SELF ASSESSMENT REPORT (SAR)
FOR ACCREDITATION OF UG ENGINEERING PROGRAMME
(Mechanical Engineering)
(TIER-I) FIRST CYCLE ACCREDITATION

Submitted to

NATIONAL BOARD OF ACCREDITATION

New Delhi

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

Aziznagar Gate, C.B. Post, Himayathnagar, Hyderabad.

February 2022

SELF ASSESSMENT REPORT

(SAR)

FOR ACCREDITATION OF
UG ENGINEERING (Mechanical Engineering)
PROGRAMME
(TIER-I)

FIRST TIME ACCREDITATION

Submitted to

NATIONAL BOARD OF ACCREDITATION
New Delhi

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY
Aziznagar Gate, C.B. Post, Himayathnagar, Hyderabad.

February 2022

SAR Contents

PART A: Institutional Information

1	**Name and Address of the Institution**	:	Vidya Jyothi Institute of Technology, Aziz nagar Gate, Himayat Nagar (V), C.B.Post, Hyderabad
2	**Name and Address of the Affiliating University**	:	Jawaharlal Nehru Technological University, Hyderabad
3	**Year of establishment of the Institution**	:	1998
4	**Type of the Institution**	:	
	University		
	Deemed University		
	Government Aided		
	Autonomous	✓	
	Affiliated		
5	**Ownership Status:**		
	Central Government		
	State Government		
	Government Aided		
	Self – Financing	✓	
	Trust		
	Society		
	Section 25 Company		
	Any Other (Please specify)		

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

Name of the Institution(s)	Year of Establishment	Programs of Study	Location
-	-	-	-

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
Mechanical Engineering	UG	1999	1999	60	Yes	120	Granted accreditation for 3 years	2018	2021	Yes	4

Sanctioned Intake for Last Five Years for the B.Tech

Academic Year	Sanctioned Intake
2020-2021	120
2019-2020	240
2018-2019	240
2017-2018	240
2016-2017	240
2015-2016	240

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
Master of Technology CAD/CAM	PG	2014	2014	24	No	24	Eligible but not applied	-	-	No	2

8. Programs to be considered for Accreditation vide this application:

S.No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Mechanical Engineering
2	Under Graduate	Engineering & Technology	Information Technology
3	Under Graduate	Engineering & Technology	Electronics and Communication Engineering

9. Total number of employees in the institution:

A. Regular Employees (Faculty and Staff):

Items	2020-2021		2019-2020		2018-2019	
	Min	Max	Min	Max	Min	Max
Faculty in Engineering (Male)	134	149	142	159	142	155
Faculty in Engineering (Female)	79	79	79	79	84	84
Faculty in Maths, Science & Humanities (Male)	29	40	36	43	30	33
Faculty in Maths, Science & Humanities (Female)	29	29	27	27	28	29
Non-teaching staff (Male)	112	113	120	120	117	119
Non-teaching staff (Female)	60	63	67	70	63	69

B. Contractual Staff Employees (Faculty and Staff): (Not covered in Table A):

Items	CAY		CAY*m*1		CAY*m*2	
	Min	**Max**	**Min**	**Max**	**Min**	**Max**
Faculty in Engineering (Male)	0	0	0	0	0	0
Faculty in Engineering (Female)	0	0	0	0	0	0
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

10. Total number of Engineering Students:

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

Engineering & Technology – UG Shift-1

Items	2020-21	2019-20	2018-19
Total no.of Boys	3210	2952	3011
Total no.of Girls	1073	1106	1110
Total	4283	4058	4121

Engineering & Technology – PG Shift-1

Items	2020-21	2019-20	2018-19
Total no.of Boys	83	61	57
Total no.of Girls	48	33	46
Total	131	94	103

Engineering & Technology – MBA Shift-1

Items	2020-21	2019-20	2018-19
Total no.of Boys	55	66	45
Total no.of Girls	57	43	61
Total	112	109	106

11. Vision of the Institution:

- To develop into a reputed Institution at National and International level in Engineering, Technology and Management by generation and dissemination of knowledge through intellectual, cultural and ethical efforts with human values.
- To foster Scientific Temper in promoting the World class professional and technical expertise.

12. Mission of the Institution:

- To create state of art infrastructural facilities for optimization of knowledge acquisition
- To nurture the students holistically and make them competent to excel in the global scenario
- To promote R&D and Consultancy through strong Industry Institute Interaction to address the societal problems

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

Head of the Institution

Name : Dr. A. Padmaja

Designation : Principal

Mobile No : 9849554882

Email id : principalvjit@vjit.ac.in

NBA coordinator, if designated

Name : Dr V V Satyanarayana

Designation : Professor

Mobile No : 9985087041

Email id : vvs@vjit.ac.in

PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	50.00	60.00
2	PROGRAM CURRICULUM AND TEACHING – LEARNING PROCESSES	100.00	120.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	175.00	120.00
4	STUDENTS PERFORMANCE	75.28	109.69
5	FACULTY INFORMATION AND CONTRIBUTIONS	184.70	173.09
6	FACILITIES AND TECHNICAL SUPPORT	80.00	80.00
7	CONTINUOUS IMPROVEMENT	75.00	50.00
8	FIRST YEAR ACADEMICS	45.59	45.38
9	STUDENT SUPPORT SYSTEMS	50.00	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120.00	120.00
	Total	1000	956

CRITERION – 1

1. VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (50)

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

Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations)

Vision of the institute	● To develop into a reputed Institution at National and International level in Engineering, Technology and Management by generation and dissemination of knowledge through intellectual, cultural and ethical efforts with human values. ● To foster Scientific Temper in promoting world-class professional and technical expertise.
Mission of the institute	● To create state-of-the-art infrastructural facilities for optimization of knowledge ● To nurture the students holistically and make them competent to excel in the global scenario. ● To promote R&D and Consultancy through strong Industry Institute Interaction to address the societal problems
Vision of the Department	To be recognized as a center of excellence in providing Mechanical Engineering education of international standards leading to well-qualified engineers who are innovative, immediate contributors to their profession, successful in advanced studies and employable globally.
Mission of the Department	To educate, prepare and mentor students to excel as professionals and grow throughout their careers in the field of Mechanical Engineering. This can be accomplished by: ● Providing the facilities and environment conducive to a high-quality education, strong foundation in the fundamental principles of Mechanical Engineering and preparing them for diverse careers. ● Engaging in academic activities, which strengthen the students' regional, national and international reputation.

1.2 State the Program Educational Objectives (PEOs) (5) **Institute Marks: 5.00**

PEO-I
Successful career in mechanical and allied industries through strong foundation in basic sciences, mathematics and engineering fundamentals

PEO-II
Ability to update knowledge on dynamically changing industrial practices.

PEO-III
Capability to work in a global environment imbibing team spirit with ethical responsibility.

PEO-IV

Ability to enrich knowledge, communication and leadership skills through perpetual learning with zeal towards research

1.3 Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (15)
Institute Marks: 15.00

(Describe where (websites, curriculum, posters etc.) the Vision, Mission and PEOs are published and detail the process which ensures awareness among internal and externals take holders with effective process implementation)

(Internal stakeholders may include Management, Governing Board Members, faculty, support staff, students etc. and external stakeholders may include employers, industry, alumni, funding agencies, etc.)

The dissemination of vision, mission and program educational objectives was done in the department meetings, student awareness programs, governing body meetings, departmental news letter etc. The objective of the activity is to establish positive opinion of the department and discern the quality of functioning.

The Vision, Mission and Program Educational Objectives are published in

- Departmental Newsletter
- College Website (www.vjit.ac.in)

- Placement brochure
- Course Description Document
- Syllabus book
- Course Files

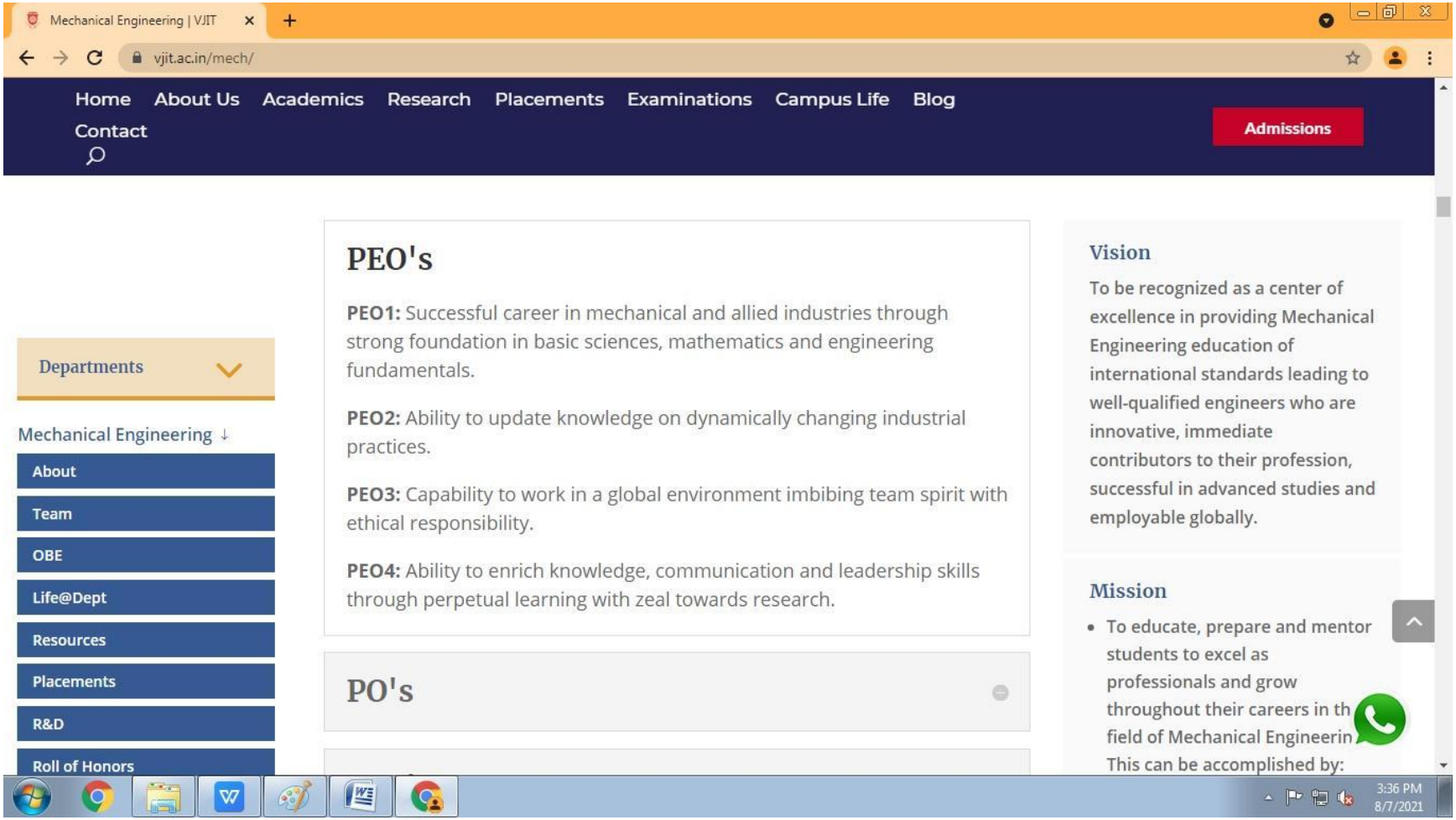


Fig.1.3.1 Department web page

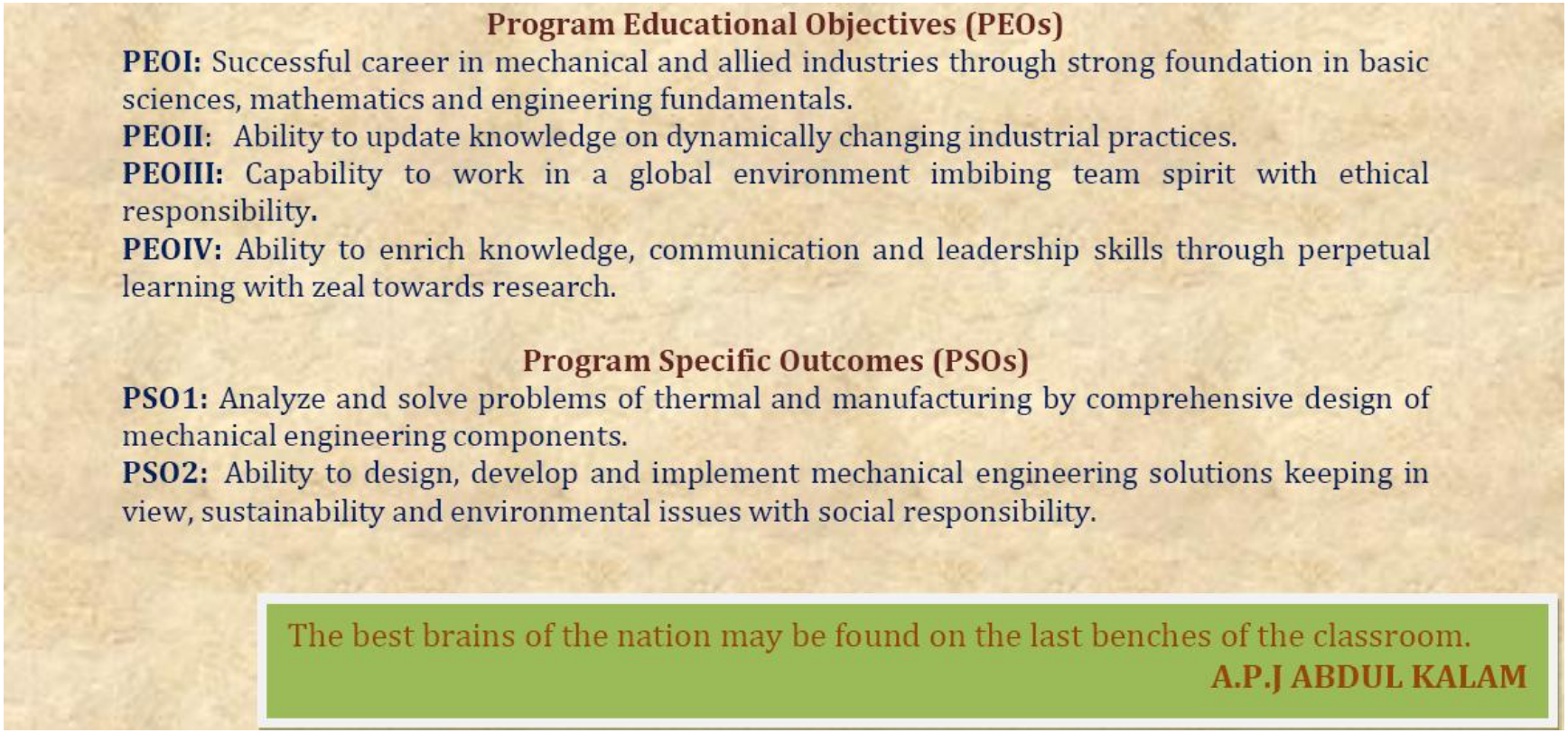


Fig.1.3.2 Departmental news letter

The Vision, Mission and Program Educational Objectives are displayed in

- HoD Cabin
- Faculty rooms
- Class rooms
- Laboratories
- Departmental corridors
- Seminar Hall
- E-mail Correspondence
- Notice Boards
- Departmental Library

MOS Lab

Class Room

Mechanical engineering Staff Room

Department Corridor

Fig 1.3.3 Display of Vision, Mission and PEO boards

Process of dissemination among internal stakeholders:

- Discussion in HOD s Meeting
- Discussion in Governing Body Meeting
- Discussion in Staff Meeting
- Students' Awareness Programs

Process of dissemination among external stakeholders:

- Discussion in DAB meeting
- Informing During Alumni Day
- Through bulk SMS
- Through News Letters

Process of Dissemination among the Stakeholders: The Stake holders are Students, Alumini, Employers, Academicians and Industry Experts. The Dissemination and Awareness is given to then in the following ways.

For students: The Dissemination is through Charts in each of the Class Room, Laboratories, Prominent locations of the Department, Syllabus Books, Lab Manuals, News Letter and also through College Website and Email Correspondence.

For Parents: The Dissemination is through Information brochure containing Vision and Mission, counseling and in orientation programmes with Faculty of the Department, during the department level meetings (DAB) and also trough College Website and Email correspondence.

For Alumni: The Dissemination is through Alumni Survey Form given during the Annual Alumni Meet, Whatsapp Correspondence and also through College Website and email Correspondence

For Employer: The Dissemination is through the Employers Survey form given to them during placements, during Department level meetings (BOS, IIIC Cell, and DAB) , College Website and email Correspondence

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

Institute Marks: 15.00

(Articulate the process for defining the Vision and Mission of the department and PEOs of the program)

The Department established the Vision and Mission through a consultative process involving the stakeholders of the department.

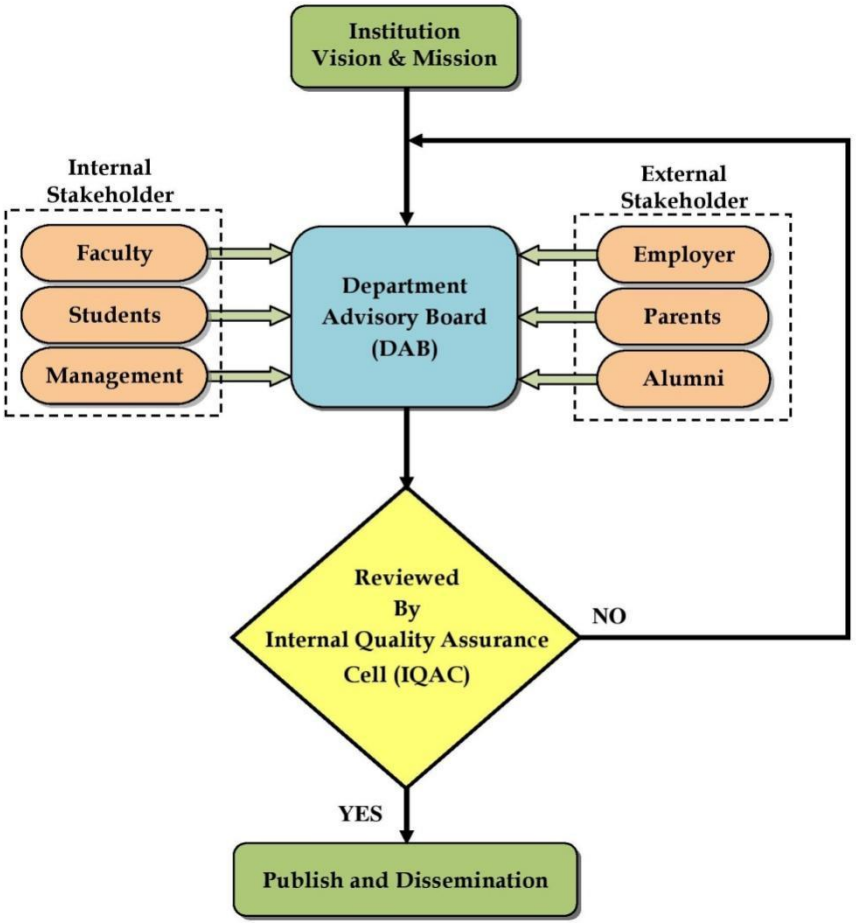


Fig 1.4.1: Process for defining Vision & Mission of the Department

Process for defining Vision and Mission of the Department:

Vision and Mission of the institute are basis for the process

- Inputs from all stake holders
- Deliberations by Department Advisory Board (DAB) are submitted to Internal Quality Assurance Cell (IQAC) for approval
- IQAC approves the Vision and Mission of the Department

Department of Mechanical Engineering has constituted a departmental advisory board (DAB) with a view to discuss thread bare all the issues pertaining to academics and bring out effective policies to be implemented forthwith. In the pursuit of defining vision, mission and PEO of the program the inputs are solicited/taken from Institute, faculty, Alumni and employers, The DAB after the deliberations had formulated the vision, mission statements.

..

The department also constituted program assessment committee(PAC) with the objective of sculpturing the UG and PG programs' curriculum. The committee is bestowed upon the responsibility of formulating the program educational objectives (PEO) which are essential how the student is to be transformed into a mechanical engineer and the quality of manifestation in 2-3 years after graduation.

The Articulation of PEO is discussed in DAB for further refinement. Then finally drafted vision, mission and PEOs are sent to Academic council of the institute for approval and final implementation

The Department established the Programme Education Objectives (PEOs) through a consultative process involving the stakeholders of the Department.

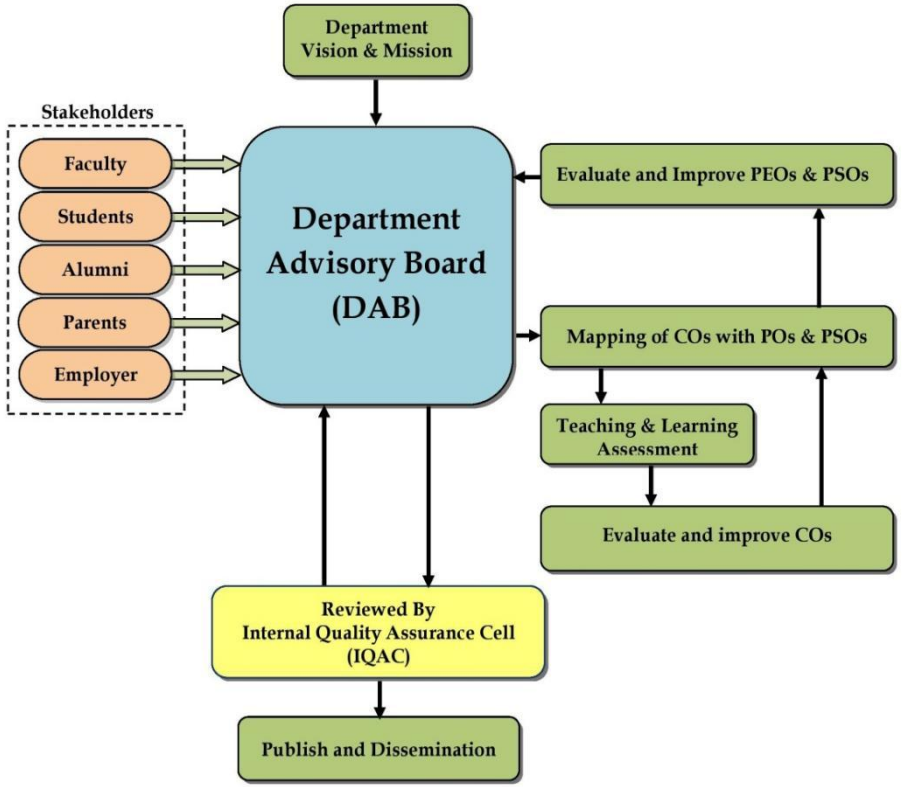


Fig 1.4.2 : Process for defining the PEO of the Department

1.5 Establish consistency of PEOs with Mission of the Department (10) **Institute Marks: 10.00**

Note: M1, M2, . . Mn are distinct elements of Mission statement.
Enter correlation levels 1, 2 or 3 as defined below:
1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High). If there is no correlation, put "-"

Note: In this document wherever the term 'Process' has been used its meaning is process formulation, notification and implementation.

M1: Providing the facilities and environment conducive to a high-quality education, strong foundation in the fundamental principles of Mechanical Engineering, and preparing them for diverse careers.

M2: Engaging in academic activities, which strengthen the student's regional, national and international reputation.

PEO Statements	Mission	
	M1	M2
Successful career in mechanical and allied industries through strong foundation in basic sciences, mathematics and engineering fundamentals	3	2
Ability to update knowledge on dynamically changing industrial practices.	3	3
Capability to work in a global environment imbibing team spirit with ethical responsibility.	2	2
Ability to enrich knowledge, communication and leadership skills through perpetual learning with zeal towards research	2	3

Note: 1-Low, 2-Medium, 3- High

Justification for mapping PEOs with Mission statements is given below:

Mapping	Justification
PEO -I with M1	M1 highlights facilitating a conductive environment and infrastructure for providing solid foundation of basic sciences. Hence, PEO-I is highly correlated to M1.
PEO-I with M2	M2 highlights engaging in academic activities, which strengthen the student's regional, national and international reputation, which requires knowledge of basic sciences. Hence, PEO-I is moderately correlated to M2.
PEO-II with M1	M1 highlights facilitating a conductive environment and infrastructure for providing solid foundation of basic sciences, giving rise to a high correlation.
PEO-II with M2	M2 highlights engaging in academic activities, which strengthen the student's regional, national and international reputation, which requires thorough knowledge of core engineering. Hence, PEO-II is highly correlated to M2.
PEO-III with M1 and M2	M1 highlights facilitating proper environment and infrastructure, whereas M2 highlights engaging in academic activities, which strengthen the student's regional, national and international reputation. These require exposure to inter-disciplinary subjects and hence, are mapped moderately.
PEO-IV with M1 and M2	M1 highlights facilitating proper environment and infrastructure whereas M2 highlights engaging in academic activities, which strengthen the students regional, national and international reputation, so as to improve the zeal towards lifelong learning. Hence, PEO-IV is moderately correlated to M1 and highly correlated to M2.

2. PROGRAM CURRICULUM AND TEACHING-LEARNING PROCESSES (100)

2.1 Program Curriculum (30)

2.1.1 State the Process for Designing the Program Curriculum (10)

A) Process used to demonstrate how the program curriculum is evolved and periodically reviewed considering the POs and PSOs.

The programme curriculum is evolved periodically and the process is being carried out by various organs of the institute including administrative and academic bodies as given in the Figure 2.1.1. The B.Tech Mechanical Engineering program curriculum is approved by the board of studies following Model Curriculam prescribed by AICTE. Department of Mechanical Engineering follows a systematic process in the design and development of the curriculum as per Choice Based Credit System (CBCS), which involves high level of participation, discussion and critical inquiry involving all the stakeholders contributing to the introduction, innovation, and revision of the syllabus.

The syllabus is designed to provide a comprehensive coverage of the subject with emphasis on fundamentals as well as applied aspects. Periodic changes are made based on societal needs that provide a thrust for national development. Current trends in the job market are also considered while developing the syllabus.

Feedback from the faculty, academic peers, and experts from industry, current students and alumni are used in the initiation, review, and redesign of curriculum. Department of Mechanical Engineering has Programme assessment committee (PAC) and department advisory board (DAB) with Professors, Associate Professors and Assistant Professors as members. New syllabi are formed by respective subject teachers and discussed in PAC and subsequently in DAB.

Department of Mechanical Engineering has its own Board of Studies (BOS), which is a statutory body and comprises of JNTUH nominee, Industry experts and Professors from other reputed institutes. These members would deliberate on the draft syllabus copy approved by DAB. After elaborate discussions on the content and organization of the syllabus in the respective Boards of Studies, it will be placed before the Academic Council for deliberations and approval. Suggestions from the members of the Academic Council would be duly incorporated and finally given approval in the BoG meeting.

The curriculum have the balance in the composition of Basic Science Courses, Engineering Science Courses, Humanities and Social Science Courses, Program Core, Discipline Specific Electives, Generic Elective, Skill Enhancement Elective, Basic Life skills and Project Work.

The following is the process used to identify extent of compliance of curriculum for attaining the PO’s and PSO’s.

a) Identify Course Outcomes for each subject

b) Map each Course Outcome with POs and PSOs
c) Based on All CO-POs/PSOs mapping, Map subject with POs and PSOs
d) Categorize entire Curriculum into Core Courses, Science & Humanities, Programming, Inter Disciplinary, Projects / Lab Practices
e) Map each category with POs and PSOs

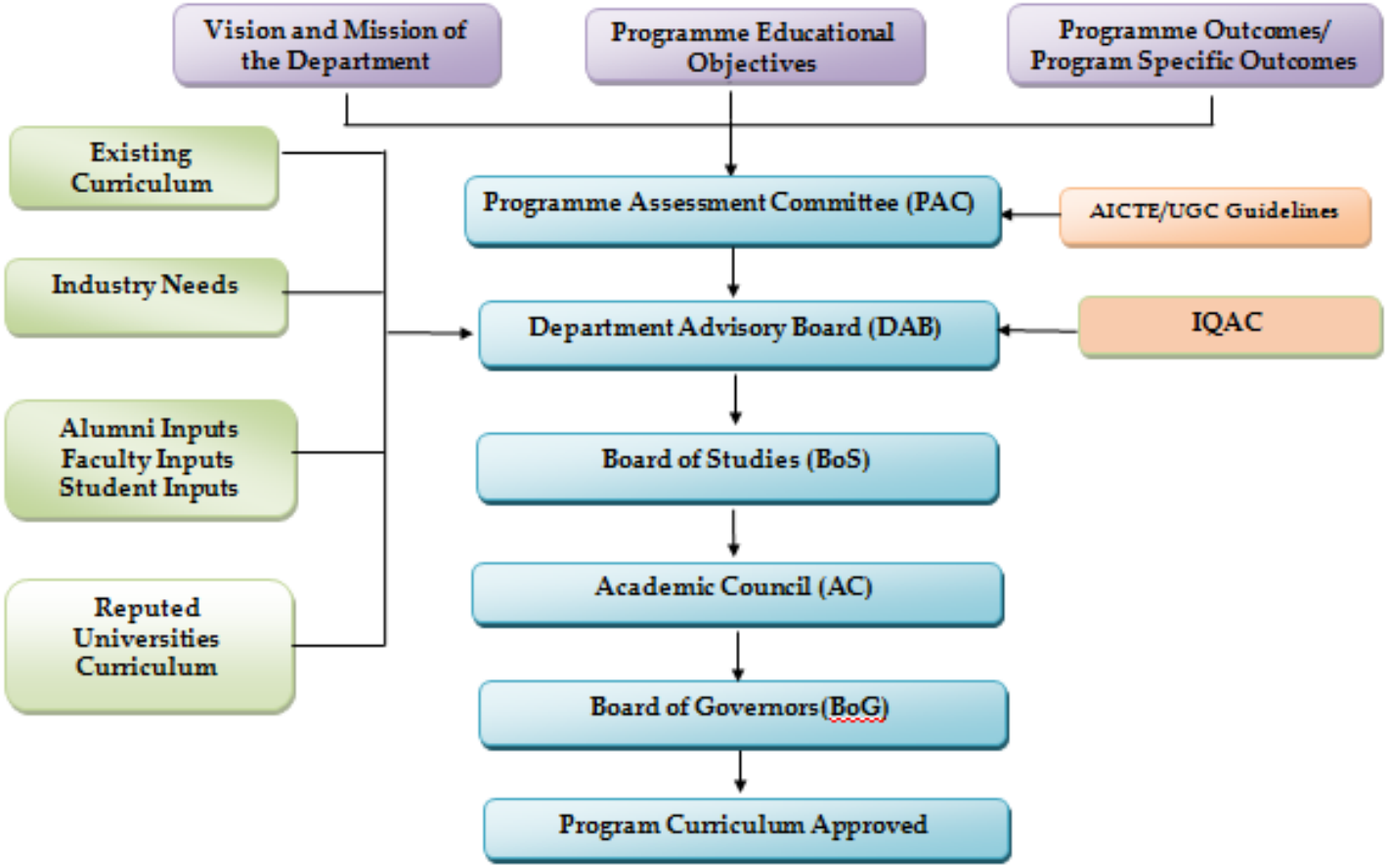


Figure 2.1.1 Process for Curriculum Design

2.1.2 Structure of the Curriculum (5)

Following are the details of the courses in the curriculum for B.Tech (Mechanical) program:

R15 -COURSE STRUCTURE

B.TECH I YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
A11001	English-I	2	0	0	2	2
A11002	Mathematics - I	4	1	0	5	3
A11003	Engineering Physics-I	3	1	0	4	3
A11501	C Programming	3	1	0	4	3
A11301	Engineering Graphics-I	2	0	3	5	3
A11302	Engineering Mechanics – I	3	1	0	4	3
A11581	C Programming Lab	0	0	3	3	2
A11081	English Language Communication Skills Lab-I	0	0	3	3	2
A11082	Engineering Physics Lab	0	0	3	3	2
A11381	Engineering Workshop	0	0	3	3	2
TOTAL		**17**	**4**	**15**	**36**	**25**

B.TECH I YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A12005	English – II	2	0	0	2	2
A12006	Mathematics – II	4	1	0	5	3

A12007	Engineering Physics-II	3	1	0	4	3
A12008	Applied Chemistry	3	1	0	4	3
A12304	Engineering Mechanics – II	3	1	0	4	3
A12305	Engineering Graphics – II	2	0	3	5	3
A12085	English Language Communication Skills Lab-II	0	0	3	3	2
A12086	Engineering Physics and Chemistry Lab	0	0	3	3	2
A12087	IT & Engineering Workshop	0	0	3	3	2
TOTAL		**17**	**4**	**12**	**33**	**23**

B.TECH II YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A13013	Numerical Methods	3	1	0	4	3
A13207	Electrical and Electronics Engineering	3	1	0	4	3
A13308	Mechanics of Solids	4	1	0	5	4
A13309	Thermodynamics	4	1	0	5	4
A13310	Metallurgy and Material science	4	1	0	5	4
A13011	Environmental science	3	1	0	4	2
A13283	Electrical and Electronics Engineering Lab	0	0	3	3	2
A13383	Metallurgy and Mechanics of solids Lab	0	0	3	3	2
A13MC2	Intellectual Property Rights And Cyber Laws	2	0	0	2	0
TOTAL		**23**	**6**	**6**	**35**	**24**

B.TECH II YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	

A14312	Production Technology	3	1	0	4	3
A14313	Kinematics of Machinery	4	1	0	5	4
A14314	Thermal Engineering-I	3	1	0	4	3
A14315	Mechanics of Fluids and Hydraulic Machines	4	1	0	5	4
A14316	Machine Drawing	0	6	0	6	3
A14015	Probability and Statistics	3	0	0	3	3
A14384	Production Technology Lab	0	0	3	3	2
A14385	Mechanics of Fluids and Hydraulic Machines Lab	0	0	3	3	2
A14MC3	Professional Communication	2	0	0	2	0
TOTAL		**19**	**10**	**6**	**35**	**24**

B.TECH III YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A15317	Design of Machine Members-I	3	1	0	4	3
A15318	Thermal Engineering-II	3	1	0	4	3
A15319	Dynamics of Machinery	3	1	0	4	3
A15320	Machine tools and Metrology	3	1	0	4	3
Professional Elective-1		3	1	0	4	3
A15321	Automobile Engineerin					
A15322	Computational Fluid Dynamics					
A15323	Welding Technology					
Open Elective-1		3	1	0	4	3
A15324	Elements of Mechanical Engineering					
A15348	Product Engineering					
A15386	Thermal Engineering lab	0	0	2	2	2
A15387	Metrology and machine Tools Lab	0	0	2	2	2

A15TP1	Personality Development & Behavioral Skills	2	0	0	2	2
TOTAL		**20**	**6**	**4**	**30**	**24**

B.TECH III YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A16326	Design of Machine Members-II	3	1	0	4	3
A16327	Heat Transfer	3	1	0	4	3
A16328	Finite Element Methods	3	1	0	4	3
A16018	Managerial Economics and Financial Analysis	3	1	0	4	3
Professional Elective-2		3	1	0	4	3
A16329	Refrigeration and Air Conditioning					
A16330	Renewable Energy Sources					
A16331	Tool Design					
Open Elective-2		3	1	0	4	3
A16332	Basic Automobile Engineering					
A16333	Material Science Engineering					
A16388	Heat Transfer Lab	0	0	2	2	2
A16090	Advanced Communication Skills Lab	0	0	2	2	2
A16TP2	Quantitative Methods & Logical Reasoning	2	0	0	2	2
TOTAL		**20**	**6**	**4**	**30**	**24**

B.TECH IV YEAR I SEMESTER

Course	Course	Total Number of contact hours	Credits

Code	Title	Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A17334	Operation Research	4	1	0	5	3
A17335	CAD/CAM	4	1	0	5	3
A17336	Mechanical Measurements and instrumentation	3	1	0	4	3
Professional Elective-3		3	1	0	4	3
A17337	Robotics					
A17338	Mechatronics					
A17339	Composite Materials					
Professional Elective-4		3	1	0	4	3
A17340	CNC Technologies					
A17341	Power plant Engineering					
A17342	Computer Graphics					
Open Elective-3		3	1	0	4	3
A17343	Optimization Techniques					
A17344	Maintenance and Safety Engineering					
A17389	Computer Aided Design and Manufacturing Lab	0	0	3	3	2
A17390	Production Drawing practice and Instrumentation lab	0	0	3	3	2
A173P1	Industry Oriented Mini Project	0	0	0	0	2
TOTAL		**20**	**6**	**6**	**32**	**24**

B.TECH IV YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A18345	Production Planning And Control	3	1	0	4	3
A18346	Plant Layout And Material Handling	3	1	0	4	3
A18347	Unconventional Machining Processes	3	1	0	4	3

A183TS	Technical Seminar	0	0	6	6	2
A183CV	Comprehensive Viva	0	0	0	0	2
A183P2	Project work	0	0	0	0	11
TOTAL		**9**	**3**	**6**	**18**	**24**

R18 COURSE STRUCTURE

B.TECH I YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
A21001	English	2	0	0	2	2
A21002	Mathematics-I	3	1	0	4	4
A21004	Chemistry	3	1	0	4	4
A21501	Programming For Problem Solving-I	2	0	0	2	2
A21081	English Language Skills Lab	0	0	2	2	1
A21083	Chemistry Lab	0	0	3	3	1.5
A21381	Engineering Workshop	0	1	3	4	2.5
A21581	Programming For Problem Solving Lab-I	0	0	2	2	1
TOTAL		**10**	**3**	**10**	**23**	**18**

B.TECH I YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A22006	Mathematics-II	3	1	0	4	4

A22007	Engineering Physics	3	1	0	4	4
A22302	Engineering Graphics & Modeling	1	0	3	4	2.5
A22303	Engineering Mechanics	4	0	0	4	4
A22502	Programming For Problem Solving-II	2	0	0	2	2
A22084	English communication Skills Lab (ECSL)	0	0	2	2	1
A22085	Engineering Physics Lab	0	0	3	3	1.5
A22582	Programming For Problem Solving Lab-II	0	0	2	2	1
TOTAL		**13**	**2**	**10**	**25**	**20**

B.TECH II YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A23009	Numerical Methods & Partial Differential Equations	3	0	0	3	3
A23304	Materials Technology	3	0	0	3	3
A23305	Mechanics of Solids	3	1	0	4	4
A23306	Thermodynamics	3	0	0	3	3
A23010	Professional communications	3	0	0	3	2
A23307	Production Technology	3	0	0	3	3
A23383	Metallurgy and Mechanics of Solids Lab	0	0	2	2	1
A23384	Production Technology Lab	0	0	2	2	1
A23MC1	Environmental Science	2	0	0	2	0
TOTAL		**20**	**1**	**4**	**25**	**20**

B.TECH II YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	

A24013	Probability and Statistics	3	0	0	3	3.0
A24211	Basic Electrical Engineering	3	0	0	3	3.0
A24308	Machine Drawing & Drafting	3	0	0	3	3.0
A24309	Kinematics of Machines	3	0	0	3	3.0
A24310	Thermal Engineering	3	0	0	3	3.0
A24311	Mechanics of Fluids and Hydraulic Machines	3	0	0	3	3.0
A24385	Mechanics of Fluids and Hydraulic Machines Lab	0	0	2	2	1.0
A24286	Basic Electrical Engineering Lab	0	0	2	2	1.0
A24MC1	Gender Sensitization	2	0	0	2	0
TOTAL		**20**	**0**	**4**	**24**	**20**

B.TECH III YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A25016	Managerial Economics and Financial Analysis	4	0	0	4	3
A25312	Dynamics of Machinery	3	0	0	3	3
A25313	Design of Machine Members-I	3	0	0	3	3
A25314	Applied Thermodynamics	3	0	0	3	3
Professional Elective-1		3	0	0	3	3
A25315	Automobile Engineering					
A25316	Composite Materials					
A25317	Additive Manufacturing					
Open Elective-1		3	0	0	3	3
A25318	Elements of Mechanical Engineering					
A25319	Product Engineering					
A25386	Thermal Engineering Lab	0	0	2	2	1
A25087	Advanced Communication Skills Lab	0	0	2	2	1
A25TP1	Quantitative Methods & Logical Reasoning	2	0	0	2	1
TOTAL		**21**	**0**	**4**	**25**	**21**

B.TECH III YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A26320	Design of Machine Members-II	3	0	0	3	3
A26321	Heat Transfer	3	0	0	3	3
A26322	Metrology & Machine Tools	3	0	0	3	3
A26323	Finite Element Method	3	0	0	3	3
Professional Elective-2		3	0	0	3	3
A26324	Refrigeration And Air Conditioning					
A26325	Industrial Management					
A26326	Automation In Manufacturing					
Open Elective-2		3	0	0	3	3
A26327	Optimisation Techniques					
A26328	Maintenance and Safety Engineering					
A26387	Heat Transfer Lab	0	0	2	2	1
A26388	Metrology & Machine Tools Lab	0	0	2	2	1
A26TP1	Personality Development & Behavioural Skills	2	0	0	2	1

