/MLRITM-16
116	DEVUNI AKHIL KUMAR	177Y5A0416	KADEVI	KEC/MLRITM/19-20/ OFFER/10
117	GADE SAI CHARAN	177Y5A0418	CAPGEMINI	CAPGEMINI/2020
118	MACHARLA AJAY	177Y5A0419	CAPGEMINI	CAPGEMINI/2020
119	GUNDLAPALLI SRAVANI	177Y5A0420	Hyundai	Hyundai/2020
120	KANDI BHARATH KUMAR	177Y5A0421	next step	NSSPL/CR/2020/MLRITM-I 5
121	ORSU HEMALATHA	177Y5A0422	WIPRO	WIPRO/2020
122	SINGAM HARITHA	167Y1A04D0	COGNIZANT	COGNIZANT/2020
123	N. MEENESHWAR	167Y1A04D9	COGNIZANT	COGNIZANT/2020
124	NARLAWAR MAMTA SANTHOSH	177Y5A0405	COGNIZANT	COGNIZANT/2020

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	MUDAVELLY AJAY KUMAR	157Y1A0402	SMEA	SMEA/OL/2019
2	KOLLURI AJAY KUMAR	157Y1A0403	INTEL	INTEL/2019
3	KATTA BABY SUSHMA SREE	157Y1A0406	MPHASIS	MPHASIS/2019
4	PUTTI BALAJI	157Y1A0407	Akash	AKASH/CAMPUS/46/2018-19
5	VEERAMASHETTY CHANDRAKALA	157Y1A0411	Cognizant	Cognizant/2019

6	K.DIVYA	157Y1A0413	TATA MOTORS	TATA MOTORS/2019
7	VALLAPU REDDY GARI GEETA	157Y1A0414	MPHASIS	MPHASIS/2019
8	V GOUTHAM KUMAR	157Y1A0415	Hyundai	Hyundai/2019
9	GOVIND SINGH PUROHIT	157Y1A0416	AMAZON	AMAZON/2019
10	L.SAI KUMAR	157Y1A0420	TVARANA SOFTWARE SOLUTIONS	TVARANA SOFTWARE SOLUTIONS/2019
11	CHEDADEEPU KUSUMA KUMARI	157Y1A0421	harasoft tech	WT/ET/APR/218
12	GUDEM MANASA	157Y1A0423	TATA MOTORS	TATA MOTORS/2019
13	GUNDETI MANIDEEP	157Y1A0425	TEKSKILLS	TEKSKILLS/2019
14	HUDGI MOUNICA	157Y1A0426	WIPRO	WIPRO/2019
15	GHANTA MOUNIKA	157Y1A0427	TATA MOTORS	TATA MOTORS/2019
16	TUTARI NAVEEN	157Y1A0428	Akash	AKASH/ CAMPUS/ 47/2018-19
17	B NAVYA	157Y1A0429	WIPRO	WIPRO/2019
18	R.PRASHANTH	157Y1A0433	Cognizant	Cognizant/2019
19	KUKKALA PRAVALLIKA	157Y1A0434	SITS	SITS/2019
20	PALLAKONDA RAJARSHA	157Y1A0435	SMEA	SMEA/O/2019
21	DONTHIREDDY RAKESH REDDY	157Y1A0436	CAPGEMINI	CAPGEMINI/2019
22	S.RAVI TEJA	157Y1A0440	ACCENTURE	ACCENTURE/2019
23	KAVVAM ROHITHREDDY	157Y1A0442	SITS	SITS/2019
24	CH.SADASHIVA	157Y1A0444	AMAZON	AMAZON/2019
25	MANDRU SAI AAKARSH	157Y1A0445	SMEA	SMEA/OL/2019
26	CHAVA SAI SRAVANI	157Y1A0449	Hyundai	Hyundai/2019
27	VENNAPUREDDY SANTHOSH	157Y1A0451	AMAZON	AMAZON/2019
28	MOHAMMED SHAHID KHAN	157Y1A0452	VALUE MOMENTUM	VALUE MOMENTUM/2019
29	KESA VANDANA	157Y1A0455	Cognizant	Cognizant/2019
30	KANDI VENKATESH	157Y1A0456	TCS	TCS/2019
31	M.VIKAS	157Y1A0458	AMAZON	AMAZON/2019
32	B.VISHAL REDDY	157Y1A0459	DIGITAL NIRVANA	DIGITAL NIRVANA/2019
33	KATTA ANUSHA	157Y1A0463	AMAZON	AMAZON/2019
34	MANDULA ANUSHA	157Y1A0464	Hyundai	Hyundai/2019
35	PONNA BHAGYA LAXMI	157Y1A0466	harasoft tech	WT/ET/APR/241
36	CHEPURI BHANU CHANDER	157Y1A0467	DIGITAL NIRVANA	DIGITAL NIRVANA/2019
37	VENNU CHAITANYA	157Y1A0468	Hyundai	Hyundai/2019
38	TAMMA DEEPTHI	157Y1A0469	GENPACT	GENPACT/2019
39	GONTHINA DEVIKA	157Y1A0470	CAPGEMINI	CAPGEMINI/2019
40	A.DIVYA	157Y1A0473	CALLHEALTH	CALLHEALTH/2019

41	HEMANT HARWANI	157Y1A0475	SITS	SITS/2019
42	BABBURI KALYANI	157Y1A0478	WIPRO	WIPRO/2019
43	KAUSHIK DAS	157Y1A0479	ACCENTURE	ACCENTURE/2019
44	YELAMANCHILI KEERTHI	157Y1A0480	Hyundai	Hyundai/2019
45	M.LAXMI BHAVANI	157Y1A0483	SITS	SITS/2019
46	R.NAVYA SYAMALA	157Y1A0485	GENPACT	GENPACT/2019
47	PALAMARI PAVANI	157Y1A0487	Hyundai	Hyundai/2019
48	PINJARI RAZIYA	157Y1A0493	WIPRO	WIPRO/2019
49	ARAKATLA ROHINI	157Y1A0494	TECHMAHINDRA	TECHMAHINDRA/2019
50	AVUSULA SAI KRISHNA	157Y1A0496	Hyundai	Hyundai/2019
51	M SAI MANASA	157Y1A0497	Cognizant	Cognizant/2019
52	MADDIREDDY SANDEEP REDDY	157Y1A0498	TECHMAHINDRA	TECHMAHINDRA/2019
53	T.SANGEETHA	157Y1A0499	TECHMAHINDRA	TECHMAHINDRA/2019
54	ALLURI SHIVANI	157Y1A04A2	TVARANA SOFTWARE SOLUTIONS	TVARANA SOFTWARE SOLUTIONS/2019
55	MUKKAVALLI SRI LAVANYA KAMALA	157Y1A04A4	GENPACT	GENPACT/2019
56	GORANTALA SUMA	157Y1A04A6	ACCENTURE	ACCENTURE/2019
57	ORSU SURESH	157Y1A04A8	AMAZON	AMAZON/2019
58	KURUVELLA TRINATH KUMAR	157Y1A04A9	TCS	TCS/2019
59	G UDAY KIRAN REDDY	157Y1A04B1	harasoft tech	WT/ET/APR/250
60	B VAISHNAVI	157Y1A04B2	TELEPERFORMANCE	TELEPERFORMANCE/2019
61	KAMBALA VENKATA MALLIKARJUN RAO	157Y1A04B3	CAPGEMINI	CAPGEMINI/2019
62	THOTLA VENKATA RAGHAVA SAI RAJ	157Y1A04B4	VALUE MOMENTUM	VALUE MOMENTUM/2019
63	S.P.J.VINEETH	157Y1A04B5	RMSI PRIVATE LTD	RMSI PRIVATE LTD/2019
64	SONY VISHWAKARMA	157Y1A04B6	CALLHEALTH	CALLHEALTH/2019
65	P.ABHISHEK	157Y1A04B8	Cognizant	Cognizant/2019
66	BOOMREDDY ACHYUTH REDDY	157Y1A04B9	TATA MOTORS	TATA MOTORS/2019
67	Kuntla Ajay	157Y1A04C0	CAPGEMINI	CAPGEMINI/2019
68	MODEM AKSHATHA	157Y1A04C1	Hyundai	Hyundai/2019
69	SINGATHI ANUSHA	157Y1A04C2	RAY BUSINESS TECHNOLOGY	RAY BUSINESS TECHNOLOGY/2019
70	B.BHAIRAVANATH YADAV	157Y1A04C5	AMAZON	AMAZON/2019
71	BUDDU SRI LALITHA BHRAMARAMBIKA	157Y1A04C7	CALLHEALTH	CALLHEALTH/2019
72	CHITNEEDI BINDU ANUSHA	157Y1A04C8	DIGITAL NIRVANA	DIGITAL NIRVANA/2019
73	J.DEKSHITHA	157Y1A04C9	GLOBAL LOGIC	GLOBAL LOGIC/2019
74	GAURAV KUMAR SHARMA	157Y1A04D1	Hyundai	Hyundai/2019
75	THATIGUTLA GOUTHAM CHANDRA REDDY	157Y1A04D3	harasoft tech	WT/ET/APR/220

76	BAKKAPATLA MOUNIKA	157Y1A04E1	NTT DATA	NTT DATA/2019
77	Naveen M	157Y1A04E2	TATA MOTORS	TATA MOTORS/2019
78	BHUMA NAVYA	157Y1A04E3	TATA MOTORS	TATA MOTORS/2019
79	ATCHI REDDY PAMMI	157Y1A04E5	NTT DATA	NTT DATA/2019
80	S.PRAVEEN KUMAR REDDY	157Y1A04E6	AMAZON	AMAZON/2019
81	RAMA KISHORE	157Y1A04E8	CALLHEALTH	CALLHEALTH/2019
82	A SAI KIRAN GOUD	157Y1A04F0	CAPGEMINI	CAPGEMINI/2019
83	PATHRI SAI LALITHA	157Y1A04F1	MPHASIS	MPHASIS/2019
84	A.SAI RAM YADAV	157Y1A04F2	DIGITAL NIRVANA	DIGITAL NIRVANA/2019
85	M. SHIVA	157Y1A04F5	SITS	SITS/2019
86	M.SNEHA	157Y1A04F7	TATA MOTORS	TATA MOTORS/2019
87	HANUMANDLA SRAVYA	157Y1A04F9	harasoft tech	WT/ET/APR/261
88	M SWARNA PRIYA	157Y1A04G2	GENPACT	GENPACT/2019
89	V.VAISHNAVI	157Y1A04G5	GENPACT	GENPACT/2019
90	NANDI RAJU VENKATESHWARLU	157Y1A04G9	RMSI PRIVATE LTD	RMSI PRIVATE LTD/2019
91	S SRINIVAS REDDY	157Y1A04H2	harasoft tech	WT/ET/APR/258
92	D.GIRIBASHA	157Y1A04H4	PACT CONSULTING	PACT CONSULTING/2019
93	HEMANTH KUMAR REDDY A	167Y5A0401	harasoft tech	WT/ET/APR/247
94	KONDETI KIRANMAI	167Y5A0404	Cognizant	Cognizant/2019
95	BADDIPADIGE NAVEEN	167Y5A0406	Cognizant	Cognizant/2019
96	SOPPADANDALU SAI KIRAN	157Y1A0447	SITS	SITS/2019
97	A. ASHOK	157Y1A0465	SITS	SITS/2019
98	KAREMOLLA NAVEEN KUMAR	157Y1A0484	SITS	SITS/2019

4.6 Professional Activities (20) Total Marks 20.00

4.6.1 Professional socities/ chapters and organizing engineering events (5) Institute Marks : 5.00

The list below highlights the presence of professional society chapters in the institute. Students can choose to be a member of any of the societies.

IEEE Student Chapter

IETE Student Chapter

ACM Student Chapter

ISTE Student Chapter

CSI Student Chapter

The department of Electronics and Communication Engineering has student chapter in the reputed professional societies named IETE (India). The Association is completely managed by B.Tech students of Electronics and Communication Engineering. The Association organizes several technical, cultural events.

S.No.	Academic year	Professional bodies

1	2019-2020	IETE, IEEE
2	2020-2021	IETE, IEEE
3	2021-2022	IETE, IEEE

Table 4.6.1. Professional Societies/chapters in the Department.

Sl. No	Event Name	Professional bodies	Date
2019-2020			
1	Seminar on “Internet of Things”	IEEE	03.08.2019
2	Expert talk on technology and innovation	IETE	14.09.2019
3	Workshop on “Real Time Image Processing Applications”	IETE	28.09.2019
4	Technical session on “Data Science using Python”	IETE	2.11.2019
5	Workshop on “MATLAB”	IEEE	7.12.2019
6	Workshop on “C# .NET”	IETE	22.02.2020
7	Technical Session on “Innovation & Value Creation”	IETE	21.3.2020
8	Workshop on “Making Professionals Powerful”	IETE	25.4.2020
9	Workshop on Android application development	IETE	30-5.2020
2020-2021			
1	Technical session and demonstration on “Share, Discuss and organize educational content for life”	IAENG	29.08.2020
2	Engineering Day Celebrations	IEEE	15.09.2020
3	Workshop on “Android Development”	IEEE	10.10.2020
4	Seminar on “Antenna design and microwave propagation”	IETE	28.11.2020
5	Workshop on “Drone Licensing”	IETE	19.12.2020
6	Seminar on “Entrepreneurship opportunity in IoT”	IETE	23.1.2021
7	Technical poster designing	IETE	20.02.2021
8	Seminar on “Recent trends in telecommunication”	IETE	20.03.2021
9	Workshop on “circuits development using Arduino”	IETE	24.04.2021
10	Training on “Python Developer Program	IETE	29.05.2021
2021-2022			
1	Entrepreneurship skills development.	IETE	31.07.2021
2	Workshop on “Mobile Robotics”	IETE	28.08.2021
3	Seminar on” Entrepreneurship skills development.”	IETE	25.09.2021
4	Hands on training of Internet of Things using Raspberry Pi	IEEE	30.10.2021
5	Workshop on “development of Arduino based real time applications”	IETE	20.11.2021

6	Workshop on “VLSI and MATLAB”	IETE	11.12.2021
7	Webinar on “Awareness program of EV”	IETE	27.01.2022
8	Webinar on “RTL Design and verification”	IETE	01.02.2022
9	Webinar on “Overview of UNIX for VLSI ASIC chip design”	IETE	21.02.2022

Table 4.6.1. Events conducsted in the ECE department under Professional Societies/chapters

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

Institute Marks : 5.00

Two magazines named **“ZENITH” & “MLR INQUEST”** is published by B. Tech Electronics and Communication Engineering students. ZENITH includes technical information of the department activities. MLR INQUEST covers the curricular and extracurricular activities of the department

S.No	Name of the magazine/News letter	Periodicity	Names of the editors	Publisher
1	ZENITH	Half yearly	Jaganath kumar	Intracollege
2	MLR INQUEST	Half yearly	Mr.P. Anudeep	Intracollege

Table 4.6.2a. Department News letter/Magazines.

S. No.	Year	Description	Faculty Coordinators
1	2021	Department Brochure	Dr. G. Amarnath, N. Pallavi
2	2020		Dr. G. Amarnath, S. Chandrika
3	2019		Dr. N. Udaya Kumar
4	2018		Dr. N. Srinivas

Table 4.6.2b. Coordinators for department brochure

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

Institute Marks : 10.00

A. Y. 2022-2021						
S. No	Name of the student	Conf/ Fest	Event	Place	Date	Awards/ Prizes
1	Rakesh reddy Bhavani Nikhil Sudha rani	Technical Fest	Robotics	Osmania University	1st May 2022	1st

2	Alekya Ch. Srujana Jagadeesh M manoj kumar K eshwar	Technical Fest	Robotics	Osmania University	1st May 2022	2nd
3	Vishal kakshi K Nikhil R k jayendra K Eshwar	Technical fest	Robotics	JNTU Hyderabad	11-12 April, 2022	1st
4	Ch. Tharun Jaindhra lokesh	Technical fest	Robo War	JNTU Hyderabad	07 Dec 2021	3rd
5	Rakesh reddy Bhavani Nikhil Sudha rani	Technical fest	Robo War	JNTU Hyderabad	07 Dec 2021	2nd
6	Satwick Alekya Ch. Srujana P vyshanavi chandu	Technical fest	Robo War	JNTU Hyderabad	07 Dec 2021	1st
A. Y. 2021-2020						
1	S mallesh B vishal M manoj kumar M avinash	Technical fest	Evolvex	IIT Hyderabad	15th Feb 2020	1st
2	K rakesh reddy Jagadeesh M manoj kumar K eshwar	Technical fest	Robotics	LMNIIT	16-19 Jan 2021	1st
3	Vishal kakshi K Nikhil R k jayendra K Eshwar	Technical fest	Evolvex	IIT Hyderabad	14-16, Feb 2021	1st

4	Manish reddy K Eshwar Ch. Tarun Rakesh reddy Jayendra	Technical fest	JUNK YARD WARS	NIT warangal	01st March 2021	1st
5	Likitha A lakeshwar rao	Technical fest	Line follower	NIT warangal	01st March 2021	2nd
A. Y 2020-2019						
1	B vishal Manoj Adithya Chandra K chenna krishna	Natinal level technical cometition	ATMOS	Bits pilani hyderabad	20th Oct 2019	1st
2	Avinash Mallesh	Technical fest	Line follower	Sreenidhi institutes of science and technology	29th Oct 2019	1st
3	Manish reddy K Eshwar Ch. Tarun Rakesh reddy Jayendra	Technical fest	Junkyard wars	NIT Warangal	1-3 Nov 2019	1st
4	B vishal Manoj kumar Nikhilkanna M Madhuri B tarun kumar	Technical fest	Mobile controlled robot	NIT Warangal	1-3 Nov 2019	2nd
5	Karthik P bhavya Likitha A lokeshwar	Technical fest	Line follower	NIT Warangal	1-3 Nov 2019	2nd
6	B rajya Lakshmi P bhargavi G Chandrika A lakeshwar rao P meghana	Technical fest	Mobile controlled robot	NIT Warangal	1-3 Nov 2019	3rd

7	Avinash Mallesh B vishal M manoj	Technical fest	Line follower	IIT Hyderabad	21th Dec 2019	1st
8	Avinash Mallesh B vishal M manoj	Technical fest	Robo soccer	IIT Hyderabad	21th Dec 2019	2st
9	Jagdeesh K Eshwar Ch. Tarun Rakesh reddy Avinash Mallesh B vishal M manoj	Technical fest	Robo war	LNMIIT Jaipur	19th Jan,2020	1st
10	A jagdeesh M manoj kumar K rakesh reddy	Technical fest	Robotics	IIT Nuzvidu	15-16 Feb 2020	1st
11	Avinash Mallesh B vishal	Technical fest	DTMF RACING 3	IIT Hyderabad	15th Feb 2020	3rd
12	P bhargavi G Chandrika A lakeshwar rao	Technical fest	Line follower	IIT Hyderabad	15th Feb 2020	2nd
13	Jagdeesh K Eshwar Ch. Tarun Rakesh reddy	Technical fest	Machine Doctrina	IIT Hyderabad	15th Feb 2020	2nd
14	Tharun B tharun Bhavani Ayandhara	Technical fest	IOT challenge	IIT Hyderabad	15th Feb 2020	1st
A. Y. 2019-2018						
S. No	**Name of the student**	**Conf/ Fest organized by institutes**	**Event**	**Place**	**Date**	**Awards/ Prizes**

1	t. kesava Prakash Niharika sanjana	Tech fest	I Navigate	BITS hyderabad	28th Oct 2018	1st
2	B Chandu Priyanka K Niharika	Younge Innovation Challenge	Younge Innovation Challenge	Bengaluru	17th Jan 2019	3rd
3	P. Sai monohar Priyanka reddy Chandu priyanka	Tech fest	DTMF Race	IIT Hyderabad	23rd Feb,2019	1st
4	K sravani Sowmya Sushma	Tech fest	DTMF Race	IIT Hyderabad	23rd Feb,2019	2nd
5	Aditya Chandra vinil reddy sai kaushik	Tech fest	DTMF Race	IIT Hyderabad	23rd Feb,2019	3rd
6	Vishal bakshi Vamshi krishna bhavana	Tech fest	Line follower	IIT Hyderabad	23rd Feb,2019	2nd
7	P. Sai monohar Vijay Priyanka reddy hemanth	Tech fest	Bridge builder	IIT Hyderabad	24th Feb 2019	2nd
8	Vijay Anvesh harsh	Tech fest	Mobile control Robotics	Osmania university	2nd Mar,2019	3rd
9	Soujanya Sowmya Sushma	Tech fest	Mobile control Robotics	Osmania university	02nd Mar, 2019	2nd
10	P Monogna S pranavi A poojitha	Tech fest	Mobile control robotics	Osmania university	02nd Mar,2019	1st
11	Sushmitha E mannasa V manasa Sai kiran	Tech Fest	Line follower	Osmania university	02nd Mar,2019	3rd
12	Chenna krishna jagadeesh	Tech Fest	Line follower	Osmania university	02nd Mar,2019	2nd

13	P. Sai monohar Pradeep Shashikanth Kesava Prakash Vinil reddy	Volorous tech fest	Robo Pirates	MLRIT	23rd Mar,2019	1st

Table 4.6.3. List of events/conferences conducted by other institutes and awards.

5 FACULTY INFORMATION AND CONTRIBUTIONS (200)

Total Marks 192.39

Institute

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/Assoc. Prof.).	Initial Date of Joining	Association Type	At present working with the Institution(Yes/No)	In case of NO, Date of Leaving
Dr. Srinivas Bachu	BMTPS7507J	ME/M. Tech and PhD	18/10/2018	Image and Video Processing	16	1	0	Professor	27/04/2019	30/01/2018	Regular	Yes	
Dr. N. Srinivas	AIKPN6143K	ME/M. Tech and PhD	11/02/2015	Wireless Communication Systems	16	0	0	Professor		16/01/2017	Regular	Yes	
Dr.G.Amarnath	ASOPG4453F	ME/M. Tech and PhD	05/02/2019	VLSI	4	0	0	Professor	27/04/2019	19/01/2018	Regular	Yes	
Dr.A.Nalla Thambi	AKAPN9197K	ME/M. Tech and PhD	27/04/2018	Image Processing	1	0	0	Professor		28/12/2017	Regular	Yes	
Dr. Naluguru Udaya Kumar	ANDPN1584G	ME/M. Tech and PhD	23/04/2019	Image Processing	9	0	0	Professor		19/06/2018	Regular	Yes	
Dr.P.S. Shijin Kumar	CGHPS4617N	ME/M. Tech and PhD	09/02/2018	Embedded Systems	4	0	0	Associate Professor		09/12/2017	Regular	Yes	
Dr. S. Kishore	DURPS1060N	ME/M. Tech and PhD	19/02/2019	VLSI	6	0	0	Associate Professor		22/07/2019	Regular	Yes	
S. Aravind Kumar	CNMPS2914N	M.E/M.Tech	24/06/2009	Embedded Systems	0	0	0	Associate Professor		01/07/2009	Regular	Yes	
K. Nagabushanam	AHFPN7194L	M.E/M.Tech	05/03/2012	DECS	3	0	0	Associate Professor		20/06/2012	Regular	Yes	
I. Adum Babu	AAXPI5834E	M.E/M.Tech	07/09/2011	Embedded Systems	2	0	0	Associate Professor		21/11/2011	Regular	Yes	
BN. Srinivas	AWVPB7335C	M.E/M.Tech	12/02/2010	DSCE	2	0	0	Associate Professor		19/05/2010	Regular	Yes	

B. Koteswara Rao	ASVPB7337E	M.E/M.Tech	15/12/2010	ECE	0	0	0	Associate Professor		10/07/2014	Regular	Yes	
J. Narendar	APBPJ1895A	M.E/M.Tech	26/12/2012	VLSI	0	0	0	Associate Professor	02/07/2018	06/06/2013	Regular	Yes	
E. Sreenivasulu	AAXPE2845G	M.E/M.Tech	20/03/2014	Embedded Systems	0	0	0	Associate Professor	04/05/2018	23/06/2014	Regular	Yes	
K.S. Monica	BCUPM1621A	M.E/M.Tech	11/02/2013	DSCE	0	0	0	Associate Professor	04/05/2018	05/12/2016	Regular	Yes	
D. Rupa Kumar	ASGPD3232R	M.E/M.Tech	13/01/2011	VLSISD	0	0	0	Associate Professor		20/06/2018	Regular	Yes	
D. Srinu	AQWPD3044R	M.E/M.Tech	08/01/2010	VLSI	1	0	0	Assistant Professor		10/06/2010	Regular	Yes	
S. Sindhu Rekha	FHYPS5325H	M.E/M.Tech	17/12/2012	VLSI	0	0	0	Assistant Professor		15/06/2013	Regular	Yes	
K. Pratap Khanna	APLPK7987C	M.E/M.Tech	19/02/2013	VLSI	0	0	0	Assistant Professor		15/02/2013	Regular	Yes	
S. Umarani	EERPS0762G	M.E/M.Tech	12/06/2013	Embedded Systems	0	0	0	Assistant Professor		04/07/2015	Regular	Yes	
G. Kiran Kumar	CFNPK6969J	M.E/M.Tech	14/05/2011	DEAC	4	0	0	Assistant Professor		06/07/2015	Regular	Yes	
K.V.Suresh Kumar	CZSPK2221G	M.E/M.Tech	14/05/2013	VLSI	2	0	0	Assistant Professor		16/11/2015	Regular	Yes	
P.Sandhya	CUHPP9777J	M.E/M.Tech	31/12/2014	Embedded Systems	1	0	0	Assistant Professor		16/02/2015	Regular	Yes	
SK. Himabindu	BRZPS6380Q	M.E/M.Tech	03/02/2015	DECS	1	0	0	Assistant Professor		30/07/2015	Regular	Yes	
Kankanala Kavitha	EFDPK8813R	M.E/M.Tech	17/07/2015	VLSID	0	0	0	Assistant Professor		08/08/2015	Regular	Yes	
V. Koteswara Rao	ASBPV5069R	M.E/M.Tech	30/12/2011	ECE	0	0	0	Assistant Professor		28/07/2017	Regular	Yes	
T. Tanuja	AZPPT3853Q	M.E/M.Tech	14/11/2015	SSP	0	0	0	Assistant Professor		04/01/2017	Regular	Yes	
V. Rakesh	AWXPV7917J	M.E/M.Tech	10/01/2015	VLSI	0	0	0	Assistant Professor		05/12/2016	Regular	Yes	
T. Immanuel	AGVPT7741E	M.E/M.Tech	11/02/2013	DSCE	0	0	0	Assistant Professor		05/12/2016	Regular	Yes	
Y. Satyanarayanamma	APLPY8713L	M.E/M.Tech	28/11/2016	ECE	0	0	0	Assistant Professor		25/07/2017	Regular	Yes	
N. Reshma Bindu	APKPN8855P	M.E/M.Tech	26/12/2014	DSCE	0	0	0	Assistant Professor		15/06/2016	Regular	Yes	
D. Malathi Rani	ATBPM7775N	M.E/M.Tech	01/04/2014	Embedded Systems	2	0	0	Assistant Professor		09/06/2018	Regular	Yes	

Saxena Chandrika	EBFPS5508R	M.E/M.Tech	23/06/2015	DC	2	0	0	Assistant Professor		15/05/2018	Regular	Yes	
T. Vinay Kumar	AQKPT2117P	M.E/M.Tech	16/01/2014	VLSI	0	0	0	Assistant Professor		15/05/2018	Regular	Yes	
D. Jaya Kumar	BBAPD5778A	M.E/M.Tech	16/12/2008	DSCE	1	0	0	Assistant Professor		15/05/2018	Regular	Yes	
B. Balaji	BFBPB7649B	M.E/M.Tech	28/01/2015	ECE	0	0	0	Assistant Professor		20/06/2018	Regular	Yes	
N. Pallavi	AQBPN2266L	M.E/M.Tech	10/10/2014	DSCE	0	0	0	Assistant Professor		20/06/2018	Regular	Yes	
K. Nagaraju	BYSPK1388Q	M.E/M.Tech	06/02/2012	VLSI	0	0	0	Assistant Professor		25/05/2018	Regular	Yes	
K. Nagamani	BUKPK1483L	M.E/M.Tech	14/11/2012	VLSI	0	0	0	Assistant Professor		25/05/2018	Regular	Yes	
M. Supriya	CWAPM4729C	M.E/M.Tech	02/11/2017	ECE	0	0	0	Assistant Professor		25/05/2018	Regular	Yes	
H. Sageetha	CNHPS3224E	M.E/M.Tech	09/05/2015	Embedded Systems	0	0	0	Assistant Professor		25/06/2018	Regular	Yes	
P. Kaveri	EDMPP9860C	M.E/M.Tech	09/12/2017	Embedded Systems	0	0	0	Assistant Professor		25/06/2018	Regular	Yes	
K. Divya	DWRPK8014E	M.E/M.Tech	14/10/2014	VLSISD	0	0	0	Assistant Professor		25/06/2018	Regular	Yes	
K. Vijay Kumar	BSZPK4087K	M.E/M.Tech	10/10/2011	VLSI	0	0	0	Assistant Professor		05/05/2018	Regular	Yes	
K. Ganesh	DBXPK1706G	M.E/M.Tech	09/10/2017	VLSI	0	0	0	Assistant Professor		05/05/2018	Regular	Yes	
A. Anil Kumar	BCUPA6225J	M.E/M.Tech	24/11/2016	Embedded Systems	0	0	0	Assistant Professor		05/05/2018	Regular	Yes	
Santoshi Kanchu	EQAPK3438B	M.E/M.Tech	05/09/2015	DECS	0	0	0	Assistant Professor		05/05/2018	Regular	Yes	
V. Chandana	BLIPV9926L	M.E/M.Tech	04/12/2020	VLSI	0	0	0	Assistant Professor		29/12/2020	Regular	Yes	
R. Raja Kishore	BAZPR6902A	M.E/M.Tech	14/06/2014	DSCE	1	0	0	Assistant Professor		02/12/2017	Regular	No	31/08/2020
N.Syamala	ANGPN8129G	M.E/M.Tech	10/05/2010	VLSI	2	0	0	Assistant Professor		17/06/2010	Regular	No	31/08/2020
K.Rajeswari	CAIPR0386L	M.E/M.Tech	27/11/2014	ECE	0	0	0	Assistant Professor		29/07/2015	Regular	No	31/08/2020
Dr.KThirupathaiah	EDKPK4465A	ME/M. Tech and PhD	29/02/2016	MWE	0	0	0	Professor		08/10/2015	Regular	No	31/07/2019
M. Viswanath	BBFPM0749B	M.E/M.Tech	12/12/2012	ECE	0	0	0	Associate Professor		10/06/2013	Regular	No	31/07/2019

G. Divya	BQSPG1003Q	M.E/M.Tech	23/05/2014	VLSI	0	0	0	Assistant Professor		14/06/2014	Regular	No	31/07/2019
J.Uma Maheshwar	AYOPJ6275G	M.E/M.Tech	09/10/2015	VLSI	0	0	0	Assistant Professor		17/06/2017	Regular	No	31/07/2019
Y. Kalavathi	ALSPY4625Q	M.E/M.Tech	08/10/2016	ECE	0	0	0	Assistant Professor		03/07/2017	Regular	No	31/07/2019
D. Mahesh	AZFPD9413L	M.E/M.Tech	07/03/2012	VLSI	0	0	0	Assistant Professor		13/07/2017	Regular	No	31/07/2019
K. Santhosh Kumar	CPTPK7862J	M.E/M.Tech	08/11/2014	VLSI	0	0	0	Assistant Professor		20/07/2017	Regular	No	31/07/2019
Lingala Naresh Kumar	ADDPL6855G	M.E/M.Tech	20/10/2011	Embedded Systems	0	0	0	Associate Professor		30/01/2018	Contractual	Yes	
Dr. K. Naveen Kumar	CQHPK8309P	ME/M. Tech and PhD	24/02/2017	Embedded Systems	0	0	0	Associate Professor		31/05/2018	Regular	Yes	

5.1 Student-Faculty Ratio (20)

Total Marks 20.00

Institute Marks : 20.00

UG

No. of UG Programs in the Department 1

Bachelor of Technology						
Year of Study	**CAY (2021-22)**		**CAYm1 (2020-21)**		**CAYm2 (2019-20)**	
	Sanction Intake	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**
2nd Year	180	18	180	37	180	18
3rd Year	180	37	180	18	180	37
4th Year	180	18	180	37	180	22
Sub-Total	**540**	**73**	**540**	**92**	**540**	**77**
Total	**613**		**632**		**617**	

Grand Total	613	632	617

PG

No. of PG Programs in the Department 1

Master of Technology			
Year of Study	**CAY(2021-22)**	**CAYm1(2020-21)**	**CAYm2 (2019-20)**
	Sanction Intake	**Sanction Intake**	**Sanction Intake**
1st Year	18	18	18
2nd Year	18	18	24
Total	**36**	**36**	**42**
Grand Total	36	36	42

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 1

Description	**CAY(2021-22)**	**CAYm1 (2020-21)**	**CAYm2 (2019-20)**
Total No. of Students in the Department(S)	649 **Sum total of all (UG+PG) students**	668 **Sum total of all (UG+PG) students**	659 **Sum total of all (UG+PG) students**
No. of Faculty in the Department(F)	50 **F1**	50 **F2**	52 **F3**
Student Faculty Ratio(SFR)	12.98 **SFR1=S1/F1**	13.36 **SFR2=S2/F2**	12.67 **SFR3=S3/F3**
Average SFR	13.00 **SFR=(SFR1+SFR2+SFR3)/3**		
F=Total Number of Faculty Members in the Department (excluding first year faculty)			

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

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

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

	Total number of regular faculty in the department	**Total number of contractual faculty in the department**
CAY(2021-22)	49	1
CAYm1(2020-21)	49	1
CAYm2(2019-20)	51	1

Average SFR for three assessment years : 13.00

Assessment SFR : 20

5.2 Faculty Cadre Proportion (25)

Total Marks 25.00

Institute Marks : 25.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2021-22)	3.00	5.00	7.00	3.00	21.00	41.00
CAYm1(2020-21)	3.00	5.00	7.00	3.00	22.00	41.00
CAYm2(2019-20)	3.00	5.00	7.00	3.00	21.00	43.00
Average Numbers	3.00	5.00	7.00	3.00	21.33	41.67

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 25.00

5.3 Faculty Qualification (25)

Total Marks 19.39

Institute Marks : 19.39

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F)]
2021-22(CAY)	8	42	32.00	19.38
2020-21(CAYm1)	8	42	33.00	18.79
2019-20(CAYm2)	8	44	32.00	20.00

Average Assessment : 19.39

5.4 Faculty Retention (25)

Total Marks 25.00

Institute Marks : 25.00

Description	2020-21	2021-22
No of Faculty Retained	48	48
Total No of Faculty	51	51
% of Faculty Retained	94	94

Average : 94.00

Assessment Marks : 25.00

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

Total Marks 20.00

Institute Marks : 20.00

Innovations by the Faculty in teaching and learning shall be summarized as per the following description. Contributions to teaching and learning are activities that contribute to the improvement of student learning. These activities may include innovations not limited to, use of ICT, instruction delivery, instructional methods, assessment, evaluation and inclusive class rooms that lead to effective, efficient and engaging instruction.

In the Department of Electronics and Communication Engineering, much importance is given for incorporating innovative techniques in teaching. At institute level, in the beginning of every semester a faculty development program to create and promote the innovation techniques are conducted. Every class room in the Department is equipped with Projector, Black board and also white board. Every Class room is equipped with LCD Projectors. Faculty members use the LCD Projectors for their presentations. In most of the class rooms, smart boards are also there and faculty members use these aids to take the teaching learning process to the next level. Apart from this the faculty members encourage the students to participate in Group discussions, team-based activities, presentations etc.

S.No	**Item**	**Description**
1	Usage of Smart Boards	Most of the class rooms are equipped with smart boards which faculty members can use to take TLP process to a higher Level.
2	Usage of online platforms	Faculty members use WhatsApp, google drive, Google classroom etc. for discussions as well as sharing of course materials.
3	Usage of Modern Tools	SMART BOARD, LCD Projectors Document Camera, Wireless Keyboard and mouse, Power Point Laser Presenter, Wireless Presenter, USB wireless pen mouse, Slide Changer, Wi-Fi enabled laptops are usually employed in classrooms and other student learning environments.
4	Academic reinforcement based on Field Visit	Students are taking to field visit for every month to near by core based industries and symposiums in various organizations. This helps the students in learning the real time problem solving, methods using in industry.
5	Semester break Internship	At semester break, students are encouraged to go for Internship activities in industries.
6	Reinforcement through student club activities	Learning/Reinforcement of concepts is encouraged through the activities of various student clubs monitored by faculty coordinator.
7	Innovative practices during regular TLP process	During the lecture sessions, various innovative strategies like inquiry-based learning, team-based learning, activity-based learning, Role Play, Games, brain storming methods, flip classroom techniques are also used.
8	Making models, charts in by the students	The students are encouraged to make different models and charts on the given concepts. it increase the critical thinking of students
9	Availability of course materials in institution LMS.	The faculty prepared course file for each course. that materials are available in the Learning Management System(LMS) of the college. The laboratory manual is also available is LMS.
10	Train the trainer using short term courses, MOOC courses, staff development programs, Conferences and workshops	The faculty members are encouraged to participate in webinars, short term courses, staff development programs, Conferences and workshops on advanced topics to keep pace with the advanced level of knowledge and skills.

11	Active learning	This involves students working in pairs. One student (the problem solver) is required to read the problem aloud and think aloud during the problem solving process, which includes verbalizing everything they are thinking and doing. Another student (the listener) attends to the problem solver's thinking and reminds him/ her to keep saying aloud what he or she are thinking or doing, while also asking for clarifications and pointing out errors being made.
12	Tutorial Classes	The faculty assigns tasks to students, invites interaction and tries to solve their problems in the subject. Two faculty members are assigned to a tutorial class for tutoring the students in order to increase the chances for identification of problem areas and addressing them.

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

Total Marks 15.00

Institute Marks : 15.00

Name of the faculty	Max 5 Per Faculty		
	2020-21 (CAYm1)	2019-20 (CAYm2)	2018-19 (CAYm3)
Dr. Srinivas Bachu	5.00	5.00	5.00
Dr. N. Srinivas	5.00	5.00	5.00
Dr.G.Amarnath	5.00	5.00	5.00
Dr.A.Nalla Thambi	5.00	5.00	5.00
Dr. N. Udaya Kumar	5.00	5.00	5.00
Dr. K. NaveenKumar	5.00	5.00	5.00
Dr.P.S. Shijin Kumar	5.00	5.00	5.00
Dr. S. Kishore	5.00	5.00	5.00
S. Aravind Kumar	5.00	5.00	5.00
K.Nagabushanam	5.00	5.00	5.00
I.Adum Babu	5.00	5.00	5.00
BN. Srinivas	5.00	5.00	5.00
B.Koteswara Rao	5.00	5.00	5.00
J.Narendar	5.00	5.00	5.00

E.Srinivasulu	5.00	5.00	5.00
K.S.Monica	5.00	5.00	5.00
D. Rupa Kumar	5.00	5.00	5.00
D.Srinu	5.00	5.00	5.00
S.Sindhu Rekha	5.00	5.00	5.00
K.Pratap Khanna	5.00	5.00	5.00
S.Umarani	5.00	5.00	5.00
G.Kiran Kumar	5.00	5.00	5.00
K.V.Suresh Kumar	5.00	5.00	5.00
P.Sandhya	5.00	5.00	5.00
SK. Himabindu	5.00	5.00	5.00
Kankanala Kavitha	5.00	5.00	5.00
V.Koteswara Rao	5.00	5.00	5.00
T.Tanuja	5.00	5.00	5.00
V. Rakesh	5.00	5.00	5.00
T.Immanuel	5.00	5.00	5.00
Y.Satyanarayanamma	5.00	5.00	5.00
N.Reshma Bindu	5.00	5.00	5.00
D.Malathi Rani	5.00	5.00	5.00
Saxena Chandrika	5.00	5.00	5.00
T. Vinay Kumar	5.00	5.00	5.00
D. Jaya Kumar	5.00	5.00	5.00
B. Balaji	5.00	5.00	5.00
N. Pallavi	5.00	5.00	5.00
K. Nagaraju	5.00	5.00	5.00

K. Nagamani	5.00	5.00	5.00
M. Supriya	5.00	5.00	5.00
H. Sageetha	5.00	5.00	5.00
P. Kaveri	5.00	5.00	5.00
K. Divya	5.00	5.00	5.00
K. Vijay Kumar	5.00	5.00	5.00
K. Ganesh	5.00	5.00	5.00
A. Anil Kumar	5.00	5.00	5.00
Santoshi Kanchu	5.00	5.00	5.00
V. Chandana	5.00	5.00	5.00
Sum	245.00	245.00	245.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	32.45	33.40	32.95
Assessment [3*(Sum / 0.5RF)]	45.30	44.01	44.61

Average assessment over 3 years: 44.64

5.7 Research and Development (30) Total Ma

5.7.1 Academic Research (10) Institute Mar

Faculty Members Awarded with Ph.D during the Assessment Period While Working in the Institute

S.No	Faculty Name	Date of the Ph.D award	Awarded University
1.	Dr. Srinivas Bachu	18/10/2018	GITAM University-Hyderabad
2.	Dr. N. Udaya Kumar	23/04/2019	Sri Venkateswara University
3.	Dr. G. Amarnath	5/02/2019	NIT Silchar
4.	Dr. P.S.Shijin Kumar	9/02/2018	Noorul Islam University

Faculty wise Publication List for the Academic Year 2020-21

S. No	Name of the Staff	Title of the Paper	Name of Journal/Conference/Book	DoI	Month &

1	Dr. Srinivas Bachu	FRCAPE: Frequency Re-configurable Co-planar Antenna Using Parasitic Elements	Proceedings of IEEE International Conference on Advent Trends in Multidisciplinary Research and Innovation, ICATMRI 2020	10.1109/ICATMRI51801.2020.9398416 (https://doi.org/10.1109/ICATMRI51801.2020.9398416)	April 20
		Design and Implementation to Find Multi-Issues in Brain Images with Mixture Clustering Techniques	Advances in Intelligent Systems and Computing (https://link.springer.com/bookseries/11156)	DOI: 10.1007/978-981-16-1335-7_22	June 20
		A Novel Approach to Detect Leaf Disease and Feature Extraction using IoT	2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS) (https://ieeexplore.ieee.org/xpl/conhome/9441490/proceeding)	10.1109/ICACCS51430.2021.9441730 (https://doi.org/10.1109/ICACCS51430.2021.9441730)	March 2(
		Divide and Conquer Algorithm Based Electro Cardiac Signal Compression Scheme	• IOP Conference Series Materials Science and Engineering (https://www.researchgate.net/journal/IOP-Conference-Series-Materials-Science-and-Engineering-1757-899X)	DOI:10.1088/1757-899X/1084/1/012008	March 2021
		Design and Monitoring of Smart Roads Based on Weather Data by using IoT	IOP Conference Series: Materials Science and Engineering,	DOI:10.1088/1757-899X/1084/1/012123	March 2(
		Joint Sparsity and Total Variation Based Unmixing of Mixed Noise	OP Conference Series: Materials Science and Engineering	https://iopscience.iop.org/article/10.1088/1757-899X/1084/1/012041	March 2(
		IBMPS: Incubator Baby Monitoring and Parameter Sensing	2021 7th International Conference on Advanced Computing and Communication Systems, ICACCS 2021	10.1109/ICACCS51430.2021.9441959 (https://doi.org/10.1109/ICACCS51430.2021.9441959)	March 2(

		Content Based Image Retrieval Using Deep Learning Convolutional Neural Network	IOP Conference Series: Materials Science and Engineering	https://iopscience.iop.org/article/10.1088/1757-899X/1084/1/012026 (https://iopscience.iop.org/article/10.1088/1757-899X/1084/1/012026)	Jan 2021
		SCSGFRA: Sine and Cosine Signal Generation for Fixed Rotation Angle	Innovations in Electronics and Communication Engineering	DOI: 10.1007/978-981-15-3172-9_59	April 20
		Design of Density Clustering In Diabetic Retinopathy Based Eye Fundus Segmentation	IOP Conf. Series: Materials Science and Engineering	DOI:10.1088/1757-899X/1084/1/012006	June20
2	Dr. N. Srinivas	Analysis of Cooperative Cognitive Radio Network with Improved Energy Detector and Multiple Transceivers over Nakagami-n Fading Channel	International Conference on Computing Communication and Automation, ICCCA 2020	10.1109/ICCCA49541.2020.9250769 (https://doi.org/10.1109/ICCCA49541.2020.9250769)	• Ooct. 2020
		Analysis of energy-efficient cooperative spectrum sensing with improved energy detectors and multiple antennas over Nakagami-q/n fading channels	International Journal of Communication Systems	https://doi.org/10.1002/dac.4731 (https://doi.org/10.1002/dac.4731)	Jan202
		Implementation of Soft-Data Combining Schemes for Cooperative Cognitive Radio Network over Rayleigh Fading Channel	2020 IEEE International Conference for Innovation in Technology, INOCON 2020	10.1109/INOCON50539.2020.9298437 (https://doi.org/10.1109/INOCON50539.2020.9298437)	Nov 20

		Throughput Performance Analysis of Cooperative Spectrum Sensing Network with Improved Energy Detectors in Hoyt Fading Environment	Proceedings of the 4th International Conference on Electronics, Communication and Aerospace	10.1109/ICECA49313.2020.9297530 (https://doi.org/10.1109/ICECA49313.2020.9297530)	Nov 20
		Energy-efficiency analysis of cognitive radio network with improved energy detectors and SC diversity over nakagami-q fading environment	Proceedings - 2020 IEEE International Symposium on Sustainable Energy, Signal Processing and Cyber Security, iSSSC 2020	10.1109/iSSSC50941.2020.9358880 (https://doi.org/10.1109/iSSSC50941.2020.9358880)	Dec. 20
3	Dr.G.Amarnath	Threshold-Voltage Analytical-Model Development for Junction-less-Double-Gate FETs	International Conference on Electrical, Computer and Communication Technologies	10.1109/ICCCI50826.2021.9402278 (https://doi.org/10.1109/ICCCI50826.2021.9402278)	Jan 202
		TCAD-based Comparative Study of Gallium-Oxide based FinFET and MOSFET	Proceedings of IEEE International Conference on Advent Trends in Multidisciplinary Research and Innovation, ICATMRI 2020	10.1109/ICATMRI51801.2020.9398440 (https://doi.org/10.1109/ICATMRI51801.2020.9398440)	April 20
		Analysis of Temperature Effect on Small-Signal-Equivalent-Circuit Parameters for AlInN/GaN MOS-HEMT	Proceedings of IEEE International Conference on Advent Trends in Multidisciplinary Research and Innovation, ICATMRI 2020	10.1109/ICATMRI51801.2020.9398378 (https://doi.org/10.1109/ICATMRI51801.2020.9398378)	April 20
		Developement of Threshold-Voltage Analytical-Model for Double-Gate-Junction-less FETs	Proceedings of IEEE International Conference on Advent Trends in Multidisciplinary Research and Innovation, ICATMRI 2020	10.1109/ICATMRI51801.2020.9398504 (https://doi.org/10.1109/ICATMRI51801.2020.9398504)	April 20
4	Dr. S. Kishore	Near-zero computing using NCFET for IoT applications	International Journal of Intelligent Enterprise (https://www.inderscience.com/jhome.php?jcode=ijie)	DOI: 10.1504/IJIE.2021.114514 (https://dx.doi.org/10.1504/IJIE.2021.114514)	*Mar 2021 ** (https://www.indersci jcode=ij
		Design of 8 bit and 16 bit Reversible ALU for Low Power Applications	International Conference on Computing Communication and Automation, ICCCA 2020	10.1109/ICCCA49541.2020.9250876 (https://doi.org/10.1109/ICCCA49541.2020.9250876)	Oct. 20

		A hadoop based framework integrating machine learning classifiers for anomaly detection in the internet of things	Electronics (Switzerland)	https://doi.org/10.3390/electronics10161955 (https://doi.org/10.3390/electronics10161955)	JUNE 20
		Performance Analysis of GDI based Arithmetic Circuits	International Conference on Computing Communication and Automation, ICCCA 2020	10.1109/ICCCA49541.2020.9250890 (https://doi.org/10.1109/ICCCA49541.2020.9250890)	Nov 20
		Comparative Review of MAC Architectures	Soft Computing for Intelligent Systems (https://link.springer.com/book/10.1007/978-981-16-1048-6)- Book	10.1007/978-981-16-1048-6_3	June 20
5	K.Nagabushanam	IBMPS: Incubator Baby Monitoring and Parameter Sensing	2021 7th International Conference on Advanced Computing and Communication Systems, ICACCS 2021	10.1109/ICACCS51430.2021.9441959 (https://doi.org/10.1109/ICACCS51430.2021.9441959)	March 20
		Design and Monitoring of Smart Roads Based on Weather Data	IOP Conference Series: Materials Science and Engineering	DOI:10.1088/1757-899X/1084/1/012123	March 20
		Joint Sparsity and Total Variation Based Unmixing of Mixed Noise	OP Conference Series: Materials Science and Engineering	https://iopscience.iop.org/article/10.1088/1757-899X/1084/1/012041	March 20
6	D.Srinu	HOMER-based DES for techno-economic optimization of grid	Innovations in Computer Science and Engineering	10.1007/978-981-33-4543-0_42	April 2021 (https://link.springer.com 4543-0_42#cha
7	Saxena Chandrika	Advanced Automatic Human Emotion classification system with Lip Features Using M3 Filtering and Convolution Neural Network (CNN)	Proceedings of the 6th International Conference on Communication and Electronics Systems	10.1109/ICCES51350.2021.9489202 (https://doi.org/10.1109/ICCES51350.2021.9489202)	June 20

		Advanced and effective baby care monitoring Smart cradle system using Internet of Things	2021 2nd International Conference on Smart Electronics and Communication (ICOSEC) (https://ieeexplore.ieee.org/xpl/conhome/9591657/proceeding)	10.1109/ICOSEC51865.2021.9591955 (https://doi.org/10.1109/ICOSEC51865.2021.9591955)	Oct. 20
8	Naluguru Udaya Kumar	Design of Density Clustering In Diabetic Retinopathy Based Eye Fundus Segmentation	IOP Conf. Series: Materials Science and Engineering	DOI:10.1088/1757-899X/1084/1/012006	June 20
		Divide and Conquer Algorithm Based Electro Cardiac Signal Compression Scheme	• IOP Conference Series Materials Science and Engineering (https://www.researchgate.net/journal/IOP-Conference-Series-Materials-Science-and-Engineering-1757-899X)	DOI:10.1088/1757-899X/1084/1/012008	March 2021
		VLSI Implementation of Discrete Cosine Transform Approximation Recursive Algorithm	Journal of Physics: Conference Series	10.1088/1742-6596/1817/1/012017	June 20
		A Novel Approach to Detect Leaf Disease and Feature Extraction using IoT	2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS) (https://ieeexplore.ieee.org/xpl/conhome/9441490/proceeding)	10.1109/ICACCS51430.2021.9441730 (https://doi.org/10.1109/ICACCS51430.2021.9441730)	MARCH

9	P.S Shijin Kumar	Content Based Image Retrieval Using Deep Learning Convolutional Neural Network	IOP Conference Series: Materials Science and Engineering	https://iopscience.iop.org/article/10.1088/1757-899X/1084/1/012026	Jan 2021
10	G.kiran kumar	Fast palmprint retrieval using speed up robust features	INDIAN JOURNAL OF SCIENCE AND TECHNOLOGY	10.17485/IJST/v13i31.404 (https://doi.org/10.17485/IJST/v13i31.404)	Aug 2020
		Prediction of House Price Using Machine Learning Algorithms	Proceedings of the Fifth International Conference on Trends in Electronics and Informatics (ICOEI)	10.1109/ICOEI51242.2021.9452820 (https://doi.org/10.1109/ICOEI51242.2021.9452820)	April 2021
11	D. Malathi Rani	Fast palmprint retrieval using speed up robust features	INDIAN JOURNAL OF SCIENCE AND TECHNOLOGY	10.17485/IJST/v13i31.404 (https://doi.org/10.17485/IJST/v13i31.404)	Aug 2020
		Prediction of House Price Using Machine Learning Algorithms	Proceedings of the Fifth International Conference on Trends in Electronics and Informatics (ICOEI)	10.1109/ICOEI51242.2021.9452820 (https://doi.org/10.1109/ICOEI51242.2021.9452820)	April 2021
12	k.v suresh kumar	SCSGFRA: Sine and Cosine Signal Generation for Fixed Rotation Angle	Innovations in Electronics and Communication Engineering	10.1007/978-981-15-3172-9_59 (http://dx.doi.org/10.1007/978-981-15-3172-9_59)	April 2021
13	I.Adam babu	Design and Implementation to Find Multi-Issues in Brain Images with Mixture Clustering Techniques	Advances in Intelligent Systems and Computing (https://link.springer.com/bookseries/11156)	10.1007/978-981-16-1335-7_22	July 2021

14	B.N srinivas	Threshold-Voltage Analytical-Model Development for Junction-less-Double-Gate FETs	International Conference on Electrical, Computer and Communication Technologies	10.1109/ICCCI50826.2021.9402278 (https://doi.org/10.1109/ICCCI50826.2021.9402278)	Jan 2021
15	R. Raja Kishore	HOMER-based DES for techno-economic optimization of grid	Innovations in Computer Science and Engineering	10.1007/978-981-33-4543-0_42	April 2021 (https://link.springer.com/chapter 981-33-4543-0_42#chapter-info)
16	D. Jaya Kumar	HOMER-based DES for techno-economic optimization of grid	Innovations in Computer Science and Engineering	10.1007/978-981-33-4543-0_42	April 2021 (https://link.springer.com/chapter 981-33-4543-0_42#chapter-info)
17	S.K.HimaBindu	Analysis of Temperature Effect on Small-Signal-Equivalent-Circuit Parameters for AlInN/GaN MOS-HEMT	Proceedings of IEEE International Conference on Advent Trends in Multidisciplinary Research and Innovation, ICATMRI 2020	10.1109/ICATMRI51801.2020.9398378 (https://doi.org/10.1109/ICATMRI51801.2020.9398378)	April 2021 (https://link.springer.com/chapter 981-33-4543-0_42#chapter-info)

Faculty wise Publication List for the Academic Year 2019-20

S. No	Name of the Staff	Title of the Paper	Name of Journal/Conference/Book	DoI
1	Dr. Srinivas Bachu	Moving object detection using the genetic algorithm for real times transportation	International Journal of Engineering and Advanced Technology	10.35940/ijeat.F8266.088619
		IoT based home area network smart meter system design using ARM 7	International Journal of Advanced Trends in Computer Science and Engineering	10.30534/ijatcse/2019/0781.32019 (http://dx.doi.org/10.30534/ijatcse/2019/0781.32019)
		Sine and Cosine Signal Generation for Fixed Rotation Angle	Lecture Notes in Networks and Systems (https://link.springer.com/bookseries/15179)- book series	10.1007/978-981-15-3172-9_59
		Spectral Unmixing based on Joint Sparsity and Total Variation using Remote Sensing Data	• 2021 Fourth International Conference on Electrical, Computer and Communication Technologies (ICECCT)	10.1109/ICECCT52121.2021.9616688 (http://dx.doi.org/10.1109/ICECCT52121.2021.9616688)

		Security of Finger Prints with Video Watermarking Techniques Based On DWT and SVD	IOP Conference Series Materials Science and Engineering (https://www.researchgate.net/journal/IOP-Conference-Series-Materials-Science-and-Engineering-1757-899X)	10.1088/1757-899X/1084/1/012007 (http://dx.doi.org/10.1088/1757-899X/1084/1/012007)
		A Comparative Study on LSB Replacement Steganography	Innovations in Electronics and Communication Engineering (https://link.springer.com/book/10.1007/978-981-15-3172-9)	10.1007/978-981-15-3172-9_57
2	Dr. N. Srinivas	Throughput analysis of cooperative cognitive radio network over generalized κ–μ and η–μ fading channels.	Wireless Networks	10.1007/s11276-018-1758-4 (https://link.springer.com/article/10.1007/s11276-018-1758-4)
		Performance analysis of decision/data fusion-aided cooperative cognitive radio network over generalized fading channel	IEEE Transactions on Aerospace and Electronic Systems	10.1109/TAES.2018.2884184 (https://doi.org/10.1109/TAES.2018.2884184)
		The effects of channel knowledge on cooperative spectrum sensing in Nakagami-n/q fading channels	Wireless Networks	https://doi.org/10.1007/s11276-018-1685-4
		Optimized cooperative spectrum sensing network analysis in nonfading and fading environments	International Journal of Communication Systems	https://doi.org/10.1002/dac.4262 (https://doi.org/10.1002/dac.4262)
		Comprehensive performance analysis of data fusion aided cooperative cognitive radio network over Î·-Î¼ Fading channel	IET Communications	https://doi.org/10.1049/iet-com.2019.0298
		Performance of energy-efficient cooperative cognitive radio system over erroneous Nakagami-m and Weibull fading channels	Wireless Networks	https://doi.org/10.1007/s11276-019-02018-2
3	Dr. N. Udaya Kumar	Security of Finger Prints with Video Watermarking Techniques Based On DWT and SVD	IOP Conf. Series: Materials Science and Engineering	10.1088/1757-899X/1084/1/012007 (http://dx.doi.org/10.1088/1757-899X/1084/1/012007)

		Implementation of Area optimized Low power Multiplication and Accumulation	International Journal of Innovative Technology and Exploring Engineering	10.35940/ijitee.A9110.119119
		Effect of feature normalization objective improvement of over Noisy Single-channel Speech Enhancement with Neural Networks	*Test Engineering and Management*	*https://www.testmagzine.biz/index.php/testmagzine/article/view/8768*
		Skin Tone Recognition and Face Detection using Local Binary Pattern and Sparse Coding	*Test Engineering and Management*	*Vol 83*
		Hamming Distance for the Trellis Coded Block Codes and Applications in Bit Error Rate Too	International Journal of Advanced Science and Technology	*http://sersc.org/journals/index.php/IJAST/article/view/17835*
4	Dr.P.S. Shijin Kumar	Multilevel Pipelined Processing for Aerial Image Restoration	2019 International Conference on Emerging Trends in Science and Engineering, ICESE 2019	https://doi.org/10.1109/ICESE46178.2019.9194619
		Hamming Distance for the Trellis Coded Block Codes and Applications in Bit Error Rate **Too**	International Journal of Advanced Science and Technology	*http://sersc.org/journals/index.php/IJAST/article/view/17835*
5	Dr. S. Kishore	ASIC implementation of distributed arithmetic-based FIR filter using RNS for high-speed DSP systems	International Journal of Speech Technology	https://doi.org/10.1007/s10772-020-09683-1

6	I.Adum Babu	Crop selection in agriculture lands using internet of things with ARM	International Journal of Advanced Trends in Computer Science and Engineering	• https://doi.org/10.30534/ijatcse/2019/0981.32019
7	K.V. Suresh Kumar	Sine and Cosine Signal Generation for Fixed Rotation Angle	Lecture Notes in Networks and Systems (https://link.springer.com/bookseries/15179)- book series	10.1007/978-981-15-3172-9_59

Faculty Wise Publication List for the Academic Year 2018-19

S. No	Name of the Staff	Title of the Paper	Name of Journal	DoI
1	Dr. Srinivas Bachu	Fuzzy holoentropy-based adaptive inter-prediction mode selection for H.264 video coding	International Journal of Mobile Computing and Multimedia Communications	10.4018/IJMCMC.201904010
		Bag-of-surf and spatial pyramid matching for food recognition and calorie extraction	International Journal of Recent Technology and Engineering	https://www.ijrte.org/wp-content/uploads/papers/v ISSN: 2277-3878, Volume-8, Iss
2	Dr. N. Srinivas	The effects of (https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=4a5OBK8AAAAJ&cstart=20&pagesize=80&citation_for_view=4a5OBK8AAAAJ:_Qo2XoVZTnwC)channel knowledge on cooperative spectrum sensing in Nakagami-n/q fading channels	Wireless Networks	https://doi.org/10.1007/s11276-018-
		Performance analysis of decision/data fusion-aided cooperative cognitive radio network over generalized fading channel (https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=4a5OBK8AAAAJ&cstart=20&pagesize=80&citation_for_view=4a5OBK8AAAAJ:TFP_iSt0sucC)	IEEE Transactions on Aerospace and Electronic Systems (https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=7)	https://doi.org/10.1109/TAES.2018.2
		Throughput and energy efficiency of cooperative cognitive radio network over erroneous generalized fading channel (https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=4a5OBK8AAAAJ&cstart=20&pagesize=80&citation_for_view=4a5OBK8AAAAJ:JV2RwH3_ST0C)	INDICON 2018 - 15th IEEE India Council International Conference	https://doi.org/10.1109/INDICON45594.2

		Cooperative Spectrum Sensing in Log-normal Shadowing Environment with Erroneous Sensing and Reporting Channels (https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=4a5OBK8AAAAJ&cstart=20&pagesize=80&citation_for_view=4a5OBK8AAAAJ:bEWYMUwI8FkC)	Proceedings of 2018 2nd International Conference on Advances in Electronics, Computers and Communications, ICAECC 2018	https://doi.org/10.1109/ICAECC.2018
		Data fusion-aided cognitive radio network over generalised fading channels	Electronics Letters	http://dx.doi.org/10.1049/el.2018.
3	Dr.P.S. Shijin Kumar	A hybrid framework for brain tumor detection and classification using neural network	ARPN Journal of Engineering and Applied Sciences	http://www.arpnjournals.org/jeas/research_papers/rp_
4	P.Sandhya	IoT based advanced health care system using wireless sensor networks	Indian Journal of Public Health Research & Development .	http://dx.doi.org/10.5958/0976-5506.20
5	B.N. SRINIVAS	Intelligent home automation system using GPRS a smart switch to connect and disconnect electrical devices at home by using internet	Indian Journal of Public Health Research & Development	http://dx.doi.org/10.5958/0976-5506.20
6	G.KIRANKUMAR	Throughput and energy efficiency of cooperative cognitive radio network over erroneous generalized fading channel (https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=4a5OBK8AAAAJ&cstart=20&pagesize=80&citation_for_view=4a5OBK8AAAAJ:JV2RwH3_ST0C)	INDICON 2018 - 15th IEEE India Council International Conference	https://doi.org/10.1109/INDICON45594.2
		Cooperative Spectrum Sensing in Log-normal Shadowing Environment with Erroneous Sensing and Reporting Channels (https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=4a5OBK8AAAAJ&cstart=20&pagesize=80&citation_for_view=4a5OBK8AAAAJ:bEWYMUwI8FkC)	Proceedings of 2018 2nd International Conference on Advances in Electronics, Computers and Communications, ICAECC 2018	https://doi.org/10.1109/ICAECC.2018

5.7.2 Sponsored Research (5)

Institute Marks : 5.00

2020-21 (CAYm1)

Project Title	Duration	Funding Agency	Amount
Development of Low Cost Weeder Machine for the Region of Nuthankal, Dharmavaram and Gummadidala Villages of SC Community.	March 2021 –march 2024	DST- SEED	5041850.00
STTP on Artificial Intelligence: Devices to Circuits	01-02-21 to 06-02-21	AICTE	271667.00
			Total Amount(X): 5313517.00

2019-20 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2018-19 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

5.7.3 Development Activities (10)

Institute Marks : 10.00

A. **Product Development**:

Few are listed here

Sl. No.	Project Title	Academic Year
1	Smart Dustbin using arduino	2018-2019
2	autonomous drone	2018-2019
3	grass cutting robot	2018-2019
4	seed sowing robot	2018-2019
5	home automation using arduino	2018-2019
6	Line Follower robot	2019-2020
7	DTMF Robot	2019-2020
8	Obstacle Avoider Robot	2019-2020
9	Automatic Street Light using Ir sensor	2019-2020
10	Automatic Vacuum Cleaner	2019-2020
11	GSM based motor on and off system	2019-2020

12	Door Security System Arduino RFID Project	2019-2020
13	RFID based Student Attendance System	2019-2020
14	Electronic notice board using GSM module	2019-2020
15	Power generation using piezoelectric material	2019-2020
16	Smart dustbin	2019-2020
17	Wi-Fi control LCD with Node MCU	2019-2020
18	Hand gesture controlled robot	2019-2020
19	Edge detection robot using Arduino	2020-2021
20	Advance vehicle ignition using finger print	2020-2021
21	Colour sorting machine	2020-2021
22	Money sanitation machine	2202-2021
23	Hand tracking using open cv	2020-2021
24	Ecognition using hand gestures using open cv	2020-2021
25	Drum using open cv	2020-2021
26	Invisibility using open cv	2020-2021
27	virtual keyboard using Python	2020-2021
28	virtual paint machine using python	2020-2021
29	converting image into cartoon	2020-2021
30	hand writing recognizer using Python	2020-2021
31	Mask detection using Python	2020-2021
32	AI Heprin	2020-2021
33	Mobile filters using Python	2020-2021
34	Cam scanner using Python	2020-2021
35	Video filters using Python	2020-2021
36	Play music using Python	2020-2021
37	Speech to text using Python	2020-2021
38	Image colorization using deep learning	2020-2021
39	Schematic segmentation of image using open cv	2020-2021
40	Object detection using Open cv	2020-2021
41	Scematic segmentation of video	2020-2021
42	Text to Indian sign language converter	2020-2021

43	Line follower robot stimulation on Gazebo	2020-2021
44	Autonomous navigation using SLAM	2020-2021

1. Smart Dustbin using arduino:

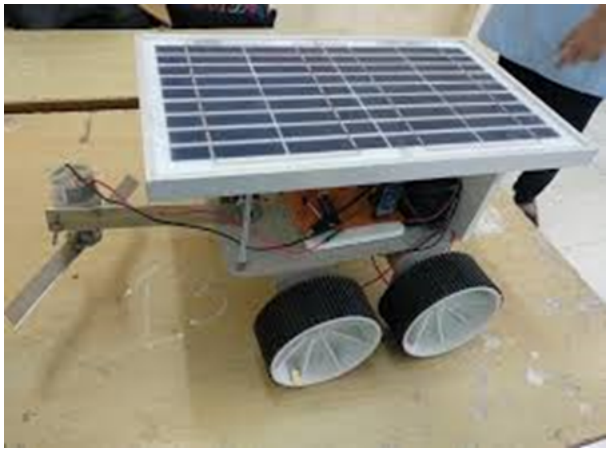
This smart dustbin management system is built on the microcontroller based system having ultrasonic sensors on the dustbin. If dustbin is not maintained than these can cause an unhealthy environment and can cause pollute that affect our health.

2. Autonomous drone:

This vehicle can be controlled either by a pilot who is on the ground or in another vehicle or by self with the help of onboard PCs. The term autonomous drone portrays that its an automaton that can work with no human intercession. In simple terms, it can take off, do missions, and can land by self.

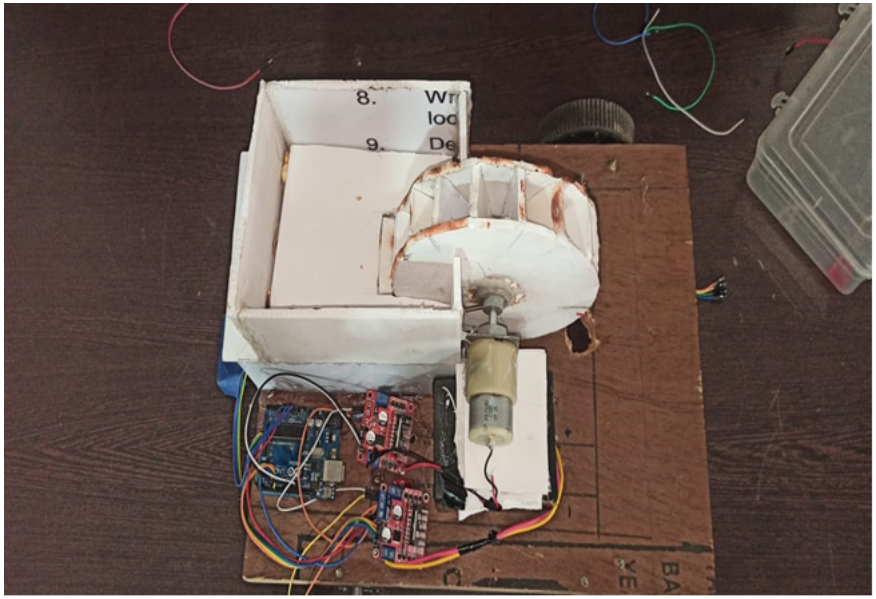
3. Grass cutting robot:

This system was fully automated based on solar applied in grass cutter is a fully automated grass cutting robotic vehicle powered by solar energy that also avoids obstacles and is capable of fully automated grass cutting without the need for any human interaction.



4. Seed Sowing Robot:

Seed sowing and digging robot will move on various ground contours and performs digging, sowing the seed and covers the ground by closing it. The paper spells out the complete installation of the agribot including hardware and software face.

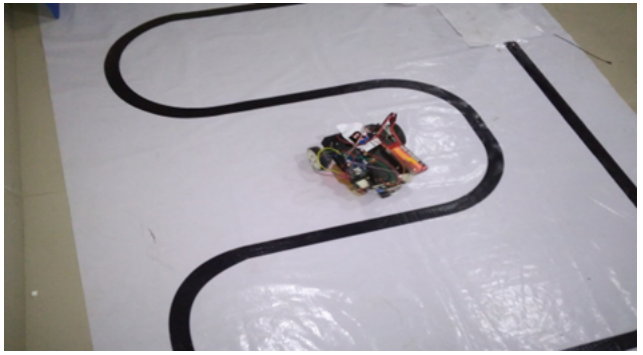


5. Home automation using arduino:

In the IoT home automation ecosystem, you can control your devices like light, fan, TV, etc. A domestic automation system can monitor and/or manage home attributes adore lighting, climate, enjoyment systems, and appliances. It is very helpful to control your home devices.