TOTAL	20	0	4	24	21

B.TECH IV YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A27329	Instrumentation and Control Systems	3	0	0	3	3
A27330	CAD/CAM	3	0	0	3	3
Professional Elective-3		3	0	0	3	3
A27331	Robotics					
A27332	Gas Dynamics					
A27333	Production And Operations Management					
Professional Elective-4		3	0	0	3	3
A27334	Operations Research					
A27335	Energy Conservation And Management					
A27336	Fluid Power Systems					
Open Elective-3		3	0	0	3	3
A27337	Basic Automobile Engineering					
A27338	Material Science Engineering					
A27389	CAD/CAM Lab	0	0	2	2	1
A27390	Instrumentation and Control Systems Lab	0	0	2	2	1
A273P1	Industry Oriented Mini Project	0	0	0	0	3
TOTAL		**15**	**0**	**4**	**19**	**20**

B.TECH IV YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	

A28339	Production Planning & Control	3	0	0	3	3
A28340	Unconventional Machining And Processes	3	0	0	3	3
A283TS	Technical Seminar	0	2	0	2	2
A283CV	Comprehensive Viva Voce	0	0	0	0	2
A283P2	Major Project	0	0	20	20	10
TOTAL		**6**	**2**	**20**	**28**	**20**

R19 COURSE STRUCTURE

B.TECH I YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
A31001	English	2	0	0	2	2
A31002	Mathematics-I	3	1	0	4	4
A31005	Chemistry	3	1	0	4	4
A31501	Programming For Problem Solving-I	2	0	0	2	2
A31081	English Language Skills Lab	0	0	2	2	1
A31084	Chemistry Lab	0	0	3	3	1.5
A31301	Engineering Graphics and Modeling	1	0	3	4	2.5
A31581	Programming For Problem Solving Lab-I	0	0	2	2	1
TOTAL		**11**	**2**	**10**	**23**	**18**

B.TECH I YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A32007	Mathematics-II	3	1	0	4	4
A32009	Engineering Physics	3	1	0	4	4
A32382	Engineering Workshop	0	1	3	4	2.5
A32304	Engineering Mechanics	4	0	0	4	4
A32502	Programming For Problem Solving-II	2	0	0	2	2
A32085	English Communication Skills Lab	0	0	2	2	1
A32087	Engineering Physics Lab	0	0	3	3	1.5
A32582	Programming For Problem Solving Lab-II	0	0	2	2	1
TOTAL		**12**	**3**	**10**	**25**	**20**

B.TECH II YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A33012	Numerical Methods & Partial Differential Equations	3	0	0	3	3
A33305	Materials Technology	3	0	0	3	3
A33306	Mechanics of Solids	3	1	0	4	4
A33307	Thermodynamics	3	0	0	3	3
A33011	Professional communications	2	0	0	3	2
A33308	Production Technology	3	0	0	3	3
A33383	Metallurgy and Mechanics of Solids Lab	0	0	2	2	1
A33384	Production Technology Lab	0	0	2	2	1
A33MC1	Environmental Science	2	0	0	2	0

TOTAL	**20**	**1**	**4**	**25**	**20**

B.TECH II YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A34016	Probability and Statistics	3	0	0	3	3.0
A34250	Basic Electrical Engineering	3	0	0	3	3.0
A34309	Machine Drawing & Drafting	3	0	0	3	3.0
A34310	Kinematics of Machines	3	0	0	3	3.0
A34311	Thermal Engineering	3	0	0	3	3.0
A34312	Mechanics of Fluids and Hydraulic Machines	3	0	0	3	3.0
A34385	Mechanics of Fluids and Hydraulic Machines Lab	0	0	2	2	1.0
A34286	Basic Electrical Engineering Lab	0	0	2	2	1.0
A34MC1	Gender Sensitization	2	0	0	2	0
TOTAL		**20**	**0**	**4**	**24**	**20**

B.TECH III YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A35019	Managerial Economics and Financial Analysis	4	0	0	4	3
A35313	Dynamics of Machinery	3	0	0	3	3
A35314	Design of Machine Members-I	3	0	0	3	3
A35315	Applied Thermodynamics	3	0	0	3	3
Professional Elective-1		3	0	0	3	3
A35316	Automobile Engineering					
A35317	Composite Materials					

A35318	Additive Manufacturing					
Open Elective-1		3	0	0	3	3
A35319	Elements of Mechanical Engineering					
A35320	Product Engineering					
A35386	Thermal Engineering Lab	0	0	2	2	1
A35086	Advanced Communication Skills Lab	0	0	2	2	1
A35TP1	Quantitative Methods & Logical Reasoning	2	0	0	2	1
TOTAL		**21**	**0**	**4**	**25**	**21**

B.TECH III YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A36321	Design of Machine Members-II	3	0	0	3	3
A36322	Heat Transfer	3	0	0	3	3
A36323	Metrology & Machine Tools	3	0	0	3	3
A36324	Finite Element Method	3	0	0	3	3
Professional Elective-2		3	0	0	3	3
A36325	Refrigeration And Air Conditioning					
A36326	Industrial Management					

A36327	Automation In Manufacturing					
Open Elective-2		3	0	0	3	3
A36328	Optimisation Techniques					
A36329	Maintenance and Safety Engineering					
A36387	Heat Transfer Lab	0	0	2	2	1
A36388	Metrology & Machine Tools Lab	0	0	2	2	1
A36TP1	Personality Development & Behavioural Skills	2	0	0	2	1
TOTAL		**20**	**0**	**4**	**24**	**21**

B.TECH IV YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A37330	Instrumentation and Control Systems	3	0	0	3	3
A37331	CAD/CAM	3	0	0	3	3
Professional Elective-3		3	0	0	3	3
A37332	Robotics					
A37333	Gas Dynamics					
A37334	Production And Operations Management					
Professional Elective-4		3	0	0	3	3
A37335	Operations Research					
A37336	Energy Conservation And Management					
A37337	Fluid Power Systems					
Open Elective-3		3	0	0	3	3
A37338	Basic Automobile Engineering					
A37339	Material Science Engineering					
A37389	CAD/CAM Lab	0	0	2	2	1
A37390	Instrumentation and Control Systems Lab	0	0	2	2	1

A373P1	Industry Oriented Mini Project	0	0	0	0	3
TOTAL		**15**	**0**	**4**	**19**	**20**

B.TECH IV YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A38340	Production Planning & Control	3	0	0	3	3
A38341	Unconventional Machining And Processes	3	0	0	3	3
A383TS	Technical Seminar	0	2	0	2	2
A383CV	Comprehensive Viva Voce	0	0	0	0	2
A383P2	Major Project	0	0	20	20	10
TOTAL		**6**	**2**	**20**	**28**	**20**

R20 COURSE STRUCTURE

B.TECH I YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
A41001	English	2	0	0	2	2
A41002	Mathematics-I	3	1	0	4	4

A41003	Engineering Physics	3	1	0	4	4
A41501	Programming For Problem Solving-I	2	0	0	2	2
A41081	English Language Skills Lab	0	0	2	2	1
A41082	Physics Lab	0	0	3	3	1.5
A41301	Engineering Graphics and Modeling	1	0	3	4	2.5
A41581	Programming For Problem Solving Lab-I	0	0	2	2	1
TOTAL		**11**	**2**	**10**	**23**	**18**

B.TECH I YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A42007	Mathematics-II	3	1	0	4	4
A42009	Chemistry	3	1	0	4	4
A42382	Engineering Workshop	0	1	3	4	2.5
A42303	Engineering Mechanics	4	0	0	4	4
A42502	Programming For Problem Solving-II	2	0	0	2	2
A42084	English Communication Skills Lab	0	0	2	2	1
A42086	Chemistry Lab	0	0	3	3	1.5
A42582	Programming For Problem Solving Lab-II	0	0	2	2	1
TOTAL		**12**	**3**	**10**	**25**	**20**

B.TECH II YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A43013	Numerical Methods & Partial Differential Equations	3	0	0	3	3
A43304	Materials Technology	3	0	0	3	3

A43305	Mechanics of Solids	3	1	0	4	4
A43306	Thermodynamics	3	0	0	3	3
A43010	Professional communications	2	0	0	3	2
A43307	Production Technology	3	0	0	3	3
A43383	Metallurgy and Mechanics of Solids Lab	0	0	2	2	1
A43384	Production Technology Lab	0	0	2	2	1
A43MC1	Environmental Science	2	0	0	2	0
TOTAL		**20**	**1**	**4**	**25**	**20**

B.TECH II YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A44018	Probability and Statistics	3	0	0	3	3.0
A44207	Basic Electrical Engineering	3	0	0	3	3.0
A44308	Machine Drawing & Drafting	3	0	0	3	3.0
A44309	Kinematics of Machines	3	0	0	3	3.0
A44310	Thermal Engineering	3	0	0	3	3.0
A44311	Mechanics of Fluids and Hydraulic Machines	3	0	0	3	3.0
A44385	Mechanics of Fluids and Hydraulic Machines Lab	0	0	2	2	1.0
A44286	Basic Electrical Engineering Lab	0	0	2	2	1.0
A44MC2	Gender Sensitization	2	0	0	2	0
TOTAL		**20**	**0**	**4**	**24**	**20**

B.TECH III YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	

A45312	Metrology & Machine Tools	3	0	0	3	3
A45313	Dynamics of Machinery	3	0	0	3	3
A45314	Design of Machine Members-I	3	0	0	3	3
A45315	Applied Thermodynamics	3	0	0	3	3
Professional Elective-1		3	0	0	3	3
A45316	Automobile Engineering					
A45317	Mechatronics					
A45318	Additive Manufacturing					
Open Elective-1		3	0	0	3	3
A45319	Elements of Mechanical Engineering					
A45320	Product Engineering					
A45386	Thermal Engineering / Metrology & Machine Tools Lab	0	0	2	2	1
A45087	Advanced Communication Skills Lab	0	0	2	2	1
A45TP1	Personality Development & Behavioural Skills	2	0	0	2	1
TOTAL		**20**	**0**	**4**	**24**	**21**

B.TECH III YEAR II SEMESTER

Course	Course	Total Number of contact hours	Credits

Code	Title	Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A46321	Design of Machine Members-II	3	0	0	3	3
A46322	Heat Transfer	3	0	0	3	3
A46023	Managerial Economics and Financial Analysis	3	0	0	3	3
A46323	Finite Element Method	3	0	0	3	3
Professional Elective-2		3	0	0	3	3
A46324	Refrigeration And Air Conditioning					
A46325	Industrial Management					
A46326	Automation In Manufacturing					
Open Elective-2		3	0	0	3	3
A46327	Principles Of Operations Research					
A46328	Maintenance and Safety Engineering					
A46387	Heat Transfer Lab	0	0	2	2	1
A46388	Computer Aided Engineering Lab	0	0	2	2	1
A46TP1	Quantitative Methods & Logical Reasoning	2	0	0	2	1
TOTAL		**20**	**0**	**4**	**24**	**21**

B.TECH IV YEAR I SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A47329	Instrumentation and Control Systems	3	0	0	3	3
A47330	CAD/CAM	3	0	0	3	3
Professional Elective-3		3	0	0	3	3
A47331	Robotics					
A47332	Gas Dynamics					
A47333	Production And Operations Management					

Professional Elective-4		3	0	0	3	3
A47334	Operations Research					
A47335	Energy Conservation And Management					
A47336	Fluid Power Systems					
Open Elective-3		3	0	0	3	3
A47337	Basic Automobile Engineering					
A47338	Material Science Engineering					
A47389	CAD/CAM Lab	0	0	2	2	1
A47390	Production Drawing Practice and Instrumentation Lab	0	0	2	2	1
A473P1	Industry Oriented Mini Project	0	0	0	0	3
TOTAL		**15**	**0**	**4**	**19**	**20**

B.TECH IV YEAR II SEMESTER

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture(L)	Tutorial(T)	Practical (P)	Total Hours	
A48339	Production Planning & Control	3	0	0	3	3
A48340	Unconventional Machining And Processes	3	0	0	3	3
A483TS	Technical Seminar	0	2	0	2	2
A483CV	Comprehensive Viva Voce	0	0	0	0	2
A483P2	Major Project	0	0	20	20	10
TOTAL		**6**	**2**	**20**	**28**	**20**

2.1.3 State the components of the curriculum (5)

The curriculum contains courses interwoven with contents taken from basic sciences, professional courses, Electives etc. The volume of the components of the curriculum for R15, R18, R19 and R20 regulations are illustrated below.

R15 Regulations:

Course Component	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of Credits
Basic Sciences	11.4	42	22
Engineering Sciences	11.5	28	23
Humanities and Social Sciences	6.7	18	13
Program Core	50	85	96
Program Electives	6.2	16	12
Open Electives	4.7	12	9
Project(s)	6.7	20	13
Internships/Seminars	1.04	6	2
Any other (Please specify)	1.04	10	2
Total Number of Credits			**192**

R18, R19 & R20 Regulations:

Course Component	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of Credits
Basic Sciences	16	28	25
Engineering Sciences	13	24	21
Humanities and Social Sciences	5.6	14	9
Program Core	42.5	78	67
Program Electives	7.5	12	12
Open Electives	5.5	9	9
Project(s)	8.6	20	13
Internships/Seminars	0.15	2	2
Any other (Please specify)	0.15	8	2
Total Number of Credits			**160**

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

Vidya Jyothi Institute of Technology is an Autonomous institute from the academic year 2015-16 and permanently affiliated to Jawaharlal Nehru Technological University Hyderabad, Telangana. In general, the curriculum is designed inline with the guidelines given by AICTE by maintaining a balance in the composition of Basic Science & Engineering, Humanities, Professional Courses and their distribution in core and electives, along with Seminars & Project works.

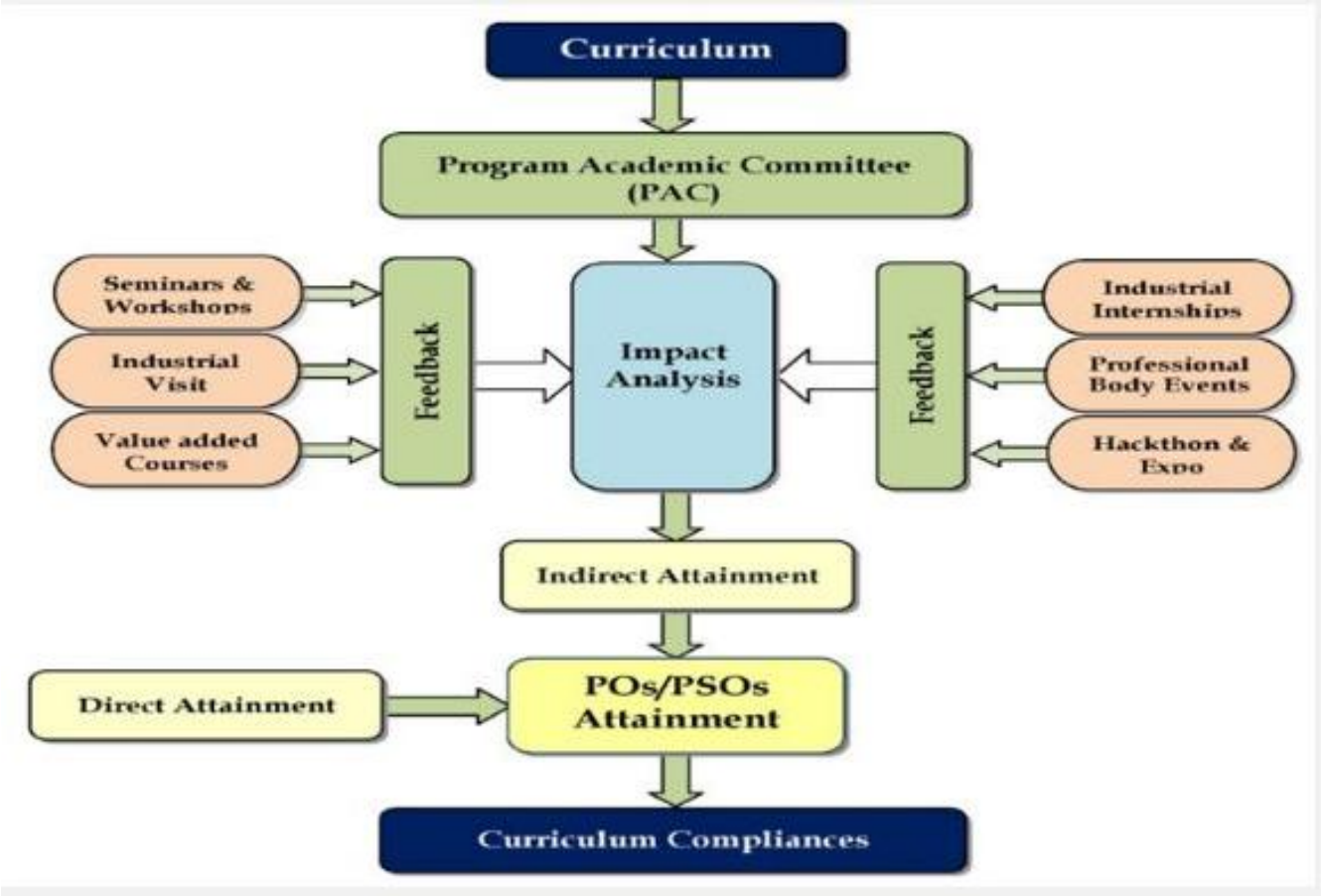


Figure 2.1.4 Process to identify extent of Compliance of the Curriculum

The compliance of the curriculum in attaining the outcomes of the programme under consideration is illustrated in the Figure 2.1.4. The curriculum of Mechanical Engineering programme is designed with the members of Board of Studies who are drawn from the academic institutes, Industry and a nominee of JNTUH, Hyderabad.

The students who were admitted in the year 2015-16 were following R15 regulation syllabus while R18 regulation was implemented to students who were admitted from A.Y 2018-19. Simillarliy R19 and R20 regulations were implemented inorder to flatten the skewed loading of

the courses occurred due to the initiation of new programmes in the institute. The curriculum is designed with various courses to attain the POs and PSOs; courses like English, Managerial Economics & Financial Analysis and Advanced English Communication Skill Laboratory are included in Humanities and Social Science category.

The curriculum in the first two years enables the students to attain PO1 to PO5 program outcomes. These PO's speak about fundamentals, ability to identify, analyze, investigate and subsequently find solutions to the complex problems. PO6 to PO8 are dealt by the courses in the pre-final and final year of the UG programme. Course like Environmental Science, Industrial Management, Energy Conservation and Management enable to attain the program outcome PO6 to PO8 by the student. The program is designed to have the ability to work independently/teams through projects and Technical seminar and attain the program outcomes PO9 to PO12.

To pursue PO1 and PO2 the courses mathematics physics, chemistry were earmarked in Basic sciences while for PO3 and PO4 the courses materials technology, Basic electrical engineering were included in engineering sciences. The courses like Mechanics of Solids, Thermodynamics and Production Technology etc were earmarked under professional core and professional electives to pursue the core mechanical engineering Program outcomes like PO2, PO3, PO4 PO5, PSO1 and PSO2. To prepare the student to get acquainted with interdisciplinary courses and to attain PO2, open elective courses like Total Quality Management, Smart City, Java Programming etc. were designed. Projects, comprehensive viva voce, seminars would cover the entire gambit of program outcomes.

The PSO1 and PSO2 attainment is harnessed through courses on professional core and electives such that the students could manifest in the efficient manner on specific domains. The curriculum is structured with lectures, tutorials and practical's so that the student is in a position to comprehend each of the topic of the courses more clearly, consequently resulting in the attainment of all the PO and PSO's. To inculcate the habit of lifelong learning and also to attain PO12 the industry internship and industrial visits are also practiced without any formal course curriculum.

Table 2.1.4 Subjects mapped to different POs & PSOs- (R15 Regulation)

PO/PSO	Mapped Subjects
	A11002, A11003, A11501, A11301, A11302, A11581, A11081, A11082, A11381, A12006, A12007, A12008, A12304, A12305,

PO-1	A12086, A12087, A13011, A13013, A13207, A13308, A13309, A13310, A13283, A13383, A14312, A14313, A14314, A14315, A14316, A14015, A14384, A14385, A15320, A15319, A15321, A15317, A15318, A15419, A15420, A15218, A15219, A15520, A15521, A15010, A15387, A15386, A16326, A16327, A16328, A16329, A16227, A16228, A16428, A16429, A16529, A16530, A16388, A16TP2, A17334, A17335, A17336, A17337, A17341, A17238, A17239, A17439, A17440, A17541, A17542, A17389, A17390, A173P1, A18345, A18346, A18347, A183TS, A183P2, A183CV
PO-2	A11001, A11002, A11003, A11501, A11301, A11302, A11581, A11081, A11082, A11381, A12005, A12006, A12007, A12008, A12304, A12305, A12085, A12086, A12087, A13011, A13011, A13013, A13207, A13308, A13309, A13310, A13283, A13383, A14312, A14313, A14314, A14315, A14316, A14015, A14384, A14385, A15320, A15319, A15321, A15317, A15318, A15419, A15420, A15218, A15219, A15520, A15521, A15010, A15387, A15386, A16326, A16327, A16328, A16018, A16329, A16227, A16228, A16428, A16429, A16529, A16530, A16388, A16TP2, A17334, A17335, A17336, A17337, A17341, A17238, A17239, A17439, A17440, A17541, A17542, A17020, A17389, A17390, A173P1, A18345, A18346, A18347, A183TS, A183P2, A183CV
PO-3	A11001, A11002, A11003, A11501, A11301, A11302, A11581, A11082, A11381, A12006, A12007, A12008, A12304, A12305, A12086, A12087, A13013, A13207, A13308, A13309, A13310, A13283, A13383, A14312, A14313, A14314, A14315, A14316, A14015, A14384, A14385, A15320, A15319, A15321, A15317, A15318, A15419, A15420, A15218, A15219, A15520, A15521, A15010, A15387, A15386, A16326, A16327, A16328, A16018, A16329, A16227, A16228, A16428, A16429, A16529, A16530, A16388, A16TP2, A17334, A17335, A17337, A17341, A17238, A17239, A17439, A17440, A17541, A17542, A17020, A17389, A17390, A173P1, A18345, A18346, A183TS, A183P2
PO-4	A11002,A11003, A11501, A11301, A11302, A11581, A11081, A11082, A11381, A12005, A12006, A12007, A12008, A12304, A12305, A12086, A12087, A13011, A13013, A13207, A13308, A13309, A13310, A13283, A13383, A14312, A14313, A14314, A14315, A14316, A14015, A14384, A14385, A15320, A15319, A15321, A15317, A15318, A15419, A15420, A15218, A15219, A15520, A15521, A15010, A15387, A15386, A16326, A16327, A16328, A16018, A16329, A16227, A16228, A16428, A16529, A16530, A16388, A16TP2, A17334, A17335, A17336, A17337, A17341, A17238, A17439, A17440, A17541, A17542, A17389, A17390, A173P1, A18345, A18346, A183TS, A183P2
PO-5	A11001, A11002, A11501, A11301, A11302, A11581, A11082, A11381, A12006, A12008, A12304, A12305, A12086, A12087, A13013, A13207, A13308, A13309, A13283, A13383, A14312, A14315, A14015, A14384, A15TP1, A15320, A15319, A15321, A15419, A15420, A15218, A15520, A15521, A15010, A15387, A16328, A16018, A16428, A16429, A16529, A16530, A16019,

	A16090, A16TP2, A17334, A17335, A17336, A17337, A17439, A17440, A17541, A17542, A17020, A17389, A173P1, A18345, A18346, A183TS, A183P2, A183CV
PO-6	A11001, A11002, A11301, A11302, A11581, A11081, A11381, A12005, A12006, A12008, A12304, A12305, A12085, A12087, A13011, A13013, A13207, A13308, A13309, A13310, A13283, A14312, A14313, A14314, A14315, A14384, A14385, A15TP1, A15319, A15321, A15317, A15318, A15419, A15218, A15219, A15520, A15521, A15010, A15386, A16326, A16327, A16018, A16329, A16227, A16228, A16529, A16530, A16090, A16TP2, A17334, A17335, A17336, A17337, A17341, A17238, A17239, A17020, A173P1, A18345, A18346, A18347, A183TS, A183P2, A183CV
PO-7	A11001, A11002, A11003, A11082, A11381, A12005, A12006, A12007, A12008, A12086, A12087, A13011, A13013, A13207, A13308, A13309, A13310, A13283, A14314, A14315, A14385, A15TP1, A15320, A15321, A15318, A15419, A15420, A15218, A15219, A15520, A15521, A15010, A15387, A15386, A16326, A16327, A16328, A16018, A16329, A16227, A16228, A16428, A16429, A16529, A16530, A16388, A16090, A16TP2, A17335, A17336, A17337, A17341, A17238, A17239, A17439, A17541, A17542, A17020, A173P1, A18345, A18346, A18347, A183TS, A183P2, A183CV
PO-8	A11001, A11003, A11081, A11381, A12005, A12085, A12087, A13011, A13013, A13207, A13308, A13309, A13310, A13283, A13383, A14312, A14313, A14314, A14315, A14316, A14015, A14384, A14385, A15TP1, A15320, A15319, A15321, A15317, A15318, A15218, A15219, A15520, A15521, A15010, A15386, A16326, A16327, A16328, A16018, A16329, A16227, A16529, A16530, A16388, A16090, A17334, A17335, A17336, A17337, A17341, A17389, A17390, A173P1, A18345, A18346, A18347, A183TS, A183P2, A183CV
PO-9	A11002, A11301, A11081, A11381, A12005, A12006, A12305, A12085, A12087, A13011, A13013, A13207, A13309, A13310, A13283, A13383, A14312, A14313, A14316, A14384, A14385, A15TP1, A15320, A15319, A15321, A15419, A15420, A15520, A15521, A15010, A15387, A15386, A16326, A16018, A16428, A16429, A16529, A16530, A16388, A16090, A17334, A17335, A17336, A17337, A17341, A17440, A17389, A17390, A173P1, A183TS, A183P2, A183CV
PO-10	A11001, A11301, A11081, A11082, A11381, A12005, A12305, A12085, A12086, A12087, A13011, A13013, A13207, A13308, A13309, A13310, A13283, A13383, A14312, A14316, A14015, A14384, A14385, A15TP1, A15321, A15420, A15218, A15219, A15520, A15521, A15010, A15387, A15386, A16326, A16018, A16329, A16227, A16428, A16429, A16529, A16530, A16019, A16388, A16090, A17335, A17336, A17337, A17341, A17439, A17440, A17541, A17542, A17389, A17390, A173P1, A18345,

	A183TS, A183P2, A183CV
PO-11	A11001, A11003, A11501, A11302, A11581, A12005, A12007, A12008, A12304, A12085, A13283, A15317, A15419, A15218, A15219, A15521, A15010, A16326, A16018, A16227, A16529, A16530, A16019, A16090, A17334, A17335, A17336, A17337, A17341, A17439, A17440, A17541, A17542, A17020, A17390, A173P1, A18345, A18346, A183P2
PO-12	A11001, A11002, A11003, A11501, A11301, A11302, A11581, A11081, A11082, A11381, A12005, A12006, A12007, A12008, A12304, A12305, A12085, A12086, A12087, A13011, A13013, A13207, A13308, A13309, A13310, A13283, A13383, A14312, A14313, A14314, A14315, A14316, A14015, A14384, A14385, A15TP1, A15320, A15319, A15321, A15317, A15318, A15419, A15420, A15219, A15520, A15521, A15010, A15387, A15386, A16326, A16327, A16328, A16018, A16329, A16227, A16428, A16429, A16529, A16530, A16019, A16388, A16090, A16TP2, A17335, A17336, A17337, A17341, A17238, A17439, A17440, A17541, A17542, A17020, A17389, A17390, A173P1, A18345, A18346, A18347, A183TS, A183P2, A183CV
PSO-1	A11002, A11003, A11302, A11082, A11381, A12005, A12006, A12007, A12304, A12086, A12087, A13013, A13308, A13309, A13310, A13283, A13383, A14312, A14313, A14315, A14316, A14384, A15321, A15317, A15419, A15218, A15219, A15387, A16326, A16328, A17335, A17337, A17341, A17439, A17440, A17541, A17542, A17020, A17389, A17390, A173P1, A183TS, A183P2, A183CV
PSO-2	A11002, A11003, A11301, A11302, A11082, A11381, A12006, A12007, A12008, A12304, A12305, A12085, A12086, A12087, A13013, A13308, A13309, A13310, A13283, A13383, A14312, A14313, A14314, A14315, A14316, A14384, A14385, A15320, A15319, A15321, A15317, A15318, A15419, A15218, A15387, A15386, A16326, A16327, A16328, A16018, A16329, A16428, A16429, A16388, A17334, A17335, A17336, A17337, A17341, A17439, A17440, A17541, A17542, A17020, A17389, A17390, A173P1,A18345, A18346, A18347, A183TS, A183P2, A183CV

Table 2.1.5 Subjects mapped to different POs & PSOs- (R18, R19 & R20 Regulations)

PO/PSO	Mapped Subjects
PO-1	A21002, A21004, A21501, A21083, A21381, A21581, A22006, A22302, A22303, A22502, A22084, A22085, A22582, A23009, A23305, A23306, A23304, A23307, A23383, A23384, A23MC1, A24013, A24211, A24308, A24309, A24310, A24311, A24385, A24286, A25313, A25314, A25312, A25315, A25316, A25317, A25318, A25319, A25386, A25TP1, A26320, A26321, A26323, A26322, A26324, A26325, A26326, A26327, A26328, A26387, A26388, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27337, A27338, A27389, A27390, A273P1, A28339, A28340, A283TS, A283P2, A283CV
PO-2	A21001, A21002, A21004, A21501, A21081, A21083, A21381, A21581, A22006, A22302, A22303, A22502, A22084, A22085, A22582, A23009, A23305, A23306, A23304, A23307, A23383, A23384, A23MC1, A24013, A24211, A24308, A24309, A24310, A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25312, A25315, A25316, A25317, A25318, A25319, A25386, A25TP1, A26320, A26321, A26323, A26322, A26324, A26325, A26326, A26327, A26328, A26387, A26388, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27337, A27338, A27389, A27390,, A273P1, A28339, A28340, A283TS, A283P2, A283CV
PO-3	A21001, A21002, A21004, A21501, A21083, A21381, A21581, A22006, A22302 A22303, A22502, A22084, A22085, A22582, A23009, A23305, A23306, A23304, A23307, A23383, A23384, A23MC1, A24013, A24211, A24308 A24309, A24310 A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25312, A25315, A25316, A25317, A25318 A25318, A25319, A25386, A25TP1, A26320, A26321, A26323, A26322, A26324, A26325, A26326, A26327, A26328, A26387, A26388, A27334, A27336, A27335, A27330, A27331, A27332, A27333, A27337, A27389, A27390, A273P1, A28339, A283TS, A283P2, A283CV
PO-4	A21002, A21004, A21501, A21083, A21381, A21381, A21581, A22006, A22302, A22303, A22502, A22084 A22085, A22582, A23009, A23305, A23306, A23304, A23307, A23383, A23384, A23MC1, A24013, A24211, A24308, A24309, A24310, A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25312, A25315, A25316, A25317, A25318, A25319, A25386, A25TP1, A26320, A26321, A26323, A26322, A26324, A26326, A26327, A26328, A26387, A26388, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27337, A27338, A27389, A27390, A273P1, A28339 A283TS, A283P2, A283CV
PO-5	A21001, A21002, A21004, A21501, A21083, A21381, A21581, A22006, A22302, A22303, A22502, A22085, A22582, A23009, A23305, A23306, A23304, A23307, A23010, A23383, A23384, A23MC1, A24013, A24211, A24309, A24310, A24311, A24286, A24MC1, A25016, A25312, A25315, A25316, A25317, A25319, A25087, A25TP1, A26320, A26321, A26323, A26322, A26325, A26326, A26327, A26328, A26388, A26TP1, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27338, A27389, A273P1, A28339, A283TS, A283P2, A283CV
PO-6	A21001, A21002, A21004, A21501, A21081, A21381, A21581, A22006, A22302, A22303, A22502, A22084, A22582, A23009, A23305, A23306, A23304, A23307, A23010, A23384, A23MC1, A24211, A24309, A24310, A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25312, A25315, A25316, A25318, A25319, A25386, A25087, A25TP1, A26320, A26321, A26322, A26324, A26328, A26TP1, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A273P1, A28339, A28340, A283TS, A283P2, A283CV

PO-7	A21001, A21002, A21004, A21083,A21381, A22006, A22085, A23009, A23305, A23306, A23304, A23307, A23010, A23384, A23MC1, A24211, A24309, A24310, A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25312, A25315, A25317,A25316, A25319, A25386, A25087, A25TP1, A26320, A26321, A26323, A26322, A26324, A26325, A26326, A26327, A26328, A26387, A26388, A26TP1, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27337, A273P1, A28339, A28340, A283TS, A283P2, A283CV
PO-8	A21001, A21081, A21381, A22084, A22085, A23009, A23305, A23306, A23304, A23307, A23010, A23383, A23384, A23MC1, A24013, A24211, A24309, A24310, A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25312, A25315, A25318, A25319, A25386, A25087, A26320, A26321, A26323, A26322, A26324, A26328, A26387, A26388, A26TP1, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27337, A27389, A27390, A273P1, A28339, A28340, A283TS, A283P2, A283CV
PO-9	A21002, A21081, A21381, A22006, A22302, A22084, A22085, A23009, A23305, A23306, A23304, A23307, A23010, A23383, A23384, A23MC1, A24013, A24211, A24308, A24309, A24310, A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25312, A25315, A25316, A25317, A25386 A25087, A26320, A26321, A26323, A26322, A26325, A26326, A26328, A26387, A26388, A26TP1, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27389, A27390, A273P1, A28339, A28340, A283TS, A283P2, A283CV
PO-10	A21001, A21081, A21083, A21381, A22302, A22084, A22085, A23009, A23305, A23306, A23304, A23307, A23010, A23383, A23384, A23MC1, A24013, A24211, A24308, A24309, A24310, A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25315, A25316, A25317, A25386, A25087, A26320, A26321, A26324, A26325, A26326, A26327, A26328, A26387, A26388, A26TP1, A27334, A27336, A27335, A27330,, A27329, A27331, A27332, A27333, A27389, A27390, A273P1, A28339, A283TS, A283P2, A283CV
PO-11	A21001, A21002, A21004, A21501, A21081, A21581, A22303, A22502, A22582, A23305, A23307, A23010, A23384, A23MC1, A24013, A24308, A24286, A24MC1, A25016, A25313, A25315, A25316, A25087, A26320, A26321, A26323, A26327, A26TP1, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27390, A273P1, A28339,
PO-12	A21001, A21002, A21004, A21501, A21081, A21083, A21381, A21581, A22006, A22302, A22303, A22502, A22084, A22085, A22582, A23009, A23305, A23306, A23304, A23307, A23010, A23383, A23384, A23MC1, A24013, A24211, A24308, A24309, A24310, A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25312, A25315, A25316, A25317, A25319, A25386, A25087, A25TP1, A26320, A26321, A26323, A26322, A26324, A26325, A26326, A26327, A26328, A26387, A26388, A26TP1, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27337, A27338, A27389, A27390, A273P1, A28339, A28340, A283TS, A283P2, A283CV
PSO-1	A21001, A21002, A21004, A21501, A21083, A21381, A21581, A22006, A22303, A22502, A22085, A22582, A23009, A23305, A23306, A23304, A23307, A23383, A23384, A23MC1, A24211, A24308, A24309, A24310, A24311, A24385, A24286, A24MC1, A25016, A25313, A25314, A25315, A25316, A25319, A25386, A25TP1, A26320, A26321, A26325, A26326, A26327, A26328, A26388, A27336, A27335, A27330, A27331, A27332, A27333, A27337, A27338, A27389, A27390, A273P1, A283TS, A283P2,

	A283CV
PSO-2	A21001, A21002, A21004, A21501, A21081, A21083, A21381, A21581, A22006, A22302, A22303, A22502, A22084, A22085, A22582, A23009, A23305, A23306, A23304, A23307, A23383, A23384, A23MC1, A24013, A24211, A24308, A24309, A24310, A24311, A24286, A24MC1, A25016, A25313, A25314, A25312, A25315, A25316, A25TP1, A26320, A26321, A26323, A26322, A26324, A26325, A26326, A26327, A26328, A26387, A26388, A27334, A27336, A27335, A27330, A27329, A27331, A27332, A27333, A27337, A27389, A27390, A273P1, A28339, A28340, A283TS, A283P2, A283CV

2.2 Teaching-Learning Processes (70)

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

(A) Adherence to Academic Calendar (2)

The institution strictly adheres to the academic calendar for conducting several academic activities. The academic calendar allows the teachers and the students to space out their teaching and learning practice and evaluation process. The calendar clearly illustrates the duration of class work, mid and end examinations. The calendar is disseminated to students and faculty through circulars, displayed on notice boards, and is also posted on website. A typical academic calenders for the AY 2020-21 and AY 2021-22 (Figure 2.2.1(a)) are given below for the ready reference.Taking a cue from this academic calendar the teaching learning process is designed and described as shown in the Figure 2.2.1(b) & 2.2.1(c).

Once the calendar is released, the other connecting academic activities take the initiation in the department. The Head of the Department allocates the courses to faculty, who in turn prepare the course outcomes (CO) for each of the courses and map the COs with POs and PSOs employing the numeric weightages/ratings.

Vidya Jyothi Institute of Technology (Autonomous)

(Accredited by NAAC & NBA, Approved By A.I.C.T.E., New Delhi, Permanently Affiliated to JNTU, Hyderabad)
(Aziz Nagar, C.B.Post, Hyderabad -500075)

B.Tech II, III & IV Year Academic Calendar for the Academic Year 2021-22

FIRST SEMESTER		Commencement of Class Work 20.09.2021	
	FROM	TO	DURATION
I Spell of Instructions	20.09.2021	13.11.2021	8 Weeks
I Mid Examinations	15.11.2021	20.11.2021	1 Week
II Spell of Instructions	22.11.2021	15.01.2021	8 Weeks
II Mid Examinations	17.01.2021	20.01.2022	4 Days
Practical Examinations	21.01.2022	25.01.2022	4 Days
End Semester Examinations	27.01.2022	12.02.2022	2 Weeks 3 Days
SECOND SEMESTER		**Commencement of Class Work 14.02.2022**	
I Spell of Instructions	14.02.2022	09.04.2022	8 Weeks
I Mid Examinations	11.04.2022	16.04.2022	4 Days
II Spell of Instructions	18.04.2022	11.06.2022	8 Weeks
II Mid Examinations	13.06.2022	16.06.2022	4 Days
Practical Examinations	17.06.2022	21.06.2022	4 Days
End Semester Examinations	22.06.2022	09.07.2022	2 Weeks 4 Days
Commencement of class work for B. Tech., II,III & IV Year I Semester will be from: 11.07.2022			

DEAN EXAMS. DIRECTOR

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY (AUTONOMOUS)

(Accredited by NAAC & NBA, Approved By A.I.C.T.E., New Delhi, Permanently Affiliated to JNTU, Hyderabad)
(Aziz Nagar, C.B.Post, Hyderabad -500075)

ACADEMIC CALENDAR FOR II, III & IV B.Tech I SEMESTER FOR THE YEAR 2020-21

FIRST SEMESTER		Commencement of Class work : 13.07.2020	
	FROM	TO	DURATION
I Spell of Instruction (Online)	13.07.2020	19.09.2020	10 Weeks
I Mid Examinations	21.09.2020	26.09.2020	1 Week
II Spell of Instructions (Online)	28.09.2020	16.10.2020	3 Weeks
Dussehra Holidays	17.10.2020	25.10.2020	9 Days
II Spell of Instructions Continuation (Online/Offline)	26.10.2020	14.11.2020	3 Weeks
II Mid Examinations	16.11.2020	21.11.2020	1 Week
Practical Examinations	23.11.2020	28.11.2020	1 Week
III Mid Examinations	01.12.2020	03.12.2020	3 Days
End Semester Examinations	04.12.2020	19.12.2020	2 Weeks

COE DEAN,Exams. DIRECTOR

Vidya Jyothi Institute of Technology Himayatnagar Vill., C.B.Post, Hyderabad-75 Office of Controller of Examinations

Figure 2.2.1(a) Academic Calendars for Years 2020-21 & 2021-22

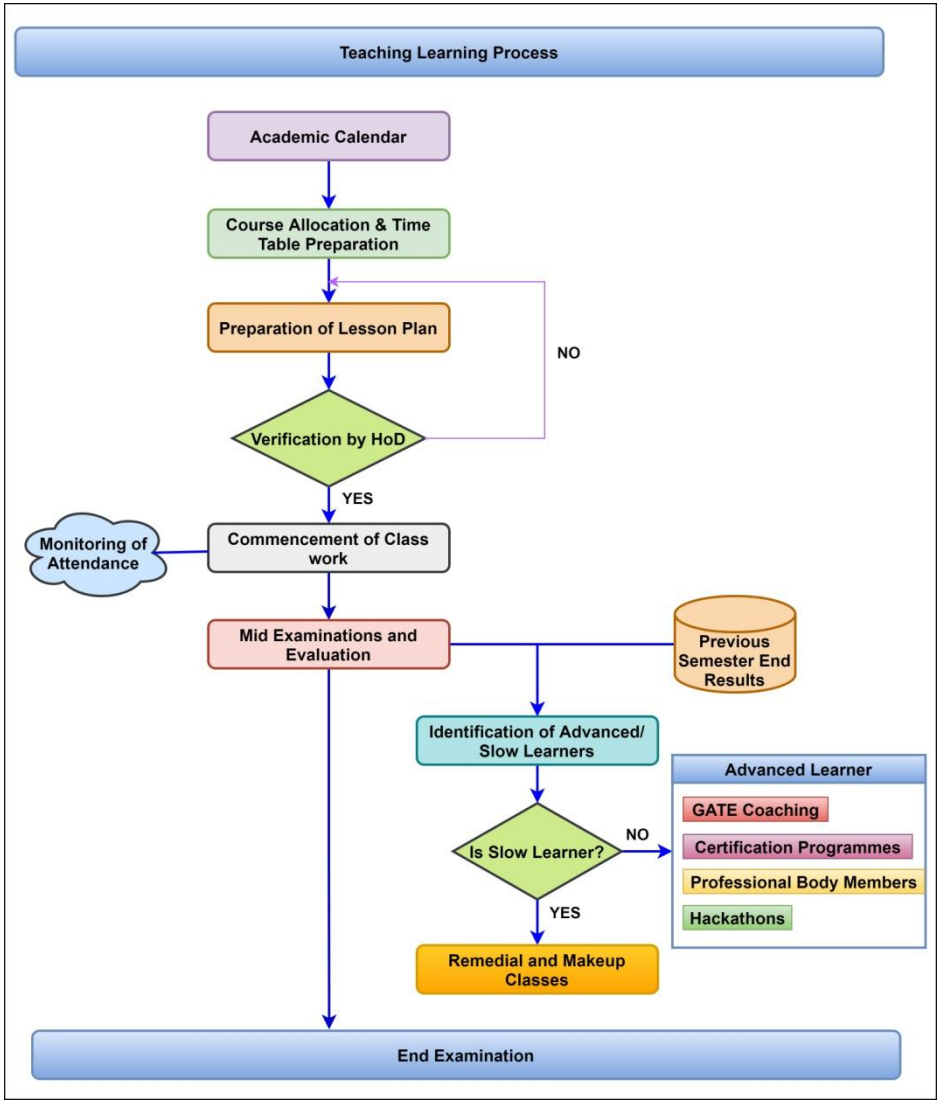


Figure 2.2.1(b) Teaching Learning Process for Theory Classes

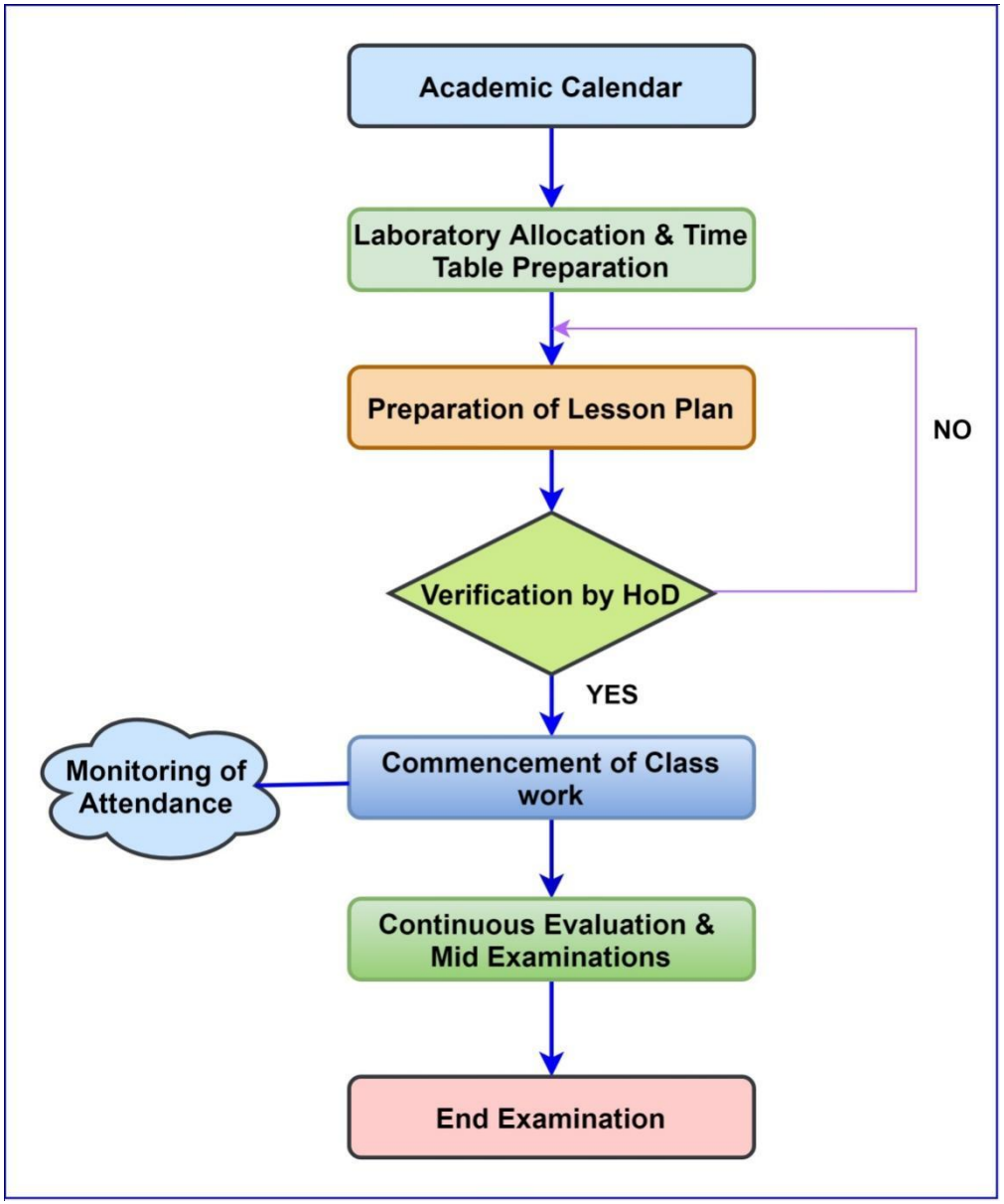

Academic Calendar
Laboratory Allocation & Time Table Preparation
Preparation of Lesson Plan
NO
Verification by HoD
YES
Monitoring of Attendance
Commencement of Class work
Continuous Evaluation & Mid Examinations
End Examination

Figure 2.2.1(c) Teaching Learning Process for Practical Classes

(B) Pedagogical initiatives (2)

The faculty and the program coordinator, along with the course coordinators identify various teaching learning methods with a view to manifest the OBE in a more effective manner. The most popularly implemented methods are experimental learning, project based learning, model based learning, flipped class room, seminar mode, group discussions etc.Power point presentations are used in the classrooms to provide audio visual experience to the students. The NPTEL video lectures are also adopted for enhanced learning. Assignments are given to the students to nurture their problem solving abilities. Collaborative learning is encouraged by the support of platforms like Google classroom. Project Based Learning is adopted for the self-study components from 3rd semester onwards. The above efforts in teaching are found very significant and help to easily transform conventional teaching process to student-centric process.

The tutorial classes are clearly earmarked for the selective courses and are being engaged on personnel counseling basis to make the students understand the topics clearly. The program assessment committee identifies the content beyond the syllabus in the curriculum and subsequently executed through guest lectures, conferences and seminars

During course plan development, Faculty members plan for suitable student-centric learning methods for enhancing the learning experiences of the students which has a direct impact on improving the understanding level, communication skills, problem solving skills, listening skills, etc. A typical list of teaching methods employed are presented below

The laboratory time is devoted for demonstration, practice and vivavoce. The collaborative learning is achieved through tutorials, wherein the interaction between students and teachers are high. The detailed instructional and teaching methods are given below (Figure 2.2.1(d)) with typical models employed.

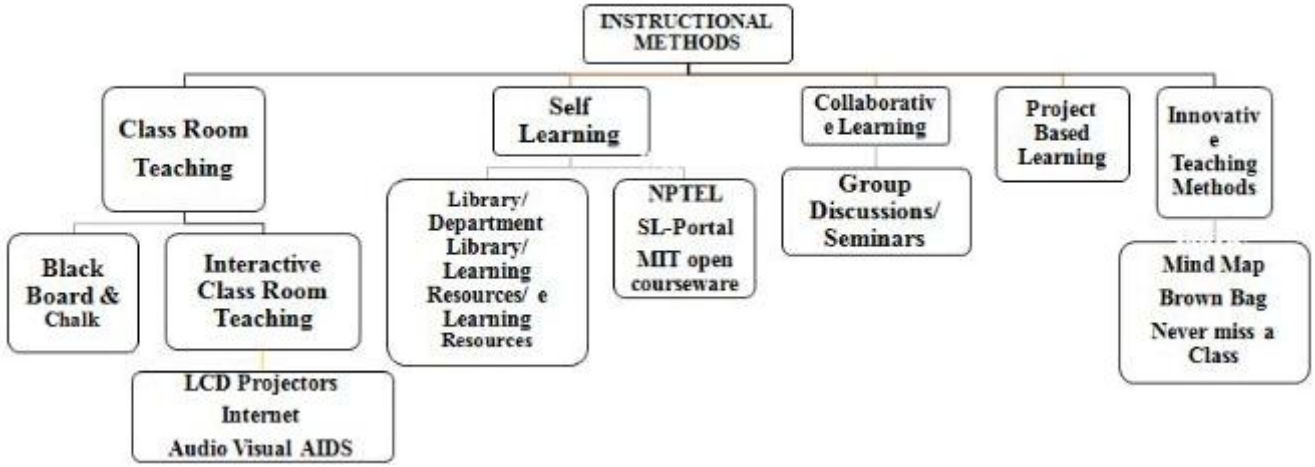


Figure 2.2.1(d) Instruction Methods utilized to improve the Quality of Teaching

Table 2.2.1(a) Various Instruction Methods utilized in different academic Years

S.NO	FACULTY	SUBJECT	TOPIC	APPROACH USED
A.Y – 2020-21				
1	Dr. J. Jagadesh Kumar	Robotics	D-H Notation	Inquiry Guided Learning
2	Mr.K.Rajesh Kumar	FM& HM	Turbines	PPT
3	Mr.K.Ashoka Chari	Thermodynamics	Otto Cycles	Seminar
A.Y – 2019-20				
1	Dr.V.PhanindraBogu	CAD/CAM	3D printing	Project Based Learning
2	Mr.S.Prasad kumar	Automobile Engineering	Advances in IC engines	Collaborative Learning
3	Dr.B.Sudhabindu	Production Planning & Control	Qualitative methods & quantitative methods in forecasting	Fishbowl Technique
A.Y – 2018-19				
1	Mr. P Sampath kumar	Production Technology	Display the different machine surfaces of Machining	Project Based Learning

2	Dr. L.Madan Ananda Kumar	Thermal Engineering	IC Engines	Collaborative Learning
3	Mr. J.Pradeepkumar	Design of Machine Members	Shaft design	Fishbowl Technique
A.Y – 2017-18				
1	Mr.Ravi Chirra	Thermal Engineering	Pulse detonation engine	Problem Based Learning
2	Ms. J.Ememma	Power Plant Engineering	Nuclear power plant	Collaborative Learning
3	Dr.M.Naveen kumar	CAD/CAM	CAD presentation on Robberspace technologies	Creating Research Groups and Clubs

(C) Methodologies to support weak students and encourage bright students (2)

Well structured assessment multi-pronged educational strategy is embraced by the institution to cultivate inclusive ethos aimed at assessing the learning levels of the students since their admission. Bright and slow learners are identified and systematic supporting system is extended for their allround development. (Figure 2.2.1(e))

Orientation Programme

- A six-day Orientation Program for the freshmen from diverse backgrounds is designed to make them feel more connected to the campus as well as to promote a well-rounded educational experience.
- Students and parents are introduced to the mentors and the faculty who guide them about the various events organized regularly in the respective academic year.

.

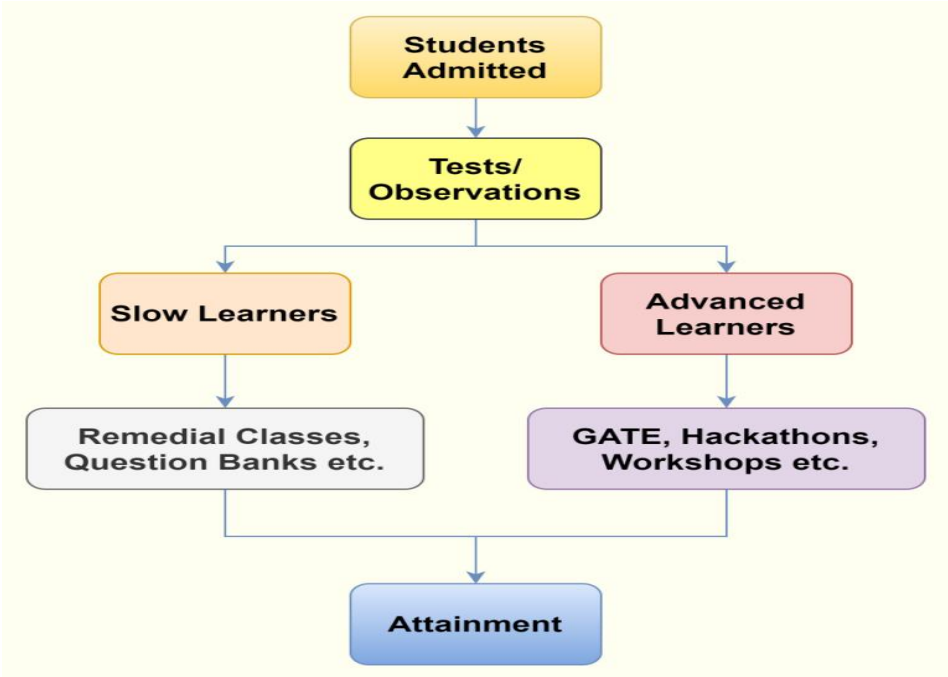


Figure 2.2.1(e) Supportive system for Advanced-Slow Learners

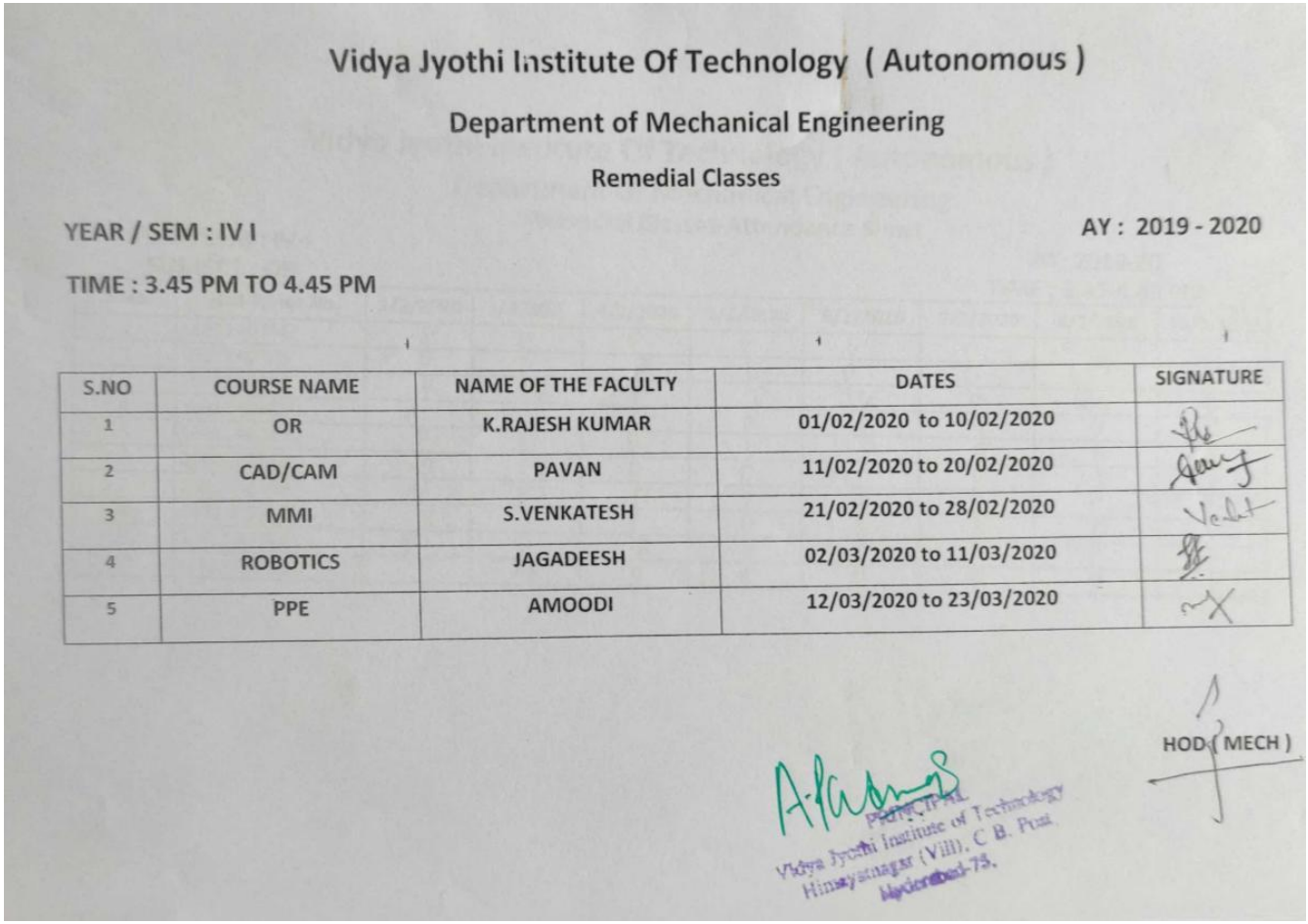
- The institution provides personalized attention to every student taking admission.Faculty employing various matrics including pro-activeness, communication skills, and marks obtained in mid/assignments, ability to manifest and practice leadership/motivational qualities etc.demarcates the students as fast and slow learners

Advanced/Fast Learners

- Students are guided to enroll into special learning programmes
- Students are encouraged to participate and present papers in various Seminars / Conferences / Workshops / Inter Collegiate Competitions and Debates, Problem Solving, Design competitions.
- Meritorious students are encouraged to participate in a wide range of activities through Student Clubs/Forums. Special programmes like 'Project-Expo' Exhibitions, Hackathons, Workshops, Conferences, Seminars enabling the students to learn new technologies over the period of graduation.

Slow learners

These students are taken for makeup and remedial classes (Figure 2.2.1(f)) to handle the courses registered in a given semester. These are supplemented with notes on specific topics. Also they are advised to go through question bank notified in college website



Vidya Jyothi Institute Of Technology (Autonomous)

Department of Mechanical Engineering

Remedial Classes

YEAR / SEM : IV I

AY : 2019 - 2020

TIME : 3.45 PM TO 4.45 PM

S.NO	COURSE NAME	NAME OF THE FACULTY	DATES	SIGNATURE
1	OR	K.RAJESH KUMAR	01/02/2020 to 10/02/2020	
2	CAD/CAM	PAVAN	11/02/2020 to 20/02/2020	
3	MMI	S.VENKATESH	21/02/2020 to 28/02/2020	
4	ROBOTICS	JAGADEESH	02/03/2020 to 11/03/2020	
5	PPE	AMOODI	12/03/2020 to 23/03/2020	

HOD (MECH)

PRINCIPAL
Vidya Jyothi Institute of Technology
Himayatnagar (Vill), C.B. Post,
Hyderabad-75.

Figure 2.2.1(f) Sample Copy of Remedial Classes Allocation

(D) Quality of classroom teaching (2)

The following innovative teaching methods are adopted by the faculty:

- LCDs are used for teaching purposes.
- Faculty members utilize resources like National Programme on Technology Enhanced Learning (NPTEL), internet sources for effective teaching.
- Online availability of various journals in the college intranet.
- Well structured course description documents are prepared/ revised for all theory and practical courses and made available to the students.

(E) Conduct of experiments in lab (2)

- Faculty members of respective specialization form a group with a team leader to discuss the preparation of laboratory manuals, Material requirements, conduction of experiments and cycle of experiments before the commencement of semester.
- Mechanical Engineering Laboratories are conducted in a session of 3 periods. In each session, the faculty explains the experiment, students will write the complete experiment concerned in the observation book and then practical is carried out.
- Viva questions are prepared in advance for all the experiments.
- Records are corrected in the following week for the preceding week's experiment.
- Students are divided into batches comprising of 3 to 4 students. In each cycle approximately about 5 to 6 experiments are scheduled for these batches. A typical batch- experimental scheduled is shown below.

Table 2.2.1 (b) Allocation of Lab Experimentation for various batches

1st Cycle of Experimentation					
Date	**Exp.1**	**Exp.2**	**Exp.3**	**Exp.4**	**Exp.5**
20.7.2018	Batch 1	Batch 2	Batch 3	Batch 4	Batch 5
27.7.2018	Batch 5	Batch 1	Batch 2	Batch 3	Batch 4
10.8.2018	Batch 4	Batch 5	Batch 1	Batch 2	Batch 3

7.9.2018	Batch 3	Batch 4	Batch 5	Batch 1	Batch 2
7.9.2018	Batch 2	Batch 3	Batch 4	Batch 5	Batch 1
2nd Cycle of Experimentation					
Date	**Exp.6**	**Exp.7**	**Exp.8**	**Exp.9**	**Exp.10**
28.9.2018	Batch 1	Batch 2	Batch 3	Batch 4	Batch 5
5.10.2018	Batch 5	Batch 1	Batch 2	Batch 3	Batch 4
12.10.2018	Batch 4	Batch 5	Batch 1	Batch 2	Batch 3
19.10.2018	Batch 3	Batch 4	Batch 5	Batch 1	Batch 2
26.10.2018	Batch 2	Batch 3	Batch 4	Batch 5	Batch 1

(F) Continuous Assessment in the Laboratory (3)

For practical subjects there shall be a continuous evaluation during the semester for 25 mid marks and 50 end examination marks. Out of the 25 mars for mid, 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 teacher. The end examination shall be conducted with external examiner and laboratory teacher. The external examiner shall be appointed from the cluster of colleges as decided by the University examination branch.

Table 2.2.1(c) Sample of Continuous Evaluation in Laboratory

S.No	HT NO.	Experiment_1				Experiment_2				Experiment_3				Experiment_4				Experiment_5				Mid1 Average
		A	B	C	Total	A	B	C	Total	A	B	C	Total	A	B	C	Total	A	B	C	Total	
1	18911A0301	4	5	4	13	4	5	5	14	4	4	5	13	4	5	4	13	5	0	4	15	14
2	18911A0302	4	3	5	12	3	1	5	9	3	3	4	10	4	5	4	13	2	0	5	5	10
A* Observation/Experimentation						B* Record								C* Viva voce								
S.No	**HT NO.**	**Experiment_6**				**Experiment_7**				**Experiment_8**				**Experiment_9**				**Experiment_10**				**Mid2 Average**

		A	B	C	Total	A	B	C	Total	A	B	C	Total	A	B	C	Total	A	B	C	Total	
1	18911A0301	4	0	4	8	5	5	4	14	5	5	4	14	3	4	4	11	3	2	5	10	13
2	18911A0302	4	4	5	13	4	5	4	14	4	5	4	13	5	0	4	15	4	5	4	14	14

S.No	HT NO.	Mid1 Average	Mid2 Average	Average
1	18911A0301	14	13	13.5
2	18911A0302	10	14	12

(G) Student feedback of teaching learning process and actions taken (2)

Feedback from students has always played an important role in the maintenance of quality and standards in education. Feedback on teaching learning process is taken in 2 ways.

1. Semester wise on curriculum by students and stakeholders
2. Institute level on Teaching Learning Process by students

Feedback on teaching learning process is taken for every course at the end of semester by students on the following parameters as given in the Figure 2.2.1(g).

1. Depth of the Course content sufficient for learning outcomes
2. Credit allotment
3. Timely coverage of Syllabus
4. Delivery of Syllabi in the Class
5. Use of Teaching Aids and ICT in the Class to Facilitate Teaching
6. Overall Experience with Internal Assessment (Quiz, Assignments, Presentations etc.)
7. Student Teacher Interaction
8. Integration of Theory and Practical in Classes
9. Availability of Quality reference course material

10. The pre-requisite courses are appropriate for the course
11. The Electives offered are relevant to the specialization streams and are in tune with technological advancements
12. Laboratory experiments / assessment done as per the Standard Operating Procedures
13. Participation in extracurricular activities
14. Promotion of Internships & Field Visit Opportunities to students.

STUDENT FEEDBACK FORM ON CURRICULUM

Name of the Student	:		Academic Year	:	
Roll No	:		Branch / Spl	:	
Contact No/Email ID.	:		Year / Sem	:	

(5 - EXCELLENT, 4 - VERY GOOD, 3 - GOOD, 2 - AVERAGE, 1 - POOR)

S. No	Attributes	Course 1 Code	Course 2 Code	Course 3 Code	Course 4 Code	Course 5 Code	Course 6 Code	Course 7 Code	Course 8 Code
1	Depth of the Course content suitable for learning outcomes								
2	Credit allotment								
3	Timely coverage of Syllabus								
4	Delivery of Syllabi in the Class								
5	Use of Teaching Aids and ICT in the Class to Facilitate Teaching								
6	Overall Experience with Internal Assessment (Quiz, Assignments, Presentations etc.)								
7	Student Teacher Interaction								
8	Integration of Theory and Practical in Classes (wherever applicable)								
9	Availability of reference material								
10	The pre-requisite courses are appropriate for this course.								
11	The electives offered are relevant to the specialization streams and to the technological advancements.								
12	Laboratory experiments / assessment done as per the Standard Operating Procedures								
13	Overall Rating								
14	Any other Suggestions								

Figure 2.2.1(g) Sample copy of Student Feedback Form

Table 2.2.1(d) Actions Taken Based On Students Feedback

S.No	Academic Year	Suggestions given	Action Taken
1	2020-21	Teaching-learning process should give more emphasis to practical.	Suggested to watch You tube links which are giving the practical aspects of laboratory experiments. Also the actual manufacturing would be made clear with the videos offered by different universities.
2		Dear HOD sir, we, the students of IV-I Section A, request you to arrange for the usage of Zoom platform instead of Google meet for class work.	Based on the request, usage of Zoom was adopted as Google meet consumes more memory/ bandwidth.
3		We need notes in more organized way as all the classes are taken online and we are not in a position to go out and purchase books due to lockdown.	All the faculty members were advised to provide detailed digital notes in proper format for the best benefit of students.
4	2019-20	Experimentation work of few projects is not completed and we were not in a situation to go outside and finish the work. Please consider simulation as experimentation work for this time.	This is a genuine ask from students and simulation work was considered as experimentation for the projects.
5		There is a lot of confusion in the students on how to attend online classes using Google meet	Due to the pandemic situation, online classes were taken from April 2020. Students were guided by mentors/ class incharges on how to attend classes online. This cleared all confusion persisting and the teaching-learning process continued effectively.
6		Laboratory work is not done effectively	Suggested to go for online videos which are illustrating laboratory experiments

7	2018-19	We need specific timings during working hours to interact with faculty.	Faculty members are requested to be available at their cubical for interaction with students during the lunch hour.
8		We need library hour in the timetable.	Based on student's suggestion, library hour is added in the timetable.
9		Selection of electives are required	Students are advised to select the electives depending upon their interest and also to pursue their higher education in future.

2.2.2 Quality of End semester examination, internal semester question papers, assignments and evaluation (15)

In a Semester evaluation is carried through internal mid semester examinations, assignment, end semester examination. The examination branch would initiatethe conduct of Exams as per the academic calendar and the process is shown in Figure 2.2.2(a). The mid examinations are evaluated for 20 marks while the assignment is done for 5 marks. The questions in these assessments are set based on the blooms level ranging from L2 to L5 to assess the cognitive skills of them. Each question paper comprises of the COs and POs covered along with the Blooms level. The question papers have two parts and the lower level questions are incorporated in the range 35-55% while the remaining questions are set with higher level blooms taxonomy.

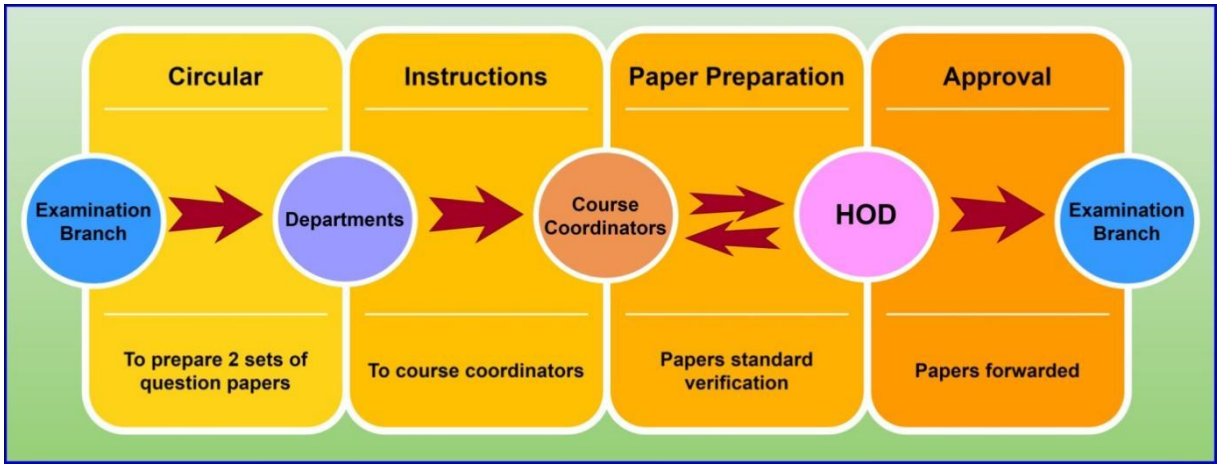


Figure 2.2.2(a) Internal Exam Procedure

The assignments are given to the students so as to cover the BL, CO and POs that could not be covered in mid examinations; The external examiner is setting the end examinations papers and the questions are also being set in that proportion only.

During pandemic the university has permitted to change the mid/end semester examination system. The papers are set by the respective examiners with more low level bloom taxonomy questions.

Typical questions paper given in mid exams for a course is shown below. It has covered the required CO, POs end Blooms Level.

Vidya Jyothi Institute of Technology (Autonomous) (Accredited by NAAC & NBA, Approved By A.I.C.T.E., New Delhi, Permanently Affiliated to JNTU, Hyderabad)			
IIIYear B.Tech II Semester 1st Mid Exam			
Branch: Mechanical Engineering		Duration: 90Min	
Sub: Heat Transfer		Marks: 20	
Date: 18.02.2020		Session: FN	
Course Outcomes:			
1.Develop skills in solving engineering problems involving Algebraic and transcendental equations.			
2.Acquires the knowledge of interpolation in predicting future out comes based on the present knowledge and also to fit different types of Curves.			
3.To know various types of numerical methods in solving engineering problems.			
4.Classify the nature of second and Higher order partial differential equations and find the solutions of linear and non linear PDE.			
5.To apply Partial differential Equations in different engineering problems			
Bloom's Level:			
Remember	I		
Understand	II		
Apply	III		
Analyze	IV		
Evaluate	V		
Create	VI		
PART-A (3Q×2M =6Marks)		**Course Outcomes**	**Bloo**	**Marks**

ANSWER ALL THE QUESTIONS		CO	PO	m's Level	
1.i)	Apply Fourier's law of heat conduction to find out temperature of a block at exit	1	1,2,3,4,6,7,8,12	3	2
	[OR]				
ii)	What are the basic modes of heat transfer?	1	1,2,3,4,6,7,8,12	2	2
2.i)	How fin efficiency is effected in designing in IC engine block	2	1,2,3,4,7,8,	3	2
	[OR]				
ii)	What is critical radius of insulation? Write the expression for critical radius of insulation for cylinder and sphere.	2	1,2,3,4,7,8,	3	2
3.i)	Distinguish between forced and free convection?	3	1,2,3,4,5,6,7,9,12	3	2
	[OR]				
ii)	Define Nusselt Number. What is its significance?	3	1,2,3,4,5,6,7,9,12	3	2
PART-B (5+5+4= 14 Marks)		**Course Outcomes**		**Bloom's Level**	**Marks**
ANSWER ALL THE QUESTIONS		**CO**	**PO**		
4.i.	Derive the 3D general differential heat conduction equation in Cylindrical Coordinate system	1	1,2,3,4,6,7,8,12	3	5
	[OR]				
ii	A plane wall is 150 mm thick and its wall area is 4.5 m^2. If its conductivity is 9.35W/m^oC and surface temperature are steady at 150^oC and 45^oC, determine (i) Heat flow across the plane wall (ii) Temperature gradient in the flow direction.	1	1,2,3,4,6,7,8,12	4	5
5. i	A composite wall of an oven consists of three materials, two of which are of known thermal conductivities Ka = 20 W/m K and Kc = 50 W/mK and known thickness of La =0.3m and Lc =0.15m. The third material B which is sandwiched between materials A and C is of unknown thermal conductivity, Lb =0.15m. Under steady state operating conditions it is found that the outside surface of material C is at 20^oC, and the inside surface of material A is at 600^oC. This surface is in contact with hot air at 800^oC and the inside surface heat transfer coefficient is 25W/m^2K. Determine the thermal conductivity of B material and overall heat transfer coefficient for the composite wall.	2	1,2,3,4,7,8,	4	5
	[OR]				

ii	An Aluminium plate of thickness 30 mm and at a uniform temperature of 225ºC is suddenly immersed at time t = 0 in a well stirred fluid at a constant temperature of 25ºC. The heat transfer coefficient between the plate and the fluid is 320 W/m² K. Determine the time required for the centre of the plate to reach 50ºC.	2	1,2,3,4,7,8,	4	5
6.i)	Derive the Non-Dimensional equation for forced convection heat transfer using Buckingham π Theorem	3	1,2,3,4,5,6,7,9,12	3	4
	[OR]				
ii)	Derive the Non-Dimensional equation for free convection heat transfer using Buckingham π Theorem	3	1,2,3,4,5,6,7,9,12	3	4

Vidya Jyothi Institute of Technology (Autonomous)

(Accredited by NAAC & NBA, Approved By A.I.C.T.E., New Delhi, Permanently Affiliated to JNTU, Hyderabad)
(Aziz Nagar, C.B.Post, Hyderabad -500075)

III Year B.Tech II Semester 2nd Mid Exam

Branch: Mechanical Engineering	Duration: 90 Min
Sub: Heat Transfer	Marks: 20
Date: 09-09-2021	Session: FN

Course Outcomes:

1.Develop skills in solving engineering problems involving Algebraic and transcendental equations.

2.Acquires the knowledge of interpolation in predicting future out comes based on the present knowledge and also to fit different types of Curves.

3.To know various types of numerical methods in solving engineering problems.

4.Classify the nature of second and Higher order partial differential equations and find the solutions of linear and non linear PDE.

5.To apply Partial differential Equations in different engineering problems

Bloom's Level:

Remember	I
Understand	II
Apply	III
Analyze	IV

Evaluate	V
Create	VI

PART-A (3Q×2M =6Marks)		Course Outcomes		Bloom's Level	Marks
ANSWER ALL THE QUESTIONS		CO	PO		
1.i)	Indicate the value of critical Reynolds Number for flow through pipes? And also define displacement thickness	3	1,2,3,4,5,6,7,9,12	2	2
[OR]					
ii)	Write about Nusselt number and state its significance	3	1,2,3,4,5,6,7,9,12	3	2
2.i)	Discuss the significance of critical heat flux	4	1,2,3,4,5,6,7,9,12	2	2
[OR]					
ii)	Differentiate Film and Dropwise Condensation	4	1,2,3,4,5,6,7,9,12	4	2
3.i)	Explain briefly LMTD and NTU in Heat Exchangers	5	1,2,3,4,5,6,7,9,12	2	2
[OR]					
ii)	Write the value of emissivity for a black body and define emissivity.	5	1,2,3,4,5,6,7,9,12	3	2
PART-B (5+5+4= 14 Marks)		**Course Outcomes**		**Bloom's Level**	**Marks**
ANSWER ALL THE QUESTIONS		**CO**	**PO**		
4.i.	Water is flowing through a tube of 60 mm diameter with a velocity of 12 m/s. Tube surface temperature is 70ºC. Water is heated from inlet temperature of 15ºC to outlet temperature of 45ºC as it flows through the tube. Calculate the heat transfer coefficient.	3	1,2,3,4,5,6,7,9,12	4	5
[OR]					
ii	Sketch the Hydrodynamic Boundary Layer for Forced Convection Heat Transfer over a flat plate and explain the salient features.	3	1,2,3,4,5,6,7,9,12	3	5
5. i	Sketch and explain the regimes of Pool Boiling curve.	4	1,2,3,4,5,6,7,9,12	3	5
[OR]					

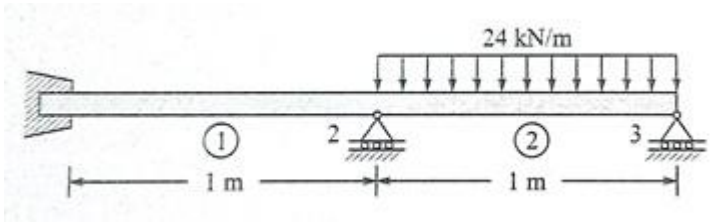
ii	Saturated steam at a temperature of 80ºC is condensed on the outer surface of 12m long, 0.1m diameter, vertical tube which is maintained at a uniform temperature of 40ºC. Calculate: a) The average heat transfer coefficient for film wise condensation over the entire tube length b) The total rate of steam condensation at the tube surface. Saturation Temperature is 100ºC.	4	1,2,3,4,5,6,7,9,12	4	5
6.i)	Derive LMTD for counter flow heat exchanger.	5	1,2,3,4,5,6,7,9,12	2	4
	[OR]				
ii)	Compute the net radiant heat exchange per m2 area for two large parallel plates at temperatures 427^{o} C & 27^{0} C, respectively. Emissivity of hot plate is 0.9 and emissivity of cold plate is 0.6. If a polished Aluminum shield is placed between them, find the % reduction in heat transfer. Emissivity of shield is 0.4.	5	1,2,3,4,5,6,7,9,12	3	4

*****VJIT(A)*****

(D) Quality of Assignments and Evaluation

The assignments are evaluated for five marks.Two assignents are given to students one each before the mid semester examination.The questions cover all COs concerned.The quality of the assignments vary from course to course with a Blooms Taxonomy level in the range 2-4. The evaluation process of the assignments and the corresponding attainments are shown in the Figure 2.2.2 (b) & (c)

	VIDYA JYOTHI INSTITUTE OF TECHNOLOGY **III B.Tech – II Semester I Mid Assignment** **Branch:** Mechanical **Subject:** Finite Element Method				
Q.No	**Answer any two questions**	**CO**	**PO**	**BL**	**Marks**
1	Derive the Strain – Displacement matrix for a one dimensional linear element.	CO1	1,2,3,4,5,7,8,12	3	5
2	Derive the element stiffness matrix of a 2 noded truss element.	CO1	1,2,3,4,5,7,8,12	3	5

3	Write the Element Stiffness Matrices and Global Stiffness Matrix for the given beam element. Take E = 200 GPa & I = 5 x 10^6 mm^4. 	CO2	1,2,3,4,5,7,8,12	3	5
4	Derive the hermite shape functions for 1-D beam element.	CO2	1,2,3,4,5,7,8,12	3	5
5	Derive the strain-displacement matrix for a CST element	CO3	1,2,3,4,5,8,12	4	5

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY
III B.Tech – II Semester II Mid Assignment

Branch: Mechanical **Subject:** Finite Element Methods

Q.No	Answer any two questions	CO	PO	BL	Marks
1	Derive the Strain Displacement Matrix for Axi-symmetric Element.	CO3	1,2,3,4,5,8,12	3	5
2	Find the integral I = $\int_{-1}^{+1}(2x^3 + 5x^2 + 6)dx$ using Gaussian Quadrature method with 2 point scheme.	CO4	1,2,3,4,5,7,8,12	3	5
3	Find the temperature distribution in a straight fin with length 5cm and cross-section diameter 2cm. Thermal conductivity K = 70 W/cm^{o}C, convection heat transfer coefficient h = 10 W/cm^{2o}C. Temperature at the root of the fin T_o=140^{o}C, surrounding temperature is 40^{o}C. Assume that the free end of the fin is insulated. Consider two elements.	CO4	1,2,3,4,5,7,8,12	4	5
4	Derive the dynamic equation of motion using Hamilton's principle.	CO5	1,2,3,4,5,7,8,12	3	5
5	Derive the dynamic equation of motion using Newton's second law.	CO5	1,2,3,4,5,7,8,12	3	5

Vidya Jyothi Institute of Technology
(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz nagar Gate, C.B. Post, Hyderabad-500 075
DEPARTMENT OF MECHANICAL ENGINEERING

BATCH: 2015-19 | **Course: MMI** | **A.Y.: 2018-19** | **Mid I Threshold 60%** | **IV B.Tech I Sem**

		Desc (20)							Assign (5)						I
		Part-A (6)			Part-B (14)										
SL. NO.	HallTicket No	Q1	Q2	Q3	Q4	Q5	Q6 (4)	Total	Q1	Q2	Q3	Q4	Q5	Total	Total (25)
1	15911A0301	2	2	2	4	4	4	18	1	1	1	1	1	5	23
2	15911A0302	2	1	2	5	3	3	16	1	1	1	1	1	5	21
3	15911A0303	2	2	1	3	4	3	15	1	1	1	1	1	5	20
4	15911A0304	2	1	0	1	4	1	9	1	1	1	0	1	4	13
5	15911A0305	2	1	1	3	3	3	13	1	1	1	0	1	4	17

Vidya Jyothi Institute of Technology
(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz nagar Gate, C.B. Post, Hyderabad-500 075
DEPARTMENT OF MECHANICAL ENGINEERING

BATCH: 2015-19 | **Course: MMI** | **A.Y.: 2018-19** | **Mid II Threshold 60%** | **IV B.Tech I Sem**

		Desc (20)							Assign (5)						II
		Part-A (6)			Part-B (14)										
SL. NO.	HallTicket No	Q1	Q2	Q3	Q4 (4)	Q5	Q6	Total	Q1	Q2	Q3	Q4	Q5	Total	Total (25)
1	15911A0301	1	1	2	3	4	3	14	1	1	1	0	1	4	18
2	15911A0302	2	1	2	3	3	4	15	0	1	1	1	1	4	19
3	15911A0303	2	1	0	1	2	4	10	1	1	1	0	1	4	14
4	15911A0304	2	1	2	3	3	3	14	1	1	1	0	1	4	18
5	15911A0305	2	1	0	1	4	3	11	1	1	1	0	1	4	15

Vidya Jyothi Institute of Technology
(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz nagar Gate, C.B. Post, Hyderabad-500 075
DEPARTMENT OF MECHANICAL ENGINEERING

BATCH: 2015-19 | **EXAMINATION AWARD LIST** | **A.Y.: 2018-19** | **Course: MMI** | **IV B.Tech I Sem** | **Threshold 60% (45M)**

SL. NO.	HallTicketNo	Internal (25M)	External (75M)
1	15911A0301	21	44
2	15911A0302	20	27
3	15911A0303	17	43
4	15911A0304	16	59
5	15911A0305	16	50

Figure 2.2.2 (b) Assignement component highlighted in the CO attainment sheet

DEPARTMENT OF MECHANICAL ENGINEERING						
BATCH: 2015-19		Course: MMI				
A.Y.: 2018-19		IV B.Tech I Sem				
ATTAINMENT OF COs FOR THE COURSE						
CO	Method	Value	Avg	Attainment (Internal) 25%	Attainment (External) 75%	CO Direct Attainment (25%Int +75%Ext)
CO1	M1_D_Q1	2.00	2.75	2.17	2.00	2.04
	M1_D_Q4	3.00				
	M1_A_Q1	3.00				
	M1_A_Q2	3.00				
CO2	M1_D_Q2	0.00	1.75			
	M1_D_Q5	1.00				
	M1_A_Q3	3.00				
	M1_A_Q4	3.00				
CO3	M1_D_Q3	0.00	2.33			
	M1_D_Q6	3.00				
	M1_A_Q5	3.00				
	M2_D_Q1	2.00				
	M2_D_Q4	3.00				
	M2_A_Q1	3.00				
CO4	M2_D_Q2	0.00	1.75			
	M2_D_Q5	1.00				
	M2_A_Q2	3.00				
	M2_A_Q3	3.00				
CO5	M2_D_Q3	0.00	2.25			
	M2_D_Q6	3.00				
	M2_A_Q4	3.00				
	M2_A_Q5	3.00				
	Course Attainment (80% Direct + 20% Indirect)					
	Direct Attainment			2.04		
	Indirect Attainment			2.54		
	Course Attainment			2.14		

Figure 2.2.2 (c) Summary Sheet of CO attainment

2.2.3 Quality of Student Projects (20)

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

Projects are identified based on the industry needs with current scenario which addresses the design,analysis ,manufacturing and maintenance of physically built structures. The problem definition with their requirements and constraints are verified by senior faculty members of the department before allocating to the students. The knowledge, methodology, skill set and interest of the students to implement the project are considered to undertake the projects. Faculty members of respective specialization are allocated as guides for a particular project. Each project team varies from three to four students. The students are given choice to select their project team mates and form batches. In case of any conflict, it would be resolved by projects coordinator/HOD.