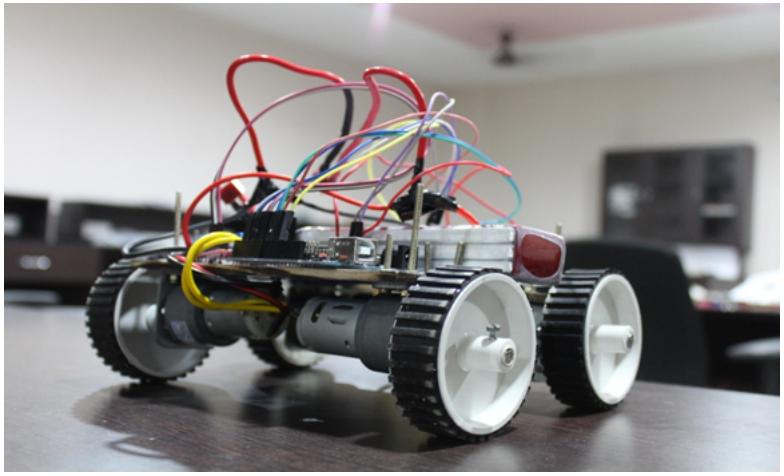
6. Line Follower robot:

A line follower consists of an infrared light sensor and an infrared LED. It works by illuminating a surface with infrared light; the sensor then picks up the reflected infrared radiation and, based on its intensity, determines the reflectivity of the surface in question.



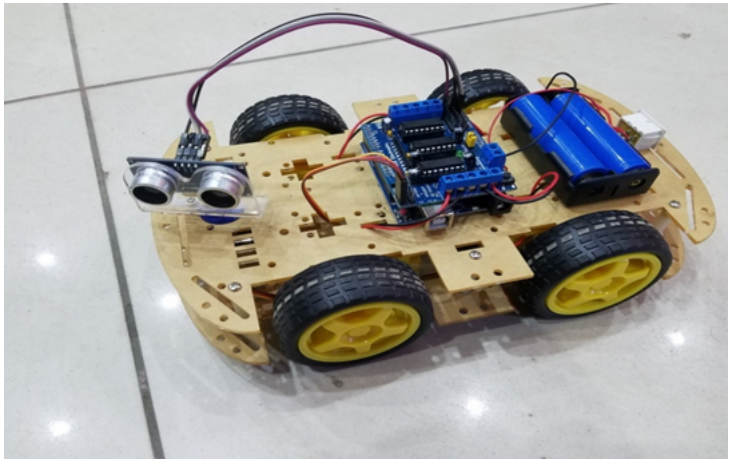
7. DTMF Robot:

A self-controlled Robotic Car using Arduino. This robotic car uses Ultra Sonic Sensor to detect Obstacles which are in front of it, whenever it detects obstacles then its Ultra Sonic Sensor moves in both directions Right and Left to calculates the best possible distance to move freely.This system was fully automated based on solar applied in grass cutter is a fully automated grass cutting robotic vehicle powered by solar energy that also avoids obstacles and is capable of fully automated grass cutting without the need for any human interaction.



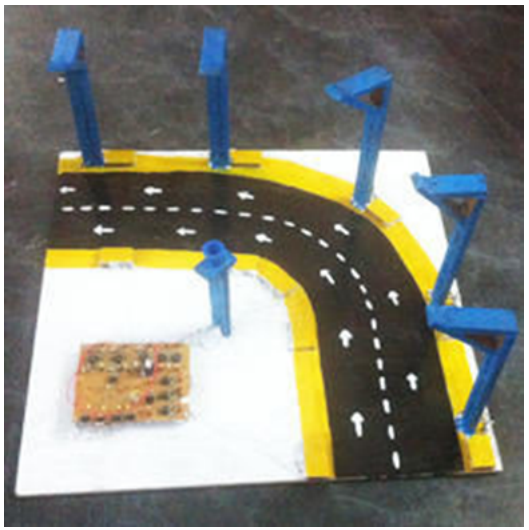
8. Obstacle Avoider Robot:

In this the robot that avoids the obstacle which comes in its path this robot is introduced because in many of the industries we have seen that many heavy components which they have to move for one place to another place which is not possible without the help of machines. With this we got idea and we introduce the robot named as Obstacle avoidance robot using Arduino. Obstacle avoidance robot is design to allow robot to navigate in unknown environment by avoiding collisions.



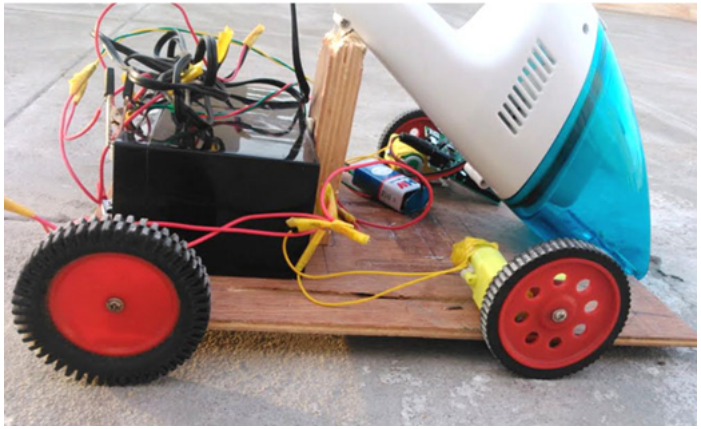
9. Automatic Street Light using IR sensor

It automatically switches ON lights when the sunlight goes below the visible region of our eyes. (e.g in evening after Sunset). It automatically switches OFF lights when Sunlight fall on it (i.e on LDR) e.g. in morning, by using a sensor called LDR (Light Dependent Resistor) which senses the light just like our eyes.



10. Automatic Vacuum Cleaner

When it comes to sucking up dust and dirt from your carpets and hard floors, robot vacuum cleaners work in the same way as larger vacuum cleaners: using a series of brushes, and in some cases a rotating brush bar, to lift and collect the dirt and suck it up into the dust container.

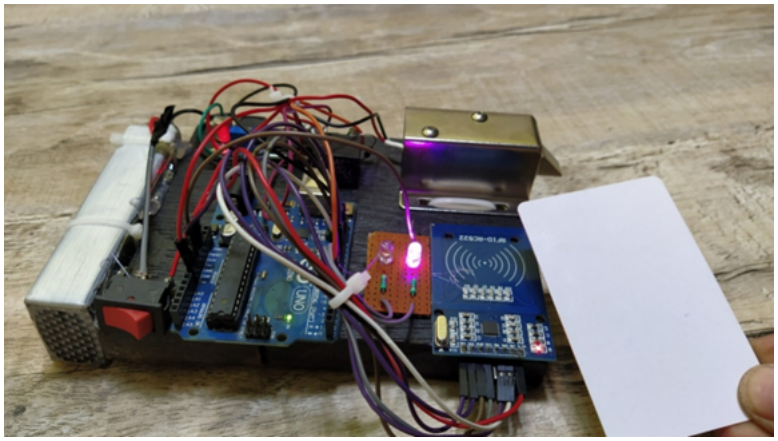


11. GSM based motor on and off system:

Irrigation system is critical in the development of agriculture of every country. It has been established that efficient irrigation processes has the potential of literally doubling the amount of food a farm processes. Integrating modern technologies in irrigation management systems is one of the ways of enhancing the irrigation processes to optimize the use of water and electric power consumption. The system however, depends on the timely application of the water required to meet the water needs of the crops and this is achieved by remote switching of water pump through SMS.

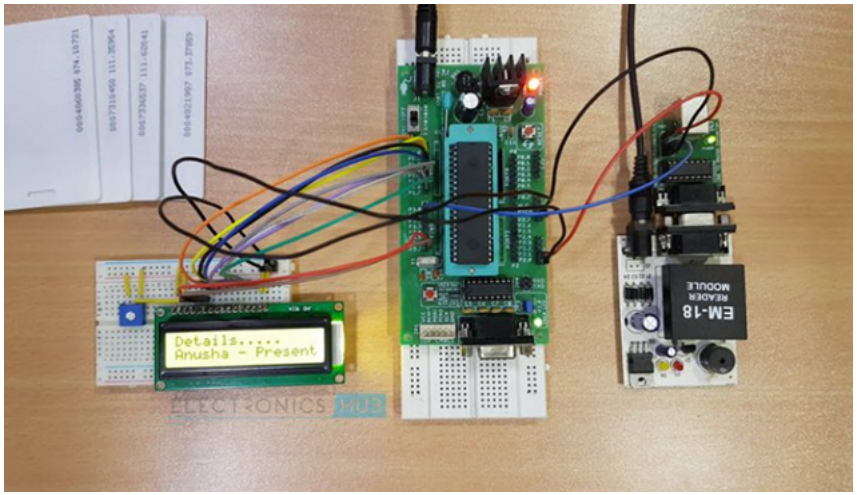
12. Door Security System Arduino RFID Project:

Basically, this project is for door and lock purposes. you dont have to buy the token now. you can open the gate simply by tap the RFID card on the surface of the card reader. nowadays the same technology used in the Metro gate and the parking gate.



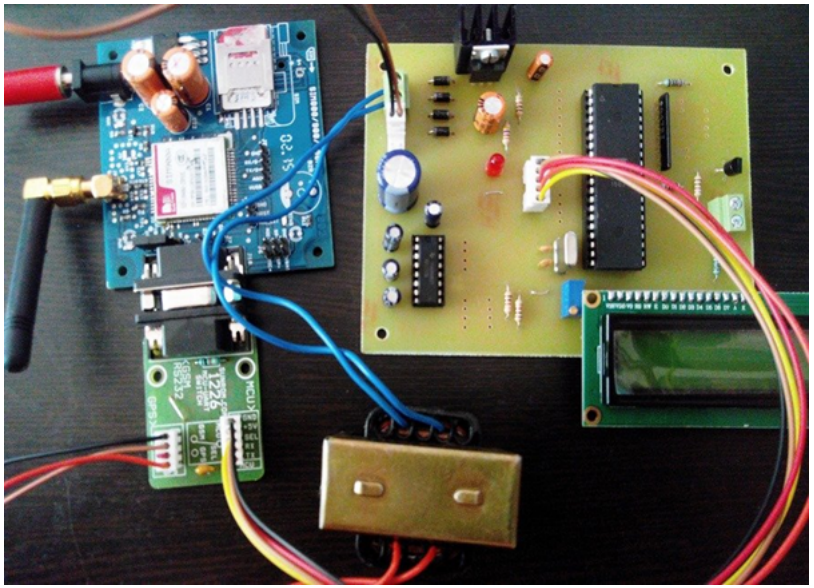
13. RFID based Student Attendance System:

RFID attendance system is used to take attendance for student in school, college, and university. By placing their ID cards on the reader, students or workers can immediately verify their attendance.



14. Electronic notice board using GSM module:

When a user sends a message, it is received by a SIM inserted in GSM modem at the receiver unit. The GSM modem interfaced with level shifter IC to Microcontroller. The message received by the GSM is sent to the microcontroller that further displays it on a electronic notice board.



15. Power generation using piezoelectric material:

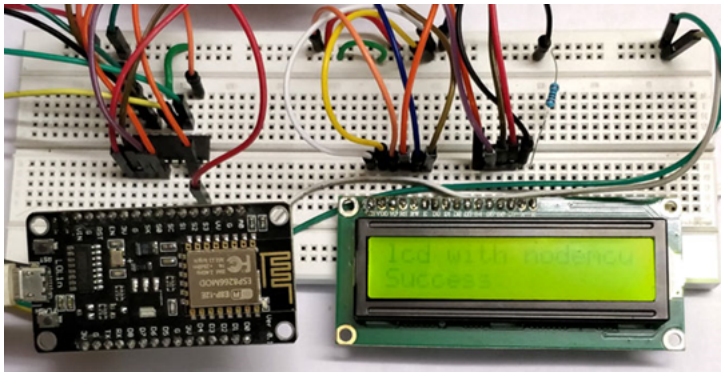
Piezo electric materials form transducers that are able to interchange electrical energy and mechanical motion or force. These materials, therefore, can be used as mechanisms to transfer ambient motion (usually vibration) into electrical energy that may be stored and used to power other devices.

16. Smart dustbin:

Smart Dustbin as its name represents it works smartly or we can say that it is an automatic dustbin. it works like when you will come in front of this dustbin it will open automatically with the help of a servo motor. So there is some sensor work to detect the object in front of the dustbin.

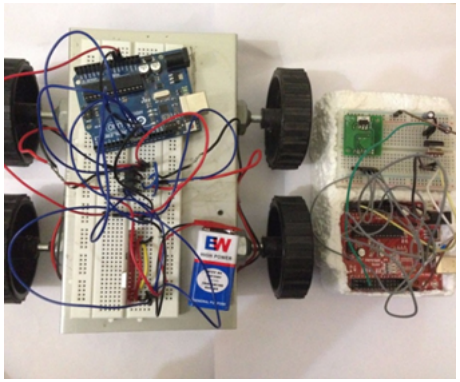
17. Wi-Fi control LCD with Node MCU

NodeMCU is an open source IoT platform. It includes firmware which runs on the ESP8266 Wi-Fi SOC from Espressif Systems, and hardware, which is based on the ESP-12 module. The term “NodeMCU” by default refers to the firmware rather than the dev kits. The firmware uses the Lua scripting language.



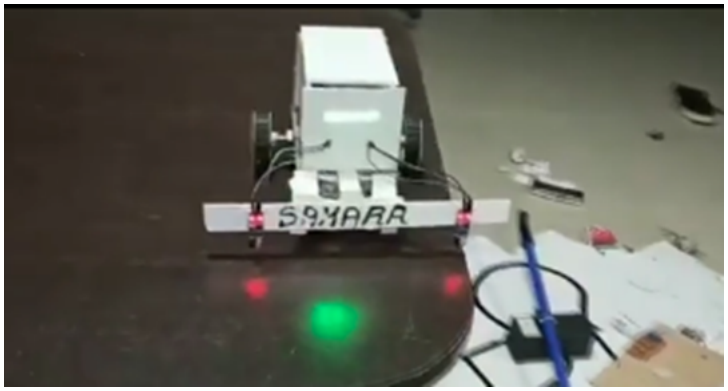
18. Hand gesture controlled robot:

A Gesture Controlled robot is a robot which can be controlled by your hand gestures. You just need to have a small transmitting device in your hand, which included an acceleration meter to transmit an appropriate command to the robot so that it can do whatever we want.



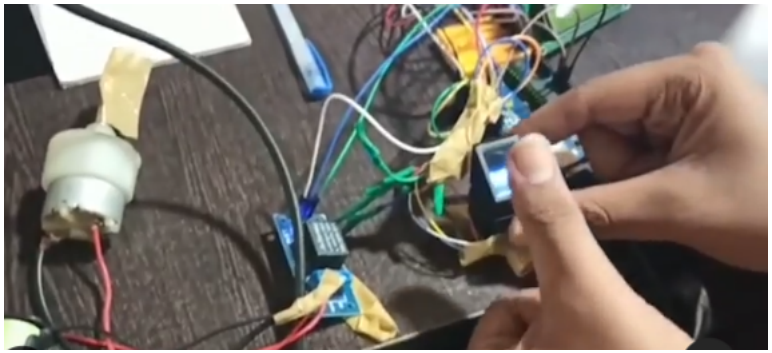
19. Edge detection robot using Arduino:

Edge detector Robot – Robot that can move on the table and is able to detect the edges and preventing itself to fall of the table. This concept is also used in space programs and moons to detect the craters and big holes on the surface and saving robot to fall into the craters or holes.



20. Advance vehicle ignition using finger print:

Non-transferable – fingerprints are non-transferrable, ruling out the sharing of passwords or clocking in on behalf of another colleague. This allows for more accurate tracking of workforce and provides additional security against the theft of sensitive materials.



21. Colour sorting machine:

In this project, the colour sensor detects the colour of candy and generates output in this output sensor data transfer to Arduino. The Arduino will process this data according to the code uploaded in it and command the servo to move and sort colour candy on basis of their colour. Colour sorters are used for the food processing industry, such as coffee, nuts, and oil crops. The goal is the separation of items that are discoloured, toxic (such as ergot), not as ripe as required, or still with hull after dehulling such as sunflower seeds.

22. Money sanitation machine:

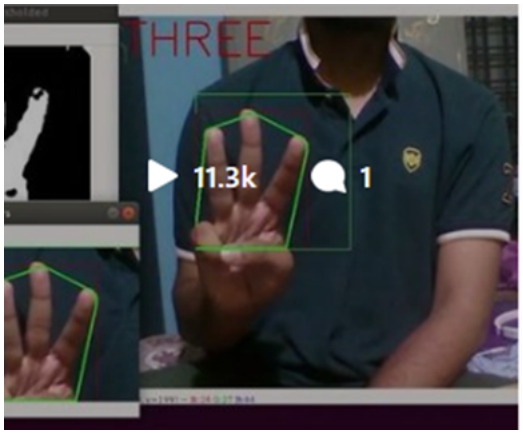
This machine main motive is to avoid germs by chemical spraying on things(money).This machine used to avoid direct contact between things. This help to sanitize the things fast.

23. Hand tracking using open cv:

The aim of this project is to track the hands. And follow the gestures of the hands and perform the action. This help in security purpose.

24. Ecognition using hand gestures using opencv:

The aim of this project is to track the hand and recognize the actions of the hands. This help the blind people to follow the gestures.

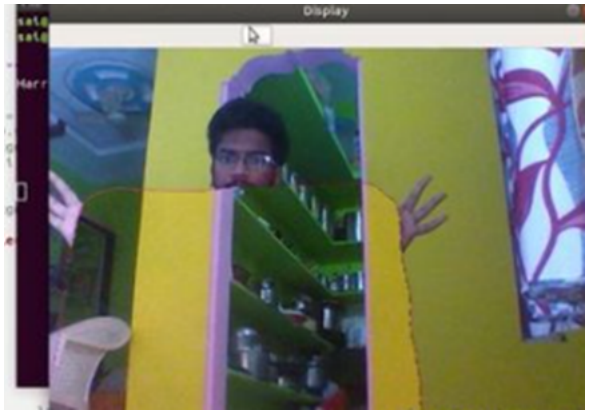


25.Drum using opencv:

It is a small funny project ,the main aim is to creating a virtual drum setup and plain the drums virtually.

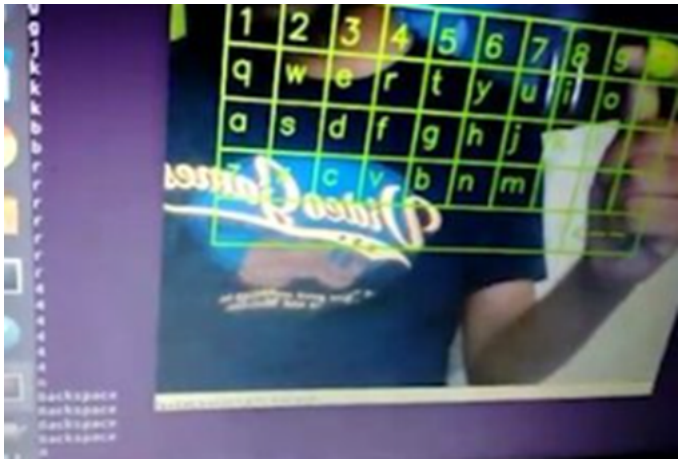
26. Invisibility using opencv:

In movies we see the invisible concept using carpets.The main aim of the project is to recognize the color of the cloth which we are using and make it invisible using Python.



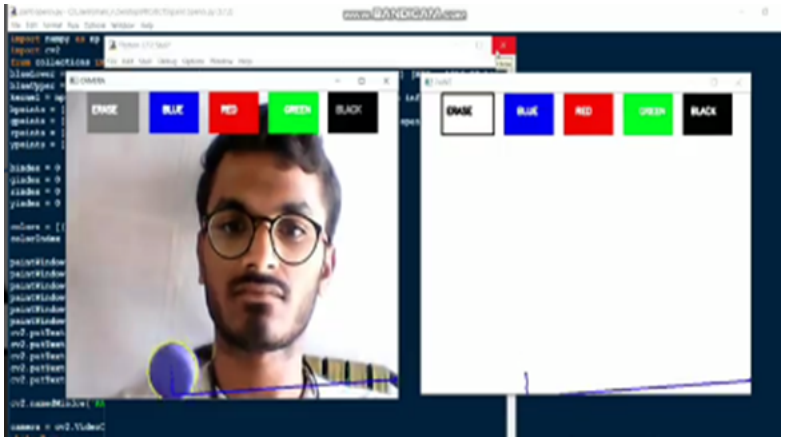
27. virual keyboard using Python:

The aim of this project is to creating our own virtual keyboard using Python.



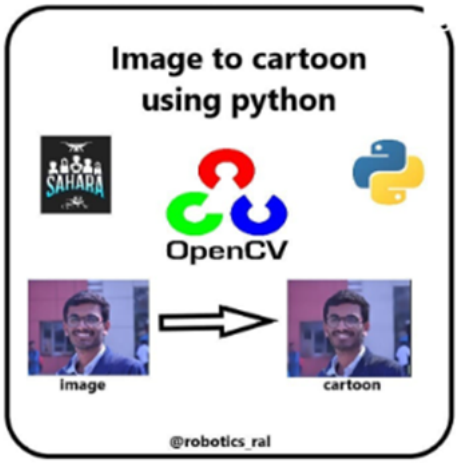
28. virtual paint machine using python:

The main aim of the project is creating our own paint mechine using Python opencv.



29. Converting image into cartoon:

For converting the image into the cartoon we need some special software. The main aim of this project is to converting a image in to cartoon form using Python opencv.



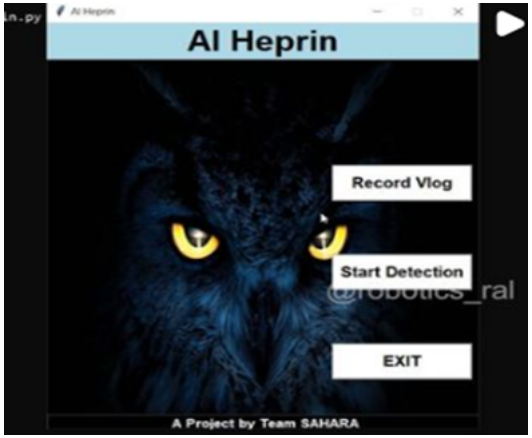
30. Hand writing recognizer using Python:

The aim of this project is Recognizing the hand written words. This help the children to actively learn the concepts.

31. Mask detection using Python:

In covid pandemic situation mask is mandatory to wear. But some people not wear the mask for that mask reorganization is very important. The main aim of this project is recognize the mask and sending a warning signal. Most of the accidents happen during night times due to driver drowsiness. This project helps to detect the drowsiness of the driver and give alert signal.

32. AI Heprin:

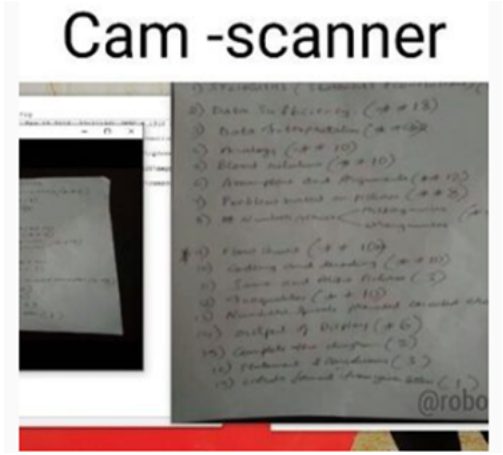


33. Mobile filters using Python:

This is a small funny project we use different types of mobile filters to take the pictures. But they are costly ,so we built some filters to click the pictures.

34. Cam scanner using Python:

In recent time most of the China apps are banded, and using those apps are danger. For that reason we make our own cam-scanner to scan the documents.

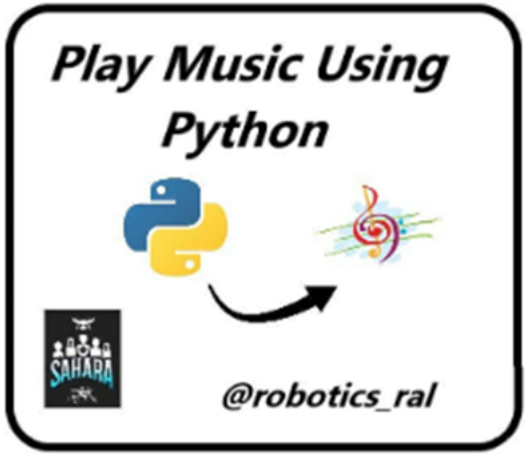


35.Video filters using Python:

In this project we create some video filter to take the videos**.**

36. Play music using Python:

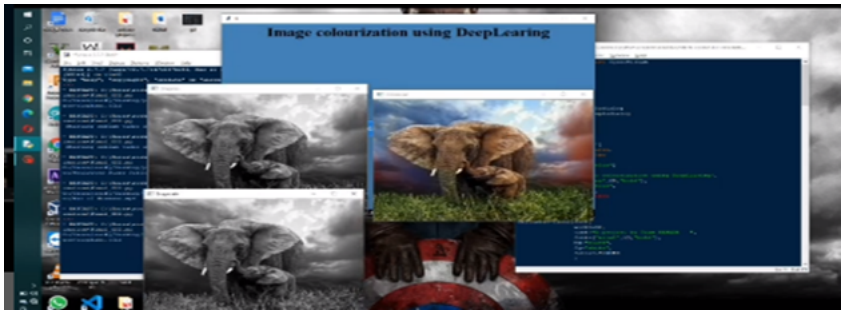
Expecting the life without music is horrible. Here we using python for playing the music. This reduce the cost of the music player which are costly.



37. Speech to text using Python: The most difficult thing is typing the document, for that reason we make our own speech to text converter it help to convert speech in to text easily, And reduce the time.

38. Image colorization using deep learning:

In olden days they are no color photos most of the photos are black & white. By using this project we can convert the black & white image into color.



39. Schematic segmentation of image using opencv:

The main of this project is schematic segmentation of image using opencv.

40. Object detection using Opencv:

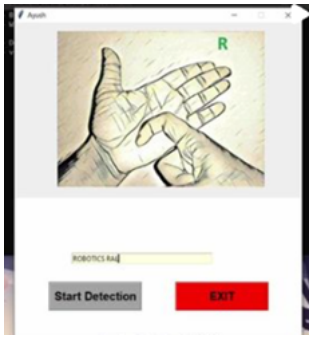
In recent time object tracking is very important in security perpose, The main of this project is to track the object.

41. Scematic segmentation of video:

Scematic segmentation of video it help to identify the object.

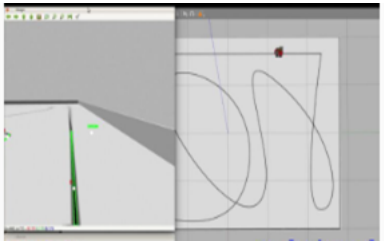
42. Text to Indian sign language converter:

The main aim of this project is converting the Indian sign language in to the speaking language.



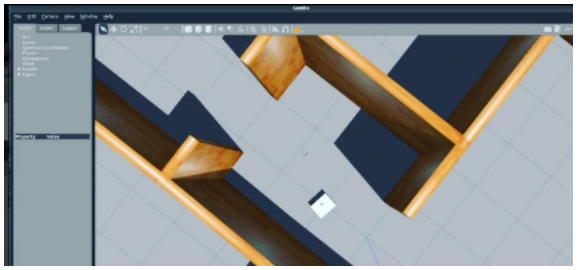
43. Line follower robot stimulation on Gazebo:

The aim of this project is stimulating a line follower robot in gazebo software.



44. Autonomous navigation using SLAM

Autonomous navigation is in a high position now a days. Most of the robots have there own navigation.



B. Research Laboratories

In our ECE department, we have a lab of “Robotics and automation lab”, by using this lab; students are done so many innovative projects. They participated no. of competitions (national and international).

a. **Laboratory space**

Room No.	Name of the Laboratory	Area in Sq.mts
SR-101	Robotics &Automation lab	100.1sq meters

Table 5.7.3.2

b. **Robotics &Automation lab equipment:**

S.No.	Name of the equipment	Number	Cost (Rs.)
1	Digital Storage Oscilloscopes	5	1,20,750
2	Spectrum Analyzer - 9 KHz to 1.5 GHz	1	1,20,000
4	DSP starter kits(TMS320C6713 WITH CCS)	3	69,000
5	Nexys 4DDR Artix7 FPGA kit	3	70,000
7	Zynq Zed development board	2	66,000
8	ARDUINO UNO BOARDS	20	10,000
9	Jet son nano nivida	1	15000
10	Raspberry pi-4 computer	6	24000
11	Raspberry pi-3 computer	6	24000
12	Raspberry pi-2 computer	2	8000
13	Raspberry pi-4 cases	4	4000
14	3.5”raspberry LCD	1	1029
15	Beaglebone black	1	5299
16	Intel Edison	1	1501
17	Pixhawk 2.4.8	1	17000
18	Pixhawk 3 Radio link	1	10000
19	Drones	2	60000

c. **List of Licensed Software available:**

S. No	SOFTWARE	USERS
1.	Multisim13.0	10
2.	XILINX Vivado	10
3.	MATLAB 9.3 (R2021a)	10

d. Library facilities: (Central Library)

Books available in Library:

20	Racing drone FPV	1	30000
21	Nano Arduino	8	2400
22	Node MCU	2	2400
23	Texas instrument C2000 Launch	1	2665
24	Texas instrument Herculer TM RM 46X Launch pad	1	2000
25	Arduino Mega	1	700

Number of Titles: 26690

Number of Volumes: 4136

Year	Number of New Titles added	Number of New Editions added	Number of New Volumes added
CFY(2021-22)	65	17	263
CFYm1(2020-21)	55	11	171
CFYm2(2019-20)	115	23	680
CFYm3(2018-19)	259	32	1000

Scholarly Journal subscription

Year	Number of Technical Magazines/ Periodicals	Number of Total Technical Journals subscribed	Internationally acclaimed titles in (originals, reprints) (Hardcopy)
CFY(2021-22)	7	90	30
CFYm1(2020-21)	12	116	60
CFYm2(2019-20)	15	116	60
CFYm3(2018-19)	15	116	60

Availability of Resources (Soft Copies):

List of E-Journals Available In Central Library:

- IEEE: All-Society Periodicals Package (ASPP)
- Access to 185 e-journals and back volumes from 2010
- Access to 4 Bell Labs Technical e-Journal
- INFLIBNET –NLIST
- Access to 6031 e-journals
- E-Library-ebooks (125000+ titles) (http://site.ebrary.com/lib/inflibnet)
- World -ebooks Library 30000000+ titles) (http://community.ebooklibrary.org/?AffiliateKey=WEL-NDL)
- DELNET
- Access to 2,50,00,000+ Books available for loan
- 40,000+ list of Journals
- 5,000+ Full-text E-journals
- 1,00,000+ Thesis/Dissertations
- NDL: National Digital Library of India (IITKGP)
- 7 Lakh e- Lectures
- 3 Lakh Articles
- 95000+ Thesis
- Manuscripts
- 18,000+ Video Lectures

- NPTEL
- e-Growth,Shodhganaga, and Librivex

Accessibility to students

- Issue of Library cards enabling the students to draw books from Library.
- Library Automation with New Gen Lib software
- Online Public Access Catalogue (OPAC) available for searching Library Materials.
- Department Library with sufficient number of volumes on core and application areas are available during college working hours
- Digital library is provided in central library where students can access various e-journals, e-books, NPTEL Video Lectures.
- Computer Lab with well-equipped Systems and Internet facility available for students.
- Wi-Fi facility available in the library.

v. **Support to students for self-learning activities**

There is a good scope for the students to have self-learning beyond curriculum through the facilities available in the Learning resource centre such as

- E-journals: IEEE, INFLIBNET, DELNET, IEI, NDL
- Textbooks (Hard/ Soft)
- Reference books
- National Programme on Technology Enhanced Learning (NPTEL) Video Lectures
- SWAYAM

C. Instructional materials:

- Laboratory Manuals
- Power Point Presentations
- Data Sheets
- Handouts
- Subject notes.

D. Working models/charts/monogram etc.

- Application oriented Charts are displayed in all the Laboratories which helps the students to understand the objective of laboratory in a better manner. This is the main moto behind the effective teaching and learning process.
- Lab Manuals have been prepared separately for each Laboratory course.

5.7.4 Consultancy(from Industry) (5)

Institute Marks : 3.00

2020-21 (CAYm1)

Project Title	Duration	Funding Agency	Amount
Designing of Inter-kernel communication facility for NoC-based lightweight many cores	6 Months	Radiant Semiconductors	225000.00
			Total Amount(X): 225000.00

2019-20 (CAYm2)

Project Title	Duration	Funding Agency	Amount
Automatic control of electric appliances using IoT in Avani Apartment	3 Months	Avani Builders	200000.00
			Total Amount(Y): 200000.00

2018-19 (CAYm3)

Project Title	Duration	Funding Agency	Amount
Development of a Agri-Coptor for pesticide Spraying	8 Months	Agarwal Electronics	350000.00
			Total Amount(Z): 350000.00

Cumulative Amount(X + Y + Z) = 775000.00

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

Total Marks 30.00

Institute Marks : 30.00

The purpose of faculty performance appraisal is to evaluate the Facultys performance and ensure that the programme objectives are best served. With regard to faculty, the various assessment systems are aimed to meet the following goals:

a. Being aware of the numerous actions that are expected of them.

b. Understanding of the concepts and parameters that went into their evaluation.

c. To receive feedback on their performance in different jobs.

d. Recognize and work on weaknesses intentionally in order to improve.

a. To recognise and counsel faculty members who perform well.

f. For teachers to highlight the need for facility renovations and other criteria in order to better fulfil the needs of students.

g. To evaluate a teachers suitability for a topic or other curricular/ co-curricular activities – and to take corrective action as soon as possible.

The following are the components of a well-defined performance appraisal and development system:

- **Teaching and Learning Process**
- **Professional Development**
- **R&D and Consultancy**
- **Administration Support**
- **Any other achievements/awards/Recognitions**
- **Proposed action plan and contributions for self-improvement and institutional development**

The faculty performance appraisal form is attached below.

PERFORMANCE APPRAISAL

A.Y._____

a	Name of the Employee	
b	Designation	
c	Department	
d	Date of Birth	
e	Date of joining the Institution	
f	Total Teaching Experience	
g	Industry / R & D Experience	
h	Highest educational qualification	

1. **. Teaching and Learning Process Max Points:35**

a) Subject wise result analysis Max Points:15						
Year	**Semester**	**Branch**	**Course**	**No. of Students attended in final exams**	**No.of students passed in final exams**	**Pass%**

b) Subject wise feedback Points:5					Max
Year	**Semester**	**Branch**	**Course**	**No.of students feedback Given**	**Feedback Result**

c)Mentoring of students Points:10					Max
Roll No	**Name of students**	**Branch**	**Information of Pass / backlogs**	**SGPA**	**Placement details**

d) Innovative & Best practices in TLP Points: 5		Max
S.No.	**Course**	**Innovative / Best Practices in TLP**

2. **. Professional Development** **Max points:30**

a) Journal / book chapters / books Publications MaxPoints10		
S.No.	**Title of paper**	**Journal/book details**

b). Workshops / Seminars / FDPsAttended or conducted Points:10			Max
S. No	**Date(From –To)**	**Programme Name**	**Name of Institution**
1			

c). Certifications Max Points:10		
S. No	**Date / Duration**	**Certification details**

3. **. R&D and Consultancy** **Max Points:20**

a. **R&D / Consultancy** Max Points:15					
S.No.	**Title of Project**	**Sponsored agency**	**Amount sanctioned**	**Date of sanction**	**Status**

b. **patents** Max Points:5			
S.No.	**Title of patent**	**Published/accepted**	**Date of published**

4. **. Administration Support** **Max Points:10**

S.No	**Administrative Role**	**LEVEL (Institute/Department)**

5. **. Any other achievements/awards/Recognitions- Max Points:5M**

6. **Proposed action plan and contributions for self-improvement and institutional development**

Signature of the Faculty

Date:

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

Total Marks 10.00

Institute Marks : 10.00

Adjunct faculty name:

Lingala Naresh Kumar

Mr. Naresh Kumar joined in our instituion as a Adjunct faculty on 30/01/2018. He is givng his services for the ECE departmnet for teaching a course of Microprocessors and Micro Controllers for III & IV B. Tech students and Embedded System Design for IV B. Tech students. He is Working at **Qualcomm** as a Principal Engineer from **Innominds Software Pvt. Ltd** since January-2013 to till date.