B) Types and relevance of projects and their contribution for the attainment of POs and PSOs (2)

Projects are classified briefly into categories like study, real time, industry fabrication, design oriented, analysis, mathematical modeling etc.

Batch: 2017-2021			
S.No	**Roll No**	**Project Title**	**Related POs/PSOs**
1	17911A03H9 17911A03J4 17911A03K3 17911A03H3	Fabrication of Automotic sanitizing equipment	PO1,PO2,PO3,PO4,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
2	17911A03J9 17911A03K0 17911A0399 17911A03LO 17911A03J1	Deviation analysis of A free form surface using reverse engineering approach	PO1,PO2,PO3,PO4,PO5,PO7,PO8,PO9,PO10 , PO11,PO12,PSO1,PSO2
3	17911A03B2 17911A03C7 17911A03F6 17911A0351	Stress anaysis of notched super duplex stailess steel UNS S32760	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9, PO10,PO11 ,PO12,PSO1,PSO2
4	17911A0375	Experimental Investigation of the influence of waste	PO1,PO4,PO7,PO8,PO9,PO10,PO11,PO12,

	17911A0381 17911A0395 17911A0393	plastic oil biodiesel blends on CRDI Automotive research engine with open ECU at different operating conditions	PSO1,PSO2
5	17911A0306 17911A0309 17911A0321 17911A0325 17911A0301	Design and Fabrication of snake robot	PO1,PO4,PO5,PO7,PO8,PO9,PO10,PO11, PO12,PSO1,PSO2
Batch: 2016-2020			
1	16911A0314 16911A0319 16911A0328 17915A0309	Investigation On Friction Stir Welding Of Dissimilar Aluminium Alloys (Aa6061) Using Various Micro Powers	PO1,PO2,PO3,PO4,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
2	16911A03K9 16911A03H9 16911A03L7 16911A03H4	Investigation on the properties of magnetic nano particles using arc discharge method	PO1,PO2,PO3,PO4,PO5,PO7,PO8,PO9,PO10 , PO11,PO12,PSO1,PSO2
3	16911A0395 16911A0394 16911A03B0 16911A03A2	Experimental investigation of dual fuel diesel engine with alternate fuels	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9, PO10,PO11 ,PO12,PSO1,PSO2
4	17915A0301 17915A0304 17915A0306 16911A0321	Effect of annealing cycle and mechanical properties on cold rolled coils	PO1,PO4,PO7,PO8,PO9,PO10,PO11,PO12, PSO1,PSO2
5	16911A0366 16911A03B3 16911A0391	Strengthening of polymers using oxides	PO1,PO4,PO5,PO7,PO8,PO9,PO10,PO11, PO12,PSO1,PSO2

	16911A03A8		
Batch: 2015-2019			
1	16915A0331 16915A0327 16915A0325 15911A03B7	Design and analysis of homogenius top hole structures	PO1,PO2,PO3PO7,PO8,PO9,PO10, PO11,PO12,PSO1,PSO2
2	15911A03A3 15911A0372 15911A0364 15911A0374	Reverse engineering a component & fabricating it with 3D printing technology	PO1,PO2,PO4,PO5,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
3	15911A0335 15911A0318 15911A0331 15911A0324	Effect of Al2O3 and CuO performance of single slope solar still	PO1,PO2,PO3,PO4,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
4	15911A03B6 15911A03C0 15911A03E1 15911A0E6	Study of mechanical and metllargical properties of welded aluminium joints of AA8011 using friction stir welding	PO1,PO2,PO3,PO4,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
5	16915A0305 15911A0319 15911A0330 15911A0328	Performance of solar water heating by using nano particles	PO1,PO2,PO3,PO4,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2

Thereafter, the projects are mapped to the POs and PSOs so as to know the impact of the projects on the attainment.

(C) Project related to Industry: (3M)

Academic Year: 2020-21				
S. No	**Roll No**	**Name of the Student**	**Title of the Project**	**Industry**

1	17911A03J9	Naganand Shenoy	Deviation Analysis of a Free from surface Using Reverse Engineering Approach	Think3d, Hyderabad
	17911A03K0	N Aravind Kumar		
	17911A0399	P Shravan Kumar		
	17911A03L0	S Uday Kumar		
	17911A03J1	K Durga Prasad		
2	17911A03A1	S Jagadeesh	Development of White Paint for combating global warming and reducing pressure on air conditioning technology	Sai Surafce Coating Technologies, Hyderabad
	17911A03A2	Shaik Abbas		
	17911A0385	K Karan kumar		
	17911A0386	K Sai Kiran		

Academic Year: 2019-20				
S. No	**Roll No**	**Name of the Student**	**Title of the Project**	**Industry**
1	16911A0371	D.MAHENDAR	Study of thermal conductivity of PCMI paraffin wax-alumina composition	Virtue met testing laboratory
	17915A0322	G.KALYAN		
	17915A0323	G.ABHISHEK		
	16911A03A9	S.HARISH		
2	16911A0387	K.RAGHAVENDER	Power generating knee strap hints at the end for batteries	Hyderabad batteries Ltd.
	16911A0386	K.SAMPATH		

	16911A0363	B.PRUDHVI PAVAN		
	15911A03H5	SARAJ		
3	16911A03E9	MD.WASEEM	Reverse engineering of gears	Think 3D, Hyderabad
	16911A03E8	MD.KHALEED		
	16911A03E4	MD.MUZAKKIR		

Academic Year: 2018-19				
S. No	**Roll No**	**Name of the Student**	**Title of the Project**	**Industry**
1	15911A0391	SATHISH	Friction stir welding by similar and disimilar metals	Shanthi Industries, Hyderabad
	15911A0375	VAMSHI GOUD		
	15911A0381	SUMANTH		
	15911A0388	ASIF		
2	15911A03A3	RAVI CHANDRA	Reverse engineering a component & fabricating it with 3D printing technology	Think3D, Hyderabad
	15911A0372	VARUN TEJ		
	15911A0364	KARTHIK		
	15911A0374	JAINIL		
3	15911A03B6	BANDHAM NANDISHWAR	Study of mechanical and metllargical properties of welded aluminium joints of AA8011 using friction stir welding	Shanthi Industries, Hyderabad
	15911A03C0	BIRADAR RAJU		

	15911A03E1	KIRAN		
	15911A0E6	R.KARTHIK		

(D) Process for monitoring and evaluation

Department has a well defined process to monitor the progress of student projects. There are fixed timelines for every activity in the projects and they are depicted below.

Time line	Task	Monitoring and Methodology
1st week	Project batch and guide allotment	Students are invited to propose their batch and get it registered with the project coordinator of the department, with respect to the areas of interest of each guide the batches will be assigned to a guide.
3rdweek	Call for project tittles	Students are instructed to submit the title of the project along with the abstract in consultation with their respective guides in a given Proforma to the project coordinator.
4th week	Project title and abstract finalization	The submitted project tittles and abstracts are reviewed and finalized by a committee consisting of Project coordinator, Head of the Department and by senior faculty members.
6th week	First review	Students are expected to give the first review on the project with the details of the equipment, materials, process etc. The plan is expected to be clear and final by this review.
9th week	Second review	Students are expected to finish the experimentation/Modeling/analysis etc. By this review the actual work mentioned in the abstract should have been completed.
13th week	Final review	Students are instructed to submit complete project report with university compliances and give a power point presentation on the project to staff and final year students. Q&A session follows.

15th week	Project internal marks announcement	The marks for the project work is announced and processed according to the university regulations.
After16th week	Exrenal Viva-voce	It is conducted the project panel consists of Head of the Department, guide, and external examiner appointed by affiliating University

(E) Process to assess individual and team performance

Department Project Review Committees (PRCs) are constituted with around 3-4 faculty members. Each PRC is allotted to 2-3 batches of students. When the batches of students present their projects in front of the PRC, the members evaluate the batch individually and as a group. Several parameters like technical knowledge gained through the project, timely execution of the tasks, analysis skills, planning, articulation, presentation etc. are evaluated. The PRC comes up with a common grade at a student level and submits the report to the projects coordinator of the department. Below mentioned rubrics is developed and followed by the department so as to evaluate projects in a scientific way.

Criterion for Evaluation/ Rubric	Poor (1)	Satisfactory (2)	Good (3)	Very Good (4)	Excellent (5)
Requirements	Project does not adhere to its requirements.	Project minimally adheres to its requirements.	Project mostly adheres to its requirements	Project completely adheres to its requirements	Project completely adheres to its requirements and suits current day's industry needs.
Creativity	Project is significantly incomplete and lacking creativity.	Project is somewhat incomplete and slightly creative.	Project is complete and creative.	Project is complete, creative and novel.	Project is highly creative and visibly appealing.
Model Building	Contains no involvement of mechanical	Contains minimal involvement of mechanical	Contains involvement of mechanical	Contains involvement of mechanical engineering concepts like design,	Contains involvement of mechanical engineering concepts like design,

	engineering concepts.	engineering concepts.	engineering concepts in study-oriented approach.	fabrication, analysis etc. without any live model or simulation.	fabrication, analysis etc and working model/ simulation as well.
Quality of the work	Project is of poor quality work.	Project appears hastily created or is of poor quality work.	Project construction could benefit from more than a minimal amount of effort.	Project construction could be improved somewhat in select areas.	Project is of excellent, durable construction.

A Typical Example of Evaluation of Projects Based on Rubrics is Shown Below

Batch: 2017-2021						
S.No	**Roll No**	**Name of the Project Title**	**Requirements**	**Creativity**	**Model building**	**Quality of the work**
1	17911A03H9	Fabrication of Automotic sanitizing equipment	3	3	4	5
	17911A03J4		4	3	3	4
	17911A03K3		4	3	3	4
	17911A03H3		3	3	3	3
2	17911A03J9	Deviation analysis of A free form surface using reverse engineering aproach	3	3	4	3
	17911A03K0		2	4	3	3
	17911A0399		3	4	3	3
	17911A03LO		4	4	3	5
	17911A03J1		4	4	3	5
3	17911A03B2	Stress anaysis of notched super duplex stailess steel UNS S32760	4	4	4	5
	17911A03C7		3	4	3	4
	17911A03F6		2	4	3	3
	17911A0351		2	4	3	3
4	17911A0375	Experimental Investigation of the influence of waste plastic oil biodiesel blends on CRDI	4	5	4	5
	17911A0381		3	4	4	4

	17911A0395	Automotive research engine with open ECU at different operating conditions	2	3	3	3
	17911A0393		4	4	3	3
5	17911A0306	Design and Fabrication of snake robot	4	3	3	4
	17911A0309		5	4	4	5
	17911A0321		2	2	3	3
	17911A0325		2	2	3	3

Batch: 2016-2020

S.no	Roll No	Name of the Project Title	Requirements	Creativity	Model building	Quality of the work
1	16911A0314	Investigation On Friction Stir Welding Of Dissimilar Aluminium Alloys (Aa6061) Using Various Micro Powers	4	3	3	4
	16911A0319		3	5	4	5
	16911A0328		2	3	3	3
	17915A0309		3	3	2	3
2	16911A03K9	Investigation on the properties of magnetic nano particles using arc discharge method	3	3	2	3
	16911A03H9		4	5	4	5
	16911A03L7		2	3	3	2
	16911A03H4		3	4	4	4
3	16911A0395	Experimental investigation of dual fuel diesel engine with alternate fuels	5	3	4	4
	16911A0394		5	4	4	4
	16911A03B0		5	5	4	5
	16911A03A2		2	3	4	4
4	17915A0301	Effect of annealing cycle and mechanical properties on cold rolled coils	2	3	3	3
	17915A0304		3	3	2	3
	17915A0306		3	3	2	3

	16911A0321		4	5	4	5
5	16911A0366	Strengthening of polymersusing oxides	2	3	3	2
	16911A03B3		3	4	4	4
	16911A0391		5	3	4	4
	16911A03A8		5	4	4	4

Batch: 2015-2019

S.No	Roll No	Name of the Project Title	Requirements	Creativity	Model building	Quality of the work
1	16915A0331	Design and analysis of homogenius top hole structures	5	5	5	5
	16915A0327		5	5	4	5
	16915A0325		2	3	3	3
	15911A03B7		3	3	4	4
2	15911A03A3	Reverse engineering a component & fabricating it with 3D printing technology	4	5	4	5
	15911A0372		5	4	4	5
	15911A0364		5	4	5	4
	15911A0374		5	5	4	5
3	15911A0335	Effect of Al2O3 and CuO performance of single slope solar still	4	5	4	5
	15911A0318		5	5	4	5
	15911A0331		3	3	3	4
	15911A0324		5	5	3	5

4	15911A03B6	Study of mechanical and metllargical properties of welded aluminium joints of AA8011 using friction stir welding	5	5	4	5
	15911A03C0		2	3	3	3
	15911A03E1		3	3	4	4
	15911A0E6		4	5	4	5
5	16915A0305	Performance of solar water heating by using nano particles	5	5	4	5
	15911A0319		4	5	4	5
	15911A0330		5	5	4	5
	15911A0328		3	3	3	4

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

Best Projects

Batch: 2017-2021			
S.No	**Roll no**	**Name of the Guide**	**Title of the project**
1	17911A03H9	Dr. B.V. Reddy	Fabrication of Automatic sanitizing equipment
	17911A03J4		
	17911A03K3		
	17911A03H3		
2	17911A03J9	Dr. G. Sreeram Reddy	Deviation analysis of A free form surface using reverse engineering approach
	17911A03K0		
	17911A0399		
	17911A03LO		
	17911A03J1		
3	17911A03B2	Dr. J. Jagadesh Kumar	Stress analysis of notched super duplex stainless steel UNS S32760

	17911A03C7		
	17911A03F6		
	17911A0351		

Batch: 2016-2020

S.No	Roll no	Name of the Guide	Title of the project
1	16911A0314	Mr.S.Prasad Kumar	Investigation On Friction Stir Welding Of Dissimilar Aluminium Alloys (Aa6061) Using Various Micro Powers
	16911A0319		
	16911A0328		
	17915A0309		
2	16911A03K9	Mr. Hasan	Investigation on the properties of magnetic nano particles using arc discharge method
	16911A03H9		
	16911A03L7		
	16911A03H4		
3	16911A0395	Mr.K.Ravi Kumar	Experimental investigation of dual fuel diesel engine with alternate fuels
	16911A0394		
	16911A03B0		
	16911A03A2		

Batch: 2015-2019

S. No	Roll no	Name of the Guide	Title of the project
1	16915A0331	Dr.V.Phanindra Bogu	Mechanical Behaviour of unitcell based 3D printed lattice structures
	16915A0327		
	16915A0325		
	15911A03B7		
2	15911A03A3	Dr.G.Sreeram Reddy	Reverse engineering a component & fabricating it with 3D printing technology
	15911A0372		
	15911A0364		

	15911A0374		
3	15911A0335 15911A0318 15911A0331 15911A0324	Dr.L.Madan Ananda Kumar	Effect of Al2O3 and C4O performance of single slope solar still

(G) Evidences of papers published/Awards received by projects etc. (3)

S.No	Name of the student and faculty	Details of research Publications/IPR/ Conference	Title Of The Project	Year of Publishing/Registered
1	Mohd Ishaq	**IRJET**	Effect Of Notch Geometry On The Fatigue Life Of AISI 316LAustenitic Stainless Steel	2020
2	Kasula Srikanth Goud	**IRJET**	Analytical And Numerical Validation Of Truncated Cellular Lattice Structure With Various Strut Diameters	2020
3	Naresh Mamidi Renuka Nethi Vamshi Kadali	IRJET	Impact Of Notch Geometry On The Fatigue Life Of AISI 316LAustenitic Stainless Steel	2020
4	N. Rohit Reddy	**IRJET**	Numerical Investigation On Flexural Strength Of Lattice Sandwich Structures	2020
5	Mohd Yaser Uddin	**IRJET**	Effect Of Notch Geometry On The Fatigue Life Of Uns S32760 Super Duplex Steel Tig Welded Joints	2020
6	Baddam Ranjith	**IRJET**	Experimental Investigation On Combine Basalt & Jute Reinforced Natural Fibers	2020
7	Khethavath Venkat K. Sreekanth Goud	**IRJET**	Study Of Mechanical And Metallurgical Properties Of Friction Stir Welded Aluminium Alloys (Aa2014 & Aa6082)Byaddition The Tio2nanoparticles And Its Simulation Analysis	2020
8	Kommineni Madhu	**IRJET**	Development and Study of Mechanical Properties of	2020

			Reinforced Composites	
9	Karnekanti Bhargav	**IJITEE**	Design of Powered Wheel Dolly for Construction Stair Case	2019
10	K. Rajashekhar	**IJITEE**	Effect of Mechanical Properties on Jute Fiber Reinforced By E-Glass Fiber When Treated to Change in Environment	2019
11	Madhigani Sneha	**IJITEE**	Reverse Engineering on Jet Engine Turbine Blade Based on 3D Printing Design Intent	2019
12	G. Bharat Raj	**IJITEE**	Reverse Engineering on Jet Engine Turbine Disk	2019
13	Abraham Varghese A.Vinay K.Maharshi P.Arvind Kumar	**IJITEE**	Experimental investigations of ultra violet rays, wear tests and mechanical properties on jute reinforced E-Glass composites	2018
14	Naresh Mamidi Renuka Nethi Vamshi Kadali	**IRJET**	Impact of notch depth on the fatigue life of AISI 316L austenitic stainless steel	2018
15	B.Ramesh	**IJR**	Optimization of machining parameters for face milling operation in a vertical CNC milling machine using algorithm	2018
16	S.Kranthi	**IJR**	Designing and structural analysis of vihicle chassis made of composite material	2018
17	K.Anil Kumar	**IJR**	Modeling and weight optimization of oil pan by analysis	2018
18	A.Girish Kumar K.Vamshi N.Renuka	**IJSRSET**	A Review on fatigue failure in marine and naval applications	2018
19	K. Akshitha,	**IJAERD**	Biaxial Loading Analysis Of Laminated Polymer Composite Material	2018
20	Mohd Khimran Uddin	**IJMPERD**	Design And Analysis Of Air Preheater	2018

	Mohd Ashfan Pasha			
21	Mohammed Parvez Ali	**IJIEE**	Optimization of The Suspension System And Its Stress Analysis	2018
22	Renuka Nethi Naresh Mamidi Addetla Girish Kumar	**IJSRD**	A Critical Review on Residual Stresses in Welded Joints	2018

2.2.4. Initiatives related to industry interaction (10)

The department of Mechanical Engineering has established an Industry Institute Interaction Cell (IIIC) to improve the interaction with the industry. At the institute level the IIIC would coordinate the work by taking the inputs from the industry mentor and alumni advisor with a view to serve the student community in all functional areas including internship, industry visits, projects and guest lectures.(Figure 2.2.4(a))

The objective of IIIC is

- To explore and identify common avenues of interaction with industry as per the requirements of the institution
- To promote closer interaction between the academic field and the professional field
- To find out the gap between need of the industry and end product of the institute

The members of the IIIC are

- Mr.Shaik Ismail – Coordinator, Asst.Professor
- Mr.Shaik Mohd Amoodi - Member, Asst.Professor
- Ms.P.Pavani- Member, Asst.Professor

The main function of the IIIC is listed below,

- To give industrial exposure to faculty members and students, thus enabling them to tune their knowledge to cope with the industrial culture
- To assist the departments in organizing workshops, conferences and symposium with joint participation of the industries
- Encouraging engineers from industries to visit institution to deliver lectures
- Participation of experts from industries, in curriculum development
- To organize industrial visits for faculty members and students
- To encourage faculty members to use their expertise in solving the problems faced by the industries, thus creating opportunity for consultancy
- To coordinate/ identify industrial partners for proposing ‘Centre for Excellence’.
- To strengthen alumni relations
- Visit of industry executives and practicing engineers to the institute for seeing research work and laboratories
- Memorandum of Understanding between the institute and industries to bring the two sides emotionally and strategically closer
- Visiting faculty from industries
- R&D Laboratories sponsored by industries at the institute

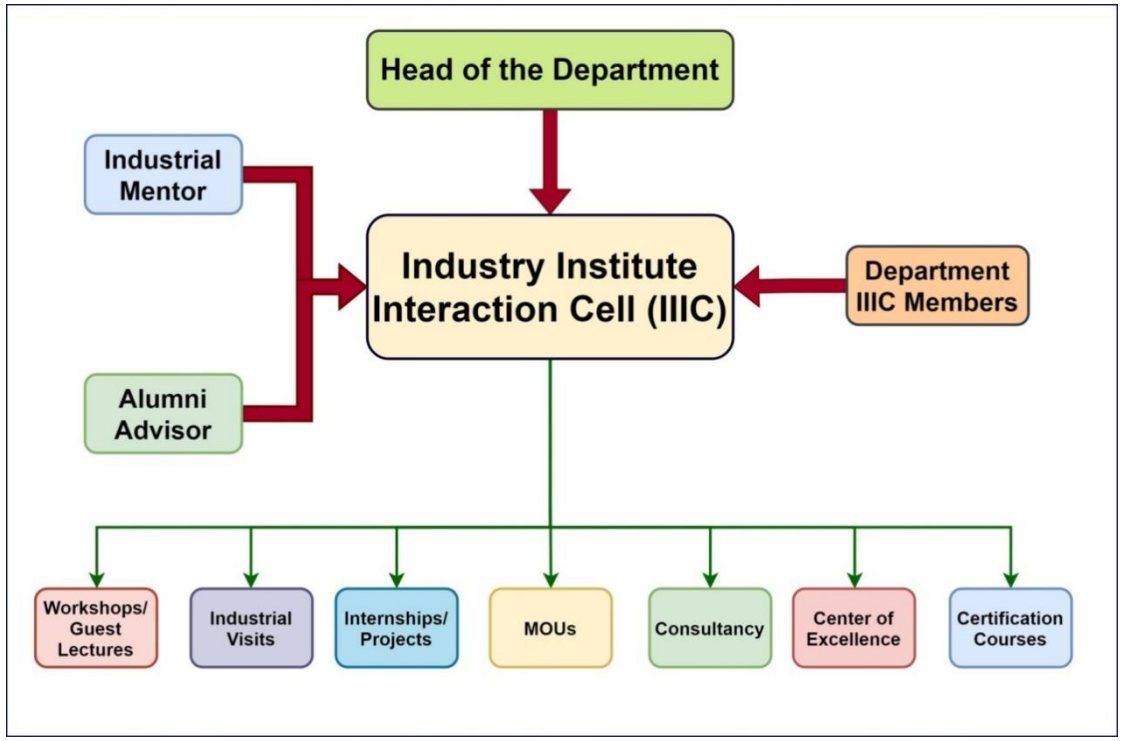


Figure 2.2.4(a): Organisation and Function of Industry Institute Interaction Cell

Table 2.2.4(a): Active MOUs of the department during the assessment years (AYs: 2018-19, 2019-20 & 2020-21)

Company Name	Date on M.O.U.	Value Addition to	Value Addition to Faculty	Value Addition to Company

	undertaken	Student		
Epigraph Advanced Engineering Pvt. Ltd	02-02-2016	Trainings and Academic Projects	Visits to update knowledge on real time engineering problems.	Subject matter expertise can be shared by VJIT to solve their complex problems.
Design Tech	19-03-2015	Trainings and Academic Projects	Crash course trainings to update skills on technology	Knowledge sharing
VRK Industries	12-03-2015	Internships, Trainings and Academic Projects	Industrial Visits	Subject matter expertise can be shared by VJIT to solve their complex problems.
Frugal Technologies	23-02-2015	Trainings and Academic Projects	Visits to update knowledge on real time engineering problems.	Knowledge sharing
CANTER CADD, Suncity	03-01-2015	Trainings and Academic Projects	Crash course trainings to update skills on technology	Guest lectures from faculty of VJIT to improve subject matter expertise in the employees. Ex: Prof. Sreeram Reddy gave a session on FEM in CANTER CADD – Suncity.
Premier Engineering Industries	06-01-2014	Internships, Trainings and Academic Projects	Industrial Visits	Subject matter expertise can be shared by VJIT to solve their complex problems.
CIM Technolgies	01-05-2019	Internships, Trainings and Academic Projects	Training, Projects	Corporate social responsibility
Adeptus Servo	21-10-2019	Trainings and	Guest lectures, projects	Outreach program

Mechatronics Pvt Ltd		Academic Projects		
Reliable Environmental Services(RES)	04-02-2020	Industrial Visits and Internships	Guest lectures, projects	Knowledge sharing and to use technical expertise of the department.

(A) Industry supported laboratories(2)

Trinoculor microscope with image acquisition system, which is used in Metallurgy laboratory, is supported by Premier Engineering Industries, Hyderabad. The knowledge on the usage of the equipment was also imparted by Premier Industries to the faculty of the department. This equipment is thereafter being used in the execution of several projects by the department.

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

With a view to improve the quality of mechanical Engineering domain courses two members from the industries have been made BOS members. The deliberations on curriculum design and content improvement of the courses related to industries have been supplemented by these members. Their contribution includes manufacturing and CAD/CAM courses. Reverse Engineering topics and Advances in manufacturing aspects have been included in the syllabi as per their suggestions.

S.No	Name of the Member	Designation	Address/Organization
1.	Ms.A.Swapnika	Technical Director	Premier Engineering Industries Pvt.Ltd, Jeedimetla, Hyderabad
2.	Mr. Ayush Nadimpalli	Managing Director	Adroitech Engineering Solutions Pvt Ltd, Hyderabad

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

The experts from different industry with which the department is having MoU, have been invited to take up the topics in the domain of mechanical Engineering. The experts dealt with industrial topics and applications with the related regular courses designed in the curriculum.

S.No	Details	Month-Year	Resource Person with Designation	Relevance to POs and PSOs
1	Heat Treatment Aspects	Sep-2020	Ms. A. Swapnika, Technical Director, Premier Engineering Industries	PO-1, PO-3, PO-4, PO-7, PSO-1, PSO-2
2	Expert Lecture on Metallurgy Aspects	Feb-2020	Ms. A. Swapnika, Director Premier Engineering Industries	PO-1, PO-4, PO-7, PSO-1
3	Production Technology : Metal casting	Aug-2019	Mr. A.Subba Rao, Managing Director, Premier Engineering Industry	PO-1, PO-2, PO-4, PO-7, PSO-2
4	Production Technology : Welding	Feb-2019	Mr. A.Subba Rao, Managing Director, Premier Engineering Industry	PO-2, PO-3, PO-5, PSO-2
5	Metrology& Machine Tools: Lathe Machine	Nov-2018	Mr.T.Venkata Rao, M.D, V.R.K.Industries	PO-1, PO-2, PO-4, PO-5, PSO-1, PSO-2
6	Mechanics of Fluids & Hydraulic Machines: Turbines	March-2018	Mr. Ramu Maddi, Manager, Arani Power Systems	PO-1, PO-3, PO-4, PO-7, PSO-1, PSO-2

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

Further to the industry interaction, the department observed a clear improvement in the following aspects

i) There is a drastic change in the students in their sense of analyzing a given problem, understanding research papers and looking at a given scenario with multi-dimensional orientation, along with risk and environmental impact assessment.

ii) Experimental investigations picked up pace, once the industry interaction became strong. Some of the students were able to perform experiments in industry labs and publish research papers.

iii) Proportion of Industry relevant projects increased in the minor and major projects.

2.2.5. Initiatives Related to Industry Internship/Summer Training (10)

(A) Industrial Training/ Tours for students(2)

S.No	Academic Year	Industry Name	No of Students
1.	2019-20	Mahindra & Mahindra, Zaheerabad	28
2.		Kaleshwaram Lift Irrigation Project, Kaleshwaram	24
3.	2018-19	Rexnord, KPHB, Hyderabad	25
4.		Airwell Engineering Pvt.Ltd	27
5.	2017-18	Chemtech Industrial Equipments	30
6.		Premier Engineering Industries	30

(B) Industrial/ Internship /summer training of more than two weeks and post Training Assessment(3)

S.No	Academic Year	No of Students
1.	2020-21	26
2.	2019-20	51
3.	2018-19	188

Details of the Internships undertaken are tabulated below for the three assessment years. The students have been given internship in mechanical engineering domains in general and manufacturing and CAD/CAM aspects in particular. The internship programmes enhanced the skill set of the students with the reinforced theoritical background. The topics which were given during internship are metal cutting, tool design, welding aspects, heat treatment, 2D/3D modeling, finite element analysis, CNC part programming etc.

2020-21			
S. No	**Roll No.**	**Name of the student**	**Name of the Company**
1	17911A0301	Amidi Rohit Reddy	RCI/DRDO
2	17911A0338	Nadella Sravika	RCI/DRDO
3	17911A0355	V D Rudra Mahesh	RCI/DRDO
4	17911A0356	Vadla Maheshwari	RCI/DRDO
5	17911A0306	Bommana Sai Prakhyat	RCI/DRDO
6	17911A0309	D Akash	RCI/DRDO
7	17911A0321	J Sri Sai Kumar	RCI/DRDO
8	17911A0325	Kore Sai Charan	RCI/DRDO
9	18915A0301	Angari Dikshith	RCI/DRDO
10	17911A0305	Bogala Vijay Simha Reddy	RCI/DRDO
11	17911A0337	Mourya Santosh	RCI/DRDO
12	17911A0339	Nallan Chakravarthy Tarun	RCI/DRDO
13	17911A0350	Shaik Arshad	RCI/DRDO
14	17911A0354	Ummalreddy Uday Kumar Reddy	RCI/DRDO
15	17911A0336	Mohammed Nomaan Khursheed	Ordanance factory
16	18915A0351	Vadla Kalyan	Pokarna engineered stone Limited
17	18915A0341	Putnala Swijan Reddy	G.R.K Medical Devices
18	17911A0351	T S Adheesh	RCI/DRDO
19	17911A03F2	Shruti Sajan	MCME
20	18915A0333	Naga Linga Prashanth D	MCME
21	18915A0352	Vanga Madhu	MCME
22	18915A0346	Shaik Abdul Waseem	Ordanance factory
23	17911A03D9	Malgari Sripa	MCME
24	17911A03E2	Mohammed Abdul Azeez Azhar	MCME
25	17911A03E8	Rajinthala Teja	MCME
26	17911A03G1	Ajmeera Raju	MCME

2019-20			
S. No	**Roll No.**	**Name of the student**	**Name of the Company**
1	17911A0301	Amidi Rohit Reddy	MSME, Hyderabad
2	17911A0306	Bommana Sai Prakhyat	MSME, Hyderabad
3	17911A0309	D Akash	MSME, Hyderabad
4	17911A0321	J Sri Sai Kumar	MSME, Hyderabad
5	17911A0325	Kore Sai Charan	MSME, Hyderabad
6	17911A0331	Mihir Sanjay Pagar	MSME, Hyderabad
7	17911A0350	Shaik Arshad	MSME, Hyderabad
8	17911A0351	T S Adheesh	MSME, Hyderabad
9	17911A0355	V D Rudra Mahesh	MSME, Hyderabad
10	17911A0358	Ashannagari Chaitanya Krishna Reddy	MSME, Hyderabad
11	17911A0367	Chippa Himanth	MSME, Hyderabad
12	17911A0371	Dasari Rakesh Goud	MSME, Hyderabad
13	17911A0372	Devasani Shiva Krishna	MSME, Hyderabad
14	17911A0384	K Vinod	MSME, Hyderabad
15	17911A0385	Kanathala Karan Kumar	MSME, Hyderabad
16	17911A0387	Kodiganti Swarup Reddy	MSME, Hyderabad
17	17911A0399	Pitlam Shravan Kumar	MSME, Hyderabad
18	17911A03A1	Sammeta Jagadeesh	MSME, Hyderabad
19	17911A03A2	Shaik Abbas	MSME, Hyderabad
20	17911A03A9	Vudumula Renuka	MSME, Hyderabad
21	17911A03L7	Thotakura Sai Bhargav	MSME, Hyderabad
22	17911A03L8	Timmanolla Srujan Reddy	MSME, Hyderabad
23	17911A03L9	Vanam Sai Pradeep Reddy	MSME, Hyderabad
24	17911A03M0	Vankudoth Mohan	MSME, Hyderabad

25	17911A03F4	Tene Neshwanth Kumar	MSME, Hyderabad
26	17911A0314	Devunuri Surya Abhiram	MSME, Hyderabad
27	17911A03H1	Chilumula Rohithkumar	MSME, Hyderabad
28	17911A0341	Nunavath Sridhar	MSME, Hyderabad
29	17911A0347	Rathod Prashanth	MSME, Hyderabad
30	17911A0352	Tauseef Mohammed Tayyab	MSME, Hyderabad
31	17911A03J4	M Prajeet	MSME, Hyderabad
32	17911A03J9	Naganand Shenoy	MSME, Hyderabad
33	17911A03K3	P S Anand Krishnan	MSME, Hyderabad
34	18915A0307	Boggula Madhu	MSME, Hyderabad
35	17911A0324	Karre Rahul	MSME, Hyderabad
36	18915A0330	Mekala Ganesh	MSME, Hyderabad
37	18915A0332	N Ajay	MSME, Hyderabad
38	18915A0333	Naga Linga Prashanth D	MSME, Hyderabad
39	18915A0334	Nakka Avinash	MSME, Hyderabad
40	18915A0336	P Prakash	MSME, Hyderabad
41	18915A0337	Palamamiti Anil Kumar	MSME, Hyderabad
42	18915A0341	Putnala Swijan Reddy	MSME, Hyderabad
43	18915A0342	S Rishi	MSME, Hyderabad
44	18915A0344	Sandolla Vamshikrishna Sagar	MSME, Hyderabad
45	18915A0352	Vanga Madhu	MSME, Hyderabad
46	17911A03A6	Syed Salman Kashif Ahsan	MSME, Hyderabad
47	17911A03A8	Voggu Sai Kumar	MSME, Hyderabad
48	17911A03B0	Yellakonda Manikanth Reddy	MSME, Hyderabad
49	18915A0324	Katravath Shiva	MSME, Hyderabad
50	18915A0325	Kothadoddi Prashanth Reddy	MSME, Hyderabad
51	18915A0320	Jadi Naveen Kumar	MSME, Hyderabad

2018-19			
S. No	**Roll No.**	**Name of the student**	**Name of the Company**
1	16911A0301	Aluri Sanjay Sreenivas	Creative Soft Technology Services, Hyderabad
2	16911A0303	Apnagari Naveen Kumar	Mahindra & Mahindra Ltd.
3	16911A0304	Athelli Ravindra	Creative Soft Technology Services, Hyderabad
4	16911A0305	Avula Balakrishna	The National Small Industries Corporation Ltd.
5	16911A0306	Ballary Suryakanth	BHEL
6	16911A0307	Banda Vikas Yadav	BHEL
7	16911A0308	Bandreddi Shivani	The National Small Industries Corporation Ltd.
8	16911A0310	Bhukya Naga	South Central Railway
9	16911A0312	Chelakala Sai Srinivas	Creative Soft Technology Services, Hyderabad
10	16911A0313	Chintha Arun	BHEL
11	16911A0314	Chirumalla Likitha	Sai Krishna Plastic Industries, Karimnagar
12	16911A0315	D Mani Ratnam	Ordance Factory Medak
13	16911A0317	Devara Naveen	Ennem Excel Engineering Pvt. Ltd
14	16911A0318	Eedula Bhargav Reddy	The National Small Industries Corporation Ltd.
15	16911A0319	Ettadi Vishnu	RKS Motor Pvt. Ltd.
16	16911A0322	Gundabiona Seshanth	RKS Motor Pvt. Ltd.
17	16911A0323	Gunreddy Ajay Kumar Reddy	The National Small Industries Corporation Ltd.
18	16911A0325	Jaitharam Swapna	The National Small Industries Corporation Ltd.
19	16911A0326	K A Mallesh Yadav	The National Small Industries Corporation Ltd.
20	16911A0328	Katukojwala Srikanth	Sai Krishna Plastic Industries, Karimnagar
21	16911A0330	Koppineedi Durga Prasad	BHEL

22	16911A0331	Kothapally Ruchitha	BHEL
23	16911A0332	M Sai Kumar	Ennem Excel Engineering Pvt. Ltd.
24	16911A0333	Malgari Kranthi Swaroop Reddy	BHEL
25	16911A0334	Margam Prem	HBL Power Systems Ltd.
26	16911A0335	Megharaj Rahul	Creative Soft Technology Services, Hyderabad
27	16911A0336	Menneni Veenila	The National Small Industries Corporation Ltd.
28	16911A0337	Mohammed Adil	Talwar Cars Pvt. Ltd.
29	16911A0338	Mohammed Imazuddin	Talwar Cars Pvt. Ltd.
30	16911A0339	Mohammed Ishaq	Creative Soft Technology Services, Hyderabad
31	16911A0341	Motam Rajkumar	South Central Railway
32	16911A0342	Mungi Aravind Reddy	BHEL
33	16911A0343	Nomula Shruthi	The National Small Industries Corporation Ltd.
34	16911A0346	Patlolla Divij Reddy	RKS Motor Pvt. Ltd.
35	16911A0348	Rondi Naveen	GPS Hydraulics
36	16911A0349	S Ramanujam	Royal Enfield, Chennai
37	16911A0351	Sandapally Vamshi	HBL Power Systems Ltd.
38	16911A0352	Sapavath Sunil	South Central Railway
39	16911A0354	Tejavath Sandeep	South Central Railway
40	16911A0355	Ullangunta Venkata Sai Chandan	The National Small Industries Corporation Ltd.
41	16911A0357	Velijala Vishnu	The National Small Industries Corporation Ltd.
42	16911A0358	Vellampalli Purna Pavan Sudhakar	RKS Motor Pvt. Ltd.
43	16911A0359	Yerrabapani Laxmi Prasanna	BHEL
44	16911A0360	Zubair Ahmed	Talwar Cars Pvt. Ltd.
45	17915A0301	A Vijay Kumar	Pro-Imaginations
46	17915A0303	Alli Vinay Kumar	SR Technologies
47	17915A0304	Alwala Sai Kiran	Hydro Tech
48	17915A0305	Arekatike Karan	Pro-Imaginations
49	17915A0306	Awshala Sagar	Hydro Tech

50	17915A0307	B Jayachandra	DRDO
51	17915A0308	Bardha Shashi Kumar Reddy	The National Small Industries Corporation Ltd.
52	17915A0309	Baswa Pavani	BHEL
53	17915A0310	Bathula Rajashekhar Reddy	The National Small Industries Corporation Ltd.
54	17915A0311	Bavirisetti Sai Hari Haran	Dr. Reddy's Laboratories
55	17915A0312	Bojja Dikshith	DRDO
56	17915A0313	Bompally Raviteja	TVS Motor Company Limited
57	16915A0304	B Sai Nihar (Re-Admn 30/06/2017)	Ennem Excel Engineering Pvt. Ltd.
58	16911A0361	A Hitesh Kumar	BHEL
59	16911A0362	Ajay Biradar	BHEL
60	16911A0363	Bhookya Prudhvi Pavan	BHEL
61	16911A0366	Chilukala Sai Chandana	BHEL
62	16911A0368	Chitluri Baba Ranga Ratan	BHEL
63	16911A0370	Davunuri Sowmya	MSME- Tool Room, CITD
64	16911A0371	Dharavath Mahender Babu	Kothagudem Thermal Power Station, Paloncha
65	16911A0374	G Bhanuprasad Goud	SEC Industries Pvt. Ltd.
66	16911A0375	Gongalla Gayathri	BHEL
67	16911A0376	Goundla Manoj Goud	Ordance Factory Medak
68	16911A0377	Gudapati Bhavya Sri	Telangana State Power Generation Corporation Limited, Paloncha
69	16911A0378	Gummadavalli Vinay	BHEL
70	16911A0379	Injamuri Vinay Praneeth Kumar	BHEL
71	16911A0380	Jakhodiya Satish Singh	BHEL
72	16911A0381	Jetty Shashank	BHEL
73	16911A0383	Kaasa Rohit Vardhan	BHEL
74	16911A0386	Kanduru Somnath Reddy	BHEL
75	16911A0387	Kummari Raghavender	BHEL
76	16911A0390	M Shekar	SV Turbo Engineering Works Pvt. Ltd.