Professional Summary:

10+Years of work experience in handling activities like trouble shooting functional issues, triaging & debugging stability, Build and Release management for Qualcomm chipsets and developing Mobile Handset Android applicationsandGSM value added services applications**.**

- Good experience as individual contributor with all levels of engineering roles and Product ownership.
- Hands on experience on Qualcomm Product, Image level Integration and Release management activities in **WLAN**, **Modem**, **TZ**, **Audio**, **Boot**, **Video**&**Apps(HLOS)**by using DevOps tools like, **eCommander(EC), Aris, Tiberium, Package warehouse** and **Cascade**.
- Experience with test automation frameworks and CI (**Continuous Integration**) and CD (**Continuous Deployment**) process for Android Software delivery.
- Profusely worked on Version control tools like **Perforce**, **GIT** to track changes made by different people in source code.
- Good knowledge on DevOps tools – **Jenkins, AWS, Docker, Maven** & **Ansible**.
- Good understanding of defect and change tracking tool such as **JIRA**, **Orbit(CR).**
- Hands on experience in trouble shooting functional issues, triaging the system stability, Framework issues in Android platform by using debugging tools like **Crash scope, Trace32, JTAG, RDET and log parsers.**
- Involved in Android OTA upgrade works like Android O, P and Q.
- Good knowledge on code review tools – **Gerrit, Code Collaborator.**
- Work experience on Android security patch upgrade on Porting **Android Bulletin** (**ASB**) &**Block listedBL** CRs to Legacy Software Products.
- Worked extensively in **C , Embedded C** languages on Android/LINUX Platforms.
- Possessing Strong knowledge on Linux Device drivers, OS internals.
- Good work experience on scripting languages - **Python, Shell**.
- Experience in Embedded system firmware development for 8-bit, 16-bit, 32-bit Microcontrollers.
- Work experience on configured toolchain, u-boot (boot loader), root file system and cross compiled Linux for ARM boards and Possessing good experience on porting Linux on embedded boards.
- Knowledge on protocols and experience on network technologies like **IEEE 802.11a/b/g/n** and**GSM/WCDMA/LTE**.
- Deep understanding on complete SDLC on Agile, QCT Software Development Life Cycle.
- Working Knowledge on Manual Testing, Sanity, Regression, Functional and System Testing.
- Ability and Adaptability to work with different technologies on different platforms.
- Strong analytical & problem-solving skills to analyze business applications.

Experience summary:

- Working at **Qualcomm** as aPrincipal Engineer from **Innominds Software Pvt. Ltd** since January-2013 to till date.
- Worked as Senior Software Engineer for **EmWare Technologies (INDIA) Pvt. Ltd,** Hyderabad from October-2011 to December-2012.
- Worked as Engineer for **ICSA (India) Limited**, Hyderabad from October-2008 to November-2009.

Education Qualification:

- Master of Technology (**M.Tech**) in **Embedded Systems & VLSI** from JNTU, Hyderabad, 2011.
- Bachelor of Technology (**B.Tech**) in **Electronics & Communications** from JNTU, Hyderabad, 2007.

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 80.00

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

Total Marks 30.00

Institute Marks : 30.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Electronic Devices and Circuits Lab BTech 2/4 I - Sem	24	• Dual trace Cathode Ray Oscilloscopes • Function generators, • Dual Regulated Power Supplies, • Signal Generators, • Bread boards.	27 Periods of 60 mins each	1)S.Shashidher 2)V.Laxman Sai	1) Lab Asst. 2) Lab Asst.	1) B.Tech 2)B.Tech
2	Basic Electrical and Electronics Engineering Lab (Civil) / (Mech.) BTech 2/4 I - Sem	30	• Dual cathode Ray Oscilloscopes, • Function generators, • Dual Regulated Power Supplies, • Signal Generators, • Bread boards.	6 Periods of 60 mins each	1) D.HariKrishna 2) N.Sowmya	1) Lab Tech. 2) Lab Asst	1) B.Tech 2)B.Tech
3	Java Programming Lab BTech 2/4 I -Sem	30	• Computers • 10 KVA UPS • Java development kit JDK • 8-version	27 Periods of 60 mins each	1) N.Sowmya	1) Lab Tech.	1) B.Tech
4	Basic Electrical Engineering Lab BTech 2/4 I - Sem	24	• Dual trace Cathode Ray Oscilloscopes, • Digital Storage Oscilloscopes, • Function generators • Signal Generators. • Power meter	27 Periods of 60 mins each	1) J Paripoornaiah 2) P.Ravija	1) Lab Tech. 2) Lab Asst	1) DECE 2)B.Tech
5	Analog Ectronics Lab B.Tech 2/4(EEE) I -Sem	24	• Cathode Ray Oscilloscopes • Function Generators • Dual Regulated Power Supplies • Bread boards	9 Periods of 60 mins each	1)A.Vijayalakshmi 2) V.Laxman Sai	1) Lab Asst. 2) Lab Asst.	1) B.Tech 2) B.Tech
6	Analog and Pulse Circuits Lab BTech 2/4 II -Sem	24	• Cathode Ray Oscilloscopes • Function generators, • Dual Regulated Power Supplies, • Signal Generators • Trainer kits	27 Periods of 60 mins each	1) R.Srinivas Pillai 2) V.Laxman Sai	1) Lab Asst. 2) Lab Asst.	1) DECE 2) B.Tech
7	Basic Simulation & Digital System Lab BTech 2/4 II - Sem	24	Computers, • 10 KVA UPS • Linear and Digital IC trainers, • Cathode Ray Oscilloscopes, • Function generators, • Dual Regulated Power Supplies.	27 Periods of 60 mins	1) P.Ravija 2) J Paripoornaiah	1) Lab Asst. 2)Lab Asst.	1) B.Tech 2) DECE
8	Python Programming Lab BTech 2/4 II –Sem	24	• Computers, • 10KVA UPS • Python 3.10.3 • Pycharm.	27 Periods of 60 mins	1) Sameena	1) Lab Asst	1) B.Tech
9	Digital electronics and IC Applications Lab B.Tech 2/4(EEE) II-Sem	30	• Linear and Digital IC trainers • Trainer kits • Cathode Ray Oscilloscopes • Function generators, • Dual Regulated Power Supplies	6 Periods of 60 mins	6 Periods of 60 mins	1) Lab Asst. 2) Lab Asst.	1) B.Tech 2) DECE

10	Analog and Digital Communications Lab BTech 3/4 I-Sem	24	• Digital Storage oscilloscopes, • PCM Generation & Detection Kits, • AM,FM, PAM, PWM Kits, PPM Modulation and Demodulation Kits, • DPCM,ASK, FSK, BPSK, DPSK, QPSK, TDM ,FDM, Modulation & Demodulation Kits, • PAM and Sampling, • Spectrum analyzer • RF signal generator	27 Periods of 60 mins	1)A.Vijayalakshmi 2) S.Shashidher	1) Lab Asst. 2) Lab Asst.	1)B.Tech 2) B.Tech
11	Micro Processors & Micro Controllers Lab BTech 3/4 II-Sem	24	• Computers, • 8086 kits, • AT89C51 Microcontroller • Interfacing modules, • EPROM eraser, • Stepper Motor Interface, • Dosbox-7.4.2 • KEIL 7 Software.	27 Periods of 60 mins	1)AVijayalakshmi. 2) N.Sowmya	1) Lab Asst 2) Lab Asst	1) B.Tech 2) B.Tech
12	Digital Signal Processing Lab BTech 3/4 II-Sem	24	• Computers, • DSP Starter Kits TMS-320 C6713 Development Boards with 512K Flash and 8MB SDRAM and Software's with power supply, • 10KVA UPS, • D-Link 24 port 10/100 switches, • 4 unit Rack, D-Link Category 6 Cable Box. • MATLAB 7.3 - Tool Box Simulink -5 users Signal Processing(5 users) Filter Design-1 Links Of CCs- 1 MATLAB -12 Neural Networks-1 Fuzzy Logic -1 Control Systems-5 Communication Systems-2 • Image Processing-1	27 Periods of 60 mins	1) D.HariKrishna 2) P.Ravija	1) Lab Asst 2) Lab Asst	1) B.Tech 2) B.Tech
13	Linear and Digital IC Applications Lab BTech 3/4 I-Sem	24	• Digital Trainer Kit, • Digital IC Tester, • Linear IC Tester, • Dual trace Cathode Ray Oscilloscopes, • Digital Storage Oscilloscopes, • Function generator, • Dual Regulated Power Supplies, • Signal Generators.	27 Periods of 60 mins	1)AVijayalakshmi. 2) Sameena	1) Lab Asst. 2) Lab Asst	1) B.Tech 2) B.Tech
14	Micro wave and optical communication Lab BTech 4/4 I-Sem	24	• Reflex klystron oscillators, • Gunn diode oscillator, • Wave guide setups, • VSWR meters, • Microwave Bench Setup, • Antenna Trainer system, • VSWR Meter	27 Periods of 60 mins	1) RS pillai 2) P.Ravija	1) Lab Asst. 2) Lab Asst	1) DECE 2) B.Tech
15	Microcontrollers & Programmable Digital Signal Processors MTech 1/2 I-Sem	18	• Computers, • 10KVA UPS • APPLICATION SOFTWARE: MATLAB,Sci Lab, CC Studio • TMS-DSP Trainer Kits • LED interface with PWM • KEIL SOFTWARE	3 Periods of 60 mins	1) S.Shashidher	1) Lab Asst.	1) B.Tech
16	System Design with Embedded Linux MTech 1/2 I- Sem	18	• Computers, • 10KVA UPS • ARDUINO CONTROL BOARD SET • LINUX • KEIL SOFTWARE	3 Periods of 60 mins	1) RS pillai	1) Lab Asst.	1) DECE
17	RTL Simulation and Synthesis with PLDS MTech 2/2 II-Sem	18	• Computers, • 10KVA UPS • Xilinx Vivado -2018	3 Periods of 60 mins	1) S.Shashidher	1) Lab Asst.	1) B.Tech

18	Advance Digital Signal Processing M Tech 2/2 II- Sem	18	• Computers, • 10KVA UPS • TMS-DSP Trainer Kits • LED interface with PWM	3 Periods of 60 mins	1) RS pillai	1) Lab Asst.	1) DECE
19	Electronic Devices and circuits Lab BTech 2/4 I - Sem	24	• Dual trace Cathode Ray Oscilloscopes, • Digital Storage Oscilloscopes, • Function generators, • Dual Regulated Power Supplies, • Signal Generators.	Each section has three batches 3x3 periods 9x3 sections =27 periods	1) S.Shashidher 2) P.Ravija	1) Lab Asst. 2) Lab.Asst	1) B.Tech. 2) B.Tech
20	Basic Simulation Lab BTech 2/4 I -Sem	24	• Computers, • 10 KVA UPS	27 Periods each of 60 mins	1)J.Paripoornaiah 2) Sameena	1)J.Paripoornaiah 2) Sameena	1) DECE 2) B.Tech
21	Digital Systems Design Lab BTech 2/4 I – Sem	24	• Dual Trace Cathode Ray Oscilloscopes, • Function generators, • Dual Regulated Power Supplies.	27 Periods each of 60 mins	1) D.HariKrishna 2) Vijayalakshmi.A	1) Lab Asst. 2).Lab Asst.	1) B.Tech 2) B.Tech
22	Analog Electronics Lab B.Tech 2/4 (EEE)II-Sem	24	• Dual Trace Cathode Ray Oscilloscopes, • Function generators, • Dual Regulated Power Supplies.	9 Periods each of 60 mins	1) D.HariKrishna 2) P.Ravija	1) Lab Asst. 2).Lab Asst.	1) B.Tech 2) B.Tech
23	Basic Electical nad Electronics Engineering B.Tech (Mech/Civil)2/4 I-Sem	24	• Dual Trace Cathode Ray Oscilloscopes, • Function generators, • Dual Regulated Power Supplies.	9 Periods each of 60 mins	1) J.Paripoornaiah 2) P.Ravija	1) Lab Asst. 2).Lab Asst.	1) DECE 2) B.Tech
24	Analog and Digital Communications Lab BTech 2/4 II -Sem	30	• Function generators, • Digital Storage oscilloscopes, • PCM Generation & Detection Kits, • AM,FM, PAM, PWM Kits, • PPM Modulation and Demodulation Kits	27 Periods each of 60 mins	1) V.Laxman Sai 2) P.Ravija	1) Lab Asst. 2).Lab Asst.	1) B.Tech 2) B.Tech
25	IC Application Lab BTech 2/4 II -Sem	24	Digital Trainer Kit, • Digital IC Tester, • Linear IC Tester, • Dual trace Cathode Ray Oscilloscopes, • Digital Storage Oscilloscopes,	27 Periods each of 60 mins	1) RS pillai 2) Vijayalakshmi.A	1) Lab Asst. 2).Lab Asst.	1) DECE 2) B.Tech
26	Electronic Circuit Analysis Lab BTech 2/4 II - Sem	24	• Dual cathode Ray Oscilloscopes, • Function generators, • Dual Regulated Power Supplies	27 Periods each of 60 mins	1) S.Shashidher 2) P.Ravija	1) Lab Asst. 2).Lab Asst	1) B.Tech 2) DECE
27	Micro Processors & Micro Controllers Lab BTech 3/4 I – Sem	24	• Computers, • Universal Programmer, • Logic state analyzer 32 channel, • Vx works Zinq Board 7000 series, • 8086 kits, • AT89C51 Microcontroller • Interfacing modules, • EPROM eraser, • Stepper Motor Interface, • KEIL PK51 Software.	27 Periods each of 60 mins	1) N.Sowmya 2) Sameena	1) Lab Asst. 2).Lab Asst.	1) B.Tech 2) B.Tech

28	Digital Signal Processing Lab BTech 3/4 II - Sem	24	• Computers, • DSP Starter Kits TMS-320 C6713 Development Boards with 512K Flash and 8MB SDRAM and Software's with power supply, • 10KVA UPS, • D-Link 24 port 10/100 switches, • 4 unit Rack, D-Link Category 6 Cable Box. • MATLAB 7.3 - Tool Box Simulink -5 users Signal Processing(5 users) Filter Design-1 Links Of CCs- 1 MATLAB -12 Neural Networks-1 Fuzzy Logic -1 Control Systems-5 Communication Systems-2 • Image Processing-1.	27 Periods each of 60 mins	1) N.Sowmya 2)D.HariKrishna	1) Lab Asst. 2) Lab Asst	1) B.Tech 2) B.Tech
29	e-CAD Lab BTech -3/4 II - Sem	24	• Computers, • 10 KVA UPS	27 Periods each of 60 mins	1) V.Laxman Sai	1) Lab Asst.	1) B.Tech
30	Micro wave and optical communication Lab BTech 4/4 I-Sem	24	• Reflex klystron oscillators, • Gunn diode oscillator, • Wave guide setups, • VSWR meters, • Microwave Bench Setup, • Antenna Trainer system, • VSWR Meter	27 Periods each of 60 mins	1) RSrinivas pillai 2) P.Ravija	1) Lab Asst. 2) Lab Asst.	1) DECE 2) B.Tech
31	Microcontrollers & Programmable Digital Signal Processors MTech 1/2 I-Sem	18	• Computers, • 10KVA UPS • APPLICATION SOFTWARE: MATLAB,Sci Lab, CC Studio • TMS-DSP Trainer Kits • LED interface with PWM • KEIL SOFTWARE	3 Periods each of 60 mins	1) S.Shashidher	1) Lab Asst.	1) B.Tech
32	System Design with Embedded Linux MTech 1/2 I- Sem	18	• Computers, • 10KVA UPS • ARDUINO CONTROL BOARD SET • LINUX • KEIL SOFTWARE	3 Periods each of 60 mins	1) RS pillai	1) Lab Asst.	1) DECE
33	Rtl Simulation and Synthesis with PLDS MTech 2/2 II-Sem	18	• Computers, • 10KVA UPS • Xilinx Vivado -2018	3 Periods each of 60 mins	1) S.Shashidher	1) Lab Asst.	1) B.Tech
34	Advance Digital Signal Processing M Tech 2/2 II- Sem	18	• Computers, • 10KVA UPS • TMS-DSP Trainer Kits • LED interface with PWM	3 Periods each of 60 mins	1) RS pillai	1) Lab Asst.	1) DECE
35	Electronic Devices Lab BTech 2/4 I - Sem	24	• Dual trace Cathode Ray Oscilloscopes, • Digital Storage Oscilloscopes, • Function generators, • Dual Regulated Power Supplies, • Signal Generators.	27 Periods each of 60 mins	1) S.Shashidher 2) Sameena	1) Lab Asst. 2) Lab Asst.	1.B.Tech 2. B.Tech
36	Basic Electrical and Electronics Engineering Lab (Civil)/(Mech) BTech 2/4 I & II - Sem	24	• Dual cathode Ray Oscilloscopes, • Function generators, • Dual Regulated Power Supplies	9 Periods each of 60 mins	1) J Paripoornaiah 2) N.Sowmya	1)Lab Asst 2)Lab Asst	1.DECE 2.B.Tech

37	Basic Simulation Lab BTech 2/4 I -Sem	24	• Computers, • 10 KVA UPS	27 Periods each of 60 mins	1)J.Paripoornaiah 2) P.Ravija	1)Lab Asst 2)Lab Asst	1. DECE 2.B.Tech
38	Digital System Design Lab BTech 2/4 I – Sem	24	• Linear digital ic traner, • Cathode ray ossilloscope • Function generators, • Dual Regulated Power Supplies, • Signal Generators.	27 Periods each of 60 mins	1) N.Sowmya 2) S.Shashidher	1) Lab Asst. 2) Lab Asst. .	1. B.Tech 1.B.Tech
39	Analog and Digital Electronics Lab BTech (EEE) 2/4 I -Sem	24	• Linear digital ic traner, • Cathode ray ossilloscope • Function generators, • Dual Regulated Power Supplies, • Signal Generators	9 Periods each of 60 mins	1) V.LaxmanSai 2) R.S.Pillai	1) LabAsst. 2) Lab Asst	1) B.Tech 2) DECE
40	Analog and Digital Communications Lab BTech 2/4 II -Sem	24	• Dual Trace Cathode ray Oscilloscopes, • Function Generators, • Dual Regulated Power Supplies, • Oscillators.	18 Periods	1) V.Laxman Sai 2) R.S.Pillai	1) Lab Asst. 2) Lab Asst.	1) B.Tech 2) DECE
41	IC Application Lab BTech 2/4 II -Sem	24	• Digital Trainer Kit, • Digital IC Tester, • Linear IC Tester, • Dual trace Cathode Ray Oscilloscopes, • Digital Storage Oscilloscopes, • Function generator, • Dual Regulated Power Supplies, • Signal Generators.	27 Periods each of 60 mins	1)AVijayalakshmi. 2) N.Sowmya	1) Lab Asst. 2) Lab Asst.	1) B.Tech 2) B.Tech
42	Electronic circuit Analysis Lab BTech 2/4 II - Sem	24	• Digital Storage oscilloscopes, • PCM Generation & Detection Kits, • AM,FM, PAM, PWM Kits, PPM Modulation and Demodulation Kits, • DPCM,ASK, FSK, BPSK, DPSK, QPSK, TDM ,FDM, Modulation & Demodulation Kits, • Fiber optics trainer kit. • PAM and Sampling, • Good Will Instek GOS-630 FC, 30 MHz 2 channel colour LCD	27 Periods each of 60 mins	1) S.Shashidher 2)AVijayalakshmi.	1) Lab Asst. 2) Lab Asst.	1) B.Tech, 2) B.Tech
43	Digital Electronics lab BTech2/4 (EEE) II-Sem	30	• Linear digital ic traner, • Cathode ray ossilloscope • Function generators, • Dual Regulated Power Supplies, • Signal Generators	2 Periods each of 60 mins	1) R.S.Pillai 2) J Paripoornaiah	1) LabAsst. 2) Lab Asst	1) DECE, 2) DECE
44	Micro Processors & Micro Controllers Lab BTech 3/4 I - Sem	24	• Computers, • 8086 kits, • AT89C51 Microcontrollers, • 4-Digital, 7 Segment LED Display Interface, • Logic Controller Interface, • Stepper Motor Interface with Stepper Motor & Power Adapter, • 10KVA UPS, • D-Link 24 port 10/100 switches, 4 unit Rack	27 Periods each of 60 mins	1) P.Ravija 2)D.HariKrishna	1) Lab Asst 2) Lab Asst	1) B.Tech, 2) B.Tech

45	Digital Signal Processing Lab BTech 3/4 II - Sem	24	• Computers, • DSP Starter Kits TMS-320 C6713 Development Boards with 512K Flash and 8MB SDRAM and Software's with power supply, • 10KVA UPS, • D-Link 24 port 10/100 switches, • 4 unit Rack, D-Link Category 6 Cable Box. • MATLAB 7.3 - Tool Box Simulink -5 users Signal Processing(5 users) Filter Design-1 Links Of CCs- 1 MATLAB -12 Neural Networks-1 Fuzzy Logic -1 Control Systems-5 Communication Systems-2 • Image Processing-1	27 Periods each of 60 mins	1) N.Sowmya 2) V.Laxman Sai	1) Lab Asst 2) Lab Asst	1) B.Tech, 2) B.Tech,
46	Micro Processors & Micro Controllers Lab BTech (EEE)3/4 II -Sem	24	• Computers, • 8086 kits, • AT89C51 Microcontrollers, • 4-Digital, 7 Segment LED Display Interface, • Logic Controller Interface, • Stepper Motor Interface with Stepper Motor & Power Adapter, • 10KVA UPS, • D-Link 24 port 10/100 switches, 4 unit Rack	9 Periods each of 60 mins	1) Sameena 2) S.Shashidher	1) LabAsst. 2) Lab Asst	1) B.Tech, 2) B.Tech,
47	e-CAD Lab BTech -3/4 II - Sem	24	• Computers, • 10KVA UPS,	27 Periods each of 60 mins	1) V.Laxman Sai 2) R.S.Pillai	1) Lab Asst 2) Lab Asst	1) B Tech 2) DECE
48	Micro wave and optical communication Lab BTech 4/4 I-Sem	24	• Microwave Bench Setups, • Microwave Devices • CRO, • VSWR Meter	27 Periods each of 60 mins	1) R.Srinivas Pillai 2) P.Ravija	1) Lab Asst 2) Lab Asst	1) DECE 2) B Tech
49	Microcontrollers & Programmable Digital Signal Processors MTech 1/2 I-Sem	18	• computers, • 10KVA UPS • Application Software: MATlab,sci lab, cc studio • TMS-DSP trainer kits • LED Interface with PWM • keil software	3 Periods each of 60 mins	1) S.Shashidher	1) Lab Asst	1) B Tech
50	System Design with Embedded Linux MTech 1/2 I- Sem	18	• computers, • 10KVA UPS • arduino control board set • linux • keil software	3 Periods each of 60 mins	1) RS pillai	1) Lab Asst	1) DECE
51	RTL Simulation and Synthesis with PLDS MTech 2/2 II-Sem	18	• computers, • 10KVA UPS • xilinx vivado -2018	3 Periods each of 60 mins	1) S.Shashidher	1) Lab Asst	1) B.Tech
52	Advance Digital Signal Processing M Tech 2/2 II- Sem	18	• computers, • 10KVA UPS • tms-dsp trainer kits • LED Interface with PWM	3 Periods each of 60 mins	1) RS pillai	1) Lab Asst	1) DECE

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

Total Marks 25.00

Institute Marks : 25.00

Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	FPGA Spartan	Purchased on 29.01.2016. From IQ Pvt. Ltd. Cost Rs. 42,500/-	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	VLSI, Embedded Systems	POs 2,3,4,5, 12/PSO1,PSO2
2	Nexys 4DDR Artix 7 FPGA	Purchased on 29.03.2019. From IQ Pvt. Ltd. Cost Rs. 70,000/-	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	VLSI, Embedded Systems	POs 2,3,4,5, 12/PSO1,PSO2
3	Mentor Graphics HEP-1	Purchased on 20.03.2019. From Core EL Tech.Pvt. Ltd. Cost Rs. 2,65,000/-	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	VLSI, Embedded Systems	POs 2,3,4,5, 12/PSO1,PSO2
4	Xilinx Vivoda system edition	Purchased on 20.03.2019. From Core EL Tech.Pvt. Ltd. Cost Rs. 1,08,000/-	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	VLSI, Embedded Systems	POs 2,3,4,5, 12/PSO1,PSO2
5	Zyhq Zed development board	Purchased on 20.03.2019. From Core EL Tech.Pvt. Ltd. Cost Rs. 66,000/-	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	VLSI, Embedded Systems	POs 2,3,4,5, 12/PSO1,PSO2
6	Electronic Explorer	Purchased on 20.03.2019. From Core EL Tech.Pvt. Ltd. Cost Rs. 1,60,000/-	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	VLSI, Embedded Systems	POs 2,3,4,5, 12/PSO1,PSO2
7	MATLAB 658038 (15 Users) (Available in the central server of the institution)	Purchased on 27.08.2010 From Academy of Design and Architecture, Cost Rs. 2,00,750/-	For Projects (UG & PG)and Mini projects	B.Tech. 3/4	Speech and Image Processing, final Project, Neural Networks, Fuzzy Logic, Communication & Control Systems.	POs 1,2,3,5,8,9,10,12 PSO1,2
8	MATH TOOL BOX (13 Users)	Purchased on 13.11.2010 From Academy of Design and Architecture, Cost Rs. 41,980/-	For Projects and Mini projects (UG & PG)	B.Tech.3/4	Speech and Image Processing, final Project, Neural Networks, Fuzzy Logic, Communication & Control Systems.	POs 1,2,3,5,8,9,10,12 PSO1,2
9	Orcad capture	Purchased on 28.08.2011. From FTD automation .Pvt. Ltd. Cost Rs. 42,000/-	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	UG & PG Projects	POs 2,3,4,5, 12/PSO1,PSO2
10	Capture-5/4d/5	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	UG & PG Projects	POs 2,3,4,5, 12/PSO1,PSO2
11	Multisim	Purchased on 30.12.2013. From NI Systems.Pvt. Ltd. Cost Rs. 4,06,275/-	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	UG & PG Projects	POs 2,3,4,5, 12/PSO1,PSO2
12	Keil MDK-ARM ED25	Purchased on 26.02.2016. From Embedded Systems Solutions.Pvt. Ltd. Cost Rs. 4,37,390/-	For B.Tech 4/4 Projects and B.Tech 3/4 mini projects	B.Tech.4/4	UG & PG Projects	POs 2,3,4,5, 12/PSO1,PSO2
13	Pattern Generators	Purchased on 29.01.2016. From SS Lab Equipment.Pvt. Ltd. Cost Rs. 17,000/-	To examine the bit levels in the system bus and test it.	B.Tech. 4/4 & M.Tech	UG & PG Projects	POs 3,4,5,12 PSO1,2
14	Logic Analyzer	Purchased on 29.01.2016. From SS Lab Equipment.Pvt. Ltd. Cost Rs. 28,500/-	To examine the bit levels in the system bus and test it.	B.Tech. 4/4 & M.Tech	UG & PG Projects	POs 3,4,5,12 PSO1,2
15	Spectrum Analyzer (9kHz -1GHz)	Purchased on 29.01.2016. From SS Lab Equipment.Pvt. Ltd. Model:5010,5011 Cost Rs. 1,25,000/-	For testing the results of B.Tech and M.Tech Projects related to communications	B.Tech 3/4 4/4 & M.Tech	Students can analyze the property of the spectrum of signals	POs 2,3,4,5, 12/PSO1,PSO2

6.3 Laboratories: Maintenance and overall ambiance (10) Total Marks 10.00

Institute Marks : 10.00

Maintenance:

1. Each laboratory has a list of Dos and Donts as well as safety precautions.

2. For the maintenance of electronic equipment and software, well-trained technical staff is

available.

3. In the PC system labs, the department has four 10 KVA UPSs with 240 VDC and batteries that are used in the event of a power outage.

4. Each laboratory is serviced on a regular basis. On Saturdays, the concerned labs support team will do normal weekly equipment maintenance. Minor repairs are completed in-house. Major maintenance concerns will be handled by college-hired experts, or equipment will be sent outside for repairs if necessary.

5. Instrument calibration is carried out in each laboratory.

6. The department has internet access and maintains a 35 Mbps Wi-Fi network for students and faculty.

7. All required PC system software, such as Microsoft Office, browsers, lab software, antivirus software, and so on, is installed, and a centralised Computer Maintenance and Network Management service is provided.

Ambience:

1. The experimental benches are in good shape. Individual students in labs are equipped with chairs, desks, and stools.

2. The students are given laboratory manuals to read.

3. The labs are large, with plenty of movement area and two to four windows for optimum ventilation.

4. The lighting system, along with natural light in all corners of the rooms, is highly effective.

5. Every lab has racks where students can store their stuff.

6. Each laboratory is equipped with a white/green board, computer, and other conveniences such as charts.

6.4 Project laboratories (5)

Total Marks 5.00

Institute Marks : 5.00

Mention facilities & Utilization

With all of the technology in the laboratory, a health record is kept. To carry out hardware projects, the project laboratory has common facilities such as soldering, components such as resistors, capacitors, inductors, translators, and ICs of various ratings. Software like as Proteus, Pspice, MATLAB, Verilog HDL, Mentor Graphics Tools, and MS Office are used in simulation projects. For frequency response verification, a Spectrum Analyzer is available.

Project laboratory Details:

LAB-1

- **Computers**

S. No	Name	Specifications	Quantity
1	LG Systems	i 3-2c, 4 GB RAM, 1TB HDD	26

2	Acer	i 3, 2 GB RAM, 500 GB HDD	4
		Total	30

- 10 KVA UPS
- LCD Projector
- Xerox Printers
- Networking Facility (LAN)

LAB-2

- **Computers**

S. No	Name	Specifications	Quantity
1	HP Server	Xeon 3Ghz, 1GB RAM, 8GB HDD	1
2	HP Server	16 GB RAM	1
3	DELL Systems	I3-7100,4 GB RAM, 1GB RAM, 1TB HDD	29
4	LG Systems	3.2 GB RAM, 2GB RAM, 80GB HDD	1
Total			30

LAB-3

- **Computers**

S. No	Name	Specifications	Quantity
1	LG Systems	i 3-2c, 4 GB RAM, 1TB HDD	6
2	Acer	i 3, 2 GB RAM, 500 GB HDD	6
		Total	12

- 10 KVA UPS

Make: Acess power care systems

- LCD Projector

Make: Sony VPL-EX 100

- Printer: HP LaserJet pro CP 1025 color
- 32-Bit Logic Analyzer
- **Software**
  - MATLAB 7.10.0 Tool Box (3 users)
  - Xilinx Vivado (30 users)
  - Mentor Graphics (30 users)
  - Keil Software AT 89C51
  - DOS BOX 7.4.2
  - ARM Processor
  - Proteus (Open Source)

- Python 3.10.3
- Pycharm
- IDK 8

- **Utilization** : B.Tech 4/4 Main Projects & B.Tech 3/4 Mini Projects

6.5 Safety measures in laboratories (10)

Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Electronic Devices and Circuits Lab	Fire Extinguisher, sand buckets, generator back up is present
2	Basic Simulation Lab	Fire Extinguisher, sand buckets, UPS back up is present
3	Analog And Pulse Circuits Lab	Fire Extinguisher, sand buckets, generator back up is present
4	Electrical Engineering Lab	Fire Extinguisher, sand buckets, generator back up is present
5	Linear & Digital Integrated Circuits Lab	Fire Extinguisher, sand buckets, generator back up is present
6	Micro Processors & Microcontroller Lab	Fire Extinguisher, sand buckets, UPS back up is present
7	Analog and Digital Communications Lab	Fire Extinguisher, sand buckets, generator back up is present
8	Digital Signal Processing Lab	Fire Extinguisher, sand buckets, UPS back up is present
9	Microwave& Optical Engineering Lab	Fire Extinguisher, sand buckets, generator back up is present
10	Python programming Lab	Fire Extinguisher, sand buckets, UPS back up is present
11	Java programming lab	Fire Extinguisher, sand buckets, UPS back up is present
12	Basic Electronics Lab	Fire Extinguisher, sand buckets, generator back up is present

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 50.00

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

Total Marks 20.00

Institute Marks : 20.00

POs Attainment Levels and Actions for Improvement- (2020-21)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2	2.55	The PO Attainment is higher than the goal. This PO has 59 courses associated with it. The majority of the subjects adequately address PO1. Some COs are hard to come by in courses like Engineering Mechanics, Electrical Technology, Electrical Technology Lab, Computer Organization and Architecture.