77	16911A0391	Manchiganti Vinay Kumar	Flowell Pump Industries
78	16911A0393	Mohammad Shoaib Akther	GPS Hydraulics
79	16911A0394	Mohammed Arbaz Hussain	BHEL
80	16911A0395	Mohammed Zohebuddin Khan	BHEL
81	16911A0396	Mohd Sanwal Ahmed	BHEL
82	16911A0399	Nune Bhavani	BHEL
83	16911A03A0	P Bhaskar	Electronics Corporation of India Limited
84	16911A03A1	P Sainath	BHEL
85	16911A03A2	P Srikanth	BHEL
86	16911A03A3	Pandit Rahul Kumar	Maximus Automobile Engrs.
87	16911A03A5	Puvvada Venkata Sai Manoj	Electronics Corporation of India Limited
88	16911A03A6	Rohit Agarwal	Electronics Corporation of India Limited
89	16911A03A7	Rumandla Surya Teja	BHEL
90	16911A03A8	S Sai Krishna	RKS Motor Pvt. Ltd.
91	16911A03A9	Satta Harish Kumar	RKS Motor Pvt. Ltd.
92	16911A03B0	Shamine Basheer K	BHEL
93	16911A03B3	Thatikonda Naveen	Flowell Pump Industries
94	16911A03B4	Vakadi Venkata Lohith	BHEL
95	16911A03B5	Vandana Talari	BHEL
96	16911A03B6	Yekkaldev Sudheer Yadav	BHEL
97	17915A0314	Chakali Sai Krishna	Ordance Factory Medak
98	17915A0316	Cheela Shashank	Pro-Imaginations
99	17915A0317	Chella Sai Kumar	The Singareni Collieries Company Limited
100	17915A0320	Dhomadugu Vamshi Krishna Reddy	Ordance Factory Medak
101	17915A0321	Eppa Srikanth Reddy	Ordance Factory Medak
102	17915A0322	Gugloth Kalyan	South Central Railway
103	17915A0323	Guguloth Abhishek	Pro-Imaginations
104	17915A0324	Guntagani Gangaraju	Epiroc Mining India Ltd.

105	17915A0325	Jana Deekshith	DRDO
106	15911A03H5	Elayattu Saraj Mohan	Jayabheri Auto motives Pvt Ltd.
107	16911A03B7	Abdul Fahad Sayeed	BHEL
108	16911A03B8	Allam Narender Reddy	Royal Enfield
109	16911A03C0	B Srinath	Royal Enfield
110	16911A03C1	Bandela Sunil Kumar	Pro-Imaginations
111	16911A03C2	Banoth Rama Krishna	Telangana State Power Generation Corporation Limited
112	16911A03C3	Banovath Naveen	Pro-Imaginations
113	16911A03C4	Bhukya Sachin	Pro-Imaginations
114	16911A03C5	Bhukya Vijendhar	South Central Railway
115	16911A03C6	Bodapudi Bharath Kumar	Telangana State Power Generation Corporation Limited
116	16911A03C7	Challa Sanathchandra	NTPC Limited
117	16911A03C8	Chennoju Sai Sumanth Chary	Royal Enfield
118	16911A03C9	Evuru Varun	Talwar Cars Pvt ltd.
119	16911A03D1	Gouni Mounika	Royal Enfield
120	16911A03D2	Gundla Thrived	Royal Enfield
121	16911A03D3	Gunduboina Tejashwini	Royal Enfield
122	16911A03D4	Harsh Lahoti	NTPC Limited
123	16911A03D6	Jadi Vardhan	Adarsha Automotives Pvt Ltd., Karimnagar
124	16911A03D7	Jongoni Pavan Goud	Royal Enfield
125	16911A03D8	Kadali Sri Sai Teja	Royal Enfield
126	16911A03E2	Kurva Sai Kiran	Royal Enfield
127	16911A03E3	M Venkatesh	Royal Enfield
128	16911A03E4	Mohammad Abdul Muzakkir	Talwar Cars Pvt ltd.
129	16911A03E6	Mohammed Altaf Hussain	BHEL
130	16911A03E7	Mohammed Sameer	BHEL
131	16911A03E8	Mohd Khaled	Talwar Cars Pvt ltd.
132	16911A03F0	Monddeddula Akhil	Pro-Imaginations

133	16911A03F1	Mutraas Suresh	BHEL
134	16911A03F2	Nagula Rajesh	Royal Enfield
135	16911A03F3	P Manohar	Royal Enfield
136	16911A03F5	Pegada Rohith	Royal Enfield
137	16911A03F6	Petnakota Priyanka	Kalva Engineers Pvt. Ltd.
138	16911A03F7	Purra Chinnaswamy	Royal Enfield
139	16911A03F9	Ranga Ritvik	Kalva Engineers Pvt. Ltd.
140	16911A03G0	Rasuri Vinod Kumar	Royal Enfield
141	16911A03G1	Reddy Reddy Raghavendra Reddy	Talwar Cars Pvt ltd.
142	16911A03G2	Sai Sandya Gayatri V	BHEL
143	16911A03G3	Shabad Shiva Prasad Reddy	Pro-Imaginations
144	16911A03G4	Shaik Abdul Zeeshan	Pro-Imaginations
145	16911A03G5	Shaik Nadeem Ahmed	Royal Enfield
146	16911A03G6	Siripuram Anisha	SEC Industries Pvt. Ltd.
147	16911A03G7	Srirangapuram Sai Sandeep	BHEL
148	16911A03H2	Yeluguri Sandeep	Talwar Cars Pvt ltd.
149	17915A0327	Kayitha Sriram	Kalva Engineers Pvt. Ltd.
150	17915A0328	Kedari Saikumar	Kalva Engineers Pvt. Ltd.
151	17915A0329	Kolakani Mahesh	Kalva Engineers Pvt. Ltd.
152	17915A0330	Kothuri Raghu	Royal Enfield
153	17915A0331	M Mahesh	Kalva Engineers Pvt. Ltd.
154	17915A0333	Mancherla Shyam Prasad	Pro-Imaginations
155	17915A0334	Mannem Pavan Kalyan Reddy	Kalva Engineers Pvt. Ltd.
156	17915A0335	Mathamchetty Bharathwaz	Sri S.V. Engg. Industries
157	17915A0336	Mekala Sai Datha	S R Technologies
158	17915A0337	Mohd Abdul Majeed	BHEL
159	17915A0338	Mulasa Gopikrishna	S R Technologies
160	17915A0339	Mungapati Shiva Kumar	SR Technologies

161	15911A03D6	Mettu Sai Kiran (Re-Admin: 20-06-2019	Rane Engine Valve Limited
162	16911A03H3	Ajmeera Pavan	South Central Railway
163	16911A03H7	Bardha Dinesh Reddy	SV Turbo Engineering Works Pvt. Ltd.
164	16911A03H8	Byagari Harish Kumar	SV Turbo Engineering Works Pvt. Ltd.
165	16911A03J0	Dachapally Jaya Shiva Kumar	Jaganmatha Engineering Pvt. Ltd.
166	16911A03J1	Danalakoti Sri Sai Anish	BHEL, Hyderabad
167	16911A03J2	Dasari Anand Vardan	S V Turbo Engineering Works (P) Ltd.
168	16911A03J7	Elika Vishal	BHEL, Hyderabad
169	16911A03J8	Y Abhishek Raju	BHEL, Hyderabad
170	16911A03J9	Gubba Anudeep	S V Turbo Engineering Works (P) Ltd.
171	16911A03K4	Kalal Vinay Kumar Goud	SR Technologies
172	16911A03K5	Karbhari Abhishek	BHEL, Hyderabad, DRDO, Kachanbagh
173	16911A03L2	Manla Bhanu Chander	Jaganmatha Engineering Pvt. Ltd.
174	16911A03L3	Matham Sandeep	SV Turbo Engineering Works Pvt. Ltd.
175	16911A03L4	Midasanametla Vaman Sai	Jaganmatha Engineering Pvt. Ltd.
176	16911A03L5	Mohammed Tariq Ali Khan	Jaganmatha Engineering Pvt. Ltd.
177	16911A03L6	Molankula Saikrishna	S V Turbo Engineering Works (P) Ltd.
178	16911A03L7	Mulagalapati Ranjith Kumar	Jaganmatha Engineering Pvt. Ltd.
179	16911A03L9	Nakka Devender	SV Turbo Engineering Works Pvt. Ltd.
180	16911A03M9	Sirigiripet Prithvi	SR Technologies
181	16911A03N0	Swarnakar Nagaraj	SR Technologies
182	16911A03N1	Syed Afzal Afnaan	Jaganmatha Engineering Pvt. Ltd.
183	16911A03N4	Vada Harikrishna	BHEL, Hyderabad
184	17915A0340	Mungapati Vidya Rani	SR Technologies
185	17915A0343	Neligonda Swamy	SPAR Industries Pvt. Ltd.
186	17915A0344	Nunavath Mangilal	South Central Railway
187	17915A0345	Paladugu Murali	MAGN5 Technology Solutions Pvt. Ltd.
188	17915A0349	R Ramakrishna Goud	SV Turbo Engineering Works Pvt. Ltd.

(C) Impact analysis of industrial training(2)

The trainings and visits arranged for the students improved practical orientation and analytical skills in them. It also enabled them to plan and execute a complex project like 'Impact of Split Injection Strategy on Combustion, Performance Characteristics of Biodiesel Fueled Automotive CRDI Research Engine' successfully in the campus.

The training that the students attended at MSME, Hyderabad helped them to carryout the final year project on "Deviation Analysis of a Free Form Surface using Reverse Engineering Approach".

A detailed analysis of the outcome achieved by internships/ trainings/ industrial visits is tabulated below.

Industry	Objectives	Utilisation & effectiveness	Analysis
Telangana State Power Generation Corporation Limited BHEL, Hyderabad Rane Engine Valve Limited. DRDO, Hyderabad Mahindra & Mahindra, Zaheerabad Kaleshwaram Lift Irrigation Project,	1 To make the students get exposure to practise 2 To bridge the gap between industry and instutute 3 To enable the students to perceive the latest infrasturcture,tools and measuring instruments 4 To provide opportunity to the students to observe/work in shop floor 5 To provide opportunity to students to pursue final year projects 6 To impprove the placement	1 The students learned the industrial practices 2 It helped in reinforcing the theoritical concepts 3 The inputs in the industry nurtured the students to work in teams 4 The inquisitiveness to learn cross functional knowledge in other domains is improved 5 students manifested the practices in carrying out utility based final year projects	1. The students upon internship and training acquired the traits and skills on Engineering knowledge,problem analysis, development of solutions,modern tool usage,team work, communication skills, financial implications, life long learning etc in the mechanical engineering domains. 2. The discernable attainments PO1-PO12 and PSO1 PSO2 were made possible through internship and training. 3. In all the assessment years it is found that more than 90% of the

Kaleshwaram	opportunities to the students		students have achieved highest attainment level.
Rexnord, KPHB, Hyderabad			
Airwell Engineering Pvt.Ltd			
Chemtech Industrial Equipments			
Premier Engineering Industries			

(D) Student feedback on Initiative(3)

Though the department was certain about the positive results from the training and industrial visits, the impact of them were quantitatively assessed through a survey on the students. This survey results were positive and it reiterated that there was a considerable advantage to the students from the above initiatives.

Vidya Jyothi Institute of Technology **Department of Mechanical Engineering**		
Rate the following in a scale of 5 (1 being lowest and 5 being the highest)		
S.No	**Feedback on**	**Rating**
1	Transport Facility	
2	Relevance to subjects	
3	Explanation of Topics	
4	To what extent the timings were acceptable	
5	To what extent do you suggest similar trips for juniors?	
Name of the Student:		
Signature:		
Date:		

Criteria 3: COURSE OUTCOMES (CO) AND PROGRAM OUTCOMES (PO) **Total Marks 175**

Program specific outcomes: After completion of the program, mechanical engineering graduates can/ shall have;

PSO1	Analyze and solve problems of thermal and manufacturing by comprehensive design of mechanical engineering components.
PSO2	Ability to design, develop and implement mechanical engineering solutions keeping in view, sustainability and environmental issues with social responsibility.

3.1 Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (25)

The batches under consideration (2015-2019 to 2017-2021) fall under R15 regulation.

PROGRAM ARTICULATION MATRIX (R15 regulation)

S.No	Course	Mapping Level													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	English-I	-	2.33	2	-	3	2.5	2	2.75	-	2.6	2	3	-	-
2	Mathematics - I	2.6	2.8	2	2.67	2	2.2	2	-	2	-	-	2.6	3	3
3	Engineering Physics-I	2.6	2.67	2.2	2	-	-	2.5	2	-	-	2	2.6	3	3
4	C Programming	2.8	2.8	2.8	3	2	-	-	-	-	-	1	1.75	-	-
5	Engineering Graphics-I	3	3	3	3	2	2	-	-	2.5	3	-	2.4	-	2.6
6	Engineering Mechanics – I	3	3	2.8	3	1	1.2					2	2.2	3	2.8
7	C Programming Lab	2.8	3	3	2.6	1	1					1	1		
8	English Language Communication Skills Lab-I	3	3		2		2.33		3	2.5	3		3		
9	Engineering Physics Lab	3	3	2.5	2.67	2.5		2			2		2.40	3	3
10	Engineering Workshop	3	3	2.4	2	2	2	2.4	2.5	2.6	2.6		2.4	2.8	3
11	English – II		2.5		2		2	2	2.5	2	2.5	2.5	2.8	1	
12	Mathematics – II	2.6	2.75	2.6	2.25	2	2.67	2		2.2			2.4	3	2
13	Engineering Physics-II	2.6	2.5	2.4	2.25			2.5				2	2.6	2.4	2.2
14	Applied Chemistry	3	2	2.25	2	1.33	1.2	2				2.2	2.2	1.67	3

15	Engineering Mechanics – II	3	3	2.8	3	1	1.2					2	2.2	2	3
16	Engineering Graphics – II	3	3	3	3	2	2			2.5	3		2.4		3
17	English Language Communication Skills Lab-II		2				2		2.5	2.5	2.8	2.33	2.8		2.4
18	Engineering Physics and Chemistry Lab	2.67	2.5	2	2	2		2			2.33		2.67	3	2.5
19	IT & Engineering Workshop	2.75	2	2.4	2	2	2	2.4	2.5	2.2	2.6		2.4	2.6	2.8
20	Environmental science	1.8	1.2		2.6		2.8	2.6	3	1	1.6		2		
21	Numerical Methods	2.8	2.6	2.2	3	1.75	2	2	1.5	1.67	1.5		3	2.8	2
22	Electrical and Electronics Engineering	3	2.8	2.6	3	1.67	1.6	2	2	2.8	2		1.6		
23	Mechanics of Solids	2.6	2.8	2.8	2.8	3	3	3	2.2		2		3	2.8	2.8
24	Thermodynamics	2.8	3	3	2.6	2.67	3	2	2.3	1	3		3	2.67	2.6
25	Metallurgy and Material science	3	3	2.6	3		3	3	2.3	1.4	3		3	2.33	2.6
26	Electrical and Electronics Engineering Lab	3	2.8	2	2	2	2.75	2	2	3	3	2.33	2	2	3
27	Metallurgy and Mechanics of solids Lab	3	3	2	3	3			2	3	3		3	2	3
28	Production Technology	3	3	2.6	2.8	2.2	3		2.2	2	3		3	2.67	2.6
29	Kinematics of Machinery	3	3	2.6	3		3		2	3			2	2.8	2.6
30	Thermal Engineering-I	3	3	2.6	3		3	3	2				2		2.8
31	Mechanics of Fluids and Hydraulic Machines	3	2.8	2.6	3	3	3	3	2				3	2.8	2.4
32	Machine Drawing	3	3	3	3				2	2	2		3	3	2.6
33	Probability and Statistics	2.6	3	2.8	3	2			2		2		3		
34	Production Technology Lab	3	3	3	2.6	3	3		2	3	3		3	2	3
35	Mechanics of Fluids and Hydraulic Machines Lab	3	3	3	3		3	2.67	2	3	3		3		3
36	Personality Development & Behavioral Skills					1	2	3	2.6	2.2	3		3		
37	Machine tools and Metrology	3	3	2.8	2.8	3		2.75	2	3			3		2.8
38	Dynamics of Machinery	3	2.8	2.6	3	2	2.25		2	3			3		3
39	Automobile Engineering	3	3	2.6	2.6	3	2.4	2.2	2	3	3		2.75	3	3
40	Design of Machine Members-I	3	2.8	2	3		1.25		2			3	2.8	3	3
41	Thermal Engineering-II	3	2.6	2	3		3	2.67	2				2.6		2
42	Introduction to Microcontroller & Applications (OE)	2.75	3	3	2.75	2.6	3	2		2		2	3	3	2

43	Basic Electronics & Instrumentation (OE)	3	3	3	3	1		2		2	1		3		
44	Nonconventional Energy Sources (OE)	3	2.25	2.75	3	1	2.25	2.25	1		1	1		2.5	2.25
45	Energy Management (OE)	3	2	3	2		1	2	1		3	1	1	1	
46	Java Programming (OE)	3	3	3	3	3	2	1	1	3	2.8		2		
47	Operating Systems (OE)	3	2.6	2.4	2.4	2.4	2	1.67	1.67	1.6	2	1.8	1.6		
48	Total Quality Management (OE)	2	1	2.5	2.33	2	2	3	1	3	2.5	3	3		
49	Metrology and machine Tools Lab	3	3	2	2.8	3		3		3	3		2.4	2.33	2.6
50	Thermal Engineering Lab	2.8	3	2.2	2.8		3	2.6	2	3	3		3		2
51	Design of Machine Members-II	3	3	3	3		3	3	2	3	1.75	2	2.8	3	2.2
52	Heat Transfer	3	3	3	3		3	3	2				2.6		2.75
53	Finite Element Method	3	3	3	3	3		3	2				2	3	3
54	Managerial Economics and Financial Analysis		2.5	2.33	3	2	2	2	2	2	3	2.6	1.5		2
55	Refrigeration and Air Conditioning	3	3	3	3		2.8	3	2		3		2		2.4
56	Energy Auditing and Conservation (OE)	3	2	1	1.5		1	2	1		1.33	1.33	1		
57	Principles of Electrical Power Utilization (OE)	3	3	3	2		2	3							
58	Fundamentals of Embedded Systems (OE)	3	3	3	3	3		3		3	3		3		3
59	Principles of Communication (OE)	3	3	3		3		3		3	3		3		2
60	Database Management Systems (OE)	3	3	3	3	3	3	2	2	2	2	2	2		
61	Software Engineering (OE)	3	2.4	3	2.67	2.4	2.67	2.67	1	2	2	2.8	2.6		
62	Financial Institutions and Markets (OE)					3					2	3	3		
63	Heat Transfer Lab	3	3	3	3			2.5	1	2	3		3		2.8
64	Advanced Communication Skills Lab					1	2	3	2.6	2.2	3	2.25	3		
65	Quantitative Methods & Logical Reasoning	3	2.33	2.25	2.33	1.75	2.25	2.8					3		
66	Operation Research	3	3	3	3	2	3		2	2.8		2.8			2.25
67	CAD/CAM	3	3	3	3	3	2.8	3	2.4	2.7	2	2	2	2	3
68	Mechanical Measurements and Instrumentation	3	2.4		3	3	3	3	2.4	2.8	2	2	1.6		3
69	Robotics	3	3	3	3	3	3	3	2	3	2.5	2	1.4	2.5	2.75
70	Power plant Engineering	3	3	3	2		3	2.8	2	3	2	3	2	2	2.6
71	Electrical Vehicles and Hybrid Vehicles (OE)	3	3	2.4	2		1	3					1		

72	Energy Storage Systems (OE)	3	3	3			1	3							
73	Introduction to MATLAB (OE)	2.5	2.6	2.75	2.5	2.5		2			2	2	3	3	3
74	Circuit Simulation using PSpice (OE)	3	3	3	3	3				2	2	3	2	3	3
75	Information Systems for Engineers (OE)	3	2.4	3	2.67	2.4		2.67			2	2.8	2.6	3	2.2
76	Web Design (OE)	3	2.4	3	2.67	2.4		2.67			2	2.8	2.6	3	2
77	Fundamentals of Entrepreneurship (OE)		3	3		3	2.33	2.33				2.75	2.8	3	2
78	Computer Aided Design and Manufacturing Lab	3	3	3	3	3			2.67	3	3		3	2	3
79	Production Drawing practice and Instrumentation lab	3	3	3	3				2	3	3	3	3	3	2
80	Industry Oriented Mini Project	2.2	3	3	2.33	3	1.8	3	1.4	3	3	3	3	3	2
81	Production Planning And Control	2.8	2.8	2.5	2.5	3	1.5	3	2.8		3	2.67	3		2.5
82	Plant Layout And Material Handling	3	3	2.8	2.2	3	2	2.75	2			3	2.5		3
83	Unconventional Machining Processes	3	2				2	3	2				3		2
84	Technical Seminar	2	3	3	3	3	1.5	3	1.8	2	3		3	3	2
85	Project Work	3	3	3	3	3	2	3	1.6	3	3	3	3	3	2.8
86	Comprehensive Viva	3	3			3	2	3	1.2	3	3		3	3	2.25

COURSE ARTICULATION MATRIX

C106	Engineering Mechanics-I													
CO	**Statement**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	Understand and apply the concepts of force, moment and their resolutions.	3	3	2	3							2	3	3	3
CO2	Develop free body diagrams in system of forces.	3	3	3	3							2	2	3	3
CO3	Analyze and apply the concepts of friction.	3	3	3	3	1						2	2	3	3
CO4	Identify centroid for plane figures and centre of gravity for any given topology.	3	3	3	3							2	2	3	2
CO5	Calculate area and mass Moment of Inertia for given cross-sections.	3	3	3	3							2	2	3	3
AVG		**3**	**3**	**2.8**	**3**	**1**						**2**	**2.2**	**3**	**2.8**

C115	Engineering Mechanics-II													
CO	**Statement**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	Analyze given system and find reaction forces in each member of Trusses.	3	3	2	3							2	3		3
CO2	Identify the rigid body motion to compute velocity and acceleration.	3	3	3	3							2	2		3
CO3	Understand the kinetics of rigid body in translation and rotation.	3	3	3	3	1						2	2	2	3
CO4	Analyze the motion of bodies with and without considering	3	3	3	3							2	2		3

	cause of motion. Appreciate and apply the concept of Work-Energy method.													
CO5	Analyze the free vibration concepts from the fundamentals of Simple Harmonic Motion.	3	3	3	3						2	2		3
AVG		**3**	**3**	**2.8**	**3**	**1**					**2**	**2.2**	**2**	**3**

.

C204	**Mechanics of Solids**													
CO	**Statement**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	Understand the concepts of stress, strain and material properties. Derive basic stress strain equations with appropriate assumptions.	3	2	3	3	3	3	3	2		2		3	3	3
CO2	Appreciate the concepts of shear force and bending moments. Generate shear force and bending moment diagrams for any given beam problem.	2	3	3	3	3			3		2		3	3	3
CO3	Determine the stresses and strains in the members subjected to bending and shear and interpret the stress distribution across various beams like rectangular, circular, triangular, I, T and angle sections.	2	3	3	3			3	2		2		3	3	3
CO4	Calculate and analyze the slope and deflection of beams under different types of loadings.	3	3	2	2				2		2		3	2	3

CO5	Analyze and compute stresses and strains in thin and thick cylinders.	3	3	3	3	3	3		2		2		3	3	2
AVG		**2.6**	**2.8**	**2.8**	**2.8**	**3**	**3**	**3**	**2.2**		**2**		**3**	**2.8**	**2.8**

C212	**Mechanics of Fluids and Hydraulic Machines**													
CO	**Statement**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	Understand the basic mechanics of fluid statics.	3	2	3	3		3		2				3	3	2
CO2	Understand the principles of flow and energy momentum equations.	3	3	2	3	3		3	2				3	2	2
CO3	Analyze the losses in pipe flow, boundary layer, separation of flows, forces on different vanes. Able to quantify the flow of fluid in flow measurement instruments.	3	3	3	3				2				3	3	3
CO4	Understand the working of hydraulic machinery and analyze their characteristic curves.	3	3	2	3	3	3	3	2					3	3
CO5	Appreciate the working principles of pumps and their applications.	3	3	3	3	3	3		2					3	2
AVG		**3**	**2.8**	**2.6**	**3**	**3**	**3**	**3**	**2**				**3**	**2.8**	**2.4**

C303	Dynamics of Machinery													
CO	**Statement**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	Understand gyroscopic effects of rotating bodies for aero planes, naval ships, automobiles, and two wheelers. Perform static and dynamic force analysis of planar mechanisms.	3	2	2	3	2	2		3	3			3		3
CO2	Compute friction in clutches, breaks and dynamometers.	3	3	3	3				2						3
CO3	Diagrammatically represent turning moment and design flywheels. Understand the applications of Governors in mechanical systems	3	3	3	3	2	3		2				3		3
CO4	Understand how to balance rotating and reciprocating masses in different planes.	3	3	2	3		2		1				3		3
CO5	Perform calculations pertinent to several parameters of free and forced vibrations.	3	3	3	3		2			3					3
AVG		**3**	**2.8**	**2.6**	**3**	**2.00**	**2.25**		**2**	**3**			**3**		**3**

.

C316	Design of Machine Members-II													
CO	**Statement**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	Understand different sliding contact and rolling contact bearings and perform design calculations.	3	3	3	3		3	3	2	3	1		3		3

CO2	Analyze design considerations of IC engine parts like piston, connecting rod and cylinder.	3	3	3	3		3		2		2	2	3	3	2
CO3	Appraise the design of belt and rope drives used in power transmission. Understand the stresses, deflection and energy storage capacity of helical springs.	3	3	3	3		3						2		2
CO4	Design spur and helical gear drives by calculating different parameters.	3	3	3	3			3	2		2	2	3	3	2
CO5	Compute design parameters of bevel gear drives. Design power screws applied in various mechanical members.	3	3	3	3		3		2		2	2	3	3	2
AVG		**3**	**3**	**3**	**3**		**3**	**3**	**2**	**3**	**1.75**	**2**	**2.8**	**3.00**	**2.2**

C402	**CAD/CAM**													
CO	**Statement**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	Appreciate the importance of computers in industrial applications and know the various input and output peripherals of computers.	3	3	3	3	3	3		3	3	2		2	2	
CO2	Understand the concept of cad and to know about geometric modeling. Develop mathematical models to represent surfaces and solids.	3	3	3	3	3	3		2		2			2	3

CO3	Understand drafting and modeling systems, numerical control systems and develop CNC part programs.	3	3	3	3	3	2	3	2		2	2			3
CO4	Understand the elements of group technology and computer aided quality control.	3	3	3	3	3		3	2	2		2		2	
CO5	Acquire knowledge of manufacturing systems and computer integrated manufacturing systems.	3	3	3	3	3	3	3	3	3		2	2		3
AVG		**3**	**3**	**3**	**3**	**3**	**2.8**	**3**	**2.4**	**2.7**	**2**	**2**	**2**	**2**	**3**

.

C416	**Production Planning & Control**													
CO	**Statement**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	Understand the basic concepts of production planning and control. General principles and importance of forecasting techniques.	3	3	1	1		1		3				3		3
CO2	Analysis of various inventory management and control systems.	3	3	3	3	3		3	3		3	3			3
CO3	Plan the stock required based on various methods like MRP, ERP, LOB, JIT and other Japanese concepts. Know the factors of routing and schedule.	3	3	3	3	3					3	3			2
CO4	Apply standard scheduling methods and line balancing.	3	3	3	3	3			3		3				

CO5	Appreciate dispatching procedure and application of computer in production planning and control.	2	2				2		2			2	3		2
AVG		**2.8**	**2.8**	**2.5**	**2.5**	**3.00**	**1.5**	**3**	**2.8**		**3**	**2.67**	**3**		**2.5**

3.2 Attainment of Course Outcomes (75)

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

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

Assessment tools for Course Outcomes (2015-2019, 2016-2020 & 2017-2021 Batches)

The course outcomes are prepared by the action verbs of blooms taxonomy. All the course outcomes are prepared in such a way that they are measurable by means of written and oral skills, assignments, presentations etc. The different assessment tools for the evaluation of course outcomes are as follows:

1. **Theory Courses**

There shall be two mid examinations each for 25 marks. The mid examination consists of 20 marks of descriptive paper and an assignment component for 5 marks. The syllabus for the 1st mid examination is till first 2.5 units of the syllabus and that of 2nd mid is from 2.5 to 5 units. The average marks secured in the two examinations shall be considered as final marks for the internals. The assignment component consists of 5 questions each carrying 1 mark.

The end semester examination will be conducted for 75 marks which consist of two parts;

I. Part A for 25 marks: It is compulsory question which consists of 10 sub-questions. Two questions from each unit for 5 marks (2 marks + 3 marks) are given in this part.

II. Part B for 50 marks: It consists of 5 questions (numbered from 2 to 6) carrying 10 marks each. Each of these questions is from one unit and may contain sub-questions. For each question there will be an 'either' 'or' choice (that means there will be 2 questions from each unit and the student should answer any one question).

It is expected that a student should score at least 40 marks in total (mid+external) to pass the examination with minimum 35% marks in the external examination. The marks scored by the students in Mid Examinations and End Semester exams are used to assess the CO attainment.

2. Laboratory Courses

For practical courses, there shall be a continuous evaluation during a semester for 25 internal marks and 50 end semester examination marks. Out of the 25 marks for internal evaluation, day-to-day work in the laboratory shall be evaluated for 15 marks and internal examination shall be evaluated for 10 marks conducted by the laboratory teacher concerned.

3. Industry Oriented Mini Project

Industry Oriented Mini Project is carried out by the students after completion of III-II (Semester 6) and its internal evaluation is done for 50 marks in IV-I (Semester 7).

4. Technical Seminar

Technical Seminars help in gaining knowledge on latest technologies and boost up confidence levels of students by improving their communication/ presentation skills. Internal evaluation of the Technical Seminar is done for 50 marks in IV-I (Semester 7).

5. Comprehensive Viva

Comprehensive viva-voce is conducted in IV-II (Semester 8) on all the courses undertaken by the student in the program. The internal evaluation of comprehensive viva is done for 100 marks.

6. Major Project

The major project is carried out by the students in IV-II (Semester 8) and its evaluation is done for a total of 200 marks out of which 50 marks is for internal evaluation and 150 marks is for external evaluation.

The summary of different tools used for course outcome attainment is tabulated below;

S.No	Assessment Tool	Maximum marks
1	Theory Courses	100 (*25 Internal & 75 External*)
2	Laboratory Courses	75 (*25 Internal &50 External*)
3	Industry Oriented Mini Project	50
4	Technical Seminar	50
5	Comprehensive Viva	100
6	Major Project	200 (*50 Internal &150 External*)

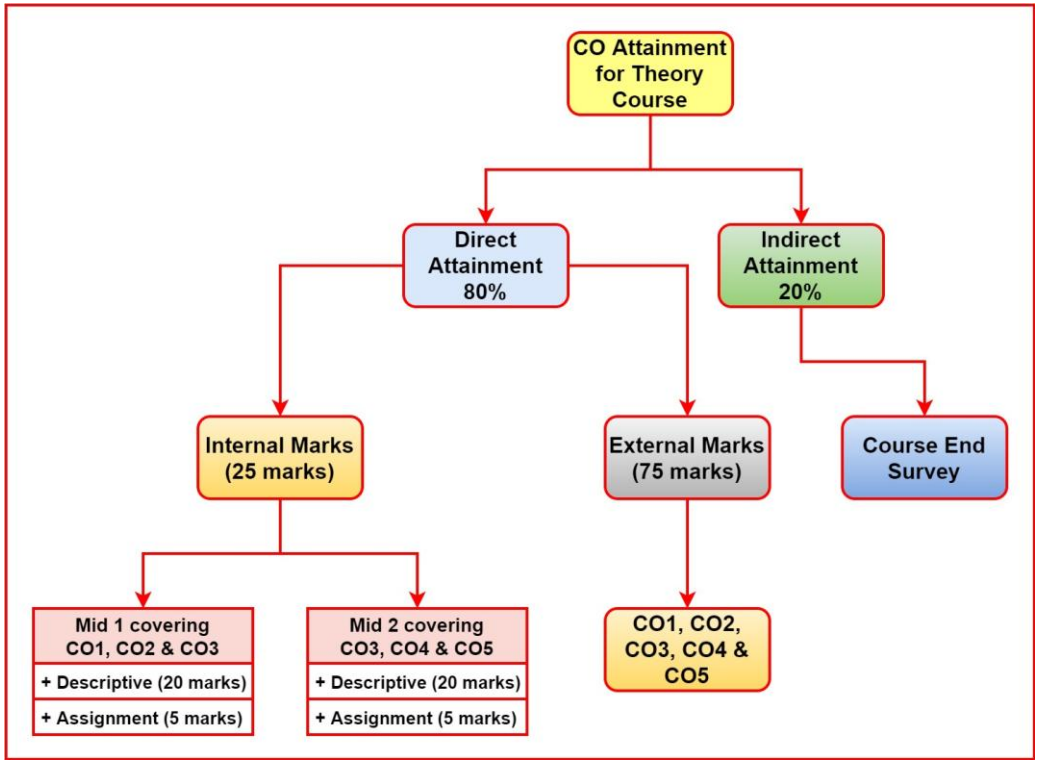
On the guidelines of PAC, DAB and IQAC, an excel spread sheet is created to assess the course outcomes. The faculty members then keep the POs in front of them, develop COs (around 5 for each course) and then break each of their unit outcome into elements of Bloom's Taxonomy and define a set of attributes for each outcome. In short, one CO is developed per one unit of the syllabus. Internal marks are mapped with COs through question-wise marks. Each faculty pre-sets targets for assessment of course outcomes. The excel sheet calculates the attainment for each course outcome. In the computation of the direct attainment of course outcomes, the weightage given to end examination is 75% and that of internal examinations is 25%. The definition of attainment levels is as follows;

- **Attainment level 1:** 50% students gets more than 60% marks.
- **Attainment level 2:** 60% students gets more than 60% marks.
- **Attainment level 3:** 70% students gets more than 60% marks.

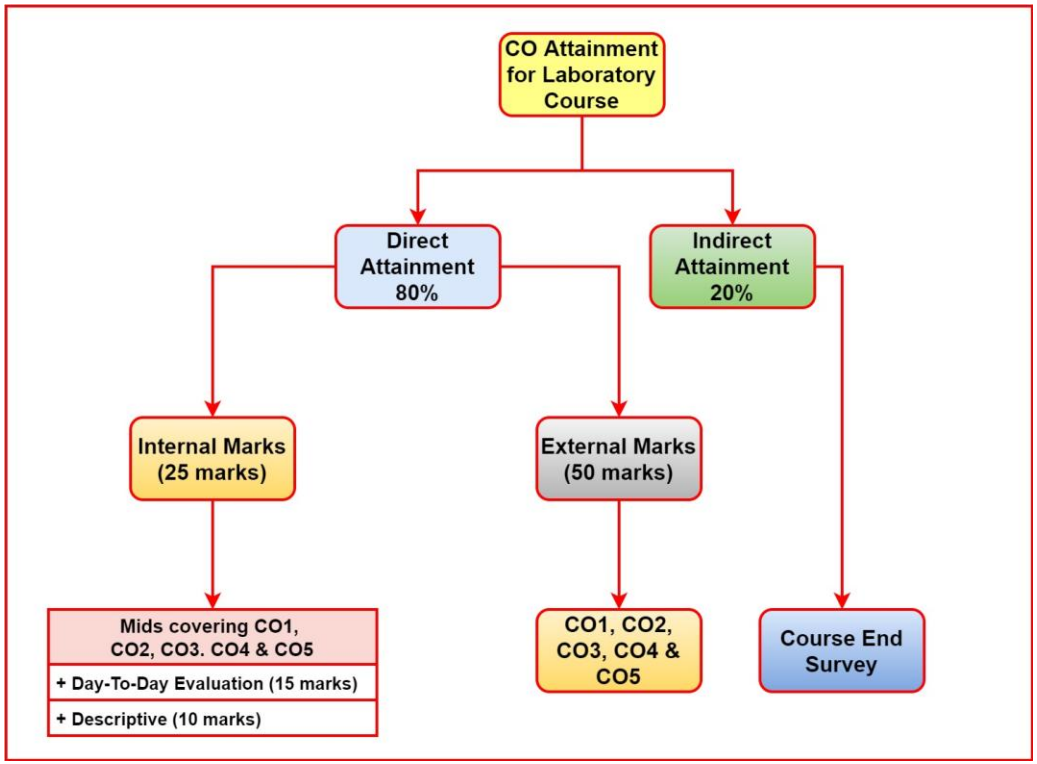
The indirect course outcome attainment computation is done through the Course end survey undertaken at the end of the semester. In the course end survey, students are asked to assess themselves for each course undertaken in that semester against its COs. Once direct CO attainment is computed for a typical course and its indirect CO attainment (course end survey) value is available, the overall CO attainment is calculated based on the below formula;

$$\textbf{\textit{Overall CO Attainment}} = 0.8 * \textbf{\textit{Direct CO Attainment}} + 0.2 * \textbf{\textit{Indirect CO Attainment}}$$

This means that the direct assessment is given 80% weightage and the indirect assessment is given 20% weightage. The flow chart shown below explains the computational procedure for CO attainment.