Actions Taken: Action 1: Trained to gain knowledge in Engineering fundamentals by conducting a Bridge course Proposed Action: Action 1: For the following academic year, the target level for this PO will be fixed higher. Action 2: Electromagnetic Theory and transmission lines, Electrical Technology, Electrical Technology lab, and Embedded Systems will receive further attention because they have not yet reached the target level. Action 3: Improved efforts will be made to improve each of the COs in the subjects that have a strong link to this PO.			
PO 2 : Problem Analysis			
PO 2	2	2.21	60 courses with high correlation address the PO. Assignments requiring the examination of complicated problems while applying knowledge of basic sciences and mathematics should be given more weight.
Actions Taken: Action 1: Slow learners are identified and provided with additional assignments. Additional classes are conducted beyond the regular planned classes. more problems are solved in tutorial classes Proposed Action: Action1: In key engineering disciplines including Signal Analysis and Transform Techniques, Analog Electronics, Electromagnetic Theory and transmission lines, Signal and stochastic Processes, Micro Processors and Micro Controllers, more practice sessions are held. Radar Systems and Satellite communication, IC fabrication, logic families, and electronic measurements and instruments were all covered in NPTEL/EDX/COURSE ERA/Udamy video lectures. Action2: VLSI System Design, FPGA Simulation & Synthesis, Analog and Digital Signal processing techniques and applications, Digital Electronics and IC Applications, and XILINX VIVADO design suite" were among the subjects covered in the hands-on training sessions and workshops.			
PO 3 : Design/development of Solutions			
PO 3	2	1.96	This PO has 51 courses associated with it. The overall achievement exceeds the established target level.
Actions Taken: Action 1: Encouraged to attend workshops and seminars in various electronics companies in order to reach a higher attainment level Proposed Action: Action 1: For the following academic year, the objective level for this PO will be raised. Action 2: Tutorial lessons in analysis subjects will be held, and students will be encouraged to analyze and give solutions through experiments and small projects. To provide students with hands-on training sessions on simulation technologies in order to improve their design skills.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	2	1.76	This PO has 44 courses associated with it. This PO is used to map most laboratory courses, Project Seminars, and Mini Projects. The achievement falls short of the specified goal.
Action taken: Action 1:VLSI System Design, FPGA Simulation & Synthesis, Analog and Digital Signal processing techniques and applications, Digital Electronics and IC Applications, and XILINX VIVADO design suite" were among the subjects covered in the hands-on training sessions and workshops. Action 2: Case studies in laboratory and theory courses are discussed and students are encouraged to do mini-projects. more design and analysis problems are given for the exercise Proposed Action: Action 1: To provide students with hands-on training sessions on simulation tools in order to improve their tool usage skills. Action 2: Students will be encouraged to investigate and analyze techniques for solving complicated engineering challenges.			
PO 5 : Modern Tool Usage			
PO 5	2	2.42	This PO has 30 courses associated with it. This PO is used to plan most laboratory courses, project seminars, and mini projects. The achievement is barely below the goal value.
Action taken: Action 1: Selected laboratory courses are conducted with the usage of modern tools wherever possible. Action 2: 'VLSI System Design FPGA Simulation & Synthesis,' 'Biped ROBOT,' "Signal processing techniques and applications," and "XILINX VIVADO design suite" were among the subjects covered in the hands-on training sessions and workshops. Proposed Action: Action 1: To provide students with hands-on training sessions on simulation tools in order to improve their tool usage skills.			
PO 6 : The Engineer and Society			
PO 6	2	1.85	This PO has 22 courses associated with it. The achievement exceeds the given goal value.
Actions Taken: Action 1: Conducted orientation program to create awareness about electrical safety for the students, Conducted extensional activities for the society Action 2: For the following academic year, the objective level for this PO is raised. Action 3: Students are taught to feel responsible for addressing society's concerns through motivating lectures.			
PO 7 : Environment and Sustainability			
PO 7	2	2.09	This PO has 11 courses associated with it. Attainment falls just short of the goal.
Action taken: Action1: Expert lectures and seminars on topics like "5G Communications, Latest Trends, Applications, and Opportunities in Signal and Image Processing, and Embedded Systems and Applications were held. Action 2: Industry visits, expert lectures, and hands-on simulation tool training sessions are held to improve design abilities and provide professional engineering solutions for long-term development. Action 3: Conducted symposium and encouraged students to attend various co-curricular activities			
PO 8 : Ethics			
PO 8	2	2.03	This PO has 18 courses associated with it. Attainment is more than just reaching the goal.

Actions Taken: Action 1: For the following academic year, the objective level for this PO is raised. Action 2: To commit to professional ethics, motivational speeches is given.			
PO 9 : Individual and Team Work			
PO 9	2	2.22	This PO has 20 courses associated with it. Attainment is more than just reaching the goal.
Actions Taken: Action 1: For the following academic year, the objective level for this PO is raised. Action 2: Students are encouraged to participate in multidisciplinary mini/main projects, and technical festivals among other things.			
PO 10 : Communication			
PO 10	2	2.01	This PO has 28 courses associated with it. Attainment is defined as exceeding the established goal.
Actions Taken: Action 1: For the following academic year, the objective level for this PO is raised. Action 2: To organize a variety of events like technical quiz, as part of the Association of ECE Students' activities.			
PO 11 : Project Management and Finance			
PO 11	2	1.79	This PO is linked to 9 courses. The achieved level exceeds the stated target level.
Actions Taken: Action 1: For the following academic year, the objective level for this PO is raised. Action 2: Students are encouraged to participate in multidisciplinary mini/main projects in order to have a better understanding of project management and finance.			
PO 12 : Life-long Learning			
PO 12	2	2.12	This PO has 35 courses associated with it. The level of achievement exceeds the intended goal.
Actions Taken: Action 1: For the following academic year, the objective level for this PO is raised. Action 2: Experts from industry deliver lectures to keep students up to date on the newest engineering trends and to help them realize the need of lifelong learning. Action 3: Students are encouraged to join professional organizations (i.e. memberships) and read traditional periodicals and magazines.			

PSOs Attainment Levels and Actions for Improvement- (2020-21)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Analyze and design analog & digital circuits or systems for a given specification and function.			
PSO 1	2	2.08	This PSO has 56 courses associated with it. The overall achievement level is slightly higher than the stated goal.
Actions Taken: Action 1: Students work in groups on mini projects in signal and image processing, electronic device applications, advanced integrated circuits, and analog and digital communication. Action2: VLSI System Design, FPGA Simulation & Synthesis, Analog and Digital Signal processing techniques and applications, Digital Electronics and IC Applications, and XILINX VIVADO design suite" were among the subjects covered in the hands-on training sessions and workshops. Action3: The 'VALOROUS' technical festival and exposition 'Electronic Project Expo' were held to allow students to explore the uses of electronics.			
PSO 2 : Implement functional blocks of hardware-software co-designs for signal processing and communication applications.			
PSO 2	2	2.17	This PSO has been mapped to around 47 courses. The overall achievement level falls short of the established goal.
Actions Taken: Action 1: Communication, VLSI, Signal and Image Processing using MATLAB demo sessions were held. Action 2: Expert lectures and seminars on topics like "5G Communications, Latest Trends, Applications, and Opportunities in Signal and Image Processing, and Embedded Systems and Applications were held.			

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

Total Marks 10.00

Institute Marks : 10.00

The Internal Quality Assurance Cell (IQAC) is established in the Marri Laxman Reddy Institute of Technology and Management to evolve tools and guidelines for improving quality at different levels of the institution. IQAC monitoring the academic performance of the departments through various processes such as student feedback analysis, result analysis, publications, improved teaching learning process etc. An Academic Audit Comittee done internal audit once in a semester. Academic audit committee is constituted with four members headed by the other department Head and supported by three senior faculty.

Academic Audit Committee contain all departments HODs and senior faculty. Academic audit committee examine the following criteria for each department.

i. Student results and placement
ii. Curricular Aspects
iii. Teaching, Learning process
iv. Research, Consultancy and Extension
v. Infrastructure And Learning Resources

The members of academic audit interact with each member of faculty with regards to subject matter; various concepts of the courses taught and also go through all their records and credentials. The performance of each faculty is quantified. At the end, the committee calculates the whole departments' academic performance. committee prepared a report containing the significant contribution of the members of faculty as well as the department. The report is submitted to the IQAC cell. After verification of the report IQAC forward that report to the Principal for perusal.

The Principal after careful verification of audit report, review meeting will conduct with IQAC and Academic Audit committee for developing detailed plan of action to improve academic performance.

MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section2(f) & 12(B)of the UGC act,1956

ACADEMIC AUDIT REPORT
A.Y 2020-21 (EVEN SEMESTER)

1) GENERAL INFORMATION

Name of the Department	Electronics and communication Engineering
Name of the Programs offered	B.Tech
Sanctioned Intake	180
Admitted Students	180
No. of Full Time Faculty	50
No. of Doctorates	08
No. of Adjunct/contract faculty	01

2) COURSE-WISE AND SEMESTER WISE STUDENT STRENGTH

S.No	Sanctioned Intake	Admitted / Promoted strength
I year	180	180
II year	198	198
III year	198	198
IV year	217	217

3) RESULT ANALYSIS

S.No	No. Of Students Attended	No. Of Students Passed without backlogs	No. Of Students passed With backlogs	Pass Percentage
II YEAR	198	115	43	79.7%
III YEAR	198	100	54	77.7%
IV YEAR	217	129	95	77.8%

4) STUDENT PROGRESSION

Year of Pass	No of Students attended	No. of Students placed	No. of Higher education	No. of Entrepreneurs	Total
2020-21	217	137	10	05	152

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5) CURRICULAR ASPECTS

Particulars	GRADE	Remarks
BOS Meetings conducted	A	
Curriculum development	A	
DAC/PAC Committee meetings conducted	A	
Define Cos, POs, PEOs	A	
Display & Dissimination of COs, POs, PEOs	A	
Mapping of CO-PO	A	
Calculation of CO-PO	A	
Redefine Vision, Mission,PEOs	—	NIL
Coverage of syllabus	A	
Instructional Material	A	
curriculum gaps identified	A	
Quality of question paper	A	
Scheme of evaluation	A	
Quality of student project works	B	
Skill Development Courses conducted	A	
Students feedback on Curriculum	A	

6) TEACHING LEARNING PROCESS

Particulars	GRADE	Remarks
Staff Meetings Conducted	A	
Syllabus coverage monitoring	A	
ICT usage of faculty	A	
Class Committee Meetings conducted	A	
Effective mentoring system	A	
Identify slow learners and conducted remedial classes	A	
Tutorial classes conducted	A	
Regular Feedback collection	A	
Innovations in Teaching learning introduced	A	
MOOC Courses	A	
Industrial Visits	—	NIL(Due to COVid)
Student Internship/trainings	A	
Students Inter institute events participation	A	
Alumni activities	A	
Student chapters & Activities	A	

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7) RESEARCH, CONSULTANCY AND EXTENSION

Particulars	GRADE	Remarks
Research Papers published	B	
Books/Book chapters Published	B	
Patents	C	
Research projects Sanctioned/Ongoing	C	
Consultancy works Completed/Ongoing	C	
Ongoing/ New MoU	B	
Seminars/Workshops/Training Programmes/FDP Conducted	A	
Seminars/Workshops/Training Programmes/FDP Attended	A	
Others if any	-	NIL

8) INFRASTRUCTURE AND LEARNING RESOURCES

Particulars	GRADE	Remarks
New Equipments and Infrastructure added	A	
e-classrooms	A	
Lab timings/usage	A	
Maintenance of Infrastructure	A	
Department Library	A	

Grade :A-Excellent **B:Good** **C:Average**

Overall GRADE: A

Signature of Auditor
Dr. K. Jamal
Professor, GRIET

Signature of HOD
Head of the Department
Electronics and Communications Engineering
MARRI LAXMAN REDDY
Institute of Technology and Management
(AUTONOMOUS)
Dundigal, Hyderabad - 43, R.R. Dist.

Signature of IQAC Coordinator

Signature of Principal
PRINCIPAL
MARRI LAXMAN REDDY INSTITUTE
OF TECHNOLOGY & MANAGEMENT
Dundigal, Medchal Malkajgiri (Dt),
Hyd-43, Telangana.

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

Total Marks 10.00

Institute Marks : 10.00

1. **Placements**

Year	Total no. of final year students	Total no. of eligible students	Total no. of placed students	Total no. of offers	% Placement
2020-21	205	164	137	137	66.82
2019-20	191	154	124	124	64.92
2018-19	183	144	115	115	62.84

Table 7.3.1.1 Student placements data in 2018-19, 2019-20 & 2020-21

Total no. of eligible students	Total no. of offers	Name of the industry/company	No. of placed students	Package per annum (Rs.)
Placements (2020-21)				
164	137	Wiley Mthree	1	11,00,000
		Cognizant Genc Next	1	7,00,000
		Tcs Digital	2	7,00,000
		Medplus	1	5,00,000
		Virtusa	1	5,00,000
		Accenture	18	4,50,000
		Cognizant	16	4,50,000
		Colruyt It Consultancy India Pvt Ltd	1	4,34,000
		Incapsulate	1	4,00,000
		Multiplier Solutions	7	3,85,000
		Hyundai	16	3,84,000
		Ucal	7	3,84,000
		Capgemini	7	3,80,000
		Next Step	10	3,80,000
		Smea	6	3,80,000
		Ntt Data	2	3,75,000
		Indotronix	8	3,60,000
		Infosys	2	3,60,000
		Kpit	1	3,60,000
		Staart Buildtech Pvt Ltd	1	3,60,000
		Ashok Leyland	1	3,50,000
		L & T Infotech (Level 1)	2	3,50,000
		Wipro	3	3,50,000
		Tcs	4	3,36,000
		Tcs Ninja	6	3,36,000
		Mphasis	2	3,25,000
		Tech Mahindra	1	3,25,000
		Premier Energies Ltd	3	3,10,000
		Soft Suave	1	3,00,000
		Mphasis	1	2,50,000
		Genzeon	1	2,40,000

Placements (2019-20)				
154	124	Shell Infotech	1	7,00,000
		Westagile It Labs	1	5,50,000
		Accenture	1	4,50,000
		Virtusa	2	4,00,000
		Capgemini	11	3,80,000
		Dxc Technologies Pvt Ltd	4	3,60,000
		Hyundai	11	3,60,000
		Infosys	2	3,60,000
		Kadevi	10	3,60,000
		Next Step	8	3,60,000
		Smea	5	3,60,000
		Ucal	9	3,60,000
		Lti Infotech	1	3,50,000
		Mind Tree	1	3,50,000
		Wipro	5	3,50,000
		Pwc	1	3,47,000
		Tcs	7	3,40,000
		Mphasis	9	3,25,000
		Tech Mahindra	3	3,25,000
		Capgemini	15	3,00,000
		Vsplash	1	3,00,000
		Randstad	1	2,87,000
		Akash	4	2,64,000
		Deloitte	2	2,50,000
		Gentek Technologies	1	2,40,000
		[24]7.Ai	1	2,00,000
		Cognizant	7	2,00,000
Placements (2018-19)				
144	115	Tcs	1	6,00,010
		Cognizant	3	4,01,988
		Sits	8	3,69,000
		Value Momentum	2	3,50,004
		Wipro	1	3,50,004
		Ntt Data	2	3,50,000

		Hyundai	9	342000
		Cognizant	4	3,38,005
		Tcs	1	3,36,875
		Techmahindra	3	3,25,000
		Akash	2	324000
		Resolute Star Private Limited	7	324000
		Amazon	8	323500
		Smea	3	3,20,000
		Capgemini	5	3,00,000
		Harasoft Tech	7	3,00,000
		Intel	1	3,00,000
		Tekskills	1	3,00,000
		Tvarana Software Solutions	2	3,00,000
		Mphasis	3	2,50,000
		Global Logic	1	2,40,000
		Ray Business Technology	1	2,40,000
		Genpact	5	2,20,000
		Teleperformance	1	2,20,000
		Rmsi Private Ltd	2	2,17,140
		Accenture	3	1,85,200
		Digital Nirvana	4	1,80,000
		Pact Consulting	1	1,80,000
		Wipro	3	1,50,000
		Callhealth	4	270000

Table 7.3.1.2 Student placements data in Core Companies and other Companies with Pay Packages per annum in 2018-19, 2019-20 & 2020-21.

1. **Higher studies**

Year	Abroad	Indian Institutions	Total
2020-21	1	9	10
2019-20	3	12	15
2018-19	3	10	13

Table 7.3.2 Passed Out Student Pursuing data for Higher studies in India and Abroad in 2018-19, 2019-20 & 2020-21

1. **Entrepreneurs**

Student Name	Start-up unit Name	Start-up incubation center started year
C. KARTHIK BABU (177Y1A0413)	Incubation – IT services	2021
MALLEPALLY SRIJAN REDDY (177Y1A0451 ALLAM JAYA PRAKASH REDDY (177Y1A0479	Mr. Reddy's Projects Institute	2021
ANITHA VALLEPU (177Y1A0464)	Aniva soft solutions Pvt Ltd.	2021
TERATIPALLY SHANMUKHA VARA PRASAD (177Y1A04A0)	Test Bench–IT Services	2021
B.SAI TEJA (167Y1A0493)	Cloud Computing Trainer Institute	2020
KESAVA PRAKASH (167Y1A0468) KATTA BHANU PRAKASH (167Y1A04C2)	Multimedia–IT Services	2020
MANUPATI KARTHIK (167Y1A0467) UTLA KALYAN (167Y1A04D4)	Real Online Services Pvt Ltd.	2020
LATCHUPATULA NAVYA (167Y1A04E3) B NIHARIKA SATYA SREE (167Y1A04E4)	Women Emporium	2020
TATIKONDA ANIL (157Y1A0461)	Ani Tech Solutions Pvt Ltd.	2020
GUVVA MANASA (157Y1A04D9) BONAM TULASI SRI(157Y1A04H8)	VLSI fab-front Design Institute	2019
MD NISSAR (157Y1A04E4)	Soft Languages Coaching Institute	2019

M.SHIVANI (157Y1A04F4) K SOWMIKA (157Y1A04F8)	Fashion Tech Training Institute	2019
J. VAMSHIKRISHNA YADAV (157Y1A04G6) PATHIGIRI HARIPRASAD (157Y1A0417)	Global Web Developer.	2019
PERUMANDALA HEMA SRI (167Y5A0413) AKULA RAVITEJA (167Y5A0407)	CET Coaching Center	2019
A V N S M L K SRIVARSHA (157Y1A04A5)	SV Soft services Pvt Ltd.	2019

Table 7.3.3 Entrepreneur Students data in 2018-19, 2019-20 & 2020-21

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

Total Marks 10.00

Institute Marks : 10.00

Item		2021-22	2020-21	2019-20
National Level Entrance Examination	No of students admitted	0	0	0
GATE/CAT	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
State/ University/ Level Entrance Examination/ Others	No of students admitted	180	180	180
EAMCET	Opening Score/Rank	22647	19251	18898
	Closing Score/Rank	121012	85785	32967
Name of the Entrance Examination for Lateral Entry or lateral entry details	No of students admitted	0	18	37
ECET	Opening Score/Rank	0	214	403
	Closing Score/Rank	0	11706	80542
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		0	0	0

8 FIRST YEAR ACADEMICS (50)

Total Marks 45.23

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

Total Marks 5.00

Institute Marks : 5.00

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

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
							CAY	CAYm1	CAYm2			
Dr.G.Narsinga	BHOPG6462J	M.Sc. and PhD	08/08/1994	physics	Professor	22/08/2014	100	100	100	Yes	Regular	
Mrs. Ch.Hemal	AJEPJ8215H	M.Sc	14/04/1997	physics	Associate Professor	01/07/2013	100	100	100	Yes	Regular	
Mr. N.Ramesh	AJLPN1913B	M.Sc	25/04/2007	physics	Associate Professor	10/09/2012	100	100	100	Yes	Regular	
Dr.K.Suresh Ba	AZIPK4316J	M.Sc. and PhD	27/05/2009	chemistry	Professor	15/09/2014	100	100	100	Yes	Regular	
Mr.G.Vijayasim	ATGPG8334E	MA	15/05/2006	English	Associate Professor	15/09/2010	100	100	100	Yes	Regular	
Mr.A.Sudhakar	AQAPA9072C	M.Sc	16/06/2008	Mathematics	Associate Professor	09/07/2009	100	100	100	Yes	Regular	
Mrs.Z.T.Anitha	DIGPK7830H	M.Sc	30/04/2007	chemistry	Assistant Professor	01/05/2015	100	100	100	Yes	Regular	
Mrs.P.Vijayalak	CSUPP4266P	M.Sc	21/06/2011	Mathematics	Assistant Professor	16/05/2017	100	100	100	Yes	Regular	
Mr. B.Sridhar F	APCPB3155L	M.Sc	05/06/2002	Mathematics	Associate Professor	11/07/2017	100	100	100	Yes	Regular	

Mrs.G.Bhagyal	ANLPG9915C	M.Sc	12/05/2008	chemistry	Assistant Professor	12/09/2012	100	100	100	Yes	Regular	
Dr. G. Gopi Kri	CQVPG3892B	M.Sc. and PhD	27/01/2018	Mathematics	Associate Professor	28/05/2018	100	100	100	Yes	Regular	
Mr. B. Kumara	CTTPK5772K	M.Sc	10/05/2010	Chemistry	Associate Professor	10/09/2012	100	100	100	Yes	Regular	
Mrs. Rukhiya E	AJRPR1825L	MA	20/06/2005	English	Associate Professor	21/08/2010	100	100	100	Yes	Regular	
Mr. K. Prakash	BTIPK3312H	MA	09/06/2008	English	Assistant Professor	25/07/2017	100	100	100	Yes	Regular	
Mr.V.Srinivas ra	AGQPV7470F	M.Sc	20/06/2005	Mathematics	Associate Professor	24/06/2013	100	100	100	Yes	Regular	
Mr.A.Ajay Babu	AQAPA9072C	M.Sc	21/05/2007	Mathematics	Associate Professor	13/09/2013	100	100	100	Yes	Regular	
Mr. K Venkata	BJJPK5844H	M.Sc	25/05/2009	Chemistry	Associate Professor	26/10/2009	100	100	100	Yes	Regular	
Mr. Md.Parvez	AXFPM5792B	M.Sc. and PhD	01/02/2021	physics	Associate Professor	01/04/2017	100	100	100	Yes	Regular	
Mr.V.Niranjan	AHEPV1362K	M.Sc	10/04/2006	Mathematics	Assistant Professor	19/01/2017	100	100	100	Yes	Regular	
Mr.M.Ramanuja	AIRPR9866N	M.Sc	07/05/2001	Mathematics	Associate Professor	22/07/2017	100	100	100	Yes	Regular	
Mr.G.V.S.Rama	AKQPG1803K	M.Sc	05/06/2006	Chemistry	Associate Professor	20/11/2012	100	100	100	Yes	Regular	
Mrs.R.Sudhara	AWHPR2393E	M.Sc	15/11/2010	Environmental Science	Assistant Professor	25/05/2018	100	100	100	Yes	Regular	
Mrs.E.Sailaja	BDDPJ4553Q	M.Sc	12/05/2008	physics	Assistant Professor	14/05/2018	100	100	100	Yes	Regular	
Mrs.A.R.Suresh	ALGPA4611A	MA	13/06/2005	English	Assistant Professor	14/05/2018	100	100	100	Yes	Regular	
Dr.G.Srinivas	BHUPG9605B	M.Sc. and PhD	17/10/2017	physics	Associate Professor	05/06/2017	100	100	100	Yes	Regular	
Mr.D.APPARAO	BPLPD4325J	M.E/M.Tech	05/01/2015	Software Engineering	Assistant Professor	28/03/2019	100	100	100	Yes	Regular	
Mrs.A.Leela Sr	AMAPA7030L	M.E/M.Tech	05/01/2011	Web Technologies	Assistant Professor	30/03/2019	100	100	100	Yes	Regular	
Mrs.B.SHILPA	BPCPB3723F	M.E/M.Tech	15/06/2019	CSIE	Assistant Professor	22/04/2019	100	100	100	Yes	Regular	
Mr.V.Indivarute	ATLPV1538L	M.E/M.Tech	03/12/2016	CSE	Assistant Professor	03/05/2019	100	100	100	Yes	Regular	
Mrs.T.Sravanth	MWBPS6830D	M.E/M.Tech	06/08/2018	CSE	Assistant Professor	03/05/2019	100	100	100	Yes	Regular	

Mr.R.SATHEES	BKBPR6993R	M.E/M.Tech	23/12/2016	CSE	Assistant Professor	21/05/2019	100	100	100	Yes	Regular	
Mrs.B.Sandhya	BBNPB3221R	M.E/M.Tech	14/02/2013	IT	Assistant Professor	21/05/2019	100	100	100	Yes	Regular	
Mrs.M.Sindhuja	CROPM7944J	M.E/M.Tech	16/12/2019	CSE	Assistant Professor	31/12/2019	100	100	100	Yes	Regular	
Mr.Babu Kannu	AYVPB5469P	M.E/M.Tech	21/11/2016	CSE	Assistant Professor	04/04/2019	100	100	100	Yes	Regular	
Mr.M SUDHAK	AXFPM4655B	M.E/M.Tech	19/12/2011	Power Electronics	Associate Professor	11/06/2019	100	100	100	Yes	Regular	
Mr.G.Radha Kr	BJSPG2635K	M.E/M.Tech	19/11/2016	Power Electronics	Assistant Professor	02/07/2018	100	100	100	Yes	Regular	
Mr Vinodh	ARPPV5360A	MBA	11/06/2012	Finance	Assistant Professor	30/01/2016	100	100	100	Yes	Regular	
G .Pranay	ASAPG2791G	MBA	11/06/2012	HRM	Assistant Professor	30/06/2016	100	100	100	Yes	Regular	
K. G chandrava	EUCPK1445P	MBA	12/06/2013	Finance	Assistant Professor	13/12/2016	100	100	100	Yes	Regular	
P.Prashanthi	ASTPP7152R	M.E/M.Tech	08/10/2018	Thermal Engineering	Assistant Professor	10/04/2019	100	100	100	Yes	Regular	
Mr.Narendar	BUTPR7818H	M.E/M.Tech	10/12/2018	Machine Design	Assistant Professor	22/04/2019	100	100	100	Yes	Regular	
Mr.K.Karthik	DXAPK9685K	M.E/M.Tech	14/04/2014	CAD CAM	Assistant Professor	13/05/2019	100	100	100	Yes	Regular	
Mr.B.Thamesh	ANBPT2593F	M.E/M.Tech	12/05/2014	Machine Design	Assistant Professor	01/08/2021	100	100	100	Yes	Regular	
Mr.G.Sudhakar	BGZPG8022Q	M.E/M.Tech	17/12/2018	Embedded System	Assistant Professor	13/04/2020	100	100	100	Yes	Regular	
Mr.B.Hanuman	CMSPK2839H	M.Sc	04/04/2011	Chemistry	Assistant Professor	10/09/2014	100	100	100	Yes	Regular	
Mrs.P.Keerthi	CYLPP8121L	M.E/M.Tech	13/06/2018	STRUCTURAL ENGINEERING	Assistant Professor	08/05/2019	100	100	100	Yes	Regular	
Dr.K.Ashok	BPWPK6837D	M.Sc. and PhD	21/02/2008	Physics	Professor	18/05/2018	100	100	100	Yes	Regular	
Mr.D.Girish	FFVPD5667B	MA	21/05/2018	English	Assistant Professor	31/05/2018	100	100	100	Yes	Regular	
Mrs.S.Swetha	JNKPS5566P	M.Sc	19/04/2010	Chemistry	Assistant Professor	07/05/2018	100	100	100	Yes	Regular	
Mr. M. SATHIS	BXSPM6858E	M.Sc	03/04/2008	MATHEMATICS	Assistant Professor	23/02/2017	100	100	100	Yes	Regular	
Dr. A.Vijayalak	BIUPA6724L	M.Sc. and PhD	01/04/2014	MATHEMATICS	Professor	22/03/2017	100	100	100	Yes	Regular	
Dr. Yash Raj	BINPR0650M	M.A and Ph.D	04/04/2022	ENGLISH	Associate Professor	02/04/2018	100	100	100	Yes	Regular	

Ms.T. Prathyus	AIYPT9595P	MA	04/04/2011	ENGLISH	Assistant Professor	10/04/2017	100	100	100	Yes	Regular	
Mrs.M. Krishna	DABPM8953C	M.Sc	07/04/2008	CHEMISTRY	Assistant Professor	11/05/2018	100	100	100	Yes	Regular	
Ms. M.Pranathi	BTLPM1359R	MA	21/04/2014	ENGLISH	Assistant Professor	10/06/2017	100	100	100	Yes	Regular	
Mrs. V. Krishna	AISPV9534A	M.Sc	12/05/2008	Physics	Assistant Professor	11/06/2018	100	100	100	Yes	Regular	
Mr. K. Rajesh	DVLPK1544C	M.E/M.Tech	20/09/2010	POWER INDUSTRIAL DRIVES	Associate Professor	11/05/2019	100	100	100	Yes	Regular	
Mr. B. Rajeshw	BGYPB3253M	MBA	11/06/2007	FINANCE	Assistant Professor	05/05/2017	100	100	100	Yes	Regular	
Mrs.G. Shiva R	BCOPG6097C	MBA	12/06/2006	FINANCE	Assistant Professor	10/05/2017	100	100	100	Yes	Regular	
Mr. SK Feroz K	FASPS3975P	MBA	10/06/2013	MARKETING	Assistant Professor	15/05/2018	100	100	100	Yes	Regular	
Mr. M. Shiva	CSXPM3801Q	MBA	11/06/2013	FINANCE	Assistant Professor	03/05/2018	100	100	100	Yes	Regular	
Mr. Mirza Subh	BEJPM4313K	MBA	14/06/2010	MARKETING	Assistant Professor	06/05/2019	100	100	100	Yes	Regular	
Mr.Manikanth	DGZPS5469F	M.E/M.Tech	21/01/2013	EMBEDDED SYSTEMS	Assistant Professor	08/04/2019	100	100	100	Yes	Regular	
Dr.M.Ramesh	BXSPM6858E	M.Sc. and PhD	13/04/2020	Physics	Associate Professor	20/04/2020	100	100	100	Yes	Regular	
Mrs.G.Divya	BQSPG1003Q	M.E/M.Tech	12/11/2014	VLSI	Assistant Professor	21/05/2019	100	100	100	Yes	Regular	
Mr.P.Nagaraju	CBUPP4052L	M.E/M.Tech	06/07/2017	GEOTECHNICAL ENGINEERING	Assistant Professor	07/04/2018	100	100	100	Yes	Regular	
Dr.K.Bhaskar	DKQPK7309D	M.A and Ph.D	06/06/2018	ENGLISH	Assistant Professor	20/06/2018	100	100	100	Yes	Regular	
Mr.AMEESH K	BDGPA8757E	M.E/M.Tech	16/10/2019	STRUCTURAL ENGINEERING	Assistant Professor	15/11/2019	100	100	100	Yes	Regular	
Mr.Ramagirikira	ADGPR0309K	M.E/M.Tech	22/11/2010	VLSI	Assistant Professor	14/05/2018	100	100	100	Yes	Regular	
Mr.B.Shiva sha	CQDPB6607B	M.E/M.Tech	05/10/2016	Electrical Power Systems	Assistant Professor	04/04/2019	100	100	100	Yes	Regular	
Prashanthi Kur	BMQPK5322Q	MA	10/03/2009	English	Assistant Professor	15/05/2019	100	100	100	Yes	Regular	
MR.S.YESUCH	GMJPS6943B	MA	08/03/2012	ENGLISH	Assistant Professor	19/04/2019	100	100	100	Yes	Regular	

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment=(5*20)/FYSFR(Limited to Max.5)
2019-20(CAYm2)	720	72	10	5.00
2020-21(CAYm1)	840	72	12	5.00
2021-22(CAY)	1080	72	15	5.00
Average	0	0	0	0

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

Total Marks 4.00

Institute Marks : 4.00

Year	x (Number Of Regular Faculty with Ph.D)	y (Number Of Regular Faculty with Post graduate Qualification)	RF (Number Of Faculty Members required as per SFR of 20:1	Assessment Of Faculty Qualification [(5x + 3y) / RF]
2019-20	7	50	36	5.00
2020-21	8	53	42	4.00
2021-22	9	54	54	3.00

Average Assessment: 4.00

8.3 First Year Academic Performance (10)

Total Marks 6.23

Institute Marks : 6.23

Academic Performance	2021-22	2020-21	2019-20
Mean of CGPA or mean percentage of all successful students(X)	7.25	7.21	6.90
Total Number of successful students(Y)	158.00	150.00	146.00
Total Number of students appeared in the examination(Z)	180.00	161.00	180.00
API [X*(Y/Z)]	6.36	6.72	5.60

Average API[(AP1+AP2+AP3)/3] : 6.23

Assessment [1.5 * Average API] : 6.23

8.4 Attainment of Course Outcomes of first year courses (10)

Total Marks 10.00

8.4.2 Record the attainment of Course Outcomes of all first year courses (5)

Institute Marks : 5.00

Step 1: Course Outcome attainment levels: The CO attainment levels are set for each course depending on the performance of the student in Internal Assessment and previous results of the subject.

Step 2: Criteria for setting and improvement of the target levels: For every course the target level for an assessment year is set on the basis of the target achieved in the previous year. For any course, achieving the maximum attainment level of 3 during the assessment year, the attainment level for the subsequent year shall be redefined by increasing the target marks.

If targets are not achieved, measures are taken in next year to improve student performance through conducting remedial classes, attachment of bright student to poor student etc.

Step 3: Attainment Levels:

Attainment level 0- The total attainment level is <55%

Attainment level 1- The total attainment level is in between 56-65%

Attainment level 2- The total attainment level is in between 66-75%

Attainment level 3- The total attainment level is >75

Course Name	Course Code	Target	Direct Attainment	Indirect Attainment	80% Direct Attainment	20% Indirect Attainment	Total Attainment	Achieved Attainment Level
Mathematics-I	EC111	2.5	68	85	54	17	71	2.5
Engineering Chemistry	EC112	3	73	70	58	14	72	2.6
Engineering Physics-I	EC113	3	76	83	61	16	77	3
Professional Communication in English	EC114	3	88	86	70	17	87	3
Engineering Mechanics	EC115	2	65	86	52	17	69	2.3
Basic Electrical and Electronics Engineering	EC116	2	63	88	50	17	68	2.2
English Language Communication Skills Lab	EC117	3	95	90	76	18	94	3
Engineering Workshop	EC118	3	94	89	75	17	93	3
NSS	EC119	3	**95**	**95**	**76**	**19**	**95**	**3**
Engineering Physics-II	EC121	3	68	83	54	16	71	2.5
Mathematics-II	EC122	2.5	66	86	53	17	70	2.4
Mathematics-III	EC 123	2	70	85	56	17	73	2.7
Computer Programming in C	EC 124	2	68	85	54	17	71	2.5
Engineering Graphics	EC 125	2	75	85	60	17	77	3
Engineering Chemistry Lab	EC 126	3	90	89	72	17	89	3
Engineering Physics Lab	EC 127	3	90	90	72	18	90	3
Computer Programming in C Lab	EC 128	3	82	85	66	17	83	3

NCC/NSO	ECE 129	3	95	90	76	18	94	3

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

Institute Marks : 5.00

SETTING CO ATTAINMENT TARGETS:

•Targets set in terms of performance levels of present year students and previous year course attainment

·Targets are set for each Course Outcome of a course separately

·The target can be “the class average marks > 60 marks”

CO ASSESSMENT PROCESS:

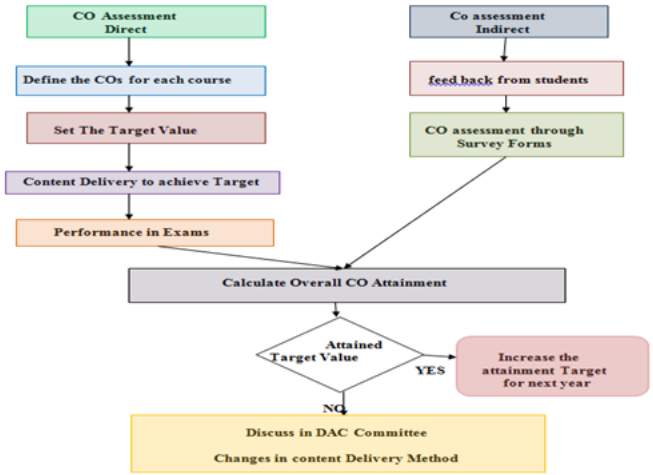


Fig.CO Assessment Process

Direct Assessment Tools:

Internal Exams: For theory subjects during the semester there are 2 mid terms examinations. first mid examination is conducted for 1,2,and 3 units half syllabus and second mid examination is conducted for3 unit remaining half syllabus, 4 and 5 units. Each midterm examination consists subjective (i.e., Descriptive questions) for 10 marks. Objective questions for 10 marks. Objective paper containing 10 bits of multiple choice questions & 10 fill in the blanks. The subject teacher set the question paper by covering the all defined course outcomes spreading in two mids.