Flowchart of Course Outcome Attainment process for theory course

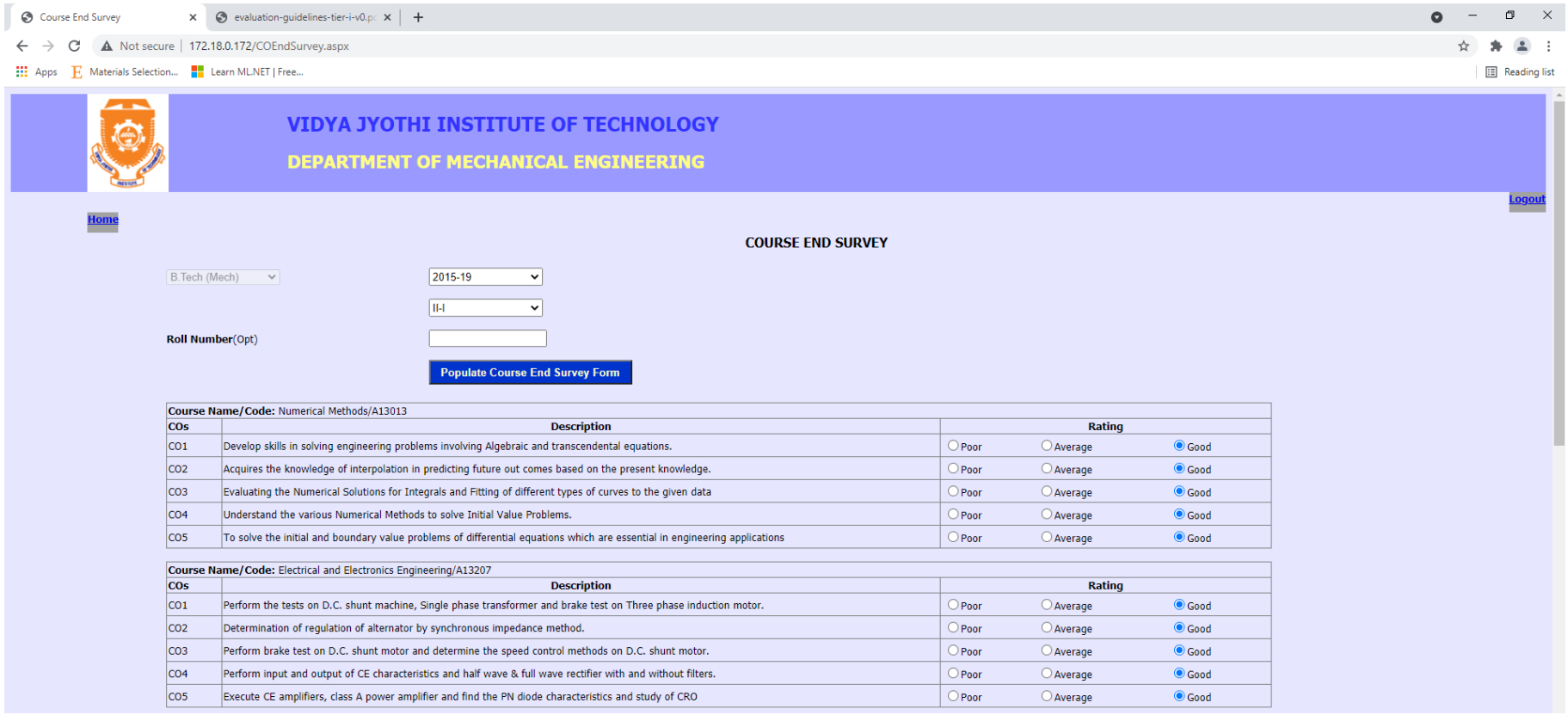


Flowchart of Course Outcome Attainment process for laboratory course

The course outcome attainment calculation is mainly centered on the performance of the student in the internal and the external examinations. The total weightage given for these examinations in the computation of overall attainment of CO is 80% while remaining 20% weightage is given to the course end survey. Two mid semester (internal) examinations are conducted during each semester for 20 marks each and correspondingly two assignments are conducted for 5 marks each. The first mid examination covers CO1, CO2 & CO3 while the second mid examination covers CO3, CO4 & CO5. The performance of the students in the university end examination is evaluated for 75 marks giving equal weightage to all COs.

The course end survey is conducted in online mode and a typical course end survey online form is shown below;

COURSE END SURVEY



Course End Survey | evaluation-guidelines-tier-i-v0.p | Not secure | 172.18.0.172/COEndSurvey.aspx

Apps | Materials Selection... | Learn ML.NET | Free... | Reading list

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

Logout

Home

COURSE END SURVEY

B.Tech (Mech) 2015-19

II-I

Roll Number(Opt)

Populate Course End Survey Form

Course Name/Code: Numerical Methods/A13013

COs	Description	Rating
CO1	Develop skills in solving engineering problems involving Algebraic and transcendental equations.	Poor / Average / Good (Good)
CO2	Acquires the knowledge of interpolation in predicting future out comes based on the present knowledge.	Poor / Average / Good (Good)
CO3	Evaluating the Numerical Solutions for Integrals and Fitting of different types of curves to the given data	Poor / Average / Good (Good)
CO4	Understand the various Numerical Methods to solve Initial Value Problems.	Poor / Average / Good (Good)
CO5	To solve the initial and boundary value problems of differential equations which are essential in engineering applications	Poor / Average / Good (Good)

Course Name/Code: Electrical and Electronics Engineering/A13207

COs	Description	Rating
CO1	Perform the tests on D.C. shunt machine, Single phase transformer and brake test on Three phase induction motor.	Poor / Average / Good (Good)
CO2	Determination of regulation of alternator by synchronous impedance method.	Poor / Average / Good (Good)
CO3	Perform brake test on D.C. shunt motor and determine the speed control methods on D.C. shunt motor.	Poor / Average / Good (Good)
CO4	Perform input and output of CE characteristics and half wave & full wave rectifier with and without filters.	Poor / Average / Good (Good)
CO5	Execute CE amplifiers, class A power amplifier and find the PN diode characteristics and study of CRO	Poor / Average / Good (Good)

Course Name/Code: Mechanics of solids /A13308				
COs	**Description**	**Rating**		
CO1	Understand the concepts of stress, strain and material properties. Derive basic stress strain equations with appropriate assumptions.	○ Poor	○ Average	◉ Good
CO2	Appreciate the concepts of shear force and bending moments. Generate shear force and bending moment diagrams for any given beam problem.	○ Poor	○ Average	◉ Good
CO3	Determine the stresses and strains in the members subjected to bending and shear and interpret the stress distribution across various beams like rectangular, circular, triangular, I, T and angle sections.	○ Poor	○ Average	◉ Good
CO4	Calculate and analyze the slope and deflection of beams under different types of loadings.	○ Poor	○ Average	◉ Good
CO5	Analyze and compute stresses and strains in thin and thick cylinders.	○ Poor	○ Average	◉ Good

Course Name/Code: Thermodynamics /A13309				
COs	**Description**	**Rating**		
CO1	Identify thermodynamic systems, understand concepts of zeroth law, first law, work and heat interactions.	○ Poor	○ Average	◉ Good
CO2	State and illustrate second law of thermodynamics. Identify and explain concepts of entropy, enthalpy, specific energy, reversibility, availability and irreversibility	○ Poor	○ Average	◉ Good
CO3	Understand the concepts of phase transformation of pure substance.	○ Poor	○ Average	◉ Good
CO4	Appreciate the concepts of perfect gas laws. Analyze mixtures of perfect gases	○ Poor	○ Average	◉ Good
CO5	Understand power cycles and evaluate the performance	○ Poor	○ Average	◉ Good

Course Name/Code: Environmental Studies/A13011				
COs	**Description**	**Rating**		
CO1	Understanding the importance of Ecosystem and its Resources.	○ Poor	○ Average	◉ Good
CO2	Appreciate different types of natural resources and the means to utilize them.	○ Poor	○ Average	◉ Good
CO3	Identify diiferent root causes for pollution of environment and their control.	○ Poor	○ Average	◉ Good
CO4	Understand the impact of global environmental problems and their assessment.	○ Poor	○ Average	◉ Good
CO5	Know environmental policy, legislation, rules and regulations	○ Poor	○ Average	◉ Good

Course Name/Code: Metallurgy and Material Science /A13310				
COs	**Description**	**Rating**		
CO1	Understand the structure of metals and constitution of alloys with phases.	○ Poor	○ Average	◉ Good
CO2	Understand the basic concepts of phase transformation during solidification and phase diagrams.	○ Poor	○ Average	◉ Good
CO3	Understand different heat treatment processes and their influence on properties of metals and alloys.	○ Poor	○ Average	◉ Good
CO4	Understand classifications of steels, cast irons and their alloys. Analyze the structure and properties of different non-ferrous metals.	○ Poor	○ Average	◉ Good
CO5	Know the classification, properties and applications of composite and ceramic materials.	○ Poor	○ Average	◉ Good

Course Name/Code: Electrical and Electronics Engineering Lab/A13282				
COs	**Description**	**Rating**		
CO1	Perform the tests on D.C. shunt machine, Single phase transformer and brake test on Three phase induction motor.	○ Poor	○ Average	◉ Good
CO2	Determination of regulation of alternator by synchronous impedance method.	○ Poor	○ Average	◉ Good
CO3	Perform brake test on D.C. shunt motor and determine the speed control methods on D.C. shunt motor.	○ Poor	○ Average	◉ Good
CO4	Perform input and output of CE characteristics and full wave rectifier with and without filters.	○ Poor	○ Average	◉ Good
CO5	Execute CE amplifiers, class A power amplifier and RC phase shift oscillator and micro processor	○ Poor	○ Average	◉ Good

Course Name/Code: Metallurgy and Mechanics of solids Lab/A13383				
COs	**Description**	**Rating**		
CO1	Understand the micro structures of pure metals, steels, cast irons, non-ferrous alloys and heat treated steels.	○ Poor	○ Average	◉ Good
CO2	Estimate the hardenability of steels by Jominy End Quench test.	○ Poor	○ Average	◉ Good
CO3	Determine the hardness of various treated and untreated steels by using Brinells hardness test & Rockwell hardness test.	○ Poor	○ Average	◉ Good
CO4	Conduct the direct tension test, torsion test, impact test and punch shear test on metal rod.	○ Poor	○ Average	◉ Good
CO5	Perform compression tests on spring and cube, bending test on Simply Supported and Cantilever Beam.	○ Poor	○ Average	◉ Good

Submit

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

Program shall set Course Outcome attainment levels for all courses.

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

The snapshot of attainment sheet for a typical course (Robotics) is presented below;

Vidya Jyothi Institute of Technology

(An Autonomous Institution)

(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)

Aziz nagar Gate, C.B. Post, Hyderabad-500 075

DEPARTMENT OF MECHANICAL ENGINEERING

BATCH: 2015-19 | **Course: Robotics** | **A.Y.: 2018-19** | **Mid I Threshold 60%** | **IV B.Tech I Sem**

		Desc (20)							Assign (5)						I
		Part-A (6)			Part-B (14)										
SL. NO.	HallTicket No	Q1	Q2	Q3	Q4	Q5	Q6 (4)	Total	Q1	Q2	Q3	Q4	Q5	Total	Total (25)
1	15911A0301	1	2	1	4	3	3	14	1	1	1	1	1	5	19
2	15911A0302	1	2	1	0	1	0	5	0	1	0	1	1	3	8
3	15911A0303	2	0	1	2	3	3	11	1	0	1	1	0	3	14
4	15911A0304	2	2	1	0	1	0	6	1	0	1	1	0	3	9
5	15911A0305	2	2	2	3	4	4	18	1	1	1	1	1	5	23
6	15911A0306	2	1	1	2	1	3	10	1	1	1	0	1	4	14
7	15911A0307	2	0	1	2	1	4	10	1	1	1	0	1	4	14
8	15911A0308	2	1	1	2	3	3	12	0	1	1	1	1	4	16
9	15911A0309	2	0	1	2	3	3	11	1	1	1	0	1	4	15
10	15911A0310	1	1	1	2	1	3	9	1	0	1	1	0	3	12
11	15911A0311	2	0	1	2	3	1	9	1	0	1	1	0	3	12
12	15911A0312	1	1	1	2	1	3	9	1	0	1	1	0	3	12
13	15911A0314	1	2	1	3	1	1	9	1	0	1	1	0	3	12
14	15911A0315	1	1	1	3	2	1	9	1	1	1	1	0	4	13
15	15911A0316	2	2	2	5	5	4	20	1	1	1	1	1	5	25
16	15911A0317	1	2	1	2	1	1	8	1	0	1	1	0	3	11
17	15911A0318	2	0	1	3	3	1	10	1	1	1	1	0	4	14
18	15911A0319	1	1	1	3	3	1	10	1	1	`	1	0	3	13
19	15911A0320	1	2	1	2	4	3	13	1	1	1	1	0	4	17
20	15911A0321	2	1	1	3	2	3	12	0	1	1	1	1	4	16
21	15911A0322	1	2	1	3	4	3	14	0	1	1	1	1	4	18
22	15911A0323	1	1	2	3	1	4	12	1	1	1	0	1	4	16
23	15911A0324	2	1	1	3	3	3	13	1	1	1	0	1	4	17
24	15911A0325	1	1	2	3	1	4	12	1	1	1	0	1	4	16
25	15911A0326	1	1	1	1	2	3	9	1	1	0	1	1	4	13
26	15911A0327	1	1	2	3	4	3	14	1	1	1	1	0	4	18
27	15911A0328	2	1	1	3	3	4	14	1	1	1	1	0	4	18
28	15911A0329	1	1	2	3	4	3	14	1	1	1	1	1	5	19
29	15911A0330	2	1	1	3	3	3	13	1	1	0	1	1	4	17
30	15911A0331	2	2	2	4	3	4	18	1	1	1	1	1	5	23
31	15911A0332	2	1	1	3	3	3	13	1	1	0	1	1	4	17
32	15911A0334	2	1	2	3	3	4	15	1	1	1	1	1	5	20
33	15911A0335	2	2	1	3	4	4	16	1	1	1	1	1	5	21
34	15911A0336	2	1	0	2	3	1	9	0	1	1	1	1	4	13

Vidya Jyothi Institute of Technology

(An Autonomous Institution)

(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)

Aziz nagar Gate, C.B. Post, Hyderabad-500 075

DEPARTMENT OF MECHANICAL ENGINEERING

BATCH: 2015-19 | **Course: Robotics** | **A.Y.: 2018-19** | **Mid II Threshold 60%** | **IV B.Tech I Sem**

		Desc (20)							Assign (5)						II
		Part-A (6)			Part-B (14)										
SL. NO.	HallTicket No	Q1	Q2	Q3	Q4 (4)	Q5	Q6	Total	Q1	Q2	Q3	Q4	Q5	Total	Total (25)
1	15911A0301	2	1	1	3	3	3	13	1	1	0	1	1	4	17
2	15911A0302	1	2	1	2	3	3	12	1	1	1	1	0	4	16
3	15911A0303	1	1	1	3	2	1	9	1	1	1	1	0	4	13
4	15911A0304	2	2	1	3	3	4	15	1	1	1	1	1	5	20
5	15911A0305	2	2	1	3	2	3	13	1	1	1	0	1	4	17
6	15911A0306	2	0	1	1	4	1	9	1	0	1	0	1	3	12
7	15911A0307	1	2	1	1	1	2	8	1	0	1	0	1	3	11
8	15911A0308	2	0	1	1	4	1	9	1	0	1	0	1	3	12
9	15911A0309	2	2	1	3	2	3	13	1	1	1	0	0	3	16
10	15911A0310	2	0	1	1	4	3	11	1	1	1	0	1	4	15
11	15911A0311	2	2	1	3	3	4	15	1	1	1	0	1	4	19
12	15911A0312	1	2	1	3	4	3	14	0	1	1	1	1	4	18
13	15911A0314	2	1	1	3	2	3	12	0	1	1	1	1	4	16
14	15911A0315	2	0	1	2	1	4	10	0	1	1	1	1	4	14
15	15911A0316	1	2	1	1	1	3	9	0	1	0	1	1	3	12
16	15911A0317	2	0	1	2	3	3	11	1	1	0	1	1	4	15
17	15911A0318	1	2	1	2	1	2	9	1	0	1	1	0	3	12
18	15911A0319	1	2	1	1	3	4	12	1	1	1	0	1	4	16
19	15911A0320	1	2	1	2	1	2	9	1	0	1	1	0	3	12
20	15911A0321	2	0	1	2	3	1	9	1	1	1	0	1	4	13
21	15911A0322	1	2	1	2	1	2	9	1	0	1	1	0	3	12
22	15911A0323	2	2	1	3	3	4	15	1	1	1	1	1	5	20
23	15911A0324	1	1	1	3	1	3	10	1	1	1	0	1	4	14
24	15911A0325	2	0	1	2	3	1	9	1	1	1	0	1	4	13
25	15911A0326	2	1	1	2	3	3	12	0	1	1	1	1	4	16
26	15911A0327	2	1	2	3	3	5	16	1	1	1	1	1	5	21
27	15911A0328	2	1	1	3	3	3	13	1	1	0	1	1	4	17
28	15911A0329	1	1	2	3	4	2	13	1	1	0	1	1	4	17
29	15911A0330	2	2	1	3	4	4	16	1	1	1	1	1	5	21
30	15911A0331	1	1	2	3	1	4	12	0	1	1	1	1	4	16
31	15911A0332	2	2	1	3	4	5	17	1	1	1	1	1	5	22
32	15911A0334	1	1	2	3	4	3	14	1	1	1	0	1	4	18
33	15911A0335	1	1	1	1	3	3	10	1	1	1	0	1	4	14
34	15911A0336	1	1	2	3	1	4	12	1	1	1	0	1	4	16

Vidya Jyothi Institute of Technology

(An Autonomous Institution)

(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)

Aziz nagar Gate, C.B. Post, Hyderabad-500 075

DEPARTMENT OF MECHANICAL ENGINEERING

BATCH: 2015-19 | **EXAMINATION AWARD LIST** | **A.Y.: 2018-19** | **Course: Robotics** | **IV B.Tech I Sem**

Threshold 60% (45M)

SL. NO.	HallTicketNo	Internal (25M)	External (75M)
1	15911A0301	18	46
2	15911A0302	12	49
3	15911A0303	14	54
4	15911A0304	15	41
5	15911A0305	20	41
6	15911A0306	13	48
7	15911A0307	13	47
8	15911A0308	14	61
9	15911A0309	16	52
10	15911A0310	14	47
11	15911A0311	16	46
12	15911A0312	15	41
13	15911A0314	14	28
14	15911A0315	14	39
15	15911A0316	19	58
16	15911A0317	13	41
17	15911A0318	13	40
18	15911A0319	15	49
19	15911A0320	15	28
20	15911A0321	15	40
21	15911A0322	15	60
22	15911A0323	18	49
23	15911A0324	16	40
24	15911A0325	15	54
25	15911A0326	15	47
26	15911A0327	20	44
27	15911A0328	18	68
28	15911A0329	18	59
29	15911A0330	19	43
30	15911A0331	20	47
31	15911A0332	20	53
32	15911A0334	19	57
33	15911A0335	18	64
34	15911A0336	15	53

216	16915A0329	1	1	1	2	0	2	7	1	0	1	1	0	3	10	216	16915A0329	2	1	0	1	2	4	10	1	1	1	1	0	4	14	216	16915A0329	12	37
217	16915A0330	1	1	1	1	3	4	11	1	1	1	1	0	4	15	217	16915A0330	2	2	2	4	5	4	19	1	1	1	1	1	5	24	217	16915A0330	20	40
218	16915A0331	1	1	1	2	0	0	5	1	0	1	1	0	3	8	218	16915A0331	2	2	2	4	5	5	20	1	1	1	1	1	5	25	218	16915A0331	17	49
219	16915A0332	1	1	1	1	2	3	9	1	0	1	1	0	3	12	219	16915A0332	2	1	1	3	2	3	12	1	1	0	1	1	4	16	219	16915A0332	14	44
220	16915A0333	1	1	2	3	1	4	12	0	1	1	1	1	4	16	220	16915A0333	2	1	2	3	5	4	17	1	1	1	1	1	5	22	220	16915A0333	19	27
221	16915A0334	1	0	1	0	0	0	2	0	1	0	1	1	3	5	221	16915A0334	2	2	1	3	4	4	16	1	1	1	1	1	5	21	221	16915A0334	13	58
222	16915A0335	1	1	1	1	1	3	8	0	1	0	1	1	3	11	222	16915A0335	2	1	2	3	3	4	15	1	1	1	1	1	5	20	222	16915A0335	16	60
223	16915A0336	1	1	1	1	3	4	11	1	1	0	1	1	4	15	223	16915A0336	2	1	1	3	3	4	14	1	1	1	1	1	5	19	223	16915A0336	17	38
224	16915A0337	1	1	1	1	1	0	5	0	1	0	1	1	3	8	224	16915A0337	1	1	2	3	4	3	14	1	1	1	1	1	5	19	224	16915A0337	14	34
225	16915A0338	1	1	1	1	0	1	5	0	1	0	1	1	3	8	225	16915A0338	2	2	2	4	4	4	18	1	1	1	1	1	5	23	225	16915A0338	16	56
226	16915A0339	2	1	0	2	3	1	9	1	1	0	1	1	4	13	226	16915A0339	1	1	2	3	1	4	12	1	1	0	1	1	4	16	226	16915A0339	15	28
227	16915A0340	2	2	1	3	4	4	16	1	1	1	1	1	5	21	227	16915A0340	2	1	1	3	2	3	12	1	1	0	1	1	4	16	227	16915A0340	19	40
228	16915A0341	2	1	0	2	3	1	9	1	1	0	1	1	4	13	228	16915A0341	2	2	2	4	5	5	20	1	1	1	1	1	5	25	228	16915A0341	19	50
229	16915A0342	1	1	1	1	3	2	9	0	1	0	1	1	3	12	229	16915A0342	2	2	2	4	4	4	18	1	1	1	1	1	5	23	229	16915A0342	18	42
230	16915A0343	2	1	0	2	3	3	11	0	1	1	1	1	4	15	230	16915A0343	2	2	2	4	5	5	20	1	1	1	1	1	5	25	230	16915A0343	20	51
231	16915A0344	2	1	1	3	3	4	14	1	1	1	1	1	5	19	231	16915A0344	2	1	1	3	3	4	14	1	1	1	1	1	5	19	231	16915A0344	19	44
232	16915A0345	1	1	2	3	1	4	12	0	1	1	1	1	4	16	232	16915A0345	2	2	2	4	4	5	19	1	1	1	1	1	5	24	232	16915A0345	20	57
233	16915A0346	1	1	1	1	2	3	9	1	1	1	0	1	4	13	233	16915A0346	2	2	2	4	5	5	20	1	1	1	1	1	5	25	233	16915A0346	19	52
234	16915A0347	1	1	2	3	4	3	14	1	1	1	0	1	4	18	234	16915A0347	2	1	2	3	3	5	16	1	1	1	1	1	5	21	234	16915A0347	20	43
235	16915A0348	2	2	1	3	4	4	16	1	1	1	1	1	5	21	235	16915A0348	2	2	2	4	5	5	20	1	1	1	1	1	5	25	235	16915A0348	23	48
236	16915A0349	1	1	2	3	4	3	14	1	1	1	1	1	5	19	236	16915A0349	2	1	2	3	5	4	17	1	1	1	1	1	5	22	236	16915A0349	21	40
237	16915A0350	2	1	1	3	3	4	14	1	1	1	1	1	5	19	237	16915A0350	2	2	2	4	5	5	20	1	1	1	1	1	5	25	237	16915A0350	22	59
No of students attempted		**235**	**224**	**208**	**211**	**214**	**222**		**237**	**237**	**236**	**237**	**237**			**No of students attempted**		**235**	**228**	**224**	**235**	**235**	**235**		**237**	**237**	**237**	**237**	**237**			**No of students attempted**			**237**
No of students scored >= 60% Marks		**124**	**48**	**65**	**174**	**174**	**127**		**193**	**196**	**200**	**203**	**172**			**No of students scored >= 60% Marks**		**177**	**111**	**128**	**204**	**208**	**195**		**222**	**228**	**218**	**206**	**208**			**No of students scored >= 60% Marks**			**162**
% of students scored >= 60% Marks		**53**	**21**	**31**	**82**	**81**	**57**		**81**	**83**	**85**	**86**	**73**			**% of students scored >= 60% Marks**		**75**	**49**	**57**	**87**	**89**	**83**		**94**	**96**	**92**	**87**	**88**			**% of students scored >= 60% Marks**			**68**
ATTAINMENT LEVEL		**1.0**	**0.0**	**0.0**	**3.0**	**3.0**	**1.0**		**3.0**	**3.0**	**3.0**	**3.0**	**3.0**			**ATTAINMENT LEVEL**		**3.0**	**0.0**	**1.0**	**3.0**	**3.0**	**3.0**		**3.0**	**3.0**	**3.0**	**3.0**	**3.0**			**ATTAINMENT LEVEL**			**2.0**

Vidya Jyothi Institute of Technology

(An Autonomous Institution)

(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)

Aziz nagar Gate, C.B. Post, Hyderabad-500 075

DEPARTMENT OF MECHANICAL ENGINEERING

BATCH: 2015-19	Course: Robotics
A.Y.: 2018-19	IV B.Tech I Sem

ATTAINMENT OF COs FOR THE COURSE

CO	Method	Value	Avg	Attainment (Internal) 25%	Attainment (External) 75%	CO Direct Attainment (25%Int +75%Ext)
CO1	M1_D_Q1	1.00	2.50	2.33	2.00	2.08
	M1_D_Q4	3.00				
	M1_A_Q1	3.00				
	M1_A_Q2	3.00				
CO2	M1_D_Q2	0.00	2.25			
	M1_D_Q5	3.00				
	M1_A_Q3	3.00				
	M1_A_Q4	3.00				
CO3	M1_D_Q3	0.00	2.17			
	M1_D_Q6	1.00				
	M1_A_Q5	3.00				
	M2_D_Q1	3.00				
	M2_D_Q4	3.00				
	M2_A_Q1	3.00				
CO4	M2_D_Q2	0.00	2.25			
	M2_D_Q5	3.00				
	M2_A_Q2	3.00				
	M2_A_Q3	3.00				
CO5	M2_D_Q3	1.00	2.50			
	M2_D_Q6	3.00				
	M2_A_Q4	3.00				
	M2_A_Q5	3.00				

Course Attainment (80% Direct + 20% Indirect)	
Direct Attainment	2.08
Indirect Attainment	2.54
Course Attainment	2.17

The CO attainments of all the courses are tabulated in the tables below for all the three batches under consideration.

COURSE OUTCOME ATTAINMENT FOR 2015-19 BATCH			
S.No	**Course Code**	**Course**	**CO Attainment**
1	C101	English-I	2.31
2	C102	Mathematics - I	1.74
3	C103	Engineering Physics-I	2.22
4	C104	C Programming	1.74
5	C105	Engineering Graphics-I	2.34
6	C106	Engineering Mechanics – I	1.74
7	C107	C Programming Lab	3.00
8	C108	English Language Communication Skills Lab-I	3.00
9	C109	Engineering Physics Lab	3.00
10	C110	Engineering Workshop	3.00
11	C111	English – II	1.66
12	C112	Mathematics – II	2.34
13	C113	Engineering Physics-II	2.23
14	C114	Applied Chemistry	1.75
15	C115	Engineering Mechanics – II	1.75
16	C116	Engineering Graphics – II	1.75
17	C117	English Language Communication Skills Lab-II	3.00
18	C118	Engineering Physics and Chemistry Lab	3.00
19	C119	IT & Engineering Workshop	3.00
20	C201	Environmental science	2.82
21	C202	Numerical Methods	2.17
22	C203	Electrical and Electronics Engineering	2.26
23	C204	Mechanics of Solids	2.21
24	C205	Thermodynamics	2.13
25	C206	Metallurgy and Material science	2.20

26	C207	Electrical and Electronics Engineering Lab	2.97
27	C208	Metallurgy and Mechanics of solids Lab	2.97
28	C209	Production Technology	2.31
29	C210	Kinematics of Machinery	2.23
30	C211	Thermal Engineering-I	2.19
31	C212	Mechanics of Fluids and Hydraulic Machines	2.21
32	C213	Machine Drawing	2.93
33	C214	Probability and Statistics	2.21
34	C215	Production Technology Lab	2.96
35	C216	Mechanics of Fluids and Hydraulic Machines Lab	2.96
36	C301	Personality Development & Behavioral Skills	2.81
37	C302	Machine tools and Metrology	2.22
38	C303	Dynamics of Machinery	2.21
39	C304	Automobile Engineering	2.33
40	C305	Design of Machine Members-I	2.19
41	C306	Thermal Engineering-II	2.24
42	C307	Introduction to Microcontroller & Applications (OE)	2.25
43	C308	Basic Electronics & Instrumentation (OE)	2.08
44	C309	Nonconventional Energy Sources (OE)	2.23
45	C310	Energy Management (OE)	2.12
46	C311	Java Programming (OE)	2.24
47	C312	Operating Systems (OE)	2.68
48	C313	Total Quality Management (OE)	2.23
49	C314	Metrology and machine Tools Lab	2.96
50	C315	Thermal Engineering Lab	2.96
51	C316	Design of Machine Members-II	2.19
52	C317	Heat Transfer	2.20
53	C318	Finite Element Method	2.20
54	C319	Managerial Economics and Financial Analysis	2.76
55	C320	Refrigeration and Air Conditioning	2.19
56	C321	Energy Auditing and Conservation (OE)	2.74
57	C322	Principles of Electrical Power Utilization (OE)	2.12

58	C323	Fundamentals of Embedded Systems (OE)	2.19
59	C324	Principles of Communication (OE)	2.26
60	C325	Database Management Systems (OE)	2.10
61	C326	Software Engineering (OE)	2.17
62	C327	Financial Institutions and Markets (OE)	2.85
63	C328	Heat Transfer Lab	2.96
64	C329	Advanced Communication Skills Lab	2.96
65	C330	Quantitative Methods & Logical Reasoning	2.40
66	C401	Operation Research	2.19
67	C402	CAD/CAM	2.19
68	C403	Mechanical Measurements and Instrumentation	2.14
69	C404	Robotics	2.17
70	C405	Power plant Engineering	2.16
71	C406	Electrical Vehicles and Hybrid Vehicles (OE)	2.14
72	C407	Energy Storage Systems (OE)	2.12
73	C408	Introduction to MATLAB (OE)	2.21
74	C409	Circuit Simulation using PSpice (OE)	2.19
75	C410	Information Systems for Engineers (OE)	2.21
76	C411	Web Design (OE)	2.26
77	C412	Fundamentals of Entrepreneurship (OE)	2.76
78	C413	Computer Aided Design and Manufacturing Lab	2.96
79	C414	Production Drawing practice and Instrumentation lab	2.95
80	C415	Industry Oriented Mini Project	2.96
81	C416	Production Planning And Control	2.19
82	C417	Plant Layout And Material Handling	2.21
83	C418	Unconventional Machining Processes	2.19
84	C419	Technical Seminar	3.00
85	C420	Project Work	3.00
86	C421	Comprehensive Viva	3.00

COURSE OUTCOME ATTAINMENT FOR 2016-20 BATCH			
S.No	**Course Code**	**Course**	**CO Attainment**
1	C101	English-I	2.32
2	C102	Mathematics - I	1.84
3	C103	Engineering Physics-I	2.32
4	C104	C Programming	1.81
5	C105	Engineering Graphics-I	2.54
6	C106	Engineering Mechanics – I	1.82
7	C107	C Programming Lab	2.96
8	C108	English Language Communication Skills Lab-I	2.94
9	C109	Engineering Physics Lab	2.90
10	C110	Engineering Workshop	2.95
11	C111	English – II	1.87
12	C112	Mathematics – II	2.42
13	C113	Engineering Physics-II	2.57
14	C114	Applied Chemistry	1.92
15	C115	Engineering Mechanics – II	1.86
16	C116	Engineering Graphics – II	1.89
17	C117	English Language Communication Skills Lab-II	2.98
18	C118	Engineering Physics and Chemistry Lab	2.94
19	C119	IT & Engineering Workshop	2.92
20	C201	Environmental science	2.78
21	C202	Numerical Methods	2.32
22	C203	Electrical and Electronics Engineering	2.19
23	C204	Mechanics of Solids	2.31
24	C205	Thermodynamics	2.10
25	C206	Metallurgy and Material science	2.21
26	C207	Electrical and Electronics Engineering Lab	2.96
27	C208	Metallurgy and Mechanics of solids Lab	2.90
28	C209	Production Technology	2.24
29	C210	Kinematics of Machinery	2.33
30	C211	Thermal Engineering-I	2.19
31	C212	Mechanics of Fluids and Hydraulic Machines	2.32

32	C213	Machine Drawing	2.89
33	C214	Probability and Statistics	2.20
34	C215	Production Technology Lab	2.96
35	C216	Mechanics of Fluids and Hydraulic Machines Lab	2.94
36	C301	Personality Development & Behavioral Skills	2.31
37	C302	Machine tools and Metrology	2.30
38	C303	Dynamics of Machinery	2.28
39	C304	Automobile Engineering	2.19
40	C305	Design of Machine Members-I	2.08
41	C306	Thermal Engineering-II	2.24
42	C307	Introduction to Microcontroller & Applications (OE)	2.25
43	C308	Basic Electronics & Instrumentation (OE)	2.08
44	C309	Nonconventional Energy Sources (OE)	2.23
45	C310	Energy Management (OE)	2.12
46	C311	Java Programming (OE)	2.24
47	C312	Operating Systems (OE)	2.33
48	C313	Total Quality Management (OE)	2.23
49	C314	Metrology and machine Tools Lab	2.92
50	C315	Thermal Engineering Lab	2.93
51	C316	Design of Machine Members-II	2.19
52	C317	Heat Transfer	2.20
53	C318	Finite Element Method	2.20
54	C319	Managerial Economics and Financial Analysis	2.35
55	C320	Refrigeration and Air Conditioning	2.19
56	C321	Energy Auditing and Conservation (OE)	2.34
57	C322	Principles of Electrical Power Utilization (OE)	2.12
58	C323	Fundamentals of Embedded Systems (OE)	2.19
59	C324	Principles of Communication (OE)	2.23
60	C325	Database Management Systems (OE)	2.15
61	C326	Software Engineering (OE)	2.20
62	C327	Financial Institutions and Markets (OE)	2.85
63	C328	Heat Transfer Lab	2.96
64	C329	Advanced Communication Skills Lab	2.95
65	C330	Quantitative Methods & Logical Reasoning	2.34
66	C401	Operation Research	2.19
67	C402	CAD/CAM	2.19
68	C403	Mechanical Measurements and Instrumentation	2.21

69	C404	Robotics	2.08
70	C405	Power plant Engineering	2.18
71	C406	Electrical Vehicles and Hybrid Vehicles (OE)	2.14
72	C407	Energy Storage Systems (OE)	2.12
73	C408	Introduction to MATLAB (OE)	2.21
74	C409	Circuit Simulation using PSpice (OE)	2.31
75	C410	Information Systems for Engineers (OE)	2.31
76	C411	Web Design (OE)	2.54
77	C412	Fundamentals of Entrepreneurship (OE)	2.30
78	C413	Computer Aided Design and Manufacturing Lab	2.92
79	C414	Production Drawing practice and Instrumentation lab	2.94
80	C415	Industry Oriented Mini Project	2.96
81	C416	Production Planning And Control	2.27
82	C417	Plant Layout And Material Handling	2.32
83	C418	Unconventional Machining Processes	2.20
84	C419	Technical Seminar	3.00
85	C420	Project Work	3.00
86	C421	Comprehensive Viva	3.00

COURSE OUTCOME ATTAINMENT FOR 2017-21 BATCH			
S.No	**Course Code**	**Course**	**CO Attainment**
1	C101	English-I	2.29
2	C102	Mathematics - I	1.89
3	C103	Engineering Physics-I	2.18
4	C104	C Programming	1.82
5	C105	Engineering Graphics-I	2.36
6	C106	Engineering Mechanics – I	1.98
7	C107	C Programming Lab	2.94
8	C108	English Language Communication Skills Lab-I	2.95
9	C109	Engineering Physics Lab	2.92
10	C110	Engineering Workshop	2.90
11	C111	English – II	1.96
12	C112	Mathematics – II	2.32
13	C113	Engineering Physics-II	2.40
14	C114	Applied Chemistry	1.96
15	C115	Engineering Mechanics – II	1.94
16	C116	Engineering Graphics – II	2.01
17	C117	English Language Communication Skills Lab-II	2.95
18	C118	Engineering Physics and Chemistry Lab	2.93
19	C119	IT & Engineering Workshop	2.92
20	C201	Environmental science	2.17
21	C202	Numerical Methods	2.22
22	C203	Electrical and Electronics Engineering	2.31
23	C204	Mechanics of Solids	2.16
24	C205	Thermodynamics	2.24
25	C206	Metallurgy and Material science	2.16
26	C207	Electrical and Electronics Engineering Lab	2.92
27	C208	Metallurgy and Mechanics of solids Lab	2.90
28	C209	Production Technology	2.20
29	C210	Kinematics of Machinery	2.18
30	C211	Thermal Engineering-I	2.16

31	C212	Mechanics of Fluids and Hydraulic Machines	2.26
32	C213	Machine Drawing	2.87
33	C214	Probability and Statistics	2.21
34	C215	Production Technology Lab	2.95
35	C216	Mechanics of Fluids and Hydraulic Machines Lab	2.91
36	C301	Personality Development & Behavioral Skills	2.31
37	C302	Machine tools and Metrology	2.18
38	C303	Dynamics of Machinery	2.24
39	C304	Automobile Engineering	2.19
40	C305	Design of Machine Members-I	2.09
41	C306	Thermal Engineering-II	2.24
42	C307	Introduction to Microcontroller & Applications (OE)	2.26
43	C308	Basic Electronics & Instrumentation (OE)	2.18
44	C309	Nonconventional Energy Sources (OE)	2.24
45	C310	Energy Management (OE)	2.34
46	C311	Java Programming (OE)	2.31
47	C312	Operating Systems (OE)	2.28
48	C313	Total Quality Management (OE)	2.24
49	C314	Metrology and machine Tools Lab	2.92
50	C315	Thermal Engineering Lab	2.94
51	C316	Design of Machine Members-II	2.25
52	C317	Heat Transfer	2.31
53	C318	Finite Element Method	2.24
54	C319	Managerial Economics and Financial Analysis	2.22
55	C320	Refrigeration and Air Conditioning	2.18
56	C321	Energy Auditing and Conservation (OE)	2.24
57	C322	Principles of Electrical Power Utilization (OE)	2.10
58	C323	Fundamentals of Embedded Systems (OE)	2.29
59	C324	Principles of Communication (OE)	2.31
60	C325	Database Management Systems (OE)	2.24
61	C326	Software Engineering (OE)	2.22
62	C327	Financial Institutions and Markets (OE)	2.77
63	C328	Heat Transfer Lab	2.95
64	C329	Advanced Communication Skills Lab	2.92

65	C330	Quantitative Methods & Logical Reasoning	2.34
66	C401	Operation Research	2.28
67	C402	CAD/CAM	2.34
68	C403	Mechanical Measurements and Instrumentation	2.31
69	C404	Robotics	2.28
70	C405	Power plant Engineering	2.34
71	C406	Electrical Vehicles and Hybrid Vehicles (OE)	2.18
72	C407	Energy Storage Systems (OE)	2.20
73	C408	Introduction to MATLAB (OE)	2.23
74	C409	Circuit Simulation using PSpice (OE)	2.31
75	C410	Information Systems for Engineers (OE)	2.29
76	C411	Web Design (OE)	2.34
77	C412	Fundamentals of Entrepreneurship (OE)	2.32
78	C413	Computer Aided Design and Manufacturing Lab	2.94
79	C414	Production Drawing practice and Instrumentation lab	2.96
80	C415	Industry Oriented Mini Project	2.94
81	C416	Production Planning And Control	2.34
82	C417	Plant Layout And Material Handling	2.31
83	C418	Unconventional Machining Processes	2.29
84	C419	Technical Seminar	3.00
85	C420	Project Work	3.00
86	C421	Comprehensive Viva	3.00

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

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)

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

Mechanical Engineering programme requires that the students completing a B.Tech degree acquire the skills necessary to succeed in the engineering profession. The necessary skills are identified and approved by the faculty, students, and the Advisory Board. To make sure that the skills are delivered to the students, Programme Outcomes are established along with the perceived needs of our stakeholders and are related to the Programme Educational Objectives (PEO). Direct and Indirect assessment methods are conducted to determine if the Programme Outcomes are achieved. If they are not achievable, necessary modifications in curriculum and teaching learning process are recommended by the Department Advisory Board. For assessment of POs, the attainment obtained from the internal marks and external examination marks are considered. Each outcome is assessed in several courses to ensure that students acquire an appropriate level in terms of knowledge/skills of an outcome. The program outcomes are assessed with the help of course outcomes of the relevant courses through direct and indirect methods. Direct measures are provided through direct examinations or observations of student knowledge or skills against measureable course outcomes. The knowledge and skills described by the course outcomes are mapped to specific problems of internal exams/home assignment/group task. Throughout the semester, the faculty records the performance of each student on each course outcome. Finally, program outcomes are assessed with the above mentioned data, and Program Assessment Committee computes the PO attainment level. Both direct and indirect assessment tools are used for evaluation of attainment of POs. For the overall attainment, 80% & 20% weightages are given to direct and indirect assessment respectively. Details of the procedure adopted are given below:

- **Direct Assessment Tools:** The undergraduate program of the department is credit based with continuous evaluation system. Evaluation is conducted by the course teacher throughout the semester. Each theory course contains three main components for evaluation:
  - **Continuous Evaluation**: In this component, assignments are evaluated regularly.
  - **Mid Semester Examination**: Each mid semester examination is conducted 8 weeks after the commencement of classes. The syllabus of the exam conducted covers around 50% of the total course content. Two mid examinations are conducted per semester.
  - **End semester Examination**: End semester examination is conducted at the end of the semester. Complete syllabus is covered in this examination.
- **Indirect Assessment Tools**:
  - **Programme Exit Survey**: At the end of the program, all the graduates are requested to provide feedback on the POs and PSOs, to know the extent of their attainment.
  - **Value Added Courses Survey**: At the end of the program, all the graduates are requested to provide feedback on how much value added courses contributed to the attainment of POs and PSOs.
  - **Internships Survey**: At the end of the program, all the graduates are requested to provide feedback on how much internships contributed to the attainment of POs and PSOs.