Semester End examinations : The performance of a student in each semester shall be evaluated subject wise with a maximum of 75 marks for theory and for 50 marks for practical examinations & conducted by affiliated university.

Assignments: Assignments are more valuable assessment procedure. In this process students will gain a thorough knowledge on the methods used and approaches taken in considering an issue. The faculty will give assignments to the students on different topics covering all course outcomes involved in the course syllabus. Each assignment is evaluated for 5 marks and the average of these marks will be included in the internal examinations under assignments topic.

Practical Tests: for practical subjects there will be a continuous evaluation during the semester for 25 sessional marks and 50 end examination marks. Out of the 25 marks for internals day to day work in the laboratory shall be evaluated for 15 marks and internal examination for practical shall be evaluated for 10 marks conducted by the concerned laboratory faculty. The external examiner shall be appointed from the cluster colleges as decided by the affiliating university.

Certification programmes: certification programmes are introduced with an objective to enhance the knowledge of the students on different cutting edge technologies. In this programme students will undergo training on a particular technology. Thereafter they would be executing a small live project work under the guidance of the Project manager. At the end of the program each trainee would need to submit a „Project Report" on the work done, and also would be required to make an oral presentation. A participation certificate will be given to each student on appreciating their participation.

Making different working models: Designing of working models is introduced with a motto of addressing the practical exposure of the students in prevalent civil engineering studies. Civil engineering deals with the different structures and drawings which includes laying of roads, construction of buildings, bridges, airports, tunnels, dams, break waters, ware houses, power plants, treatment plants, canals, drains, water supply and sewage systems, harbours, docks, and so many other structures both in Private and Public sector. Therefore in every semester a model making competition was conducted for the civil engineering students. For winners a cash prize and a memento is given to the winners at the time of institution/college annual day celebrations.

Workshops/guest lectures: The department organise guest lectures/workshops on regular intervals. The eminent persons working in well-known civil based industries, research organizations, are called by our institute to motivate and help our students and also to faculty to understand current trends in various aspects, which leads to attainment of Pos. The talk of these persons becomes a bridge to fill the gaps and also develop a rapport for meeting the future need of the industries, research organizations and universities

Indirect assessment tools:

course end survey:

The course end survey form should filled by the students at the end each semester. the form contain the questionnaire about instructor and all course outcomes. The students give the rating for each CO depend on their learning level of CO. Computation of indirect attainment of COs is based on the perceptions of students. Hence, the percentage weightage to indirect attainment kept at as 20%.

Feedback from students: Feedback from students regarding faculty teaching courses and coverage of syllabus and new topics beyond scope of syllabus undertaken.

Alumni Survey: Surveying program alumni can provide information about program satisfaction, preparation (transfer or workforce), employment status, skills for success. Surveys can ask alumni to identify what should be changed, altered, maintained, improved, or expanded. The survey is conducted on every semester.

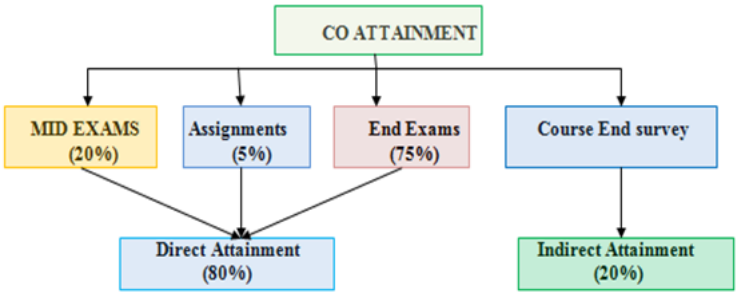
Student's Exit feedback: Feedback from passing graduates is taken once they are about to graduate.

Feedback from employer: Feedback from employer is taken regarding performances of students in different sectors.

Feedback from parents:

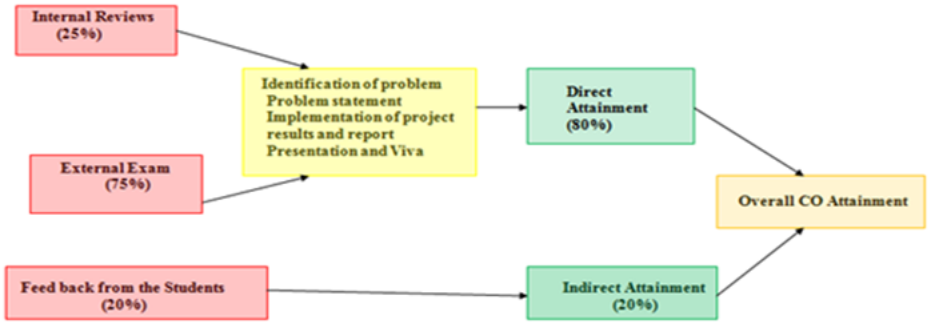
CO ATTAINMENT FOR THEORY COURSES

In the Calculation of Course Outcomes (CO) attainment, Marks obtained by the students in their internal exams, assignments and university exams are considered.



CO ATTAINMENT FOR PROJECTS/SEMINARS

In the Calculation of Course Outcomes (CO) attainment, The daily performance of the student in completing the experiments (include result of the experiment, report of the results, and viva to assess understanding levels); Marks obtained by the students in their internal exams, and university exams are considered.



PO Assessment & Attainment Process:

Mapping the CO-PO for all courses

Once CO-PO mapping of all the courses are completed, the cumulative average of mapping to all the PO and PSOs are analyzed and Set attainment target will be fixed for each PO and PSO.

Through Direct Assessment tools, achievement of each PO and PSO will be calculated by taking the cumulative average of all the courses which contributes to each PO and PSO.

Through Indirect Assessment tools, achievement of each PO and PSO will be calculated by focusing the questionnaire in the survey forms and student portfolio which contributes to each PO and PSO.

The final PO attainment is calculated by taking 80% of PO and PSO achievement from Direct method and 20% of PO and PSO achievement form Indirect method.

The obtained values will be compared with the set attainment target fixed for each PO and PSO.

If the target is achieved, then the same process will be continued for further batches.

If the target is not achieved, then continuous improvement action will be taken for each PO and PSO.

The results of evaluation are discussed in DAC meeting. Based on the attainment, the improvements to be done are discussed among the members.

Continuous improvement action includes Action to be taken for improving the teaching learning process based on the attainment gap or by improving learning facilities or organizing programs to fill the attainment gap.

If both the above said actions will lead to no change in the attainment of PO and PSO, then curriculum / syllabus will be ratified/ revised and the same will be forwarded to Board of Studies for approval.

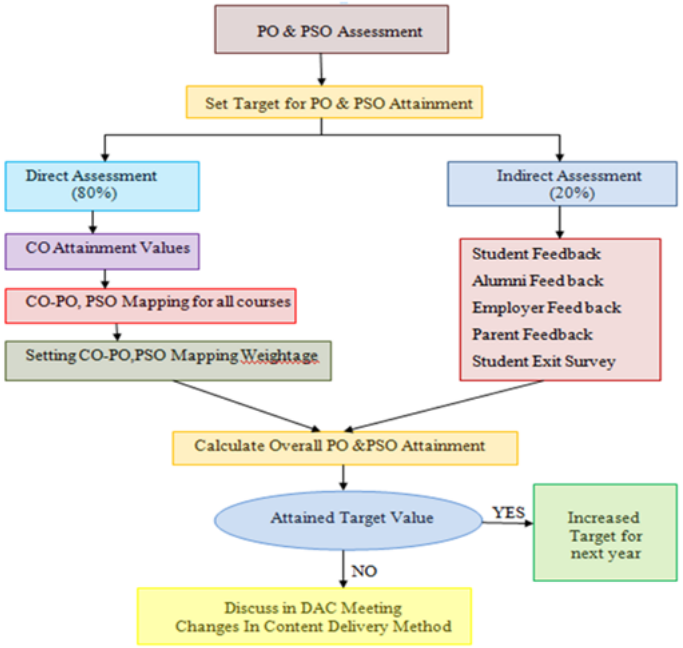


Fig.PO&PSO Attainment Process

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

Total Marks 20.00

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

Institute Marks : 15.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC111	2.4	2.4	2	1	1.5	PO6	PO7	PO8	PO9	PO10	PO11	1
EC112	2.9	2.8	PO3	PO4	1.6	2	PO7	1.3	PO9	1.1	0.9	1.1
EC113	1.1	1.9	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC114	PO1	PO2	PO3	PO4	PO5	1	PO7	PO8	PO9	PO10	PO11	PO12
EC115	2.1	1.9	1.5	1	PO5	1	1.3	PO8	1.6	1.1	PO11	PO12
EC116	2.1	1.8	1.2	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	1
EC117	PO1	PO2	PO3	PO4	PO5	1.9	PO7	1	1.7	1.9	PO11	2.1
EC118	3	1.8	1.8	0	PO5	PO6	PO7	PO8	3	1.3	PO11	2.4
EC119	PO1	PO2	PO3	PO4	PO5	1.8	1.8	0	PO9	PO10	PO11	PO12
EC121	0	1.1	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC122	2.2	1	0	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
EC123	2.5	1	0	0	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC124	1	1.1	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EC125	2.9	3	3	3	1.1	1	3	1	1	1	1.8	3
EC126	3	2	2.5	PO4	3	1.5	PO7	PO8	PO9	PO10	PO11	PO12
EC127	3	1	PO3	PO4	PO5	PO6	PO7	0	PO9	0	PO11	3
EC128	3	3	3	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	3
EC129	PO1	PO2	PO3	PO4	PO5	1.7	1.7	1	PO9	PO10	PO11	PO12

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.4	1.84	2.0	1.5	2.2	1.49	1.95	1.08	1.82	1.28	1.35	1.96
CO Attainment	2.4	1.84	2.0	1.5	2.2	1.49	1.95	1.08	1.82	1.28	1.35	1.96

PSOs Attainment:

Course	PSO1	PSO2
EC111	1.1	1.2
EC112	1	1
EC113	1.1	2
EC114	PSO1	PSO2
EC115	1	1
EC116	1.4	1
EC117	2.1	PSO2
EC118	3	0
EC119	PSO1	PSO2
EC121	1.1	1
EC122	1.1	PSO2
EC123	1.1	2.5
EC124	1.1	0
EC125	PSO1	PSO2
EC126	PSO1	PSO2
EC127	1	PSO2
EC128	2.6	0
EC129	PSO1	PSO2

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	1.44	1.39
CO Attainment	1.44	1.39

8.5.2 Actions taken based on the results of evaluation of relevant POs (5)

Institute Marks : 5.00

POs Attainment Levels and Actions for Improvement- (2020-21)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	1.5	2.4	Target Achieved
Action 1: Trained to gain knowledge in Engineering fundamentals by conducting a Bridge course Proposed Action 1:More practice exercise sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			
PO 2 : Problem Analysis			

PO 2	1.5	1.84	Target Achieved
Action 1: Slow learners are identified and provided with additional assignments. Additional classes are conducted beyond the regular planned classes. more problems are solved in tutorial classes Proposed Action 1:More practice exercise sessions and assignment work are needed in courses to improve CO achievement levels across all relevant courses.			

PO 3 : Design/development of Solutions

PO 3	1.5	2.0	Target Achieved
Action 1: Encouraged to attend workshops and seminars in various electronics companies in order to reach a higher attainment level Proposed Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

PO 4 : Conduct Investigations of Complex Problems

PO 4	1.5	1.5	Target Achieved
Action 1: Case studies in laboratory and theory courses are discussed and students are encouraged to do mini projects. more design and analysis problems are given for the exercise Proposed Action 1: Overall, more practice sessions, and assignment work are needed to improve CO achievement levels across all relevant courses.			

PO 5 : Modern Tool Usage

PO 5	1.5	2.2	Target Achieved
Action 1: Selected laboratory courses are conducted with the usage of modern tools wherever possible. Proposed Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

PO 6 : The Engineer and Society

PO 6	1.5	1.49	Target not Achieved
Action 1: Conducted orientation program to create awareness about electrical safety for the students, Conducted extensional activities for the society Proposed Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

PO 7 : Environment and Sustainability

PO 7	1.5	1.95	Target Achieved
Action 1: Conducted symposium and encouraged students to attend various co-curricular activities Proposed Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

PO 8 : Ethics

PO 8	1.5	1.08	Target not Achieved
Action 1: Students were trained in ethical principles & responsibilities in order to attain a higher level of Action More examples on the subject are practiced by students in extra classes. Proposed Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

PO 9 : Individual and Team Work

PO 9	1.5	1.82	Target Achieved
Action 1:Students were trained to do individual and teamwork effectively through symposiums, seminars etc. Proposed Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

PO 10 : Communication

PO 10	1.5	1.28	Target not Achieved
Action 1: The target can be attained by motivating students to perform many activities like innovative seminars, group discussions, technical quiz, personality development program and to write technical articles in order to reach a higher attainment level. Proposed Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

PO 11 : Project Management and Finance

PO 11	1.5	1.35	Target not Achieved

Action 1: Motivated to work as a team in multidisciplinary environments to reach a high attainment level Proposed Action 1: More practice exercise sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

PO 12 : Life-long Learning

PO 12	1.5	1.96	Target Achieved
Action 1: students are motivated to enrich their knowledge with recent trends and to involve in electronic projects. Students encouraged to attend basic life skill programs Proposed Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

PSOs Attainment Levels and Actions for Improvement- (2020-21)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Analyze and design analog & digital circuits or systems for a given specification and function.			
PSO 1	1.3	1.44	Target Achieved
Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			
PSO 2 : Implement functional blocks of hardware-software co-designs for signal processing and communication applications.			
PSO 2	1.3	1.39	Target Achieved
Action 1: Overall, more practice sessions and assignment work are needed to improve CO achievement levels across all relevant courses.			

9 STUDENT SUPPORT SYSTEMS (50) Total Marks 50.00

9.1 Mentoring system to help at individual level (5) Total Marks 5.00

Institute Marks : 5.00

Type of mentoring:	**Total development**
Number of faculty mentors:	**50**
Number of students per mentor:	**13**
Frequency of meeting:	**Fortnightly**

1. Each Faculty member is allocated to specific number students. Those faculty members are provided with parents call sheet so that the corresponding faculty make calls to parents to inform their ward's attendance, Internal Marks, University Marks and their performance.

2. Students are counseled by the corresponding Faculty members and Faculty enquires their attendance, results. Remedial classes are also being conducted for the students those who have backlogs. Faculty fills the confidence in the minds of students and motivate the students to improve themselves.

3. In addition, faculty members are ready to help whenever students need help.

4. Faculty encourages the outstanding students to do the Real Time Projects like GOCAR.

Mentor list:

(2021-2022) MENTOR LIST

Number of faculty mentors: 47

Number of students per mentor 13

Frequency of meeting: **Fortnightly**

S.NO	Name OF the Mentor	No. of Students	H.T.NO s	Year /Branch	Remarks	Signature of the Faculty
1	Dr. Srinivas Bachu	13	207YA10401 - 414	II ECE A		
2	Dr. N. Srinivas	13	207YA10415 - 427	II ECE A		
3	Dr.G.Amarnath	13	207YA10428 - 440	II ECE A		
4	Dr.A.Nalla Thambi	13	207YA10441 - 453	II ECE A		
5	Dr. N. Udaya Kumar	13	207YA10454 – 460 217Y5A0401-406	II ECE A		
6	Dr. K. NaveenKumar	13	207YA10461 - 473	II ECE B		
7	Dr.P.S. Shijin Kumar	13	207YA10474 - 486	II ECE B		
8	Dr. S. Kishore	13	207YA10487 - 499	II ECE B		
9	S. Aravind Kumar	13	207YA104A0 – 4B2	II ECE B		
10	K.Nagabushanam	14	207YA104B3 – 4C0 217Y5AO407-412	II ECE B		
11	I.Adum Babu	13	207YA104C1 – 4D3	II ECE C		
12	BN. Srinivas	13	207YA104D4 – 4E6	II ECE C		
13	B.Koteswara Rao	13	207YA104E7 – 4F9	II ECE C		
14	J.Narendar	13	207YA104G0 – 4H2	II ECE C		
15	E.Srinivasulu	14	207YA104H3 – 4IO 217Y5A0413-418	II ECE C		
16	K.S.Monica	13	197YA10402 – 414	III ECE A		
17	D. Rupa Kumar	13	197YA10415 – 425	III ECE A		

18	D.Srinu	13	197YA10428 – 440	III ECE A		
19	S.Sindhu Rekha	13	197YA10441 – 453	III ECE A		
20	K.Pratap Khanna	14	197Y1A0454-455 187Y1A04H6 207Y5A0401-412	III ECE A		
21	G.Kiran Kumar	13	197YA10456 – 468	III ECE B		
22	K.V.Suresh Kumar	13	197YA10469 – 481	III ECE B		
23	P.Sandhya	13	197YA10482 – 495	III ECE B		
24	SK. Himabindu	13	197YA10496 – 4A9	III ECE B		
25	V.Koteswara Rao	14	197YA104B0 19E31A0452 207Y5A0413-424	III ECE B		
26	T.Tanuja	13	187Y1A0405,417,478,493,499 197YA104B1 – 4B8	III ECE C		
27	V. Rakesh	13	197YA104B9 – 4D2	III ECE C		
28	T.Immanuel	13	197YA104D3 – 4E6	III ECE C		
29	Y.Satyanarayanamma	14	197YA104E7 – 4G0	III ECE C		
30	N.Reshma Bindu	15	197YA104G1 207Y5A0425-438	III ECE C		
31	D.Malathi Rani	14	167Y1A04B1,177Y1A0423,472,4B9,4F1 187Y1A0401-410	IV ECE A		
32	Saxena Chandrika	14	187Y1A0411-425	IV ECE A		
33	T. Vinay Kumar	14	187Y1A0426-439	IV ECE A		
34	D. Jaya Kumar	13	187Y1A0440-452	IV ECE A		
35	B. Balaji	13	187Y1A0453-460 197Y5A0401-406	IV ECE A		
36	N. Pallavi	14	157Y1A04G3,167Y1A04G2,4G5 177Y1A0402,415,417,445,4D3,4E4 187A1A0461-465	IV ECE B		
37	K. Nagaraju	14	187Y1A0466-480	IV ECE B		

38	K. Nagamani	14	187Y1A0481-495	IV ECE B		
39	M. Supriya	14	187Y1A0496-4B2	IV ECE B		
40	H. Sageetha	13	187Y1A04B3-4B9 197Y5A0407-412	IV ECE B		
41	P. Kaveri	14	167Y1A0404,490,491,4B9 177Y1A0405,473 187Y1A04C1-4C8	IV ECE C		
42	K. Divya	14	187Y1A04C9-4E2	IV ECE C		
43	K. Vijay Kumar	14	187Y1A04E3-4F6	IV ECE C		
44	K. Ganesh	14	187Y1A04F7-4H0	IV ECE C		
45	A. Anil Kumar	13	187Y1A04H1-4H9 197Y5A0413-418	IV ECE C		
46	Santoshi Kanchu	7	217Y1D5501-07	M.TECH II		
47	V. Chandana	7	207Y1D5501-07	M.TECH I		

MARRI EDUCATIONAL SOCIETYS GROUP OF INSTITUTIONS

MARRI LAXMANREDDY INSTITUTE OF TECHNOLOGY & MANAGEMENT

DUNDIGAL,QUTHBULLAPUR,R.R DIST. HYD-500043

Electronics and communication Engineering Department

Mentor List

Mentor Name: K.S.MONICA

S.NO	H.T.NO:	Student Name	Year /Branch	Remarks
1	197Y1A0402	K ABHINAV	III ECE A	
2	197Y1A0403	TALLA ADARSH	III ECE A	
3	197Y1A0404	ELURI ADARSH	III ECE A	
4	197Y1A0405	CHALLA AJAYREDDY	III ECE A	
5	197Y1A0406	P AKHIL	III ECE A	
6	197Y1A0407	RECHARLA BHANU TEJA	III ECE A	
7	197Y1A0408	BRAHMADEVARA BHARGAVI	III ECE A	

8	197Y1A0409	BONI CHANDRASEKAR	III ECE A
9	197Y1A0410	D DIVYA SRI	III ECE A
10	197Y1A0411	SYED FARHATH BEGUM	III ECE A
11	197Y1A0412	MOHAMMED FOUZUDDIN	III ECE A
12	197Y1A0413	NATHI HARITHA	III ECE A
13	197Y1A0414	BUDDARAJU HEMANTH KUMAR	III ECE A

ECE-H.O.D

(Dr. SRINIVAS BACHU)

Principal
(Dr.K.VENKATESWARA REDDY)

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

Total Marks 10.00

Institute Marks : 10.00

Feedback collected for all courses: YES

Specify the feedback collection process:

Feedback is meticulously conducted in 3 phases per month

Phase I: Verbal Feed back after 2 weeks of class instructions by dept HOD

Phase II: Verbal Feedback monthly by Principal

Phase III: Online Feedback by students on prescribed format after 4 weeks of class instructions

Percentage of students participating: 80%-90%

Specify the feedback analysis process:

The students are requested to provide their opinion against each parameter by giving proper scaling level for every subject as mentioned below:

Impact of feedback

1. All the parameters mentioned in the feedback form will be analyzed by THREE different sources

2. The faculty members are informed about their feedback percentages to know their strength

and weakness and to enhance their teaching skills

3. The HOD gives some valuable suggestions and tips, in which parameters the particular faculty got less points,

4. Because of this feedback methodology the new faculty can greatly improve teaching skills and also the experienced faculty can develop new teaching skills.

5. As the faculty is improving his/her teaching and technical skills consistently ultimately the student gets benefited.

6. The great advantage of feedback on Faculty is both the faculty and student get benefited.

7. The college conducts the ONLINE TESTS for FACULTY for the subjects currently being

Teaching for each unit well in advance. This allows improves the faculty Technical

Knowledge, ultimately student is the beneficiary

Basis of reward/corrective measures, if any:

- Faculty members who get average feedback below 75% are identified.
- Those faculty members are given orientation lectures and special inputs by the head of the department.
- The faculty members who get average feedback of above 75% are appreciated at the department level staff meetings.

Basis of reward / corrective measures, if any: the feedback of the faculty coupled together with results, status of course files, research publications, participation in various workshops and department activities are given exceptional appraisal amounting to more than 20% enhancement of remuneration.

Number of faculty achieving 20% appraisal awards in

2018-19 - 15

2019-20 – 12

2020-21 – 13

2021-22--14

Number of faculty counseled for poor and average performance in the last three years:

Number of actions in

2018-19- 1

2019-20 – 1

2020-21 – 0

2021-22-- 0

FEEDBACK ANALYSIS PROCESS

1. To what extent the teacher is helping you in understanding concepts and principles?

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

option 1○ option 2○ Option 3○ Option4○ option 5○

2 Extent of availability and help of the teacher outside the class during the college hours for interaction

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

3. Adequacy of preparation of the subject for the class with examples and illustrations

option 1○ option 2○ Option 3○ Option4○ option 5○

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

option 1○ option 2○ Option 3○ Option4○ option 5○

4. Enthusiasm in teaching the class- encouraging the questions by the students with respect to subject

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

5. Extent of the tutorials and other assignments that helped you in understanding the course/subject

option 1○ option 2○ Option 3○ Option4○ option 5○

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

6. Impartiality of the teacher in awarding the marks

option 1○ option 2○ Option 3○ Option4○ option 5○

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

7. Coverage of the units in time with due importance to the topics

option 1○ option 2○ Option 3○ Option4○ option 5○

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

8. Extent of maintaining the discipline and keeping under control the class

option 1○ option 2○ Option 3○ Option4○ option 5○

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

9. Punctuality of the teacher in engaging the class

option 1○ option 2○ Option 3○ Option4○ option 5○

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

10. To what extent does the teacher discuss the solutions to question papers, assignments, typical questions and clear the doubts after each unit.

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

option 1○ option 2○ Option 3○ Option4○ option 5○ 11. Teacher's communication skills

1 2 3 4 5

Excellent-5, Very Good-4, Good-3, Satisfactory-2 and Not Satisfactory-1

option 1○ option 2○ Option 3○ Option4○ option 5○

Example for 2020-21

Department of ECE

CONSOLIDATED FEED BACK TAKEN FROM STUDENTS FOR THE MONTH OF FEBRAURY 2022

Academic Year: 2021-22

S.No	Faculty_ID	Faculty Name	Sub Code	Sub Name	Feedback (%)
1	MLRITM4110	Dr.Srinivas Bachu	1960420	Digital signal processing	92.64
2	MLRITM497	Dr.N.Srinivas	2040413	Analog &Digital Communications	89.55
3	MLRITM206	Dr. G. AMARNATH	2040401	Analog and pulse circuits	85.18
4	MLRITM213	Dr.Nalla Thambi	2040401	Analog and pulse circuits	93.05
5	MLRITM4002	Dr. N. UDAYA KUMAR	EC811PE	Satellite communications	91.26
6	MLRITM4001	Dr.K.Naveen Kumar	OE-III	Fundamentals of Robotics	92.14
7	MLRITM215	Dr.P.S. SHIJIN KUMAR	1960420	Digital signal processing	92.27

8	MLRITM4007	Dr. S. KISHORE	2040401	Analog and pulse circuits	94.36
9	MLRITM404	S.Aravind Kumar	2040413	Analog &Digital Communications	78.11
10	MLRITM401	K.Nagabhushanam	1960420	Digital signal processing	82.39
11	MLRITM414	I. Adum babu	2040415	Electromagnetic theory & Transmission lines	76.88
12	MLRITM410	BN. Srinivas	1960421	VLSI Design	79.34
13	MLRITM471	B. Koteswara Rao	1960421	VLSI Design	80.85
14	MLRITM415	J. Narendar	EC822PE	Test & Testability	77.58
15	MLRITM423	E. Sreenivasulu	EC822PE	Test & Testability	81.25
16	MLRITM490	K.S.Monica	2040471	Analog and pulse circuits Lab	77.74
17	MLRITM4112	D.RUPAKUMAR	2040505	Python programming	77.61
18	MLRITM	Lingala Nareshkumar	1960421	VLSI Design	76.26
19	MLRITM470	D.Srinu	2040022	Gender Sensitization	76.58
20	MLRITM4131	S. Sindhu Rekha	1960484	e-CAD LAB	77.25
21	MLRITM430	K.Pratap khanna	1960484	e-CAD Lab	80.26
22	MLRITM447	S.Umarani	2040414	Digital system design	88.73
23	MLRITM450	G.Kiran kumar	1960419	Antenna propagation	86.08
24	MLRITM455	K.V.Suresh kumar	2040414	Digital system design	78.81
25	MLRITM1411	P.Sandhya	2040475	BS&DSD Lab	86.61
26	MLRITM476	SK.Himabindu	2040414	Digital system design	80.44
27	MLRITM470	Kankanala Kavitha	1960483	Digital signal processing Lab	88.3
28	MLRITM1417	V.Koteswara rao	2040475	BS&DSD Lab	82.51

29	MLRITM495	T.Tanuja	OE-III	Fundamentals of Robotics	84.55
30	MLRITM492	V.Rakesh	2040471	Analog and pulse circuits Lab	84.31
31	MLRITM489	T.Immanuel	EC822PE	Test & Testability	77.77
32	MLRITM422	Y.Satyanaranamma	1960483	Digital signal processing Lab	82.47
33	MLRITM491	N.Reshmabindu	EC811PE	Satellite communications	80.1
34	MLRITM216	D.Malathirani	2040471	Analog and pulse circuits Lab	82.83
35	MLRITM403	Saxena Chandrika		Renewable energy sources	79.7
36	MLRITM4005	T.Vinayakumar	2040415	Electromagnetic theory & Transmission lines	84.75
37	MLRITM4003	D.Jayakumar	1960419	Antennas Propagation	81.77
38	MLRITM4111	B.Balaji	2040475	BS&DSD Lab	84.55
30	MLRITM4115	N.Pallavi	OE-III	Fundamentals of Robotics	80.4
40	MLRITM4116	K.Nagaraju	2040415	Electromagnetic theory & Transmission lines	97.27
41	MLRITM4114	K.Nagamani	2040505	Python Programming	87.77
42	MLRITM4117	M.Supriya	2040413	Analog &Digital Communications	77.09
43	MLRITM4118	H.Hangeetha	1960027	Artificial intelligence	82
44	MLRITM4119	P.Kaveri	2040474	Python programming Lab	91.82
45	MLRITM4120	K.Divya	2040474	Python programming Lab	87.64
46	MLRITM4122	K.Vijay kumar	1960484	e-CAD LAB	89.64
47	MLRITM4123	K.Ganesh	2040474	Python programming Lab	93.45

48	MLRITM4124	A.Anil kumar	1960483	Digital signal processing Lab	87.56
49	MLRITM4127	Santoshi Kanchu		Renewable energy sources	85.55
50	MLRITM425	V.Chandana	2040505	Python programming	83.64

I/C **HOD** **PRINCIPAL**

9.3 Feedback on facilities (5)

Total Marks 5.00

Institute Marks : 5.00

Students are asked to give feedback on facilities by the mentors, who in turn report the same to the Head of the Dept. HOD directly takes up the redressal with the in charges of the concerned facility or reports to Principal where necessary.

The various facilities made available in the college to the students are:

1. Library:

i. Issue of 6 text books to students

ii. Use of journal section which displays about 200 journals and magazines

iii. Reference section having textbooks and handbooks

iv. SC/ ST Book bank

v. Online reference facility including NPTEL lectures

vi. Photocopy facility

vii. Discussion rooms

Library is kept open beyond college timings up to 6.00 pm for the benefit of students.

2. Sports :

Indoor games: Table Tennis, Caroms, Chess

Outdoor games: Football, Basketball, Cricket, Volley ball courts and athletics tracks

3. Medical facility:

A medical examination room with a qualified doctor who visits twice a week, and access to Clinic in the vicinity. Assistance for first aid is available during college hours.

4. Canteen:

A canteen of 250 seating capacity is available for students and staff and caters to breackfast, lunch, snacks and beverages requirements. Other stalls are also available in the campus for snacks, ice creams,etc...

5. Girls Lounge: :

Each building is provided with girls waiting rooms of 80 to 100 m^2 area to serve as lunch rooms and other needs.

6. Transport:

College provides 24 buses for transport of students and staff from and to various points

covering Hyderabad and Secunderabad. Special arrangements are made for first year students.Buses are also arranged to other colleges in the city that are allotted by the University as external examination centers.Buses are arranged when large number of students are detained due to Extra classes, Seminar / workshops, or other co- and extracurricular activities.

7. Bank facility: HDFC ATM Center was provided with the building in the campus by the college to help students with the banking needs.
8. Laboratories beyond working hours: Students who wish to stay beyond working hours to work in the laboratories for their project work, or for competitions are permitted to stay and staff are also made available.
9. R&D laboratory: A special facility of R&D laboratory has been created to help students in the project work or development of Main and mini projects for participating in national level competitions.
10. Generator power backup:

The college has 250 KVA, 50 KVA and 25 KVA generators to provide a power back up facility. There is also a solar power generation unit of 8 KVA.

11. Water: The Reverse Osmosis plant installed in the college caters to the drinking water needs of all the students, faculty, supporting staff and the visitors.

Student Feedback and Action:

Feedback from students is collected by survey at the end of the year. Interaction of HOD and Course monitoring committee also provide the feedback during each semester.

Initiation of Action:

HOD and senior faculty interact with students to find out specific reasons in the cases where 50% or more expressed opinion that specific facilities need improvement. Action is initiated for improvement of these facilities, by HOD or senior faculty contacting the concerned facility in charge or the Principal if necessary.

Analysis of student feedback on Facilities

Year: 2021-22, Number of samples collected: 200

S.No	Facility	Excellent (5)	Very Good (4)	Good (3)	Satisfactory (2)	Poor (1)
1	Library books & facilities	43	68	74	15	NIL
2	Canteen – hygiene & service	NIL	39	74	50	37
3	Sports	27	45	63	40	25
4	Medical	3	33	71	64	20
5	College Transport	42	60	63	19	12
6	Internet	45	50	60	25	20
7	Girls lounge (girl Students only)	20	10	20	40	10

Table.9.3.1: Information from the students about the facilities in the college.

Action Taken Report:

S.No	Facility	Problems cited	Action initiated

1	Canteen	Too much rush at counters in lunch hours	HOD informed Principal and suggested staggering lunch times arranged or to increase counters in lunch hour. This suggestion is agreed and lunch timings are staggered.
2	Sports	Kits not being given. Not allowing to play in free slots	Students are informed that Physical Director (PD) insists on wearing proper shoes in grounds for kits to be given. PD was asked to permit students to play if students are free in the Afternoon periods.
3	Medical	Doctor is available only an hour or so.	It is decided to display timings of doctor's availability at college clinic prominently, and also about free consultation at Malla Reddy Malla Reddy Narayana Hospital (https://mallareddynarayana.com/) at other times including holidays.
4	Internet	Internet download limit is low.	Students are informed that campus Wifi is upto 20 MB, but for higher downloads they may use internet in library.

Table 9.3.2: list of problems faced by the students and action initiated by HOD.

9.4 Self-Learning (5)

Total Marks 5.00

Institute Marks : 5.00

To inculcate and improve self learning skills of students, following facilities are provided and activities organized for students to keep pace with the state of art technologies and to acquire self-learning capabilities.

a. Departmental library with access to text books, handbooks and previous student projects.
b. Library facility available beyond working hours.
c. Digital Library with access to on-line journals and NPTEL videos.
d. Students Club (organized to enhance team work and inter-personal skills).
e. Organizing "Valorous" Technical competitions and other competitions.
f. Recorded video lectures of IITs experts through NPTEL videos are stored in few systems of our department.
g. Web based learning (Teaching a course online or partially online through YouTube on all available subjects)
h. Opportunity to do mini projects during the course has been encouraged
i. Learning and implementing concepts beyond the syllabus based on students' interest has been greatly encouraged by permitting then to attend the webinars, workshop/seminar, paper and project presentations and so on.
j. Adapting to industrial needs through in-plant training during labs.
k. Participation in activities through R&D cell and DST projects
l. Course Material prepared by the faculty and mailed to the students on request
m. Availability of Online Journals
n. GATE /GRE/TOEFL/IELTS Material & Course Material
o. Student Seminars
p. Student Paper Presentations & Contests
q. Students are encouraged to take MOOC courses/ online courses from platforms such as Edx, Coursera and NPTEL

The above facilities have enabled the overall development of our students which is seen with respect to improved placements, participation and success in both curricular and co-curricular activities.

9.5 Career Guidance, Training, Placement (10)

Total Marks 10.00

Institute Marks : 10.00

1. The institution is having training and placement cell well experienced trainers, which helps the students to achieve better career. The members of placement cell are constantly working to give the practice and career guidance to students. Also, the faculties are also helping the students to find the appropriate path in future.
2. College is associated with many foreign universities to provide support in higher studies for students. The industrial tie-up with many companies are maintained by the college to improve the quality of placement. Training and Placement cell is looking after all the training given to the students. It also arranging many on-campus and off-campus placement drives for student placement. More than 80% students are placed in good MNCs.
3. In addition to the induction programmed to student about their higher studies, the college always encourages the Resource Persons to give career guidance.