The program exit survey, value added courses survey and internships survey are carried out in online mode at the end of the final semester of B.Tech. A snapshot of the program exit survey is given below;

PROGRAM EXIT SURVEY

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

Logout

Home

PROGRAMME EXIT SURVEY

B.Tech (Mech) 2016-20

Roll Number(Opt)

Populate Survey Form

POs	PO Description	Rating
PO1: Engineering Knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.	○ Poor ○ Average ◉ Good
PO2: Problem Analysis	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.	○ Poor ○ Average ◉ Good
PO3: Design/Development of Solutions	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.	○ Poor ○ Average ◉ Good
PO4: Conduct Investigations of Complex Problems	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.	○ Poor ○ Average ◉ Good
PO5: Modern Tool Usage	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.	○ Poor ○ Average ◉ Good
PO6: 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.	○ Poor ○ Average ◉ Good
PO7: Environment and Sustainability	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.	○ Poor ○ Average ◉ Good
PO8: Ethics	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.	○ Poor ○ Average ◉ Good
PO9: Individual and Team Work	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.	○ Poor ○ Average ◉ Good
PO10: Communication	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.	○ Poor ○ Average ◉ Good
PO11: Project Management and Finance	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.	○ Poor ○ Average ◉ Good
PO12: Life-long Learning	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.	○ Poor ○ Average ◉ Good
PSO1: Welding and Reverse Engineering	An ability to analyze and solve problems of welding special materials and employing reverse engineering techniques for the design of mechanical engineering components.	○ Poor ○ Average ◉ Good
PSO2: Sustainable Design	An ability to design, develop and implement mechanical engineering solutions in view of sustainability, environmental issues with social responsibility.	○ Poor ○ Average ◉ Good

Submit

VALUE ADDED COURSES SURVEY

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

Logout

Home

Value Added Courses Survey

B.Tech (Mech) 2016-20

Roll Number(Opt)

Populate Survey Form

POs	PO Description	Rating
PO1: Engineering Knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.	Poor Average Good
PO2: Problem Analysis	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.	Poor Average Good
PO3: Design/Development of Solutions	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.	Poor Average Good
PO4: Conduct Investigations of Complex Problems	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.	Poor Average Good
PO5: Modern Tool Usage	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.	Poor Average Good
PO6: 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.	Poor Average Good
PO7: Environment and Sustainability	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.	Poor Average Good
PO8: Ethics	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.	Poor Average Good
PO9: Individual and Team Work	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.	Poor Average Good
PO10: Communication	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.	Poor Average Good
PO11: Project Management and Finance	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.	Poor Average Good
PO12: Life-long Learning	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.	Poor Average Good
PSO1: Welding and Reverse Engineering	An ability to analyze and solve problems of welding special materials and employing reverse engineering techniques for the design of mechanical engineering components.	Poor Average Good
PSO2: Sustainable Design	An ability to design, develop and implement mechanical engineering solutions in view of sustainability, environmental issues with social responsibility.	Poor Average Good

Submit

INTERNSHIPS SURVEY

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

Logout

Home

Internships Survey

B.Tech (Mech) 2016-20

Roll Number(Opt)

Populate Survey Form

POs	PO Description	Rating
PO1: Engineering Knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.	Poor Average Good
PO2: Problem Analysis	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.	Poor Average Good
PO3: Design/Development of Solutions	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.	Poor Average Good
PO4: Conduct Investigations of Complex Problems	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.	Poor Average Good
PO5: Modern Tool Usage	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.	Poor Average Good
PO6: 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.	Poor Average Good
PO7: Environment and Sustainability	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.	Poor Average Good
PO8: Ethics	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.	Poor Average Good
PO9: Individual and Team Work	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.	Poor Average Good
PO10: Communication	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.	Poor Average Good
PO11: Project Management and Finance	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.	Poor Average Good
PO12: Life-long Learning	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.	Poor Average Good
PSO1: Welding and Reverse Engineering	An ability to analyze and solve problems of welding special materials and employing reverse engineering techniques for the design of mechanical engineering components.	Poor Average Good
PSO2: Sustainable Design	An ability to design, develop and implement mechanical engineering solutions in view of sustainability, environmental issues with social responsibility.	Poor Average Good

Submit

Activate Windows

Go to Settings to activate Windows.

In the survey forms, numeric grading is given from 1 to 3. Students fill the form as per grading system. Average of these grades is calculated and taken as basis for evaluation of attainment of POs.

The Course/ Programme outcomes are difficult to measure such as assessing critical thinking, creativity, analytical skills, and problem solving skills etc. in courses like minor and major projects. Hence, the department has adopted Criterion Referenced Rubrics to assess the POs and COs wherever appropriate. The Rubric criteria are developed by DAB. The rubrics are shared with students before being evaluated so that they are aware of the performance criteria and their weightage. A typical rubrics table used for projects is shown below;

Criterion for Evaluation/ Rubric	Poor (1)	Satisfactory (2)	Good (3)	Very Good (4)	Excellent (5)
Requirements	Project does not adhere to its requirements.	Project minimally adheres to its requirements.	Project mostly adheres to its requirements.	Project completely addresses its requirements.	Project completely addresses its requirements and suits current day's industry needs.
Creativity	Project is significantly incomplete and lacking creativity.	Project is somewhat incomplete and slightly creative.	Project is complete and creative.	Project is complete, creative and novel.	Project is highly creative and visibly appealing.
Model Building	Contains no involvement of mechanical engineering concepts.	Contains minimal involvement of mechanical engineering concepts.	Contains involvement of mechanical engineering concepts in study oriented approach.	Contains involvement of mechanical engineering concepts like design, fabrication, analysis etc. without any live model or simulation.	Contains involvement of mechanical engineering concepts like design, fabrication, analysis etc and working model/ simulation as well.
Quality of the work	Project is of poor quality work.	Project appears hastily created or is of poor quality work.	Project construction could benefit from more than a minimal amount of effort.	Project construction could be improved somewhat in selective areas.	Project is of excellent, durable construction.

Staff members involve actively in direct assessment, whereas students get involved in indirect assessment. As there is participation from the two important stakeholders, this type of assessment seems to be relevant.

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

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

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

PO/ PSO ATTAINMENT

2015-19 BATCH

S.No	Course	PO Attainment													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	English-I		1.80	1.54		2.31	1.93	1.54	2.12		2.00	1.54	2.31		
2	Mathematics - I	1.51	1.62	1.16	1.55	1.16	1.28	1.16		1.16			1.51	1.74	1.74
3	Engineering Physics-I	1.93	1.98	1.63	1.48			1.85	1.48			1.48	1.93	2.22	2.22
4	C Programming	1.62	1.62	1.62	1.74	1.16						0.58	1.01		
5	Engineering Graphics-I	2.34	2.34	2.34	2.34	1.56	1.56			1.95	2.34		1.87		2.03
6	Engineering Mechanics – I	1.74	1.74	1.63	1.74	0.58	0.70					1.16	1.28	1.74	1.63
7	C Programming Lab	2.80	3.00	3.00	2.60	1.00	1.00					1.00	1.00		
8	English Language Communication Skills Lab-I	3.00	3.00		2.00		2.33		3.00	2.50	3.00		3.00		
9	Engineering Physics Lab	3.00	3.00	2.50	2.67	2.50		2.00			2.00		2.40	3.00	3.00
10	Engineering Workshop	3.00	3.00	2.40	2.00	2.00	2.00	2.40	2.50	2.60	2.60		2.40	2.80	3.00
11	English – II		1.39		1.11		1.11	1.11	1.39	1.11	1.39	1.39	1.55	0.55	
12	Mathematics – II	2.03	2.15	2.03	1.76	1.56	2.08	1.56		1.72			1.88	2.34	1.56
13	Engineering Physics-II	1.93	1.86	1.78	1.67			1.86				1.49	1.93	1.78	1.64
14	Applied Chemistry	1.75	1.17	1.31	1.17	0.78	0.70	1.17				1.28	1.28	0.97	1.75
15	Engineering Mechanics – II	1.75	1.75	1.63	1.75	0.58	0.70					1.17	1.28	1.17	1.75
16	Engineering Graphics – II	1.75	1.75	1.75	1.75	1.17	1.17			1.46	1.75		1.40		1.75
17	English Language Communication Skills Lab-II		2.00				2.00		2.50	2.50	2.80	2.33	2.80		2.40
18	Engineering Physics and Chemistry Lab	2.67	2.50	2.00	2.00	2.00		2.00			2.33		2.67	3.00	2.50

19	IT & Engineering Workshop	2.75	2.00	2.40	2.00	2.00	2.00	2.40	2.50	2.20	2.60		2.40	2.60	2.80
20	Environmental science	1.69	1.13		2.44		2.63	2.44	2.82	0.94	1.50		1.88		
21	Numerical Methods	2.03	1.88	1.59	2.17	1.27	1.45	1.45	1.09	1.21	1.09		2.17	2.03	1.45
22	Electrical and Electronics Engineering	2.26	2.11	1.96	2.26	1.26	1.21	1.51	1.51	2.11	1.51		1.21		
23	Mechanics of Solids	1.92	2.06	2.06	2.06	2.21	2.21	2.21	1.62		1.47		2.21	2.06	2.06
24	Thermodynamics	1.99	2.13	2.13	1.85	1.90	2.13	1.42	1.63	0.71	2.13		2.13	1.90	1.85
25	Metallurgy and Material science	2.20	2.20	1.91	2.20		2.20	2.20	1.69	1.03	2.20		2.20	1.71	1.91
26	Electrical and Electronics Engineering Lab	2.97	2.77	1.98	1.98	1.98	2.72	1.98	1.98	2.97	2.97	2.31	1.98	1.98	2.97
27	Metallurgy and Mechanics of solids Lab	2.97	2.97	1.98	2.97	2.97			1.98	2.97	2.97		2.97	1.98	2.97
28	Production Technology	2.31	2.31	2.00	2.16	1.69	2.31		1.69	1.54	2.31		2.31	2.06	2.00
29	Kinematics of Machinery	2.23	2.23	1.93	2.23		2.23		1.49	2.23			1.49	2.08	1.93
30	Thermal Engineering-I	2.19	2.19	1.90	2.19		2.19	2.19	1.46				1.46		2.04
31	Mechanics of Fluids and Hydraulic Machines	2.21	2.06	1.92	2.21	2.21	2.21	2.21	1.47				2.21	2.06	1.77
32	Machine Drawing	2.93	2.93	2.93	2.93				1.95	1.95	1.95		2.93	2.93	2.54
33	Probability and Statistics	1.92	2.22	2.07	2.22	1.48			1.48		1.48		2.22		
34	Production Technology Lab	2.96	2.96	2.96	2.57	2.96	2.96		1.97	2.96	2.96		2.96	1.97	2.96
35	Mechanics of Fluids and Hydraulic Machines Lab	2.96	2.96	2.96	2.96		2.96	2.63	1.97	2.96	2.96		2.96		2.96
36	Personality Development & Behavioral Skills					0.94	1.87	2.81	2.44	2.06	2.81		2.81		
37	Machine tools and Metrology	2.22	2.22	2.07	2.07	2.22		2.04	1.48	2.22			2.22		2.07
38	Dynamics of Machinery	2.21	2.06	1.92	2.21	1.47	1.66		1.47	2.21			2.21		2.21
39	Automobile Engineering	2.33	2.33	2.02	2.02	2.33	1.86	1.71	1.55	2.33	2.33		2.14	2.33	2.33
40	Design of Machine Members-I	2.19	2.04	1.46	2.19		0.91		1.46			2.19	2.04	2.19	2.19
41	Thermal Engineering-II	2.24	1.94	1.49	2.24		2.24	1.99	1.49				1.94		1.49
42	Introduction to Microcontroller & Applications (OE)	2.06	2.25	2.25	2.06	1.95	2.25	1.50		1.50		1.50	2.25	2.25	1.50
43	Basic Electronics & Instrumentation (OE)	2.08	2.08	2.08	2.08	0.69		1.39		1.39	0.69		2.08		
44	Nonconventional Energy Sources (OE)	2.23	1.67	2.04	2.23	0.74	1.67	1.67	0.74		0.74	0.74		1.86	1.67
45	Energy Management (OE)	2.12	1.41	2.12	1.41		0.71	1.41	0.71		2.12	0.71	0.71	0.71	
46	Java Programming (OE)	2.24	2.24	2.24	2.24	2.24	1.49	0.75	0.75	2.24	2.09		1.49		

47	Operating Systems (OE)	2.68	2.32	2.14	2.14	2.14	1.79	1.49	1.49	1.43	1.79	1.61	1.43		
48	Total Quality Management (OE)	1.49	0.74	1.86	1.73	1.49	1.49	2.23	0.74	2.23	1.86	2.23	2.23		
49	Metrology and machine Tools Lab	2.96	2.96	1.97	2.76	2.96		2.96		2.96	2.96		2.37	2.30	2.57
50	Thermal Engineering Lab	2.76	2.96	2.17	2.76		2.96	2.57	1.97	2.96	2.96		2.96		1.97
51	Design of Machine Members-II	2.19	2.19	2.19	2.19		2.19	2.19	1.46	2.19	1.28	1.46	2.04	2.19	1.61
52	Heat Transfer	2.20	2.20	2.20	2.20		2.20	2.20	1.47				1.91		2.02
53	Finite Element Method	2.20	2.20	2.20	2.20	2.20		2.20	1.47				1.47	2.20	2.20
54	Managerial Economics and Financial Analysis		2.30	2.14	2.76	1.84	1.84	1.84	1.84	1.84	2.76	2.39	1.38		1.84
55	Refrigeration and Air Conditioning	2.19	2.19	2.19	2.19		2.04	2.19	1.46		2.19		1.46		1.75
56	Energy Auditing and Conservation (OE)	2.74	1.83	0.91	1.37		0.91	1.83	0.91		1.21	1.21	0.91		
57	Principles of Electrical Power Utilization (OE)	2.12	2.12	2.12	1.41		1.41	2.12							
58	Fundamentals of Embedded Systems (OE)	2.19	2.19	2.19	2.19	2.19		2.19		2.19	2.19		2.19		2.19
59	Principles of Communication (OE)	2.26	2.26	2.26		2.26		2.26		2.26	2.26		2.26		1.51
60	Database Management Systems (OE)	2.10	2.10	2.10	2.10	2.10	2.10	1.40	1.40	1.40	1.40	1.40	1.40		
61	Software Engineering (OE)	2.17	1.74	2.17	1.93	1.74	1.93	1.93	0.72	1.45	1.45	2.03	1.88		
62	Financial Institutions and Markets (OE)					2.85					1.90	2.85	2.85		
63	Heat Transfer Lab	2.96	2.96	2.96	2.96			2.47	0.99	1.97	2.96		2.96		2.76
64	Advanced Communication Skills Lab					0.99	1.97	2.96	2.57	2.17	2.96	2.22	2.96		
65	Quantitative Methods & Logical Reasoning	2.40	1.86	1.80	1.86	1.40	1.80	2.24					2.40		
66	Operation Research	2.19	2.19	2.19	2.19	1.46	2.19		1.46	2.04		2.04			1.64
67	CAD/CAM	2.19	2.19	2.19	2.19	2.19	2.04	2.19	1.75	1.97	1.46	1.46	1.46	1.46	2.19
68	Mechanical Measurements and Instrumentation	2.14	1.71		2.14	2.14	2.14	2.14	1.71	2.00	1.43	1.43	1.14		2.14
69	Robotics	2.17	2.17	2.17	2.17	2.17	2.17	2.17	1.45	2.17	1.81	1.45	1.01	1.81	1.99
70	Power plant Engineering	2.16	2.16	2.16	1.44		2.16	2.02	1.44	2.16	1.44	2.16	1.44	1.44	1.87
71	Electrical Vehicles and Hybrid Vehicles (OE)	2.14	2.14	1.71	1.43		0.71	2.14					0.71		
72	Energy Storage Systems (OE)	2.12	2.12	2.12			0.71	2.12							
73	Introduction to MATLAB (OE)	1.84	1.92	2.03	1.84	1.84		1.47			1.47	1.47	2.21	2.21	2.21
74	Circuit Simulation using PSpice (OE)	2.19	2.19	2.19	2.19	2.19				1.46	1.46	2.19	1.46	2.19	2.19
75	Information Systems for Engineers (OE)	2.21	1.77	2.21	1.97	1.77		1.97			1.47	2.06	1.92	2.21	1.62

76	Web Design (OE)	2.26	1.81	2.26	2.01	1.81		2.01			1.51	2.11	1.96	2.26	1.51
77	Fundamentals of Entrepreneurship (OE)		2.76	2.76		2.76	2.14	2.14				2.53	2.58	2.76	1.84
78	Computer Aided Design and Manufacturing Lab	2.96	2.96	2.96	2.96	2.96			2.63	2.96	2.96		2.96	1.97	2.96
79	Production Drawing practice and Instrumentation lab	2.95	2.95	2.95	2.95				1.97	2.95	2.95	2.95	2.95	2.95	1.97
80	Industry Oriented Mini Project	2.17	2.96	2.96	2.30	2.96	1.78	2.96	1.38	2.96	2.96	2.96	2.96	2.96	1.97
81	Production Planning And Control	2.04	2.04	1.83	1.83	2.19	1.10	2.19	2.04		2.19	1.95	2.19		1.83
82	Plant Layout And Material Handling	2.21	2.21	2.06	1.62	2.21	1.47	2.03	1.47			2.21	1.84		2.21
83	Unconventional Machining Processes	2.19	1.46				1.46	2.19	1.46				2.19		1.46
84	Technical Seminar	2.00	3.00	3.00	3.00	3.00	1.50	3.00	1.80	2.00	3.00		3.00	3.00	2.00
85	Project Work	3.00	3.00	3.00	3.00	3.00	2.00	3.00	1.60	3.00	3.00	3.00	3.00	3.00	2.80
86	Comprehensive Viva	3.00	3.00			3.00	2.00	3.00	1.20	3.00	3.00		3.00	3.00	2.25
	Direct PO Attainment	**2.29**	**2.20**	**2.12**	**2.12**	**1.91**	**1.79**	**2.04**	**1.65**	**2.09**	**2.12**	**1.80**	**2.05**	**2.13**	**2.09**
	Indirect PO Attainment	**2.78**	**2.82**	**2.85**	**2.84**	**2.86**	**2.82**	**2.84**	**2.78**	**2.84**	**2.80**	**2.76**	**2.86**	**2.87**	**2.82**
	Overall PO Attainment	**2.39**	**2.33**	**2.27**	**2.27**	**2.10**	**2.00**	**2.20**	**1.87**	**2.24**	**2.26**	**1.99**	**2.21**	**2.28**	**2.24**

The components of the **Indirect PO attainment** are as follows;

Program Exit Survey	2.80	2.72	2.86	2.79	2.89	2.78	2.78	2.72	2.83	2.75	2.82	2.84	2.84	2.81
Value Added Courses Survey	2.79	2.86	2.83	2.85	2.83	2.82	2.86	2.86	2.88	2.77	2.72	2.89	2.92	2.79
Internships Survey	2.76	2.88	2.85	2.88	2.85	2.86	2.89	2.77	2.81	2.88	2.74	2.85	2.84	2.86
Indirect PO attainment	**2.78**	**2.82**	**2.85**	**2.84**	**2.86**	**2.82**	**2.84**	**2.78**	**2.84**	**2.8**	**2.76**	**2.86**	**2.87**	**2.82**

$$\textbf{\textit{Indirect PO attainment}} = \frac{Program\ Exit\ Survey\ +\ Value\ Added\ Courses\ Survey\ +\ Internships\ Survey}{3}$$

$$\textbf{\textit{Overall PO Attainment}} = 0.8 * Direct\ PO\ Attainment + 0.2 * Indirect\ PO\ Attainment$$

2016-20 BATCH

S.No	Course	PO Attainment													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	English-I		1.80	1.55		2.32	1.93	1.55	2.13		2.01	1.55	2.32		
2	Mathematics - I	1.59	1.72	1.23	1.64	1.23	1.35	1.23		1.23			1.59	1.84	1.84
3	Engineering Physics-I	2.01	2.06	1.70	1.55			1.93	1.55			1.55	2.01	2.32	2.32
4	C Programming	1.69	1.69	1.69	1.81	1.21						0.60	1.06		
5	Engineering Graphics-I	2.54	2.54	2.54	2.54	1.69	1.69			2.12	2.54		2.03		2.20
6	Engineering Mechanics – I	1.82	1.82	1.70	1.82	0.61	0.73					1.21	1.33	1.82	1.70
7	C Programming Lab	2.76	2.96	2.96	2.57	0.99	0.99					0.99	0.99		
8	English Language Communication Skills Lab-I	2.94	2.94		1.96		2.29		2.94	2.45	2.94		2.94		
9	Engineering Physics Lab	2.90	2.90	2.42	2.58	2.42		1.93			1.93		2.32	2.90	2.90
10	Engineering Workshop	2.95	2.95	2.36	1.97	1.97	1.97	2.36	2.46	2.56	2.56		2.36	2.75	2.95
11	English – II		1.56		1.25		1.25	1.25	1.56	1.25	1.56	1.56	1.75	0.62	
12	Mathematics – II	2.10	2.22	2.10	1.82	1.61	2.15	1.61		1.77			1.94	2.42	1.61
13	Engineering Physics-II	2.23	2.14	2.06	1.93			2.14				1.71	2.23	2.06	1.88
14	Applied Chemistry	1.92	1.28	1.44	1.28	0.85	0.77	1.28				1.41	1.41	1.07	1.92
15	Engineering Mechanics – II	1.86	1.86	1.74	1.86	0.62	0.74					1.24	1.36	1.24	1.86
16	Engineering Graphics – II	1.89	1.89	1.89	1.89	1.26	1.26			1.58	1.89		1.51		1.89
17	English Language Communication Skills Lab-II		1.99				1.99		2.48	2.48	2.78	2.32	2.78		2.38
18	Engineering Physics and Chemistry Lab	2.61	2.45	1.96	1.96	1.96		1.96			2.29		2.61	2.94	2.45
19	IT & Engineering Workshop	2.68	1.95	2.34	1.95	1.95	1.95	2.34	2.43	2.14	2.53		2.34	2.53	2.73
20	Environmental science	1.67	1.11		2.41		2.59	2.41	2.78	0.93	1.48		1.85		
21	Numerical Methods	2.17	2.01	1.70	2.32	1.35	1.55	1.55	1.16	1.29	1.16		2.32	2.17	1.55
22	Electrical and Electronics Engineering	2.19	2.04	1.90	2.19	1.22	1.17	1.46	1.46	2.04	1.46		1.17		
23	Mechanics of Solids	2.00	2.16	2.16	2.16	2.31	2.31	2.31	1.69		1.54		2.31	2.16	2.16

24	Thermodynamics	1.96	2.10	2.10	1.82	1.87	2.10	1.40	1.61	0.70	2.10		2.10	1.87	1.82
25	Metallurgy and Material science	2.21	2.21	1.92	2.21		2.21	2.21	1.69	1.03	2.21		2.21	1.72	1.92
26	Electrical and Electronics Engineering Lab	2.96	2.76	1.97	1.97	1.97	2.71	1.97	1.97	2.96	2.96	2.30	1.97	1.97	2.96
27	Metallurgy and Mechanics of solids Lab	2.90	2.90	1.93	2.90	2.90			1.93	2.90	2.90		2.90	1.93	2.90
28	Production Technology	2.40	2.40	2.08	2.24	1.76	2.40		1.76	1.60	2.40		2.40	2.14	2.08
29	Kinematics of Machinery	2.33	2.33	2.02	2.33		2.33		1.55	2.33			1.55	2.17	2.02
30	Thermal Engineering-I	2.19	2.19	1.90	2.19		2.19	2.19	1.46				1.46		2.04
31	Mechanics of Fluids and Hydraulic Machines	2.32	2.17	2.01	2.32	2.32	2.32	2.32	1.55				2.32	2.17	1.86
32	Machine Drawing	2.89	2.89	2.89	2.89				1.93	1.93	1.93		2.89	2.89	2.50
33	Probability and Statistics	1.91	2.20	2.05	2.20	1.47			1.47		1.47		2.20		
34	Production Technology Lab	2.96	2.96	2.96	2.57	2.96	2.96		1.97	2.96	2.96		2.96	1.97	2.96
35	Mechanics of Fluids and Hydraulic Machines Lab	2.94	2.94	2.94	2.94		2.94	2.62	1.96	2.94	2.94		2.94		2.94
36	Personality Development & Behavioral Skills					0.95	1.89	2.84	2.46	2.08	2.84		2.84		
37	Machine tools and Metrology	2.30	2.30	2.15	2.15	2.30		2.11	1.53	2.30			2.30		2.15
38	Dynamics of Machinery	2.28	2.13	1.98	2.28	1.52	1.71		1.52	2.28			2.28		2.28
39	Automobile Engineering	2.19	2.19	1.90	1.90	2.19	1.75	1.61	1.46	2.19	2.19		2.01	2.19	2.19
40	Design of Machine Members-I	2.08	1.94	1.39	2.08		0.87		1.39			2.08	1.94	2.08	2.08
41	Thermal Engineering-II	2.24	1.94	1.49	2.24		2.24	1.99	1.49				1.94		1.49
42	Introduction to Microcontroller & Applications (OE)	2.06	2.25	2.25	2.06	1.95	2.25	1.50		1.50		1.50	2.25	2.25	1.50
43	Basic Electronics & Instrumentation (OE)	2.08	2.08	2.08	2.08	0.69		1.39		1.39	0.69		2.08		
44	Nonconventional Energy Sources (OE)	2.23	1.67	2.04	2.23	0.74	1.67	1.67	0.74		0.74	0.74		1.86	1.67
45	Energy Management (OE)	2.12	1.41	2.12	1.41		0.71	1.41	0.71		2.12	0.71	0.71	0.71	
46	Java Programming (OE)	2.24	2.24	2.24	2.24	2.24	1.49	0.75	0.75	2.24	2.09		1.49		
47	Operating Systems (OE)	2.33	2.02	1.86	1.86	1.86	1.55	1.30	1.30	1.24	1.55	1.40	1.24		
48	Total Quality Management (OE)	1.49	0.74	1.86	1.73	1.49	1.49	2.23	0.74	2.23	1.86	2.23	2.23		
49	Metrology and machine Tools Lab	2.92	2.92	1.95	2.73	2.92		2.92		2.92	2.92		2.34	2.27	2.53
50	Thermal Engineering Lab	2.73	2.93	2.15	2.73		2.93	2.54	1.95	2.93	2.93		2.93		1.95
51	Design of Machine Members-II	2.19	2.19	2.19	2.19		2.19	2.19	1.46	2.19	1.28	1.46	2.04	2.19	1.61

52	Heat Transfer	2.20	2.20	2.20	2.20		2.20	2.20	1.47				1.91		2.02
53	Finite Element Method	2.20	2.20	2.20	2.20	2.20		2.20	1.47				1.47	2.20	2.20
54	Managerial Economics and Financial Analysis		1.96	1.83	2.35	1.57	1.57	1.57	1.57	1.57	2.35	2.04	1.18		1.57
55	Refrigeration and Air Conditioning	2.19	2.19	2.19	2.19		2.04	2.19	1.46		2.19		1.46		1.75
56	Energy Auditing and Conservation (OE)	2.34	1.56	0.78	1.17		0.78	1.56	0.78		1.04	1.04	0.78		
57	Principles of Electrical Power Utilization (OE)	2.12	2.12	2.12	1.41		1.41	2.12							
58	Fundamentals of Embedded Systems (OE)	2.19	2.19	2.19	2.19	2.19		2.19		2.19	2.19		2.19		2.19
59	Principles of Communication (OE)	2.23	2.23	2.23		2.23		2.23		2.23	2.23		2.23		1.49
60	Database Management Systems (OE)	2.15	2.15	2.15	2.15	2.15	2.15	1.43	1.43	1.43	1.43	1.43	1.43		
61	Software Engineering (OE)	2.20	1.76	2.20	1.96	1.76	1.96	1.96	0.73	1.47	1.47	2.05	1.91		
62	Financial Institutions and Markets (OE)					2.85					1.90	2.85	2.85		
63	Heat Transfer Lab	2.96	2.96	2.96	2.96			2.47	0.99	1.97	2.96		2.96		2.76
64	Advanced Communication Skills Lab					0.98	1.97	2.95	2.56	2.16	2.95	2.21	2.95		
65	Quantitative Methods & Logical Reasoning	2.23	1.73	1.67	1.73	1.30	1.67	2.08					2.23		
66	Operation Research	2.19	2.19	2.19	2.19	1.46	2.19		1.46	2.04		2.04			1.64
67	CAD/CAM	2.19	2.19	2.19	2.19	2.19	2.04	2.19	1.75	1.97	1.46	1.46	1.46	1.46	2.19
68	Mechanical Measurements and Instrumentation	2.21	1.77		2.21	2.21	2.21	2.21	1.77	2.06	1.47	1.47	1.18		2.21
69	Robotics	2.08	2.08	2.08	2.08	2.08	2.08	2.08	1.39	2.08	1.73	1.39	0.97	1.73	1.91
70	Power plant Engineering	2.18	2.18	2.18	1.45		2.18	2.03	1.45	2.18	1.45	2.18	1.45	1.45	1.89
71	Electrical Vehicles and Hybrid Vehicles (OE)	2.14	2.14	1.71	1.43		0.71	2.14					0.71		
72	Energy Storage Systems (OE)	2.12	2.12	2.12			0.71	2.12							
73	Introduction to MATLAB (OE)	1.84	1.92	2.03	1.84	1.84		1.47			1.47	1.47	2.21	2.21	2.21
74	Circuit Simulation using PSpice (OE)	2.31	2.31	2.31	2.31	2.31				1.54	1.54	2.31	1.54	2.31	2.31
75	Information Systems for Engineers (OE)	2.31	1.85	2.31	2.06	1.85		2.06			1.54	2.16	2.00	2.31	1.69
76	Web Design (OE)	2.54	2.03	2.54	2.26	2.03		2.26			1.69	2.37	2.20	2.54	1.69
77	Fundamentals of Entrepreneurship (OE)		2.30	2.30		2.30	1.79	1.79				2.11	2.15	2.30	1.53
78	Computer Aided Design and Manufacturing Lab	2.92	2.92	2.92	2.92	2.92			2.60	2.92	2.92		2.92	1.95	2.92
79	Production Drawing practice and Instrumentation lab	2.94	2.94	2.94	2.94				1.96	2.94	2.94	2.94	2.94	2.94	1.96

80	Industry Oriented Mini Project	2.17	2.96	2.96	2.30	2.96	1.78	2.96	1.38	2.96	2.96	2.96	2.96	2.96	1.97
81	Production Planning And Control	2.12	2.12	1.89	1.89	2.27	1.14	2.27	2.12		2.27	2.02	2.27		1.89
82	Plant Layout And Material Handling	2.32	2.32	2.17	1.70	2.32	1.55	2.13	1.55			2.32	1.93		2.32
83	Unconventional Machining Processes	2.20	1.47				1.47	2.20	1.47				2.20		1.47
84	Technical Seminar	2.00	3.00	3.00	3.00	3.00	1.50	3.00	1.80	2.00	3.00		3.00	3.00	2.00
85	Project Work	3.00	3.00	3.00	3.00	3.00	2.00	3.00	1.60	3.00	3.00	3.00	3.00	3.00	2.80
86	Comprehensive Viva	3.00	3.00			3.00	2.00	3.00	1.20	3.00	3.00		3.00	3.00	2.25
	Direct PO Attainment	**2.30**	**2.21**	**2.12**	**2.13**	**1.91**	**1.79**	**2.04**	**1.64**	**2.08**	**2.12**	**1.80**	**2.06**	**2.15**	**2.11**
	Indirect PO Attainment	**2.79**	**2.75**	**2.72**	**2.76**	**2.82**	**2.72**	**2.82**	**2.68**	**2.70**	**2.83**	**2.73**	**2.84**	**2.74**	**2.82**
	Overall PO Attainment	**2.40**	**2.31**	**2.24**	**2.26**	**2.09**	**1.98**	**2.19**	**1.85**	**2.21**	**2.26**	**1.99**	**2.21**	**2.26**	**2.25**

The components of the **Indirect PO attainment** are as follows;

Program Exit Survey	2.81	2.74	2.69	2.75	2.81	2.70	2.78	2.65	2.64	2.82	2.75	2.85	2.75	2.83
Value Added Courses Survey	2.79	2.80	2.75	2.78	2.86	2.75	2.88	2.69	2.79	2.85	2.74	2.79	2.76	2.76
Internships Survey	2.76	2.70	2.73	2.74	2.79	2.71	2.79	2.70	2.68	2.81	2.71	2.88	2.72	2.86
Indirect PO attainment	**2.79**	**2.75**	**2.72**	**2.76**	**2.82**	**2.72**	**2.82**	**2.68**	**2.70**	**2.83**	**2.73**	**2.84**	**2.74**	**2.82**

$$\boldsymbol{Indirect\ PO\ attainment} = \frac{Program\ Exit\ Survey\ +\ Value\ Added\ Courses\ Survey\ +\ Internships\ Survey}{3}$$

$$\boldsymbol{Overall\ PO\ Attainment} = 0.8 * Direct\ PO\ Attainment + 0.2 * Indirect\ PO\ Attainment$$

2017-21 BATCH

S.No	Course	PO Attainment													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	English-I	-	1.78	1.53	-	2.29	1.91	1.53	2.10	-	1.98	1.53	2.29	-	-
2	Mathematics - I	1.64	1.76	1.26	1.68	1.26	1.39	1.26		1.26	-	-	1.64	1.89	1.89
3	Engineering Physics-I	1.89	1.94	1.60	1.45	-	-	1.82	1.45	-	-	1.45	1.89	2.18	2.18
4	C Programming	1.70	1.70	1.70	1.82	1.21	-	-	-	-	-	0.61	1.06	-	-
5	Engineering Graphics-I	2.36	2.36	2.36	2.36	1.57	1.57	-	-	1.97	2.36	-	1.89	-	2.05
6	Engineering Mechanics – I	1.98	1.98	1.85	1.98	0.66	0.79	-	-	-	-	1.32	1.45	1.98	1.85
7	C Programming Lab	2.74	2.94	2.94	2.55	0.98	0.98	-	-	-	-	0.98	0.98	-	-
8	English Language Communication Skills Lab-I	2.95	2.95	-	1.97	-	2.29	-	2.95	2.46	2.95	-	2.95	-	-
9	Engineering Physics Lab	2.92	2.92	2.43	2.60	2.43	-	1.95	-	-	1.95	-	2.34	2.92	2.92
10	Engineering Workshop	2.90	2.90	2.32	1.93	1.93	1.93	2.32	2.42	2.51	2.51	-	2.32	2.71	2.90
11	English – II	-	1.63	-	1.31	-	1.31	1.31	1.63	1.31	1.63	1.63	1.83	0.65	-
12	Mathematics – II	2.01	2.13	2.01	1.74	1.55	2.06	1.55	-	1.70	-	-	1.86	2.32	1.55
13	Engineering Physics-II	2.08	2.00	1.92	1.80	-	-	2.00	-	-	-	1.60	2.08	1.92	1.76
14	Applied Chemistry	1.96	1.31	1.47	1.31	0.87	0.78	1.31	-	-	-	1.44	1.44	1.09	1.96
15	Engineering Mechanics – II	1.94	1.94	1.81	1.94	0.65	0.78	-	-	-	-	1.29	1.42	1.29	1.94
16	Engineering Graphics – II	2.01	2.01	2.01	2.01	1.34	1.34	-	-	1.68	2.01	-	1.61	-	2.01
17	English Language Communication Skills Lab-II	-	1.97	-	-	-	1.97	-	2.46	2.46	2.75	2.29	2.75	-	2.36
18	Engineering Physics and Chemistry Lab	2.60	2.44	1.95	1.95	1.95	-	1.95	-	-	2.28	-	2.60	2.93	2.44
19	IT & Engineering Workshop	2.68	1.95	2.34	1.95	1.95	1.95	2.34	2.43	2.14	2.53	-	2.34	2.53	2.73
20	Environmental science	1.30	0.87	-	1.88	-	2.03	1.88	2.17	0.72	1.16	-	1.45	-	-
21	Numerical Methods	2.07	1.92	1.63	2.22	1.30	1.48	1.48	1.11	1.24	1.11	-	2.22	2.07	1.48
22	Electrical and Electronics Engineering	2.31	2.16	2.00	2.31	1.29	1.23	1.54	1.54	2.16	1.54	-	1.23		
23	Mechanics of Solids	1.87	2.02	2.02	2.02	2.16	2.16	2.16	1.58		1.44	-	2.16	2.02	2.02
24	Thermodynamics	2.09	2.24	2.24	1.94	1.99	2.24	1.49	1.72	0.75	2.24	-	2.24	1.99	1.94