Career Guidance, Training & Placements Cell

Sl. No.	Career Guidance, Training & Placements Cell	Designation
1	Dr. B. Ravi Prasad	Dean (Academics & Training)
2	Mr. N. Srikanth	Head- Training & Placement
3	Mr. K. Nagaraju	Asst. Prof., ECE
4	Mr. G. Sunil Santhosh/Mr. B. Praveen	Asst. Prof., CSE
5	Mr. T. Jayakrishna	Asst. Prof., Civil
6	Mr. K. Sravanthi	Asst. Prof., Mechanical
7	Mr. M. Shankar	Asst. Prof., EEE

Facilities at Placement Cell

Highly experienced Placement Team in Place for conducting various process

- An Air Cooled auditorium with a capacity of 600+ for corporate presentations and trainings
- Facilities for conducting written test for 2000 students in single process
- Facilities for conducting online test for 500 students in single process
- Dedicated rooms for conducting group discussions and AC seminar halls
- Separate interview panel rooms
- Pickup and drop facility
- Excellent hospitality and lounge for HR teams

Training & Placement process

The placement cell acts as the vital link in talent management by offering potential candidates to top companies and vice versa. The training and placement department creates immense change in the overall personality of the students so that they are placed in various MNC's. The process of training and placement cell is given below

Pre – placement training

Placement cell organizes per-placement training for the student groups to develop into complete professionals. Personality development, communication skills, resume preparation, aptitude test, interview skills, and group discussion, etc are taught.

Audio visual centre – Soft-skills Training

The Audio-Visual Centre is designed to help students develop effective communication skills and presentation capabilities in academic and professional settings. These interactive activities focus on work environment and real-life situations. Individual attention is given and even shy students are encouraged and empowered to develop their public speaking, interactive and interpersonal skills.

Placement & industry interface

- Workshop and guest lectures by professionals and practicing managers
- Individualized attention
- Constant interaction, consultation with the industry bodies, industry experts, R&D Institution and University Officials to bridge the gap between education and industry
- Institute-Industry interaction
- Pre-Placement training
- Conducting company research to identify and define educational and career goals
- Networking with corporate bodies and prospective employers to find the best of job opportunities for students
- Professional dress code, ethics and environment
- Dedicated Group Discussion rooms
- Interview rooms where the process of one-to-one Interviews can be held

Counseling

Career counseling is available on the campus directing students to choose the best possible stream that meets their requirement in a unique way. The students have mentors who handle their problems and make them focused about their targets.

This is a unique programme which is launched by Microsoft to help the academicians build upon their knowledge on the new technology front. This is of significance importance as it presents an opportunity for faculty members to build bridges with industry as well as network with their peers. In addition, Faculty will be able to gain recognition from their peers as they get invited to attend this exclusive Symposium which is planned to be held annually.

Benefits of Placement Cell

In a placement cell, there is a team of people helps students to get their dream jobs. Moreover, they make students ready for job interviews and strengthen student's skills by given required practice to face the interview effectively. In a nutshell, a placement cell bridges the gap between an employee and employer.

9.6 Entrepreneurship Cell (5)

Total Marks 5.00

Institute Marks : 5.00

Objectives of Entrepreneurship Development Cell

- To create an entrepreneurship culture in the parent institution Entrepreneurship Development Programmes, Entrepreneurship Awareness Camps and Entrepreneurship Motivation Camps are conducted.
- To conduct courses in Entrepreneurship for Science & Technology students an organizing skill development training programmes are conducted.
- To create and develop knowledgeable, enterprising and effective entrepreneurs.
- To create technology awareness and promote technology based enterprises in existing Small & Medium Enterprises (SMEs) of the region.
- To conduct market research for identifying Entrepreneurial Opportunities.

Entrepreneurship Cell Committee

Sl. No.	Name of the Staff	Designation	Department	Remarks
1	Dr. K. Niranjan	Professor	MBA	Coordinator
2	Mrs. Vinod	Assistant Professor	MBA	Member
3	Mrs. Sravanthi	Assistant Professor	Mechanical	Member
4	Mr.Y.Appa Rao	Assistant Professor	CSE	Member
5	Mrs. H. Sangeetha	Assistant Professor	ECE	Member
6	Mr. A. Munieah	Assistant Professor	EEE	Member
7	Miss. Situnya	Assistant Professor	CIVIL	Member

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

Total Marks 10.00

Institute Marks : 10.00

Co-curricular activities:

Every year number of inspiring programs and activities such as paper presentation, quiz contest, project competition are organized by the institute student chapters. More than 15% students take part in these co-curricular activities while similar percentage of students participates in successfully organizing the events. The students with the help of faculty advisor carry out all tasks related with any activity right from event announcement till settling up financial accounts after the event is over. This imparts various skills to the students such as team work, professional, technical, financial, ethical etc. and offer opportunities to them to look after their talent, passion and interest. Such activities are carried out generally after the college hours for which facilities are made available by the institute.

Beyond the classroom, students have the opportunity to be part of many activities and organizations. These include student chapters of engineering professional organizations, which help the students build their professional network. Students form connections with peers, professors and academic mentors from other colleges and different states. Students participate in different events of high-profile organizations such as our Formula SAE and Baja SAE race teams, SAE Aero (National / International) and steel bridge.

The list below highlights the presence of professional society chapters in the institute. Students can choose to be a member of any of the societies.

ACM Student Chapter

IETE Student Chapter

ISTE Student Chapter

CSI Student Chapter

Activities

Sl. No.	Events	Facilities	Participants
1	Valorous-2K20	Seminar Rooms, LCD, PCs, OHP, Accommodation	Students from Engineering Institutes from all over Telanagana and Andhra Pradesh
2	Valorous-2K19	Seminar Rooms, LCD, PCs, OHP, Accommodation	Students from Engineering Institutes from all over Telanagana and Andhra Pradesh
3	Valorous-2K18	Seminar Rooms, LCD, PCs, OHP, Accommodation	Students from Engineering Institutes from all over Telanagana and Andhra Pradesh

2 Extracurricular activities

Various cultural activities have been performed in the college.

2020-2021

Sl. No.	Events	Date
1	Independence Day	15-08-2020
2	Airtel Marathon	24-08-2020
3	Teacher’s day celebrations	05-09-2020
4	Engineer’s Day	15-09-2020
5	Traditional Day	03-10-2020
6	Graduation day	30-01-2021

2019-2020

Sl. No.	Events	Date
1	Independence Day	15-08-2019
2	Airtel Marathon	24-08-2019
3	Teacher’s day celebrations	05-09-2019
4	Engineer’s Day	15-09-2019
5	Blood Donation Camp	20-09-2019
6	Orientation Day	23-10-2019
7	Traditional Day	08-11-2019

8	Republic day celebrations	26-01-2019

2018-2019

Sl. No.	**Events**	**Date**
1.	Independence Day	15-08-2018
2	Teacher’s day celebrations	05-09-2018
3	Engineer’s Day	15-09-2018
4	Orientation Day	19-10-2018
5	Hyderabad Triathlon Sporting event	20-10-2018
6	Traditional Day	29-12-2018
7	Republic day celebrations	26-01-2018
8	Annual Day	07-03-2018
9	Zavatra 2K18	20-03-2018
10	Valorous 2K18	27-03-2018& 28-03-2018

9.7.3 Sports grounds, facilities and qualified sports instructors

Dedicated facilities are established in the college with provision for games and sports under the supervision of a qualified Physical Director. College has volley ball courts, Beach volleyball court, Basket Ball court, Tennis Quiet courts, Throw Ball Court, Cricket ground, Foot Ball court, Indoor Stadium and gym

Our college teams regularly participate in JNTUH Zone-D Inter College tournaments in different sports events and the performance of the teams is quite good. The college encourages participation in Inter College and other tournaments and provides sports kit to the players.

Active participation of students and Staff in MARTHONs conducted by AIRTEL

Physical Director:

- Mr. K. Rambabu
  - He is a qualified sports instructor and very renowned person in sports area.

Sports grounds and facilities

The college has established the following out-door sports facilities:

S. No.	Sport / Game	No. of courts
1	Cricket Ground	1
2	Basket Ball	1

3	Volley Ball	2
4	Throw Ball	1
5	Kabaddi Fields	2
6	Tenny Coit	1

Indoor games facilities in the college are having area around 400 Sq mt. The following games are the part of indoor game facilities given by college.

- Table Tennis(5)
- Caroms(6)
- Chess(8)
- Badminton(2)
- Gym Kit- 6 sets
- Athletic Equipment like throws, Short put, Javelin, Discus, relay battens

Activities of Department:

- Preparation of play fields for the use of players from time to time.
- Conduct of Selection trials to pick-up talented players for participation at Intercollegiate

Tournaments of University, practice matches and invitation tournaments of students and staff.

- Coaching provided to the participating teams.
- Providing games and sports material for the regular practice.
- Providing sports uniform for the students for participation in tournaments.
- Guiding Students/players towards academic accomplishments.

Inter College Participation details:

S.No	H.T.No	Name of the Student	Event	Date
1	217Y1A05B4	Palle Sairam	Participated in Fencing - All India Inter University Guru nanak Dev University-Amrithsar.in Punjab.	21-12-2022
2	197Y1A05B2	S. Tilak	Participated: Best Physique-in ALL India Inter University: Chandigarh University in Punjab.	23-02-2022
3	207Y1A0428	K. Aditya	Participated in Hockey: in ALL India Inter University-Lovely Professional University in Punjab.	07-02-2022

4	217Y1E0028	Divya Vankyala	Selected in Kabaddi - South Zone National at Alagappa University in Tamilnadu.	11-12-2021
5	197Y1A04EB	Palle Shivaram	Participated in Fencing - All India Inter University Guru nanak Dev University-Amrithsar.in Punjab.	21-12-2022

Student Clubs:

MLRITM not only provides career opportunities to students but also improves them with personal and social skills, enhancing the overall collegiate experience. In addition to helping foster practical skills such as time management, leadership, and responsibility, extra-curricular activities and explore new areas of interest from the following student clubs.

- Club 64
- Photography And Film Club
- Women Empowerment Club
- MLRITM Radio

NSS Activities

The NSS unit of the Institute organizes a variety of programs/ campaign for making campus and surroundings clean and green. These programs are organized in Regular NSS Classes, One Day NSS Campus and Special Programs. Around 150 students enrolled in NSS.

Various events conducted by NSS for last three years

S. No	Date of the Event	Name of the Programme	No of Participants / Volunteers	Event conducted in
1	24 July, 2019	Blood Donation Camp	287	Marri Laxman Reddy Institute Of Technology And Management
2	06 September, 2019	Haritha Haram	100	Marri Laxman Reddy Institute Of Technology And Management
3	18 January, 2020	College level Essay writing and Elocution Competition	120	Marri Laxman Reddy Institute Of Technology And Management
4	06 March, 2020	Health Camp	180	Marri Laxman Reddy Institute Of Technology And Management
5	10 July,2020	International Yoga day Celebration	229	Marri Laxman Reddy Institute Of Technology And Management
6	15 July, 2020	Haritha Haram	68	Marri Laxman Reddy Institute Of Technology And Management
7	03 November,2020	Blood Donation Camp	138	Marri Laxman Reddy Institute Of Technology And Management
8	23 January,2021	Awareness programme on Voting	98	Marri Laxman Reddy Institute Of Technology And Management
9	08 February,2021	Health Camp	104	Marri Laxman Reddy Institute Of Technology And Management
10	24 July, 2021	Haritha Haram	143	Marri Laxman Reddy Institute Of Technology And Management
11	27 December,2021	Swachh Bharath	27	Dundigal Village
12	30 November,2021	MRR District Level Science Fair	120	Medchal

13	02 November,2021	MRR District Level Science Fair	120	Kukatpally
14	04 November,2021	MRR District Level Science Fair	120	Uppal
15	12 February, 2022	Awareness Program on Organ Donation	120	Marri Laxman Reddy Institute Of Technology And Management
16	17 February,2022	Blood Donation Camp	60	Marri Laxman Reddy Institute Of Technology And Management

NSS Students List

S.NO	H.T.No	NAME OF STUDENT	Email ID	Contact No	Year	Branch	Section	Address
1	197Y1A04F9	K.Shivaprasad	Shashiva9866@gmail.com	9866250276	3rd year	ECE	C	Gidimetla
2	207Y1A0418	CH.Mitra	Chityalamitra@gmail.com	9160357525	2nd year	ECE	A	Gandimaisamma
3	207Y1A0444	V.Srilakshmi	Srilu6259@gmail.com	9866878668	2nd year	ECE	A	BHEL
4	207Y1A0451	T.Swathi	Swathi.t2003@gmail.com	7569992608	2nd year	ECE	A	JNTUH
5	207Y1A0427	P.Mythilii	Mythili.kanna22@gmail.com	6301964890	2nd year	ECE	A	RC puram
6	207Y1A0455	Vamshi	Vamshijilla2002@gmail.com	6304612446	2nd year	ECE	A	Gandimaisamma
7	207Y1A0440	Charan	charanderoju@gmail.com	7093979303	2nd year	ECE	A	Gidimetl
8	207Y1A0420	Mubasheer	Alimubasheer575@gmail.com	8639820566	2nd year	ECE	A	Gandimaisamma
9	207Y1A04A5	sreejareddy	Sreejareddy3112@gmail.com	6302709920	2nd year	ECE	B	Sangareddy
10	207Y1A04B3	Tharun	Tarunmangalparthi199@gmail.com	8341647691	2nd year	ECE	B	Medak
11	207Y1A0481	Kundan	Kundannadella20032gmail.com	9494664239	2nd year	ECE	B	Nizampet
12	207Y1A0488	Nithinraju	Nithinraju5151@gmail.com	9494664239	2nd year	ECE	B	nizampet
13	207Y1A0485	P.Nagender	polagoninagender@gmail.com	9676522409	2nd year	ECE	B	Madhapur
14	207Y1A04H0	I.Jahnavi	Janu.imandi28@gmail.com	6281663882	2nd year	ECE	C	Gandimaisamma
15	207Y1A04H5	Syedhabeeb	Syedhabeeb277@gmail.com	8106449803	2nd year	ECE	C	Gandimaisamma
16	207Y1A04F9	M.Priya	molkasamiasaipriyareddy@gmail.com	6301009732	2nd year	ECE	C	MLRITM HOSTEL

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120)

Total Marks 120.00

10.1 Organization, Governance and Transparency (40)

Total Marks 40.00

10.1.1 State the Vision and Mission of the Institute (5)

Institute Marks : 5.00

Vision :

Institute Vision:

To establish ideal academic institutions in the service of the nation, the world and the humanity by graduating talented engineers to be ethically strong, globally competent by conducting high quality research, developing breakthrough technologies, and disseminating and preserving technical knowledge.

Mission :

Institute Mission:

A. Contemporary and rigorous educational experiences that develop the engineers and managers;
B. An atmosphere that facilitates personal commitment to the educational success of students in an environment that values diversity and community;
C. Prudent and accountable resource management;
D. Undergraduate programs that integrate global awareness, communication skills and team building;
E. Leadership and service to meet society's needs;
F. Education and research partnerships with colleges, universities, and industries to graduate education and training that prepares students for interdisciplinary engineering research and advanced problem solving abilities;
G. Highly successful alumni who contribute to the profession in the global society.

10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies (10) Institute Marks : 10.00

A) LIST THE GOVERNING, SENATE, AND ALL OTHER ACADEMIC AND ADMINISTRATIVE BODIES; THEIR MEMBERSHIPS, FUNCTIONS, AND RESPONSIBILITIES

Governing Body:

Governance is the key activity that connects between the management, staff, students and the community. We believe it should be effective, efficient and economical in execution of its duties. We support modern governance and proper administration and believe these should be carried out in a way that actively acknowledges diversity. MLRITMhas a governing body in place wherein the members are drawn from distinguished cross-sections of the society as shown in Table below.The Governing Body and other various committee meetings shall be conducted at least two to four times in an academic year.

LIST THE GOVERNING BODY MEMBERS:

S.No	Name of the Governing Body Member	Designation of Members W.R.T Governing Body	Details of Parent Organization Where working	Designation of the member working at parent Organization
1	Sri. M. Laxman Reddy	Chairman	Marri Educational Society	Educationalist
2	Sri. M. Arundhati	Vice Chairman	Marri Educational Society	House wife
3	Sri. M. Anu Shreya Reddy	Secretary	Marri Educational Society	Studies
4	Smt. M. Mamatha Reddy	Treasurer	Marri Educational Society	Educationalist
5	Sri. M. Dhiran Reddy	Executive member	Marri Educational Society	Studies
6	Dr. (Mrs). K. Rama	Member, UGC Nominee	NAAC, Bangolore	Adviser, NAAC
7	Dr. B. Vishnu Vardhan	Member, University Nominee	JNTUH College of Engineering Manthani	Computer Science and Engineering Professor and Vice-Principal

8	Smt. ShafiazAkthar	Member, State Government Nominee	Govt.PolyTechnic, Yadagirgutta	Principal

The following processes shall be followed for the conduct of Governing Body meeting:

In consultation with the Chairman of Governing Body the date, time, venue and agenda for the Governing Body meeting shall be fixed by the Principal of the institution who is also the Member Secretary of the Governing Body.

- The meeting notice to attend the meeting along with agenda for the meeting shall be sent to all members and invitees by the Member Secretary of the Governing Body at least two weeks earlier to the date of the meeting.
- Pre--agenda notes shall be sent to all members by the Member Secretary of the Governing Body so as to reach earlier to the meeting. This shall contain the minutes of the earlier Governing Body meeting, the action taken report on the resolutions of the earlier Governing Body meeting, and notes on action agenda and information agenda of the present meeting.
- On the day of meeting the above information in the pre--agenda notes shall be made available to all members by the Member Secretary of the Governing Body. Fresh table agenda may also be included by the permission of the Chairman at the time of the meeting by any of the member.
- The proceedings shall be prepared by Member Secretary of the Governing Body and shall be circulated to all the members and the minutes of the meeting shall be finalized.

Administrative setup :

Following diagram depicts the brief administrative set up and the glance of committees, in order to create and enhance the infrastructure that facilitates effective teaching and learning process.

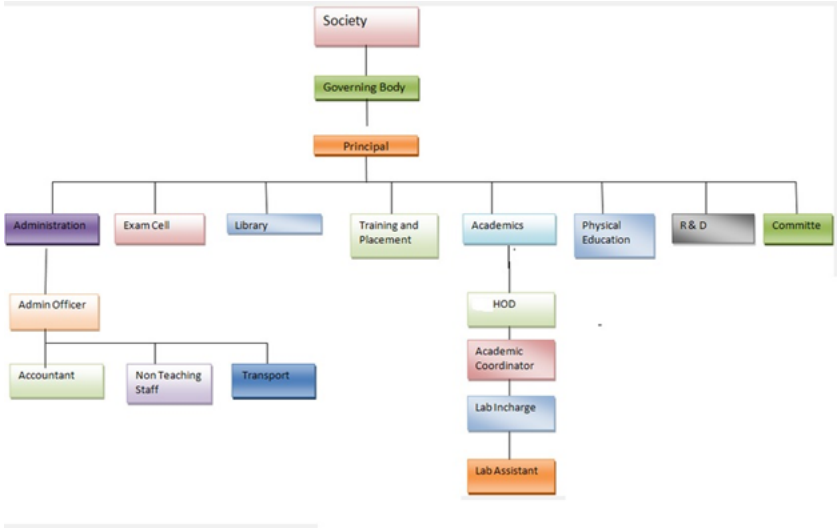


Fig.Administrative setup

- **Governing Body**
- **Academic Committee**
- **Academic Advisory committee**
- **Academic Development**
- **Library committee**
- **R&D Committee**
- **Internal Quality Assurance Committee**
- **Faculty Selection Committee**
- **Placement Committee... Etc.**

Governing Body:

The functions and responsibilities of Governing Body are:

(i). To Inspect the functioning of the institution, as a whole.
ii) To Monitor the results in the institution and to discuss the steps to be taken to improve the results, under the guidance of Advisory committee.
(iii). To appoint the Principal / Director, teaching-staff and non-teaching staff on the recommendations of the selection committees constituted under the relevant regulations of the University.
(iv). To recommend check admissions in various branches and to take steps to closure/opening of new branches, as per the requirement.
(v). To monitor faculty deployment and development, placement and industry-institute interaction activities in the institute/college and suggest remedial measures wherever necessary.

(vi). To conduct the meeting of the academic committee and take steps to upgrade Qualification/knowledge of the faculty members, through various programmes like seminars/Induction programs etc..
(viii) To motivate the faculty members to upgrade themselves as per the requirement of the time.
(ix) To encourage to conduct Industry-Institution interaction wherever necessary to know the need of the time.
x) To facilitate conduct of sports meet, seminars, invited lectures etc..

Chairman:

The functions and Responsibilities of a Chairman are:

- Planning and providing complete infrastructure facilities and financial support
- Frame directive principles and policies under the guidance of various committees.
- Amend and approve policies from time to time as per the need of the time.
- Inspect the budget requirement of each department and approve after discussion with the development committee.
- To assess the infrastructure requirement and provide approval for the overall development in the institution.

Secretary and Correspondent:

The Functions and responsibilities of Secretary and Correspondent are:

He/She acts as a bridge between the chairman and the institution.

Passing various requirements such as human resource, infrastructure, Labs, Library etc.. To the chairman.

- To look after the overall development of the institute
- Conduct meetings from time-to-time with various committees to know the status of the institute and upgrade it if necessary.
- To motivate the Principal/HOD's to improve the rank of the institute.
- Inspect accounts from time-to-time and see whether the finance is utilized appropriately.
- Motivate the higher authorities/faculty to conduct various events such as seminars, paper presentation, invited lectures, placement drives for all the colleges in the city, sports events with other institutions by which the institution will attract focus in the area of education.

Principal:

The Functions and responsibilities of Principal are:

The principal is the Head of the Institution and is responsible to the Governing Council for all academic, administrative, and financial matters of the college.

He is to function as the Member Secretary of the Governing Council (GC) and he is the functionary legally responsible on behalf of the college in all matters.

link between Governing Council, Chairman, and the Campus in-charge on one hand & the college administration, staff, and students on the other hand.

To transact matters pertaining to academic and administration with all the departments and organizations concerned by bringing to the notice of Governing Council, Chairman and the Campus in-charge.

To furnish periodical statements at the end of semester about financial, academic, and other matters pertaining to the college to the Governing Council, Chairman and the Campus in-charge.

To get approval of any emergency requirement from chairman.

To oversee the service records of faculty and non-teaching staff and get the service records periodically updated through vice – principal and respective heads of departments.

To write the confidential reports (CR's) of all the faculty and maintain them in his custody. However, the CR's of non – teaching faculty (Except class IV workers employed with weekly/daily wages directly by the management) will be written by concerned HOD and submitted to the principal for compliance and safe custody.

To oversee and ensure that the academic and administrative functioning of the college is smooth and satisfactory.

To interact with all external agencies such as industries and other professional organizations such as ISTE, IETE, DTE etc…

To be the administrative management of the institution as per rules and directives of the State Government, Directorate of Technical Education, JNTU and AICTE, New Delhi and other regulatory bodies.

To be responsible for the conduct, monitoring of progress and evaluation of academic courses/ programs as per the directives and guidelines provided by the affiliating academic.

To be responsible for organization of student activities/services, Co-curricular, extracurricular and other activities.

To act as sanctioning authority for all the leave and to keep the Chairman and the Campus in-charge updated.

To ensure admission of students as per the norms prescribed by the University and the state Government within the stipulated time schedule and obtaining the approval of the appropriate authorities for such admissions.

Academic Advisory Committee:

The committee comprises of Principal, Heads of Departments, representatives from external agencies. If translates the policies decided by the management into implementable activities and follows up with their execution.

Table: Academic Advisory Committee

Sl.No.	Name of the Staff	Designation	Department	Remarks
1	Dr.K.Venkateshwara Reddy	Principal	CSE	Member

2	Dr.M.Janga Reddy	Principal (CMRIT)	H&S	"
3	Mr.Sri.Kiran	Industry List	Methodic	"
4	Dr. B. Vishnuvardhan	Professor(JNTUH)	CSE	Member

Functions and Responsibilities:

Focusing on Oversight, Open Communication, and Best Practices; Academic quality in the Institute requires that the agreed aims, overall objectives and learning outcomes of educational programs are consistently achieved.

The committee should address the problems of the college with respect to admissions, students attendance, exams reforms/valuation/training & placements/students & staff academic related issues /conducting of seminars & tutorials etc.

Faculty development programs should be planned & conducted.

Laboratory orientation programs should be arranged by all faculty concerned with labs.

Identify academically weak students and arrange remedial classes beyond college hours.

Identify centers of excellence in the college and plan the necessary programs.

Propose suggestion to improve the quality of write of course files with regard to content; assignment, tutorial & seminar questions. NPTEL, Blooms Taxonomy etc.

Table : College Academic Committee

Sl. No.	Name of the Staff	Designation	Department	Remarks
1	Dr.K.Venkateshwara Reddy	Principal	CSE	Co-ordinator
2	Dr. Annamalai Giri	Professor	CSE	Member
3	Dr. Surya Prakash	Professor	Mech	"
4	Dr. N. Srinivas	Professor	ECE	"
5	Dr.K Niranjan	Professor	MBA	"
6	Dr. Narsing Rao	Professor	H&S	"
7	Dr.M.Saravanan	Professor	CIVIL	"
8	Mr. K Venkataswamy	Associate Professor	Exam branch	"

Responsibilities:

Assist in setting university academic strategies and ensuring that the universities academic programs are consistent with the institutions mission and those strategies.

Ensure the faculty personal policies and procedures support and enhance academic priorities in a profession practice college.

Ensure that the institutions academic programs one appropriate for its students and is turn students are well served by the institution.

Ensure that the institution assesses the effectiveness of its academic programs on a regular basis & take step to continuously improve programs.

Ensure that the academic quality issues remain a top priority of the institution.

Identify professional, educational or institutional issues that may be of concern to academic effectiveness .ensure that the college functions effectively in academic matters polices, capabilities and assessment methods to promote & improve academic effectiveness.

Fulfillment of academic expectations, faculty student ratio, retention statistics,student surveys etc.

Table 10.1.1.4: College Academic Development Committee:

Sl. No.	Name of the Staff	Designation	Department	Remarks
1	Dr. K. Venkateshwara Reddy	Principal	CSE	Co-ordinator
2	Mr. I. Adambabu	Assistant Professor	ECE	"
3	Mr. K. Veera Ragavulu	Assistant Professor	Mech	"
4	Mr. T. S. Srinivas	Associative Professor	CSE	"

5	Mrs. B. Shirisha	Assistant Professor	MBA	"

Responsibilities:

- Members will be responsible for setting; defining & reviewing targets towards the development of institution with regard to college buildings; faculty; laboratory equipment; transportation facility; computers; library books & journals and other facilities in the institute.
- The committee should work towards strengthening and improving the process of building towards achieving the vision of the college and to make it world Class College by establishing democratic rational and efficient management system.
- They have to build up an independent relationship between the academic power & administration power which are supportive but exclusive of each other.
- Should continuously, improve the quality of the talent nurtured and to adopt modern scientific research methods to serve the society in a better way.
- Encourage the faculty for better academic achievements, academic discipline rigorousacademic attitude, good academic morality.
- Obtain good B.Tech; M.Tech & MBA thesis works by students & faculty and arrange incentive awards for them. For encouraging competitive spirit among students & faculty supervise education methodologies & teaching evaluation.
- Formulation and approval of teaching projects and teaching achievements evaluation.
- Devise course outlines, research planning and other important issues in academic activities.

B) FREQUENCY OF THE MEETINGS

S.No	Type of Meeting	Frequency
1	Governing body	Every 6 Months
2	HODs Meeting	Every Week
3	Staff Meeting	Every 1 Month

C) THE PUBLISHED RULES INCLUDING SERVICE RULES, POLICIES AND PROCEDURES:

The following are the details of the service rules that are being implemented in MLRITM College (7Y) for teaching and non – teaching faculty members

1. **PLANNING:**

1.1 Human Resource Planning (Teaching & Non -Teaching)

- The college management and principal assess the staff requirement both for teaching & non teaching for the ensuing academic year in April month of every year.
- The Principal will obtain the staff requirement lists from all the Heads of departments and arrive at the number of faculty members and administrative staff required with the following guidelines in mind.

Guide lines

- Each department is being headed by a senior faculty member of that particular department. He/she will be looking after the day to day administrative and academic activities of the department and reports to the principal periodically with regard to the updates of the department. The H.O.D of the department will be rotated among the senior faculty members once in every three years.
- As per AICTE guidelines (2018) the teacher student ratio shall be 1:20. The faculty members in each department should be maintained in this ratio.
- The minimum contact hours for each category of teaching faculty members should be maintained as Per AICTE guide lines and it is as follows:

Principal	04
Professors	08
Assoc Professor	12
Asst Professor	16
Technical staff	24

1.2 Faculty Recruitment- procedure

- The principal and HODs review the faculty requirements based on the faculty student ratio.
- Shortage of faculty members will be replenished through proper recruitment procedure.
- The selection committees shall be formed consisting of HOD, two senior staff members of the department, two senior faculty members from other colleges and an university nominee.
- The college advertises in two premier news papers calling for applications giving the details of faculty & staff requirements (Department wise), interview date & time, venue, etc both for teaching & non-teaching posts.
- The committee reviews the job description and job specifications (given below) for each category of posts.
- The Committee shall augment applications in the ratio of 1:3 for every position to be filled.
- After expiry of scheduled time for receiving of applications, the applications will be sorted out and final list of eligible candidates (1:3) will be called for interview.
- Aptitude tests, including class room demonstrations, Personal Interviews are conducted and a final list of selected candidates will be prepared. The list is submitted to the principal and college management for their approval.
- Programmers, system administrators, lab technicians, lab assistants are selected based on their performance in interviews by the respective selection committees.
- Letters of Appointment will be prepared and will be mailed to the selected candidates

Qualifications for the various categories as per AICTE and JNTUH norms.

Faculty Members - Technical

Assistant professor:

- Distinction or First class either in B.E/B.Tech or M.E/M.Tech for appointment as Assistant Professors.

Associate professor:

- Ph.D. degree in relevant subject specialization, with 1st Class in B.E/B.Tech or M.E/M.Tech with five years of teaching/industrial/research experience
- Distinction or First class either in B.E/B.Tech or M.E/M.Tech with ten years of teaching/ industrial experience for an Associate Professor.

P**rofessor:**

- Ph.D. degree in relevant subject specialization, with 1st Class in B.E/B.Tech or M.E/M.Tech with ten years teaching/industrial/research experience .
- Distinction or First class either in B.E/B.Tech or M.E / M.Tech with fifteen years of teaching/ industrial experience.

Faculty Members - H&S

Assistant professor:

- Distinction or First Class in M.Sc. /M.A or equivalent are eligible for appointment as Assistant Professors in Science and Humanities Department.

Associate professor:

- Ph.D. degree in relevant subject specialization with 1st Class in M.Sc./M.A or equivalent with five years of teaching/industrial/research experience .
- Distinction or First class in M.Sc/M.A/ with ten years of teaching/ industrial experience.

P**rofessor:**

- Ph.D. degree in relevant subject specialization with 1st Class in M.Sc/ M.A or equivalent with 10 years of teaching/industry/research experience.
- Distinction or First class in M.Sc. /M.A or equivalent with minimum fifteen years of teaching/ industrial experience.

Faculty Members - M.B.A

Assistant professor:

- Distinction or First Class in M.B.A with a first class in any undergraduate course.

Associate professor:

- Ph.D. degree in relevant subject specialization with 1st Class in M.B.A with five years of teaching/industrial/research experience.
- Distinction or First Class in M.B.A with a first class in any undergraduate course and with ten years of experience.

P**rofessor:**

- Ph.D. degree in relevant subject specialization with 1st Class in M.B.A and 10 years teaching/industry/research experience.
- Distinction or First class in M.B.A with a first class in any undergraduate course and with minimum fifteen years of teaching/ industrial experience.
- **Programmers, system administrators, lab technicians, lab assistants**

Programmers and system administrators : 2nd class in B.E/B.Tech

Laboratory technician : 1st class in Diploma

Laboratory assistant : I.T.I

1.3 Joining report

- All staff members who have been selected & appointed should submit their joining reports on or before the specified time limit in the principal's office .
- Photo copies of their certificates are to be submitted in the principal office along with their joining report.

Probation period:

All the faculty who have been selected will be under probation for a period of one year in a continuous period of two years.

1.4 Orientation

- Every faculty appointed in the college shall be given a brief introduction about the College by the Principal or his nominee on the day of his/ her joining.
- The Principal send him/her to the department.
- The HOD will give a brief introduction about the department and will introduce the new incumbent to all the teaching and non-teaching members of the department .
- The HOD will also take him/her around the campus, explaining him/her the various codes of conduct to be observed for availing the facilities in the college.
- The HOD will also ensure that all the registration formalities, including submission of joining report etc are performed by obtaining the assistance of the Office team.
- The HOD will introduce the new faculty member to the students of the class he/she is going to handle.

2. SALARIES & INCENTIVES

2.1 Positions and pay scales

- The College will have the following positions of hierarchy in the college and teaching departments
- Principal
- Directors /Deans of units / Departmental Head s/ Coordinators
- Professors
- Associate Professors

- Assistant Professors

- System administrators, programmers, laboratory technicians, laboratory assistants etc.
- In addition, each department shall have supporting staff like Lab Assistants, Departmental assistants and Department Attenders, etc.
- The College Office will have the following positions of hierarchy in the administrative department.
- Administrative officer, Office Superintend, Receptionist, Accountant, senior assistants, junior assistants, Cashier, attenders, gardeners, ayahs etc.

Pay scale of Teaching faculty

Designation	Pay scale (Rs.)
Professor	37400-67000-AGP 12000
	37400-67000-AGP 10000
	37400-67000-AGP 9000
Associate Professor	37400-67000-AGP 10000
	37400-67000-AGP 9000
Assistant Professor	37400-67000-AGP 9000
	15600-39100-AGP 7000
	15600-39100-AGP 6000

- Scales for Administration Staff (Rs.): (Non-Teaching)

A.O/Superintendent : 4850-150-5300-170-6150-200-7150-250-8400-300-9900-350-10250/-

Senior assistant : 3950-120-4550-150-5300-170-6150-200-7150-250-8150/-

Junior Assistant : 3130-80-3450-100-3950-120-4550-150-5300-170-6150/-

Record Assistant : 2750-60-3050-80-3450-100-3950-120-4550-150-5150/-

Laboratory Assistant : 4850-150-5300-170-6150-200-7250-250-8400-300-9900-350-10250/-

Programmer : 4190-120-4550-150-5300-170-6150-200-7150-250-8400-300-6700/-

Attender/Watchman/Sweeper : 2550-50-2750-60-3050-80-3450-100-3950-120-4550/-

2.2 Dearness & Other Allowances (Teaching & Non-Teaching)

All salaried employees are eligible for DA, HRA, CCA etc along with their basic pay

2.3 Salary increments (Teaching & Non-Teaching)

- Staff members are eligible for annual increments at the end of 12 months of his/her service in the institution.
- Additional increments will be given for deserving and highly competent faculty members

2.4 Other financial Benefits (Teaching & Non-Teaching)

- All Faculty and Staff Members are covered under Group Insurance Scheme.
- All the Faculties and the staff members are eligible for EPF scheme.
- The management provides subsidized mess and transport facilities to all faculty and staff members.

3. LEAVE

3.1 Earned Leave

- The Teaching staff of the college are eligible for Earned leave @ 3 days per year after

completion of probation period .

- The Earn**ed** leave can be availed at any time during the year.
- The Earn**ed** leave can be accumulated up to 120 days during the service.
- Faculty members can encash their earned leave after completion of 5 years of service once in two years .
- Earned leave encashment is a privilege extended to the staff member and it cannot be

claimed as a matter of right.

3.2 Maternity Leave (Teaching & Non-Teaching)

- All the women staff members who have completed 2 years of service are eligible for maternity leave.
- Maternity leave can be sanctioned only twice in service period with a gap of 3 years.
- Maternity leave should be applied at least 10 days in advance. The doctor's advice and the reason and rest requirement should be enclosed with the application in writing to the Principal.
- Staff member can proceed on maternity leave only on receiving the sanction orders from the Principal.

3.3 Casual Leave

- The teaching staff are eligible for one day casual leave with pay in every month. It can be accumulated in a calendar year and availed after Principal's approval.
- No other type of leave should be linked with casual leaves.

3.4 Sabbatical leave

- The teaching staff of MLRITM College will be granted leave for improvement of their education qualifications in India or abroad under specified terms and conditions

- The faculty who is going on leave must have completed a minimum of five years of service as aforesaid and is eligible for 50% of pay during such leave of absence.
- Sabbatical leave is also sanctioned to the faculty for pursuing their research work outside the college i.e. India or abroad.
- Faculty members who are sanctioned Sabbatical leave should execute a bond with the college to serve the college for specified period of time as per norms after they report to the college after the completion of their assigned work.

3.5 Study leave

The Management, at its discretion will offer financial assistance for faculty members who want to pursue higher education in other premier colleges, either in the form of loan or 100% assistance based on the merit of application.

- Staff members who are permitted for full time study need to sign a bond with the management that they have to serve the institution for five years after Ph.D, or three years after M.E/M.TECH. or Ph.D. course work, along with sureties. In case of breach of agreement, staff member has to repay the fees and salary taken, along with bank interest.
- Staff members who are permitted to attend part time programs need to sign an agreement with the management to serve the institution for One year after obtaining the qualification along with sureties. In case of breach of agreement, staff member has to repay amount equivalent to six month's salary, to compensate losses incurred by the management and towards breach of faith.
- Higher educational programs need to be completed in stipulated time period.

3.6 On-duty Assignments

- The principal permits staff member to attend special assignments or industrial units, for specific period of time or to attend seminars or training programs, workshops, conferences in other colleges.
- The period of absence due to such assignments will be treated in the following manner:
- Where the assignment is under arrangement between the college and the other unit, the staff will continue to receive the salary from the college.
- Where the assignment is arranged by the individual faculty member, with terms and conditions defined by him/ her with the unit in which the assignment is to be carried on, he/she will not be eligible for the salary from the college for that period.
- Under such circumstances, the Principal shall decide the leave, based on current responsibilities and requirements of the faculty in the college.

Vacation (Teaching & Non-Teaching)

- The vacation period for teaching staff members and non-teaching staff members for one academic year is 30 and 15 days respectively. The staff members are permitted to avail the vacation in maximum of 2 spells (summer and winter).
- No staff member can avail the vacation after the vacation period (i.e. during class work time).
- Vacation cannot be availed at one stretch
- The principal has the right to prevent any staff member from availing a portion or the whole of vacation if the services of the particular individual is essential for the administration of the Institution. In such cases the faculty will be sanctioned Earned Leave and it will be credited to his earned Leave account.
- Staff members who have completed one year of service as on date of commencement of vacation period are entitled for vacation as detailed above.
- However the staff member with a service of less than one year will be given vacation proportionally as per the length of period of service (Pro rata) rendered by him/her.
- No other leave can be combined with vacation period.
- All the staff members must be present in the Institution on the last working day prior to the vacation and also on reopening day after the vacation to become eligible to draw their vacation salary.

4. PROMOTIONS

4.1 Promotion policy (internal)

- All promotion shall be considered on the basis of merit-cum-seniority basis from among the staff, subject to the following conditions.
- There has to be vacancy existing at the next higher cadre as per the AICTE prescribed staff pattern and cadre ratio.
- The staff member should have the qualification prescribed by AICTE for the post considered.
- The staff member should have the required years of service to consider for the vacant post.

- Under normal circumstances the senior most members of the staff shall be considered for promotion to the next higher level position based on the promotion Committee Decision, He/she should full fill the qualification requirements and years of service as already mentioned.

5. RETIREMENTS (Teaching & Non-Teaching)

5.1 Retirement form Service

- All teaching and non-teaching staff should retire on completing the age of superannuation, which is 60 for teaching and 58 for non-teaching staff which can be relaxed by the Chairman.
- When a faculty member completes the age of superannuation on a day falling during the academic year, he/she shall be retired on the 1st of May of the succeeding year.
- The College will communicate in writing before 6 months about his/her retirement, as a measure of assistance and caution to the retiring employees.
- If the retiring employee has accumulation of earned leave to his/her credit, the same can be encashed by submitting an application to the Principal and obtaining appropriate sanction orders from him.
- The age of superannuation as mentioned above shall not be applicable to the Professors of Emeritus & Eminence and special category appointments.

5.2 Employees provident fund & Retirement benefits: (Teaching & Non-Teaching)

- All employees who are under the purview of the Employees' Provident Fund legislation shall be enrolled as members as such, on the date of joining the College and on completion of one year of service.
- The College contributes 13.6% of his/her pay, subject to the ceiling of Rs.780 per person, towards the Employer's contribution to the EPF Scheme.
- The College shall deduct 12% of the pay from the salary of the individual employee every month, towards his/her contribution to the Employer's contribution to the EPF Scheme.
- The College shall remit both the contributions as stated above to the EPF Scheme authorities.
- The College shall pass on the annual statements pertaining to the Employees. as released by the EPF authorities, to the concerned employees.
- All the employees who are retiring after super annuation are eligible for gratuity, encashment of earned leave, EPF, salary arrears if any etc.

5.3 Resignation/Termination of employees: (Teaching & Non-Teaching)

Exit Policy on Resignations: - In general no resignation shall be accepted once the class work has commenced during the semester. However the following rules are applicable in such cases.

- An employee shall have to give a notice of two months in case he resigns during the months of April or November, and one month notice in case of May/December
- In case an employee resigns during any month of the year i.e. January, February, March, July, August, September, he has to give a notice of three months for resignation.

In lieu of the above said notice period, an employee with the approval of the management can be paid the salary for one month, two months or three months based on the month in which the resignation is submitted. If any employee wants to be relieved from the college in the middle of the year due to personal emergency problems, the employee on satisfying the above rules of notice period on resignation shall be relieved and a relieving certificate shall be issued.

Management has powers to relax the conditions in very special case.

6. DISCIPLINE AND GRIEVANCES

6.1 Code of Conduct for Teachers (Teaching & Non-Teaching)

Dress

- All employees shall be dressed appropriately at all occasions. All faculty should wear Uniform with pride.
- All employees should wear Identity Cards in the College Campus.

Punctuality

- All employees shall be punctual to their duties and shall strictly adhere to the College timings. All works/classes/meetings should start and end on time.
- All the employees shall strictly obey the instructions and circulars issued by the authorities from time to time.
- Teachers shall be at the appointed classroom at the appointed time without any exception.
- Every teacher shall take attendance at the beginning of the teaching hour.
- A teacher finding a student committing any act of misconduct in the class or in the premises, shall immediately take appropriate action and the same is to be reported to the principal.
- Every staff member shall attend to all the departmental and institutional functions and carry out responsibilities assigned to them.
- It is mandatory that every faculty member should attend functions on August 15th (Independence Day) and on January 26th (Republic Day).
- Faculties and staff members shall not engage themselves in other activities/businesses, which affect their effective contribution in the department and the college.
- Faculties and Staff members shall not receive gifts of any kind from the students or their parents for any favouritism.
- Teachers shall maintain a respectable work culture as mentioned below
- Preparation for the particular day's classes, with latest information appended to earlier course content.
- Shall keep all teaching and other material required for conducting the class in an orderly manner.
- Should meticulously follow the session plan for the day and complete the syllabus for the semester without any backlogs.
- Follow up assignments and tests given to students, evaluate them on time and collect the necessary feedback from the students.
- Ensure the orderly arrangement of class rooms and their cleanliness with the help of students and the cleaning staff (Ayahs), wherever necessary.
- Has to obtain prior sanction from the principal for any type of leave.
- Teachers shall observe good personal conduct in terms of
- Not to use any abusive language towards students, fellow teachers, parents and other members of public, not entering into quarrels, fights or any act of disrespect to others, of any nature, not engaging in any activity / business inside the college premises including money lending, canvassing for the sale of any articles or distribution of any commodity.
- Not to associate with any political organization, which might cause conflict of interest with the duties of a teacher and the reputation of the institution.

- Faculties shall confirm to the ethical standards that are expected from teachers.

6.2 Disciplinary Procedures (Teaching & Non-Teaching)

- Any teacher who is violating the code of conduct defined will be subjected to appropriate disciplinary action by the Principal.
- If any teacher commits an act of misconduct by violating the code of conduct, the same should be reported to the Principal in writing.
- The Principal shall hold a preliminary enquiry into the matter, by calling the person against whom the compliant is lodged. An enquiry is to be conducted by the committee to find out the facts with regard to the incident at the earliest. Based on the reports of the committee necessary action will be initiated by the principal.
- The course of action against the offender may include.
- Memo and Censure**.**
- Warning in writing, with recovery of amount, where financial loss is involved in the act.
- Suspension from work without remuneration/salary.
- Dismissal or discharge from service.
    - The Principal will report the proceedings periodically to the Chairman.

6.3 Grievances (Teaching & Non – Teaching staff)

- The Principal shall constitute a Grievance Committee to redress the Grievance of the teaching and non-teaching staff.
- The Grievance Committee of the college consist of five senior faculty members.
- The Principal shall announce the Constitution of the Committee and the names of members at the beginning of every academic year.
- The grievance committee shall:
- Have a member secretary, to monitor the proceedings
- Meet once in fortnight or as and when required .
- Any teaching or non-teaching staff having a grievance, he or she shall make a representation to the Committee.

- The grievances shall be redressed / recommended for redressal immediately by the committee and the final report should be submitted to the principal.
- The Member-Secretary shall record and maintain the minutes of meetings.

6.4 General Behaviour-Faculty & Staff (Teaching & Non-Teaching)

- No employee should use disrespectful language while speaking. Due respect should be given to the superiors for their position, rank, qualifications and knowledge.
- No employee should indulge in any derogatory loose talk against college, members of management, his or her colleagues, superiors, subordinates or students.
- Subscriptions: No employee of the College should participate in any fund raising or subscription activity for any trust, society etc without obtaining formal permission from the principal.
- All employees are expected to deal kindly with the students within the framework of rules and without sacrificing discipline. Any action on the part of any employee, which results in obstruction within the normal work and puts the administration/management in an embarrassing situation or causes tarnishing the image of the college, in the looks of the University or general public, shall be seriously dealt with.
- It shall be the endeavour of every employee to honour the confidence reposed in him by the college and not to divulge any information obtained by him in the course of his official duties to any unauthorized person or to make any improper use thereof. An employee connected with examination work is specially required to be very cautious in the observance of these rules and should not under any circumstances divulge any information.
- None of the employees of the college should use mobile phones in the college premises. All the cell phones should be in the vibration mode and only in emergency cases should attend to the calls.

10.1.3 Decentralization in working and grievanceredressal mechanism (10) Institute Marks : 10.00

Grievance Redressal committee:

The objective of the grievance Redressal procedure is to provide an easily accessible mechanism for settlement of grievances and to adopt measures in the college undertakings as would ensure expeditious settlement of grievances of staff/Student (teaching and nonteaching) leading to increased satisfaction on the job and resulting in improved productivity and efficiency of the organization.

Functions and Responsibilities:

The grievance redressable committee shall consider only individual grievances of specific nature of members of the teaching and nonteaching staff, Students raised individually by the concerned aggrieved employee.

The grievance committee shall not consider any grievance of general applicability or of collective nature or raised collectively by more than one employee.

1. Complaints relating to any staff/Student arising out of the implementation of the policies/rules or decisions of the organization. It can include matters relating to leave, increment, acting arrangements, non-extension of benefits under rules, interpretation of service rules etc of an individual nature.

1. The Grievance Redressal Committee shall be responsible for collective agreement dealing with grievances.

1. The Committee expects that Grievance Redressal be time bound and result oriented. Every Grievance is expected to be resolved within a maximum period of fifteen working days.

The final responsibility for Grievance Redressal rests with the Chairman Cum members responsible for resolution of Grievances relating to their respective territory.

Policy:

Grievances may be real or imagined, but in either case, it is essential that the grievance is brought to light, discussed and the matter resolved to the satisfaction of all concerned. Failure to do so will only result in the grievance becoming a worsening source of conflict and eventually ending in a far more serious problem.

Action taken procedure:

The Grievance Procedure will be implemented as follows:

Step 1 – Immediate Senior

1. In step 1 the student/employee must discuss his/her grievance with his/her immediate senior or higher authority in case of a grievance against an immediate supervisor.
2. The Senior must solve the problem within two working days and inform the student/employee.
3. If the outcome is unsatisfactory, he/she may proceed to Step 2.

Step 2 – Department / Organization Head

1. The student/employee writes his/her grievance as an official letter and presents it to theHOD/Organization Head
2. The HOD will solve the problem within two working days and inform the same to student/employee.
3. If the student/employee is not satisfied with the outcome, he/she may proceed to step

Step 3 - Grievance Hearing

1. The matter is referred to the Management by handing over the grievance form alongwith other relevant written information.The Management shall convene a grievance hearing and attempt to resolve the matter within a period of ten working days. The decision of Management shall be final.

Procedure For Redressal of Grievances

1. An aggrieved staff member shall take up his/her petition in writing to his/her immediate superior (HOD) who will try to solve the matter within 10 days.

1. If not redressed, it would be forwarded through HOD to the Grievance Redressal Committee and the receipt to be acknowledged in writing.

1. The committee shall study the petition and after looking into the relevant documents, discuss with those concerned and submit its recommendations and report to the principal within a month's time.

1. All the discussions will be recorded confidentially by all the members of the Grievance redressal committee. Hence the matter will not be leaked outside the committee.

1. In case of any petitioner who is not satisfied with the recommendations made by the Grievance Redressal Committee he/she can directly approach the director/management.

Procedure For Redressal of Students Grievances

1. First the grievance should be addressed informally to the class co-ordinator/ HOD/ warden/ mentor/ SNA advisor of students.

1. If it is not resolved, the grievance should be submitted in writing to the class co-ordinator/ HOD/ warden/ mentor/ SNA advisor of students.

1. The grievance should be individual /specific in nature.

1. If it is not resolved within 10 working days then the grievance should be submitted in writing to the Grievance Redressal Committee(GRC).

The GRC after a detailed study and proper discussions will submit its report/ recommendations to the principal.

Anti-ragging Committee:

Ragging is strictly prohibited inside and outside of the college campus. The Anti-Ragging Committee constituted for this purpose by the constituent institutes is empowered to take an immediate action against any untoward incident and counsel the fresher. Every students seeking admission in this college shall have to furnish undertaking in this regard. The student will be required to give an undertaking in the proforma, signed by himself/herself and his/her parent/guardian to the effect that he/she is aware of the college approach towards ragging and the punishment to which he/she shall be liable, if found guilty of ragging suitable action will be taken by the college authority.

All the students admitted in institute will have to observe and abide by the discipline rules prescribed by the college and he/she will submit to the disciplinary jurisdiction of the Head of the Institution. General and other competent officers or authorities or bodies of the college as

the case may be and, in this respect, he/she has to submit the declaration in the proforma at the time of admission.

To enhance familiarity and to acclimatize the fresher to the academic and social environment of the campus, the institute organizes an orientation session in the first week of each new academic calendar.

The Institute has taken a number of stringent measures to prevent ragging as per the directions of Hon'ble Supreme court and UGC regulations 2009. A few of these measures are as under:

Anti Ragging Committee: The Anti ragging committee is headed by Head of the institute, other committee members and Dean, representatives of senior students, representatives of first year students and their parents. The committee is overall responsible for anti-ragging measures in the Institute as per UGC regulations.

Anti ragging Squad: The Anti Ragging squad will monitor and will have surprise checks at vulnerable places. It will also investigate any incident of ragging and will recommend the punishments to Anti Ragging committee for suitable action as per clause 9.1 of UGC regulations 2009.

As per orders of the HONORABLE SUPREME COURT and UGC Regulations, 2009, Ragging in all its form is totally banned in the Institute. Anyone found guilty of ragging and/or abetting ragging, actively or passively or being part of a conspiracy to promote ragging, will have to face any one or more of the following punishments:

FIR with Police

- Suspension/ expulsion from the hostel.
- Suspension from attending classes.
- Debarring from Campus placement
- Debarring from appearing in any test/ examination
- Rustication from the institution for from one to four Semesters.
- Entry on the Character Certificate regarding the punishments will be mentioned.
- Cancellation of admission.

I. **Sexual Harassment**

Definition Sexual Harassment

Sexual harassment can be defined as 'unwelcome' sexually determined behavior (whether directly or by implication) as:

- Physical Contact and Advances
- Demand or request for sexual favors
- Sexually colored remarks;
- Showing pornography; and
- Other unlawful physical, verbal or non-verbal conduct of a sexual nature.

The following is also covered within the definition of sexual harassment:

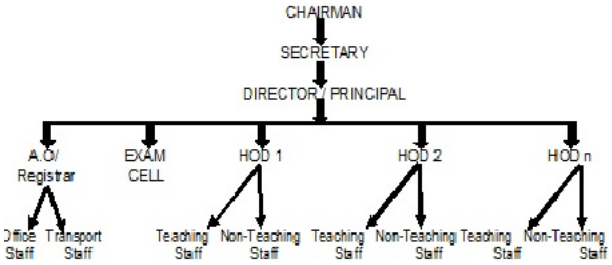
- Eve-teasing,
- Unsavory remarks,
- Jokes causing or likely to cause awkwardness or embarrassment,
- Innuendos and taunts,
- Gender based insults or sexist remarks,
- Unwelcome sexual overtone in any manner such as over telephone (obnoxious telephone calls) and the like,
- Touching or brushing against any part of the body and the like,
- Displaying pornographic or other obscene or derogatory pictures, cartoons, pamphlets or quotations,
- Forcible physical touch or molestation.

The Objectives of the Committee are:

- To prevent discrimination and sexual harassment against women, by promoting gender amity among students and employees;
- To lay down procedures for the prohibition, resolution, settlement and prosecution of acts of discrimination and sexual harassment against women, by the students and the employees;
- To deal with cases of discrimination and sexual harassment against women, in a time bound manner, aiming at ensuring support services to the victimized and termination of the harassment;

10.1.4 Delegation of financial powers (10) Institute Marks : 10.00

We at MLRITM believe in totally different kind of work culture. Basically it aims at love and affection to each and every stake-holder of the institute. In particular the concept of process owners, which facilitates a perfect decentralization of activities and delegation of authorities, has proven itself to be a key concept in the success achieved by the institute on different counts. Involvement of each and everyone in the decision-making and the transparency associated therein also form the important features of the work culture.The institute functions with perfect decentralized administration as depicted in Figure 1 that has complete transparency in the decision making process.



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

Institute Marks : 5.00

The college maintains transparency in all its operation and working. Information such as Internal marks scored by students, Shortage of attendance, if any, Availability of scholarships, Opportunities for students etc. are promptly displayed on Notice Boards.

At the end of every semester faculty has to give an individual Semester work report, which helps faculty to evaluate their own performance during the period of the report. Criteria for student scholarships, faculty awards etc. are informed well in advance so that equal opportunity is given to all individuals concerned.

At the beginning of every academic year the college brings out a calendar, which contain all the information, including Mobile numbers of all faculty members, required by a student to carry out his/her studies in the college. Information about every activity in the college are sent to all staff and students through e-mail

All the required information about the college are made available, as per directions of AICTE, in the college website: *www.mlritm.ac.in* (http://www.mlritm.ac.in)Information sought under RTI act is promptly furnished by the Principal.

Right to Information Act 2005 mandates timely response to students, parents & staff requests for institute information. It is an initiative taken by **Department of Personnel and Training**, to provide a ***RTI* Cell** Gateway to the students, parents & staff for quick information on the details of first Appellate Authorities, etc. amongst others, besides access to RTI related information / disclosures published on the web by various Department Authorities under the Institute.

RTI Cell – Objectives:

The Personnel & Administrative Reforms was identified as the implementing department for the implementation of the RTI Act in the Institute. RTI cell was setup with Six members besides a number of supporting staff from other departments. Right to Information Cell (RTI Cell) was set up in the Institute. The objectives of the cell are:

- Development of the capacity of Institute officials to meet students, parents & staff information needs for improved service delivery;
- Establishment of an institutional mechanism for improvement of institute - students, parents & staff interface.
- Development of awareness and capacity in students, parents & staffwith regard to their right to seek information, and
- Facilitating research, documentation, communication and advocacy.
- All RTI trainings and other activities are being undertaken by this Cell.

RTI Cell Committee Members:

S.NO	POSITION	FUNCTION & RESPONISIBITIES
1	CHAIRMAN	◦ Planning and providing complete infrastructure facilities and financial support ◦ Frame directive principles and policies. ◦ Amend and approve policies from time to time ◦ Approve budgets

2	**VICE CHAIRMAN**	◦ Providing human resource facilities and financial support. ◦ To look after the overall development of institute ◦ Mobilize external resources to strengthen the institute. ◦ Plan & provide for necessary facilities / equipment for development. ◦ Instil confidence and devotion in every member of the institute ◦ Housekeeping including hostels , Purchase Process, ◦ Manage accounts and finance. ◦ Organize office activities and events ◦ Ensure timely and accurate delivery and pick-up of important office material.
3	**PRINCIPAL**	◦ Design & define organization structure. ◦ Define delegate responsibilities of various positions in the organization ◦ Ensure periodic monitoring & evaluation of various processes & sub processes. ◦ Ensure effective purchase procedure ◦ Define quality policy and objectives ◦ Prepare annual budget ◦ Internal and External examinations ◦ Manage accounts and finance ◦ Employee recruitment process
4	**HEAD OF THE DEPARTMENT**	◦ Plan and execute academic activities of the department ◦ Maintain discipline and culture in the department ◦ Maintain the department neat and clean ◦ Pick and promote strengths of students / faculty / staff ◦ Monitor academic activities of the department ◦ Propose Department Budget ◦ Maintain records of departmental activities and achievements
5	**TEACHING STAFF**	◦ Preparation of study materials, ◦ Courses plan, ◦ Counseling the students, ◦ Conducting test, ◦ Coaching the slow learners, ◦ Purchase of consumables and equipment ◦ Assisting the head of the department in curricular, co-curricular and ◦ Extracurricular activities of the department.
6	**SUPPORTING STAFF**	◦ Maintaining stock register, ◦ Maintenance of equipment, ◦ Preparation for practical class, ◦ Keeping the equipment in good working condition, ◦ Maintenance of laboratory.
7	**Physical Directors**	◦ Ensure smooth conduct of sports ◦ Ensure proper use of gym ◦ Purchasing of sport items ◦ Encourage students to participate in zonal tournaments ◦ Creation and upkeep of sports facilities

8	**Office Superintendent**	○ Liaisoning with AICTE, EAMCET, UGC and University. ○ Faculty personal files ○ Recruitment process ○ New proposals ○ Co – ordinate day to day activities of office ○ Overall Supervision of administrative staffs.
9	**Librarian**	○ Plan and execute modus operandi of routine activity of the library ○ Plan and propose expansion / development ○ Maintain library discipline and culture ○ Prepare annual budget for library

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

Total Marks 30.00

10.2.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

(The institution needs to justify that the budget allocated during assessment years was adequate)

Budget requirements under ‘recurring’ and ‘non-recurring’ of the department are given to the management before the commencement of the financial year. Allocations are made as per the availability of funds, of the management. Spending is monitored by the accounts section. The department carefully monitors the expenses so that the necessities are met without exceeding the allocated budget. Funds are allocated by the AO(Account officer) of the College. Department Heads / Section-in-charges are intimated of the extent of funds allocated against their budget proposals.

Major works like construction, up-gradation of existing infrastructure, procurement and maintenance of common utilities, house-keeping, procurement of furniture etc. are controlled directly by the AO(Account officer).

Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc. are initiated from the respective departments and the funds are released on a case by case basis from the accounts office of the college on approval by the AO(Account officer).During the last three years, the budget was utilized to meet expenses such as infrastructure development, purchase of equipment, expenses towards consumables and contingencies, travel etc.

The budget is progressively increased to meet the new facilities for equipment, replacement of outdated equipment and new labs due to revision in syllabi.

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

Institute Marks : 5.00

(The institution needs to make audited statements available on its website)

The Audited Statement Is available/not available on the Institution website i.e.: www.mlritm.ac.in (http://www.mlritm.ac.in/)

10.2.2 Utilization of allocated funds (15)

Institute Marks : 15.00

(The institution needs to state how the budget was utilized during assessment years)

Under General Plan Development Assistance:

- Enhancing access
- Ensuring equity
- Imparting relevant education
- Improving quality
- Augmenting research facilities
- Making the College Administration more effective
- Providing for Faculty Improvement Programmes
- Enhancing Facilities for Students
- Any other Plans of the College

In order to fulfill the above objectives, financial assistance to meet the requirements of the University in terms of infrastructure, staff equipment, books and journals, library, etc. under the following heads may be provided by the College.

Infrastructure Buildings:

Financial assistance is for the construction of new buildings and for major repairs/renovation of old buildings. The buildings may be an academic building, library, administrative block staff quarters, hostels, guest house, etc.

Campus Development:

Campus Development for construction of roads providing electricity, water, laying/ renovating, plantation, and development of the land, etc. within the campus.

Staff:

Financial assistance under this head is for appointing teaching and non-teaching staff. Prior administrative approval of Marri Laxman Reddy Institute of Technology & Management for the creation of posts of new teaching and non-teaching staff is necessary.

Central Library: Funding for Books and Journals for the Plan period may be utilized.

Equipment: Equipment for laboratories, special office equipment (excluding furniture, Fixtures) and modern teaching aids, like Multimedia Projectors, Overhead projectors and computers etc. may be utilized

Research Activities:

Plan allocation may be utilized for additional Research Activities including any path-breaking, innovative research.

Student amenities:

Such facilities may include Canteen safe drinking water facility, Recreation Room, Common Room Counseling Centers for students, etc

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

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

Table 1 - CFY 2021-22

Total Income 308932145.4				Actual expenditure(till…): 308932145.4			Total No. Of Students 3441
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
303499285.4	0	5432860	0	279574323.4	29357822		89779.76

Table 2 - CFYm1 2020-21

Total Income 286334134				Actual expenditure(till…): 286334134			Total No. Of Students 3242
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
281812217	0	4521917	0	257888245	28445889		88320.21

Table 3 - CFYm2 2019-20

Total Income 207272922				Actual expenditure(till…): 207272922			Total No. Of Students 2646
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
206172922	0	1100000	0	189531925	17740997		78334.44

Table 4 - CFYm3 2018-19

Total Income 177018826				Actual expenditure(till…): 177018826			Total No. Of Students 2640
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
174442336	0	2576490	0	162681359	14337467		67052.59

Items	Budgeted in 2021-22	Actual Expenses in 2021-22 till	Budgeted in 2020-21	Actual Expenses in 2020-21 till	Budgeted in 2019-20	Actual Expenses in 2019-20 till	Budgeted in 2018-19	Actual Expenses in 2018-19 till
Infrastructure Built-Up	15000000	12657634	12526000	12648075	5000000	5225261	5000000	4800200
Library	2100000	2051764	2049567	2045783	800000	1097108	800000	778955
Laboratory equipment	9300000	9305674	9050000	9230114	8050000	8640966	7500000	6181822
Laboratory consumables	2152300	2306610	2100000	1058367	2070000	2064083	1250000	1041979
Teaching and non-teaching staff salary	185623200	185623200	180000000	175470205	125000000	124804999	122550000	123908494
Maintenance and spares	75325620	82727934	75055000	72843192	56030000	54311470	30200000	34227816
R&D	31000750	5342750	4000000	4521917	3000000	2777662	2100000	2576490
Training and Travel	61611542	6128079	6070000	6061481	6260500	6250373	1520000	1517070

	2555000	2788500	3000000	2455000	2100000	2101000	2000000	1986000
Others, specify	0	0	0	0	0	0	0	0
Total	**384668412**	**308932145**	**293850567**	**286334134**	**208310500**	**207272922**	**172920000**	**177018826**

10.3 Program Specific Budget Allocation, Utilization (30)

Total Marks 30.00

10.3.2 Utilization of allocated funds (20)

Institute Marks : 20.00

The allocated funds are utilised for Department Development Assistance:
1)Lab equipment purchase
2)Lab/Infrastructre maintanance
3)Laboratory Consumables
4)student amenities
5)Department Library
6)Research activities
7)Workshops/seminars/guest lectures to the students
8) Training and placement
9) Instructional material preparation

10.3.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

Budget requirements under ‘recurring’ and ‘non-recurring’ of the department are given to the management through the principal before the commencement of the financial year. Allocations are made as per the availability of funds. Spending is monitored by the accounts section. The department carefully monitors the expenses so that the necessities are met without exceeding the allocated budget.

Major works like construction, up-gradation of existing infrastructure, procurement and maintenance of common utilities, house-keeping, procurement of furniture etc. are controlled directly by the management.

Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc. are initiated from the respective departments and the funds are released on a case by case basis from the accounts section. The budget is progressively increased to meet the new facilities for equipment, replacement of outdated equipment and new labs due to revision in syllabi.

Institute Marks :

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

Table 1 :: CFY 2021-22

62759141		Actual expenditure (till…): 62759141		Total No. Of Students 720
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
2630357	60128784	2630357	60128784	87165.47

Table 2 :: CFYm1 2020-21

54988133.05		Actual expenditure (till…): 54988133.05		Total No. Of Students 720
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
3154955.05	51833178	3154955.05	51833178	76372.41

Table 3 :: CFYm2 2019-20

49270674.944		Actual expenditure (till…): 49270674.944		Total No. Of Students 720
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
4039379.944	45231295	4039379.944	45231295	68431.49

Table 4 :: CFYm3 2018-19

45014145.5		Actual expenditure (till…): 45014145.5		Total No. Of Students 720
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
3689737.5	41324408	3689737.5	41324408	62519.65

Items	**Budgeted in 2021-22**	**Actual Expenses in 2021-22 till**	**Budgeted in 2020-21**	**Actual Expenses in 2020-21 till**	**Budgeted in 2019-20**	**Actual Expenses in 2019-20 till**	**Budgeted in 2018-19**	**Actual Expenses in 2018-19 till**
Laboratory equipment	1992900	1992857	2215400	2215227	3611590	3611990	3354800	3354547
Software	450000	450000	490988	490988	321204	321105	233000	233687
Laboratory consumable	461137	461207	193890	194008	304100	304122	232700	232594
Maintenance and spares	6141000	6141204	7482400	7482366	6305752	6305796	3268500	3268345
R & D	0	0	271667	271667	0	0	0	0
Training and Travel	13202500	13202473	1454700	1454755	1829700	1829377	455449	455121
	547500	547500	589166	589200	614950	614927	195623	195800
Total	**22795037**	**22795241**	**12698211**	**12698211**	**12987296**	**12987317**	**7740072**	**7740094**

10.4 Library and Internet (20) Total Marks 20.00

10.4.1 Quality of learning resources (hard/soft) (10) Institute Marks : 10.00

Relevance of available learning resources including e-resources

Availability of Resources (Hard Copies):

a. **Books available in Library:**

Number of Titles: 26690

Number of Volumes: 4136

Year	Number of New Titles added	Number of New Editions added	Number of New Volumes added
CFY(2021-22)	65	17	263
CFYm1(2020-21)	55	11	171
CFYm2(2019-20)	115	23	680
CFYm3(2018-19)	259	32	1000

b. **Scholarly Journal subscription**

Year	Number of Technical Magazines/ Periodicals	Number of Total Technical Journals subscribed	Internationally acclaimed titles in (originals, reprints) (Hardcopy)
CFY(2021-22)	7	90	30
CFYm1(2020-21)	12	116	60
CFYm2(2019-20)	15	116	60
CFYm3(2018-19)	15	116	60

Availability of Resources (Soft Copies):

List of E-Journals Available In Central Library:

- IEEE: All-Society Periodicals Package (ASPP)
- Access to 185 e-journals and back volumes from 2010
- Access to 4 Bell Labs Technical e-Journal
- INFLIBNET –NLIST
- Access to 6031 e-journals
- Ebrary-ebooks (125000+ titles) (http://site.ebrary.com/lib/inflibnet)
- World -ebooks Library 30000000+ titles) (http://community.ebooklibrary.org/?AffiliateKey=WEL-NDL)
- DELNET
- Access to 2,50,00,000+ Books available for loan
- 40,000+ list of Journals
- 5,000+ Full-text E-journals
- 1,00,000+ Thesis/Dissertations
- NDL: National Digital Library of India (IITKGP)

- 7 Lakh e- Lectures
- 3 Lakh Articles
- 95000+ Thesis
- Manuscripts
- 18,000+ Video Lectures
- NPTEL
- e-Growth, Shodhganaga, and Librivex

Accessibility to students

- Issue of Library cards enabling the students to draw books from Library.
- Library Automation with New Gen Lib software
- Online Public Access Catalogue (OPAC) available for searching Library Materials.
- Department Library with sufficient number of volumes on core and application areas are available during college working hours
- Digital library is provided in central library where students can access various e-journals, e-books, NPTEL Video Lectures.
- Computer Lab with well-equipped Systems and Internet facility available for students.
- Wi-Fi facility available in the Library

Support to students for self-learning activities

There is a good scope for the students to have self-learning beyond curriculum through the facilities available in the Learning resource centre such as

- E-journals: IEEE, INFLIBNET, DELNET, IEI, NDL
- Textbooks (Hard/ Soft)
- Reference books
- National Programme on Technology Enhanced Learning (NPTEL) Video Lectures
- SWAYAM

10.4.2 Internet (10)

Institute Marks : 10.00

Name of the Internet provider	GPTL, VYNAVI
Available band width	100 Mbps, 200Mbps
WiFi availability	YES
Internet access in labs, classrooms, library and offices of all Departments	YES
Security arrangements	YES

Annexure I

(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

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

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1	Analyze and design analog & digital circuits or systems for a given specification and function.
PSO2	Implement functional blocks of hardware-software co-designs for signal processing and communication applications.

Declaration

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

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

Head of the Institute

Dr. K.VENKATESWARA

Name : REDDY

Designation : Principal

Signature :

Seal of The Institution :

Place : hyd

Date : 11-05-2022 18:34:30