25	Metallurgy and Material science	2.16	2.16	1.87	2.16	-	2.16	2.16	1.66	1.01	2.16	-	2.16	1.68	1.87
26	Electrical and Electronics Engineering Lab	2.92	2.73	1.95	1.95	1.95	2.68	1.95	1.95	2.92	2.92	2.27	1.95	1.95	2.92
27	Metallurgy and Mechanics of solids Lab	2.91	2.91	1.94	2.91	2.91	-	-	1.94	2.91	2.91	-	2.91	1.94	2.91
28	Production Technology	2.20	2.20	1.91	2.05	1.61	2.20	-	1.61	1.47	2.20	-	2.20	1.96	1.91
29	Kinematics of Machinery	2.18	2.18	1.89	2.18	-	2.18	-	1.45	2.18	-	-	1.45	2.03	1.89
30	Thermal Engineering-I	2.16	2.16	1.87	2.16	-	2.16	2.16	1.44	-	-	-	1.44		2.02
31	Mechanics of Fluids and Hydraulic Machines	2.26	2.11	1.96	2.26	2.26	2.26	2.26	1.51	-	-	-	2.26	2.11	1.81
32	Machine Drawing	2.47	2.47	2.47	2.47	-	-	-	1.65	1.65	1.65	-	2.47	2.47	2.14
33	Probability and Statistics	1.92	2.21	2.06	2.21	1.47	-	-	1.47	-	1.47	-	2.21	-	-
34	Production Technology Lab	2.95	2.95	2.95	2.56	2.95	2.95		1.97	2.95	2.95	-	2.95	1.97	2.95
35	Mechanics of Fluids and Hydraulic Machines Lab	2.91	2.91	2.91	2.91	-	2.91	2.59	1.94	2.91	2.91	-	2.91	-	2.91
36	Personality Development & Behavioral Skills	-	-	-	-	0.77	1.54	2.31	2.00	1.69	2.31	-	2.31	-	-
37	Machine tools and Metrology	2.18	2.18	2.03	2.03	2.18	-	2.00	1.45	2.18	-	-	2.18	-	2.03
38	Dynamics of Machinery	2.24	2.09	1.94	2.24	1.49	1.68	-	1.49	2.24	-	-	2.24	-	2.24
39	Automobile Engineering	2.19	2.19	1.90	1.90	2.19	1.75	1.61	1.46	2.19	2.19	-	2.01	2.19	2.19
40	Design of Machine Members-I	2.09	1.95	1.39	2.09	-	0.87	-	1.39	-	-	2.09	1.95	2.09	2.09
41	Thermal Engineering-II	2.24	1.94	1.49	2.24	-	2.24	1.99	1.49	-	-	-	1.94	-	1.49
42	Introduction to Microcontroller & Applications (OE)	2.07	2.26	2.26	2.07	1.96	2.26	1.51	-	1.51	-	1.51	2.26	2.26	1.51
43	Basic Electronics & Instrumentation (OE)	2.18	2.18	2.18	2.18	0.73		1.45	-	1.45	0.73	-	2.18	-	-
44	Nonconventional Energy Sources (OE)	2.24	1.68	2.05	2.24	0.75	1.68	1.68	0.75	-	0.75	0.75	-	1.87	1.68
45	Energy Management (OE)	2.34	1.56	2.34	1.56	-	0.78	1.56	0.78	-	2.34	0.78	0.78	0.78	-
46	Java Programming (OE)	2.31	2.31	2.31	2.31	2.31	1.54	0.77	0.77	2.31	2.16	-	1.54	-	-
47	Operating Systems (OE)	2.28	1.98	1.82	1.82	1.82	1.52	1.27	1.27	1.22	1.52	1.37	1.22	-	-
48	Total Quality Management (OE)	1.49	0.75	1.87	1.74	1.49	1.49	2.24	0.75	2.24	1.87	2.24	2.24	-	-
49	Metrology and machine Tools Lab	2.92	2.92	1.95	2.73	2.92	-	2.92	-	2.92	2.92	-	2.34	2.27	2.53
50	Thermal Engineering Lab	2.74	2.94	2.16	2.74	-	2.94	2.55	1.96	2.94	2.94	-	2.94	-	1.96
51	Design of Machine Members-II	2.25	2.25	2.25	2.25	-	2.25	2.25	1.50	2.25	1.31	1.50	2.10	2.25	1.65
52	Heat Transfer	2.31	2.31	2.31	2.31	-	2.31	2.31	1.54	-	-	-	2.00	-	2.12

53	Finite Element Method	2.24	2.24	2.24	2.24	2.24	-	2.24	1.49	-	-	-	1.49	2.24	2.24
54	Managerial Economics and Financial Analysis	-	1.85	1.72	2.22	1.48	1.48	1.48	1.48	1.48	2.22	1.92	1.11	-	1.48
55	Refrigeration and Air Conditioning	2.18	2.18	2.18	2.18	-	2.03	2.18	1.45	-	2.18	-	1.45	-	1.74
56	Energy Auditing and Conservation (OE)	2.24	1.49	0.75	1.12	-	0.75	1.49	0.75	-	0.99	0.99	0.75	-	-
57	Principles of Electrical Power Utilization (OE)	2.10	2.10	2.10	1.40	-	1.40	2.10	-	-	-	-	-	-	-
58	Fundamentals of Embedded Systems (OE)	2.29	2.29	2.29	2.29	2.29	-	2.29	-	2.29	2.29	-	2.29	-	2.29
59	Principles of Communication (OE)	2.31	2.31	2.31		2.31	-	2.31	-	2.31	2.31	-	2.31	-	1.54
60	Database Management Systems (OE)	2.24	2.24	2.24	2.24	2.24	2.24	1.49	1.49	1.49	1.49	1.49	1.49	-	-
61	Software Engineering (OE)	2.22	1.78	2.22	1.98	1.78	1.98	1.98	0.74	1.48	1.48	2.07	1.92	-	-
62	Financial Institutions and Markets (OE)	-	-	-	-	2.77	-	-	-	-	1.84	2.77	2.77	-	-
63	Heat Transfer Lab	2.95	2.95	2.95	2.95	-	-	2.46	0.98	1.97	2.95		2.95	-	2.75
64	Advanced Communication Skills Lab	-	-	-	-	0.97	1.95	2.92	2.53	2.14	2.92	2.19	2.92	-	-
65	Quantitative Methods & Logical Reasoning	2.34	1.82	1.76	1.82	1.37	1.76	2.18	-	-	-	-	2.34	-	-
66	Operation Research	2.28	2.28	2.28	2.28	1.52	2.28		1.52	2.13	-	2.13		-	1.71
67	CAD/CAM	2.34	2.34	2.34	2.34	2.34	2.18	2.34	1.87	2.11	1.56	1.56	1.56	1.56	2.34
68	Mechanical Measurements and Instrumentation	2.31	1.85	-	2.31	2.31	2.31	2.31	1.85	2.16	1.54	1.54	1.23		2.31
69	Robotics	2.28	2.28	2.28	2.28	2.28	2.28	2.28	1.52	2.28	1.90	1.52	1.06	1.90	2.09
70	Power plant Engineering	2.34	2.34	2.34	1.56	-	2.34	2.18	1.56	2.34	1.56	2.34	1.56	1.56	2.03
71	Electrical Vehicles and Hybrid Vehicles (OE)	2.18	2.18	1.74	1.45	-	0.73	2.18	-	-	-	-	0.73	-	-
72	Energy Storage Systems (OE)	2.20	2.20	2.20	-	-	0.73	2.20	-	-	-	-	-	-	-
73	Introduction to MATLAB (OE)	1.86	1.93	2.04	1.86	1.86	-	1.49	-	-	1.49	1.49	2.23	2.23	2.23
74	Circuit Simulation using PSpice (OE)	2.31	2.31	2.31	2.31	2.31	-		-	1.54	1.54	2.31	1.54	2.31	2.31
75	Information Systems for Engineers (OE)	2.29	1.83	2.29	2.04	1.83	-	2.04	-	-	1.53	2.14	1.98	2.29	1.68
76	Web Design (OE)	2.44	1.95	2.44	2.17	1.95	-	2.17	-	-	1.63	2.28	2.11	2.44	1.63
77	Fundamentals of Entrepreneurship (OE)		2.32	2.32		2.32	1.80	1.80	-	-	-	2.13	2.17	2.32	1.55
78	Computer Aided Design and Manufacturing Lab	2.94	2.94	2.94	2.94	2.94	-	-	2.62	2.94	2.94	-	2.94	1.96	2.94
79	Production Drawing practice and Instrumentation lab	2.96	2.96	2.96	2.96	-	-	-	1.97	2.96	2.96	2.96	2.96	2.96	1.97
80	Industry Oriented Mini Project	2.16	2.94	2.94	2.28	2.94	1.76	2.94	1.37	2.94	2.94	2.94	2.94	2.94	1.96

81	Production Planning And Control	2.18	2.18	1.95	1.95	2.34	1.17	2.34	2.18	-	2.34	2.08	2.34	-	1.95
82	Plant Layout And Material Handling	2.31	2.31	2.16	1.69	2.31	1.54	2.12	1.54	-	-	2.31	1.93	-	2.31
83	Unconventional Machining Processes	2.29	1.53	-	-	-	1.53	2.29	1.53	-	-	-	2.29	-	1.53
84	Technical Seminar	2.00	3.00	3.00	3.00	3.00	1.50	3.00	1.80	2.00	3.00	-	3.00	3.00	2.00
85	Project Work	3.00	3.00	3.00	3.00	3.00	2.00	3.00	1.60	3.00	3.00	3.00	3.00	3.00	2.80
86	Comprehensive Viva	3.00	3.00	-	-	3.00	2.00	3.00	1.20	3.00	3.00	-	3.00	3.00	2.25
	Direct PO Attainment	**2.31**	**2.21**	**2.13**	**2.13**	**1.91**	**1.79**	**2.03**	**1.62**	**2.08**	**2.11**	**1.82**	**2.04**	**2.13**	**2.10**
	Indirect PO Attainment	**2.82**	**2.76**	**2.74**	**2.74**	**2.82**	**2.84**	**2.88**	**2.79**	**2.70**	**2.83**	**2.73**	**2.74**	**2.72**	**2.68**
	Overall PO Attainment	**2.41**	**2.32**	**2.25**	**2.25**	**2.10**	**2.00**	**2.20**	**1.86**	**2.20**	**2.25**	**2.00**	**2.18**	**2.25**	**2.22**

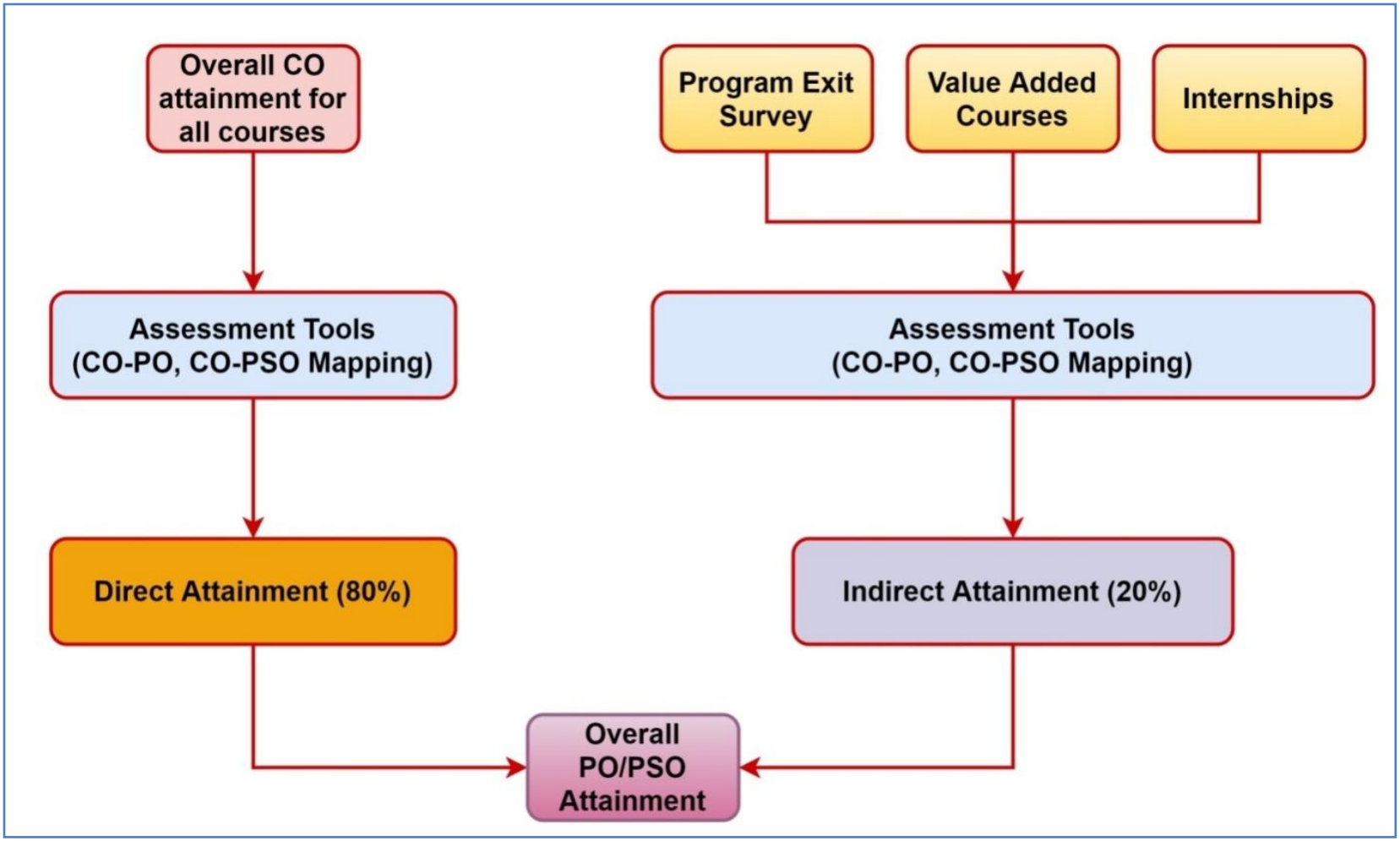
The components of the **Indirect PO attainment** are as follows;

Program Exit Survey	2.81	2.76	2.69	2.72	2.83	2.85	2.90	2.76	2.62	2.85	2.71	2.78	2.68	2.64
Value Added Courses Survey	2.80	2.81	2.78	2.75	2.82	2.86	2.85	2.85	2.68	2.81	2.69	2.71	2.76	2.69
Internships Survey	2.82	2.70	2.76	2.74	2.84	2.81	2.88	2.76	2.79	2.82	2.78	2.72	2.72	2.72
Indirect PO attainment	**2.82**	**2.76**	**2.74**	**2.74**	**2.82**	**2.84**	**2.88**	**2.79**	**2.70**	**2.83**	**2.73**	**2.74**	**2.72**	**2.68**

$$\boldsymbol{Indirect\ PO\ attainment} = \frac{Program\ Exit\ Survey\ +\ Value\ Added\ Courses\ Survey\ +\ Internships\ Survey}{3}$$

$$\boldsymbol{Overall\ PO\ Attainment} = 0.8 * Direct\ PO\ Attainment + 0.2 * Indirect\ PO\ Attainment$$

The flowchart showing the different tools used to compute the PO/ PSO attainment levels is shown below;



Flowchart showing the tools used for the computation of POs/ PSOs

Criterion 3 ends

Criteria 4: STUDENTS' PERFORMANCE

Table B:4a

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2021-2022	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016	2014-2015
Sanctioned intake of the program(N)	120	120	240	240	240	240	240	240
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)**	20	74	128	179	210	225	217	212
Number of students admitted in 2nd year in the same batch via lateral entry **(N2)**	-	18	29	76	53	53	48	40
Separate division students, If applicable **(N3)**	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Total number of students admitted in the programme **(N1 + N2 + N3)**		92	157	255	263	278	265	252

Table B:4b

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated (without backlogs)			
		I year	II year	III year	IV year
2021-2022	20 (20+0+0)				
2020-2021	74 (74+18+0)	70			
2019-2020	157 (128+29+0)	111	104		
2018-2019	255 (179+76+0)	169	165	161	
2017-2018(LYG)	263 (210+53+0)	183	175	168	162

2016-2017 (LYGm1)	278 (225+53+0)	197	177	173	170
2015-2016 (LYGm2)	265 (217+48+0)	186	178	172	167
2014-2015 (LYGm3)	252 (212+40+0)	178	174	163	160

Table B:4c

Year of entry	**Total No of students admitted in the program (N1 + N2 + N3)**	**Number of students who have successfully graduated (with backlogs)**			
		I year	**II year**	**III year**	**IV year**
2021-2022	20 (20+0+0)				
2020-2021	74 (74+18+0)	73			
2019-2020	157 (128+29+0)	126	146		
2018-2019	255 (179+76+0)	173	241	235	
2017-2018(LYG)	263 (210+53+0)	203	250	242	235
2016-2017 (LYGm1)	278 (225+53+0)	208	255	252	249
2015-2016 (LYGm2)	265 (217+48+0)	204	248	241	239
2014-2015 (LYGm3)	252 (212+40+0)	207	247	242	239

4.1. Enrolment Ratio

Year of entry	**N (From Table 4.1)**	**N1 (From Table 4.1)**	**Enrollment Ratio [(N1/N)*100]**
2021-2022	120	20	16.67

2020-2021	120	74	61.67
2019-2020	240	128	53.33

4.1. Enrolment Ratio

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2020-2021	120	74	61.67
2019-2020	240	128	53.33
2018-2019	240	179	74.58

4.2. Success Rate in the stipulated period of the program

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

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

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

Success rate without backlogs in any year of study = 15 × Average SI

Item	Latest Year of Graduation, LYG, (2017-21)	Latest Year of Graduation minus 1, LYGm1 (2016-20)	Latest Year of Graduation minus 2, LYGm2 (2015-19)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	263	278	265
Number of students who have graduated without backlogs in the stipulated period	162	170	167
Success Index (SI)	0.61	0.61	0.63
Average SI	0.62		

4.2.2. Success rate with backlog in stipulated period of study [Total of backlog + without backlog]

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

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

Item	Latest Year of Graduation, LYG, (2017-21)	Latest Year of Graduation minus 1, LYGm1 (2016-20)	Latest Year of Graduation minus 2, LYGm2 (2015-19)
Number of students admitted in the Corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	263	278	265
Number of students who have graduated with backlog in the stipulated period	235	249	239
Success Index (SI)	0.89	0.90	0.90
Average Success Index	0.89		

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 Second Year

Academic Performance Level = Average API (Academic Performance Index)

***API** = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)*

Successful students are those who are permitted to proceed to the Third year.

Academic Performance	CAYm1 (2020-21)	CAYm1 (2019-20)	CAYm2 (2018-19)
Mean of CGPA or Mean Percentage of all successful students (X)	7.48	7.26	7.28
Total no. of successful students (Y)	146	241	250

Total no. of students appeared in the examination (Z)	155	249	256
API = x* (Y/Z)	7.04	7.03	7.11
Average API = (AP1 + AP2 + AP3)/3	7.06		

4.3. Academic Performance in Second Year

Academic Performance Level = Average API (Academic Performance Index)

***API** = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)*

Successful students are those who are permitted to proceed to the Third year.

Academic Performance	CAYm1 (2019-20)	CAYm2 (2018-19)	CAYm3 (2017-18)
Mean of CGPA or Mean Percentage of all successful students (X)	7.26	7.28	7.31
Total no. of successful students (Y)	241	250	255
Total no. of students appeared in the examination (Z)	249	256	261
API = x* (Y/Z)	7.03	7.11	7.14
Average API = (AP1 + AP2 + AP3)/3	7.09		

4.4. Placement, Higher Studies and Entrepreneurship

Item	CAYm1 (2020-21)	CAYm1 (2019-20)	CAYm2 (2018-19)
Total No. of Final Year Students (N)	242	252	241
No. of students placed in companies or Government Sector (x)	38	91	124
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	5	31	41
No. of students turned entrepreneur in engineering/technology (z)	1	2	1
x + y + z =	44	124	166
Placement Index : (x + y + z)/N	0.18	0.49	0.69

Average placement= (P1 + P2 + P3)/3	0.45

4.4. Placement, Higher Studies and Entrepreneurship

Item	CAYm1 (2019-20)	CAYm2 (2018-19)	CAYm3 (2017-18)
Total No. of Final Year Students (N)	252	241	242
No. of students placed in companies or Government Sector (x)	91	124	126
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	31	41	9
No. of students turned entrepreneur in engineering/technology (z)	2	1	1
x + y + z =	124	166	136
Placement Index : (x + y + z)/N	0.49	0.69	0.56
Average placement= (P1 + P2 + P3)/3	0.58		

4.5. Professional Activities

4.5.1. Professional societies/chapters and organizing engineering events

a) Professional Societies

Academic Year	No. of events by different Professional Societies				
	ISTE	IIW	IEOM	SAE	IE(Mech)
2021-22	-	-	-	-	1
2020-21	-	1	-	1	1
2019-20	2	-	-	-	1
2018-19	1	2	1	1	2

4.5.2. Publication of technical magazines, newsletters, etc.

Academic year	Name of the newsletter	Frequency	Names of the Editor
2020-21	MECH VIDYA	Half Yearly	Dr. G.Sree Ram Reddy Dr.V.V.Satyanarayana Dr. B. Ravinder Reddy Mr. Prasad Kumar K Lohith Reddy (18911A0364)
2019-20	MECH VIDYA	Half Yearly	Dr. G.Sree Ram Reddy Dr.V.V.Satyanarayana Dr. B. Ravinder Reddy Mrs.T.Virajee Mothukuru Kavya (17911A0393)
2018-19	MECH VIDYA	Half Yearly	G.Sree Ram Reddy Dr.B.V. Reddi Dr.V.V.Satyanarayana Mrs.T.Virajee Gudipudi Suman (16915A0316)

4.5.3 Participation in inter-institute events by students of the program of study

(The Department shall provide a table indicating those publications, which received awards in the events/conferences organized by other institutes)

Academic year	No of students participated	No of awards
2021-22	5	-
2020-21	-	-
2019-20	37	24

Criterion 5.0 **(200 Marks)**

5.0 Faculty Information and contribution

S. NO	Faculty name	Pan Card	Qualification	Area of specialization	Designation	Date of joining	Date on which designated as professor. Associated professor	Currently associated (Y. N)	Nature of association (Regular. Contract. Adjunct)	If Contractual mention Full time or Part time	Date of leaving	Date of receiving highest degree
1	Dr. G. Sreeram Reddy	AFAPG4958E	PhD	Reverse Engineering	Professor	14.7.1999	6.1.2017	Yes	Regular			10.7.2017
2	Dr.V.V.Satyanarayana	AAVPV9553C	PhD	Welding	Professor	28.5.2012	28.5.2012	Yes	Regular			6.3.2004
3	Dr. B.V.Reddy	AFIPB8107N	PhD	Material Science	Professor	24.5.2010	24.5.2010	Yes	Regular			30.09.1980
4	Dr.B.Ravinder Reddy	ABLPB3751B	Ph D	Advanced manufacturing & Automation	Associate Professor	28.5.2012	07.12.2018	Yes	Regular			10.11.2018
5	Dr. Dareddy Ramana Reddy	AJXPD7891E	ME/M.Tech and PhD	Composite Materials	Associate Professor	17.11.2021	31.08.2020	Yes	Regular			03.10.2016

6	Dr.L.Madan Anand Kumar	BCWPM8674F	PhD	Solar energy	Associate Professor	19.01.2017	03.07.2017	Yes	Regular			27.5.2017
7	Dr Dileep Kumar Sahu	ANMPS5104N	PhD	Production	Professor	1.2.2018	1.2.2018	Yes	Regular		10.11.2021	30.09.2015
8	Dr.V Phanindra Bogu	ASUPB5495N	PhD	Manufacturing	Associate Professor	20.8.2018	20.8.2018	Yes	Regular			6.8.2018
9	Dr.B.Sudha Bindu	APTPB0558E	PhD	Composite materials	Assistant Professor	26.05.2014	20.01.2020	Yes	Regular			18.12.2019
10	Dr.J. Jagadesh Kumar	AIFPJ6474N	PhD	Design	Associate Professor	1.6.2011	18.01.2021	Yes	Regular			8.1.2021
11	Dr K Vijay Kumar	CKQPK8267D	PhD	Thermal Engineering	Associate Professor	15.11.2021	15.11.2021	Yes	Regular			01.12.2018
12	P.Sampath Kumar	BEJPS5412Q	ME.MTech	Production Engineering	Assistant Professor	30.5.2011		Yes	Regular			7.3.2002
13	J.Emeema	AEBPJ1340K	ME.MTech	Thermal Engineering	Assistant Professor	30.5.2011		Yes	Regular			10.4.1999
14	K.Rajesh Kumar	AQFPK4593B	ME.MTech	Production Engineering	Assistant Profess	30.5.2011		Yes	Regular			23.5.2005

					or							
15	M.Mallesh	BCMPM7257G	ME.MTech	CAD/CAM	Assistant Professor	30.5.2011		Yes	Regular			30.6.2008
16	DRS Narsing Rao	BAHPD1587R	ME.MTech	Advanced Design and Manufacturing	Assistant Professor	1.6.2011		Yes	Regular			15.7.2009
17	B.Malathi	APFPB0888K	ME.MTech	Energy Systems	Assistant Professor	1.6.2011		Yes	Regular			1.9.2006
18	T. Virajee	ALBPT6644B	ME.MTech	CAD/CAM	Assistant Professor	1.6.2011		Yes	Regular		10.11.2021	4.6.2009
19	P.Pavani	AZDPP2722N	ME.MTech	Advanced Manufacturing Systems	Assistant Professor	28.5.2012		Yes	Regular			18.11.2011
20	S.Prasad Kumar	APMPA4277Q	ME.MTech	Manufacturing Technology	Assistant Professor	28.5.2012		Yes	Regular			21.7.2011
21	T.Pavan Kumar	AGJPT9845P	ME.MTech	CAD/CAM	Assistant Professor	28.5.2012		Yes	Regular			21.12.2011
22	Shaik Ismail	ABEPI7662M	ME.MTech	Thermal Engineering	Assistant Profess	27.05.2013		Yes	Regular			16.5.2012

					or							
23	G.Sowmya	AROPG8239L	ME.MTech	Engineering Design	Assistant Professor	27.05.2013		Yes	Regular		13.11.2021	29.09.2012
24	C.L.Sindhuja	ATGPC3736L	ME.MTech	Thermal Engineering	Assistant Professor	27.05.2013		Yes	Regular			30.09.2011
25	K.Srinivasa Rao	AVAPK0522E	ME.MTech	Thermal Engineering	Assistant Professor	27.05.2013		Yes	Regular			7.10.2011
26	Ch.Rakesh	ATBPC4671R	ME.MTech	CAD/CAM	Assistant Professor	26.05.2014		Yes	Regular			16.10.2013
27	Shaik Gulam Abul Hasan	AWGPA2174F	ME.MTech	Heat Ventilation And Air conditioning	Assistant Professor	26.05.2014		Yes	Regular		10.11.2021	28.12.2013
28	C.Naveen Raj	AMGPN9238F	ME.MTech	Advanced Design and Manufacturing	Assistant Professor	26.05.2014		Yes	Regular			30.10.2013
29	Ravi Chirra	BBUPC8383E	ME.MTech	Thermal Engineering	Assistant Professor	26.05.2014		Yes	Regular			30.12.2013
30	Shaik Mohd.Amoodi	ASNPA5280F	ME.MTech	Heat Ventilation And Air	Assistant Profess	26.05.2014		Yes	Regular			28.12.2013

				conditioning	or							
31	G.Ambika	BQIPG3894D	ME.MTech	Advanced Design and Manufacturing	Assistant Professor	26.05.2014		Yes	Regular			30.12.2011
32	N.Praveen	AUUPN3117H	ME.MTech	CAD/CAM	Assistant Professor	26.05.2014		Yes	Regular			11.2.2013
33	S.Ramakrishna	ARWPR1166R	ME.MTech	CAD/CAM	Assistant Professor	25.05.2015		Yes	Regular			30.1.2015
34	Syeda Saniya Fatima	CSIPS6076C	ME.MTech	CAD/CAM	Assistant Professor	25.05.2015		Yes	Regular		10.11.2021	15.7.2015
35	R.N.S.V. Ramakanth	BXNPR0502H	ME.Mtech	Thermal Engineering	Assistant Professor	29.09.2016		Yes	Regular			22.10.2015
36	Madi Bhoopal Reddy	CCQPM3057H	ME.Mtech	Machine Design	Assistant Professor	1.12.2016		Yes	Regular			30.09.2016
37	P Chandra Kumar	CXHPP9977M	ME.Mtech	Thermal Engineering	Assistant Professor	2.12.2016		Yes	Regular			11.9.2016
38	G Sravya	BKIPG7792Q	ME.MTech	Machine Design	Assistant Profess	11.1.2017		Yes	Regular			23.12.2016

					or							
39	K Ashoka Chary	BJMPK4516R	ME.MTech	Thermal Engineering	Assistant Professor	7.6.2018		Yes	Regular			11.5.2012
40	S Venkatesh	AMFPV7216G	ME.MTech	CAD/CAM	Assistant Professor	6.7.2018		Yes	Regular			8.9.2015
41	G Rajesh Babu	BFVPG3904E	ME.MTech	Machine Design	Assistant Professor	9.7.2018		Yes	Regular			30.10.2016
42	K Narendar Reddy	CJQPK9575H	ME.MTech	Thermal Engineering	Assistant Professor	9.7.2018		Yes	Regular			7.10.2015
43	J Pradeep Kumar	AIEPJ5179M	ME.MTech	CAD/CAM	Assistant Professor	11.7.2018		Yes	Regular			11.7.2008
44	P Raghuram Reddy	AOHPP3348F	ME.MTech	CAD/CAM	Assistant Professor	18.8.2018		Yes	Regular			7.10.2015
45	K Ravi Kumar	BGPPK4968P	ME.MTech	R& AC	Assistant Professor	1.9.2018		Yes	Regular			30.12.2011
46	shaik saidulu	EPTPS6454G	ME.MTech	Machine Design	Assistant Profess	01.08.2019		Yes	Regular			11.7.2008

					or							
47	V.Ganesh	AREPV9177C	ME.MTech	Thermal Engineering	Assistant Professor	15.11.2021		Yes	Regular			18.03.2013
48	K.Naveen	EGAPK3856E	ME/MTech	Engineering Design	Assistant Professor	15.11.2021		Yes	Regular			13.11.2015
49	P. Raghupathi	DKTPP9172E	ME/MTech	Machine Design	Assistant Professor	18.11.2021		Yes	Regular			15.04.2019
50	M.Mohan Krishna	CZAPM6672H	ME/MTech	CAD/CAM	Assistant Professor	18.11.2021		Yes	Regular			20.03.2017

5.1 Student-Faculty Ratio (SFR) (20)

Vidya Jyothi Institute of Technology Details of Student-Faculty ratio in Mechanical Engineering Department (UG Course)			
Year	**Total no. of students**	**Total no. of faculty**	**Student Faculty Ratio**
2020-21	**877**	**48**	**18.27**
2019-20	**895**	**48**	**18.64**
2018-19	**875**	**45**	**19.44**
		AVERAGE SFR	**18.78**

Vidya Jyothi Institute of Technology Details of Student-Faculty ratio in Mechanical Engineering Department (UG+PG Course)			
Year	**Total no. of students**	**Total no. of faculty**	**Student Faculty Ratio**
2020-21	**925**	**48**	**19.27**
2019-20	**943**	**48**	**19.64**
2018-19	**923**	**45**	**20.51**
		AVERAGE SFR	**19.81**

5.2 Faculty Cadre Proportion (20)

Vidya Jyothi Institute of Technology Details of Faculty cadre proportion in Mechanical Engineering Department						
Year	Professors		Associate Professors		Assistant Professors	
	Required	Available	Required	Available	Required	Available
2020-21	5	5	10	7	30	36
2019-20	5	4	10	6	31	38
2018-19	5	4	10	4	30	37
Average Numbers	5	4.66	10	5.66	30.33	37

5.3 Faculty Qualification (20)

Vidya Jyothi Institute of Technology Details of Faculty qualification in Mechanical Engineering Department				
Year	No.of Faculty with Ph.D	No.of faculty with M.Tech	No.of faculty to comply 1:20SFR	Faculty qualification
2020-21	12	36	46	11.48
2019-20	10	38	47	10.72
2018-19	8	37	46	9.91

5.4 Faculty Retention (10)

Vidya Jyothi Institute of Technology Details of Faculty retained in Mechanical Engineering Department			
Academic Year	**Total Faculty**	**Faculty Retained**	**Retention %**
2020-21	**45**	**45**	**100**
2019-20	**45**	**45**	**100**
2018-19	**45**	**40**	**88.89**

5.5 Faculty Competencies in correlation to Program specific criteria (10)

Academic Year 2018 to 2022

S.no	Faculty	Specialization	Program specific critirea Vs competencies
	Dr. BV Reddi	**Material Science**	**1.Research Publication:***Synthesis and Characterization of Magnetic Nano-Crystallites using ARC-Discharge Method* **Competencies:**Hematite (Fe2O3) and magnetite (Fe3O4) nano-crystallites were successfully synthesized byArc-discharge method by using NaCl, KCl and LiCl salts as electrolytes which can be easily available. Sincethe most widely used natural element on earth is iron, therefore it finds many applications in biomedical andin many other research areas when these particles are in nano form when compared with micro or macroform. **2.Research Publication:***The effect of heat treatment on phase changes in magnetite (Fe3O4) and hematite (fe2O3) nano-particles synthesized by*

1.			*Arc-discharged method* **Competencies:**The Hematite and magnetite nano-particles were successfully synthesized using the arc-discharge method. The properties of iron oxide-based nano-particles mostly rely on the synthesis method, so in this work, we present a simple, efficient, and economical method by which magnetic nano-particles are synthesized with superior properties. **3.Research Publication:***Design and development of mechanical vibrating filter for reclaiming coolant from aluminium sludge* **Competencies:**In view of ever-increasing quest for developing cost effective cutting-edge technologies, researchers are making all efforts to make use of materials for reuse many a time in order to overcome dwindling resources of raw materials and / or reduce the consumption of energy for production of metals/materials and products, which directly save the environment from the generation of green gases and global warming. Finally, protect the lives of not only human beings but also flora and fauna on this mother earth from their extinction. **4.Research Publication:***A Critical Review on preparation of Fe3O4 Magnetic nanoparticles and their potential applications* **Competencies:**Nanotechnology is one of the most powerful techniques which has been spread rapidly in entire world within less time because of wide range of its applications. This review reveals the key methods for the preparation of magnetic nano-particles systematically. This paper helps us to select the most efficient and economical technique out of many described. In general the properties of magnetic particle differ due to change in its size, shape and crystalline structure, however many factors

			have been described in this review to obtain the magnetic nano-particles less than 100nm with wide applications.
2.	**Dr. V .V. Satyanarayana**	**Manufacturing Engg.**	**1.Research Publication:***Effect of volume discounts on optimal transportation costs* **Competencies:**The transportation of goods from source to destination is a critical issue in the light of supply chain management. The pricing of products depends not only on basic costs like material and manufacturing, but also on the transportation cost. The variables affecting the transportation involve unit transportation cost, port selection, time, weather conditions and also on volume of items. As many of the variables commonly exist in all situations and the unique factor that distinguishes from the remaining is by its volume of products transported and subsequently the discounts offered by the transporter. **2.Research Publication:***TOPSIS – Taguchi Analysis of Notch Parameters on the Fatigue Life of Super Duplex Stainless Steel* **Competencies:** The purpose of the current research is to quantify the impact of notch parameters viz. width, depth and central angle (perimeter length) on the fatigue life of UNS S32760 grade of super duplex stainless steel. Design/ Methodology/ Approach: Finite element analysis approach is implemented by using the popular software package ANSYS 18.1 and the experimental runs are selected as per the requirements of Taguchi L9 orthogonal array. TOPSIS approach is used along with Taguchi method to know about the impact of notch parameters and arrive at the optimal condition. Findings: It is quantitatively established that notch depth is the most critical parameter and it affects the fatigue life to a greater extent (63.4%) when

			compared to other factors viz. notch width (10.6%) and central angle (7.31%). **3.Research Publication:***Optimization of AZ91D Magnesium Alloy friction stir welded joints by Taghuchi method* **Competencies:**Friction stir welding (FSW) of AZ 91D Magnesium alloy has been undertaken with an objective to find the optimal parameter condition for the mechanical properties of the welded joints. Empirical regression equations are developed for all the responses. The variation in mechanical properties at different parameter combination is attributed to change in micro-structure during the welding process. Tool tilt angle is governing uttermost while a comprehensive study on all mechanical properties is concerned. **4.Research Publication:***Impact of Notch Geometry on the Pressure Bearing Capacity of AISI 316L Austenitic Stainless Steel under Fatigue Loading.* **Competencies:**In the current research, pressure bearing capacity of AISI 316L austenitic stainless steel is evaluated under fatigue loading through finite element method (ANSYS 18.1) for a specimen with no notch on its surface. Thereafter, the pressure bearing capacity of the same specimen is evaluated with rectangular and V-notches at the center. **5.Research Publication:***Facilitating Student Easy learning Through PB lab, LTC and CTL Components* **Competencies:** All the top ranked universities and their affiliated colleges are moving towards outcome based learning methodology from input based teaching practice. The concept of OBE system is to foster the learning capability of a student, to achieve this, the faculty members and students work together. All the newly forming universities are completely based on

			OBE, the major goal of OBE is to facilitate student learning. **6.Research Publication:***Impact of High-Velocity Oxy-Fuel ZrO2 Coating on Corrosion Resistance and Fatigue Life of AISI 316L Austenitic Stainless Steel* **Competencies:**Purpose. -e purpose of this research paper is to investigate the corrosion and fatigue life of AISI 316L austenitic stainless steel in the absence and presence of high-velocity oxy-fuel ZrO2 coating. Design/Methodology/Approach. AISI 316L austenitic stainless steel is chosen for the investigation, keeping in mind, its widespread usage in naval and marine applications where the members are exposed to corrosive sea water environment. ZrO2 coating is a popular surface treatment provided to mechanical members to improve their corrosion resistance. Being a refractory material, ZrO2 inhibits the corrosion of the AISI 316L austenitic stainless steel in marine applications.
3.	**Dr.G.Sreeram Reddy**	**Reverse Engineering**	**1.Research Publication:***Design and development of mechanical vibrating filter for reclaiming coolant from aluminium sludge* **Competencies:**In view of ever-increasing quest for developing cost effective cutting-edge technologies, researchers are making all efforts to make use of materials for reuse many a time in order to overcome dwindling resources of raw materials and / or reduce the consumption of energy for production of metals/materials and products, which directly save the environment from the generation of green gases and global warming. Finally, protect the lives of not only human beings but also flora and fauna on this mother earth from their extinction. **2.Research Publication:***Effect of volume discounts on optimal*

			transportation costs **Competencies:**The transportation of goods from source to destination is a critical issue in the light of supply chain management. The pricing of products depends not only on basic costs like material and manufacturing, but also on the transportation cost. The variables affecting the transportation involve unit transportation cost, port selection, time, weather conditions and also on volume of items. As many of the variables commonly exist in all situations and the unique factor that distinguishes from the remaining is by its volume of products transported and subsequently the discounts offered by the transporter. **3.Research Publication:***Reverse Engineering on Jet Engine Turbine Blade Based on 3D Printing Design Intent.* **Competencies:**Reverse engineering plays a significant role in rebuilding of a product. This suggests a situation arranged for reverse engineering of turbine blade used in aero engine components. It is the process that designs by using point cloud data to get CAD models. Reverse Engineering is a method for creating CAD model of physical parts whose designs are not available or fractured or damaged parts by digitizing a persisting prototype, reverse engineering creates a computer model by applying 3D scanning. In this paper it is for reproducing the geometries of aero engine physical components i.e. turbine blade in digitizing process through 3D Scanning and CMM Inspection. **4.Research Publication:***Reverse Engineering on Jet Engine Turbine Disk* **Competencies:** Damaged or broken parts are generally too expensive to replace, or no longer available. Re can be defined as 'systematic evaluation of a product with the purpose of replication. This includes design of a new part, copy of an existing part, recovery of a damaged or broken part, development of model accuracy and inspection of a numerical model. Task

			is to reproducing the geometries of aero engine physical component in digitizing process through 3D scanning and complete conversion of physical data into CAD model by using modern measuring machines with its integrated software's (creo 2.0) extractions of information about geometry to develop part models parts which have to be reverse engineered. **5.Research Publication:***Design of Powered Wheel Dolly for Construction Stair Case* **Competencies:**New Product Development (NPD) plays a major role in this fast-moving market. Depending on functionality of the product, which is existing or an unmet by considering other aspects, new product can be developed. Considering these voids in the field of construction, in the areas of logistics while there will be lots of manpower required in transporting construction goods. Considering this as the problems effecting the health and time duration of the work, this new product is designed to carry the heavy load to the top floor using less man-power and consuming less time by using a slab dolly. **6.Research Publication:***Facilitating Student Easy learning Through PB lab, LTC and CTL Components* **Competencies:**All the top ranked universities and their affiliated colleges are moving towards outcome based learning methodology from input based teaching practice.The concept of OBE system is to foster the learning capability of a student, to achieve this, the faculty members and students work together. All the newly forming universities are completely based on OBE, the major goal of OBE is to facilitate student learning. In this present paper the concept of project based lab (PBLab), lab taken to the class (LTC) and class taken to the lab (CTL) programs are described.

			7.Research Publication:*Design of plastic component using reverse engineering approach* **Competencies:**The Reverse Engineering (RE) technique for the design of plastic components of money counting machine using articulated laser scanner and CatiaV5 is presented. Initially it is physically digitized to generate point cloud data with the help of a scanner through scanning and is exported to CAD software CatiaV5. Thus, this paper describes the processes of RE of plastic component from object digitization and analyze the error to reconstruct the CAD model.
4.	**Dr.L. Madan Anand Kumar**	**Thermal Engineering**	**1.Research Publication:***Reverse Engineering on Jet Engine Turbine Blade Based on 3D Printing Design Intent.* **Competencies:**Reverse engineering plays a significant role in rebuilding of a product. This suggests a situation arranged for reverse engineering of turbine blade used in aero engine components. It is the process that designs by using point cloud data to get CAD models. Reverse Engineering is a method for creating CAD model of physical parts whose designs are not available or fractured or damaged parts by digitizing a persisting prototype, reverse engineering creates a computer model by applying 3D scanning. In this paper it is for reproducing the geometries of aero engine physical components i.e. turbine blade in digitizing process through 3D Scanning and CMM Inspection. **2.Research Publication:***Reverse Engineering on Jet Engine Turbine Disk* **Competencies:** Damaged or broken parts are generally too expensive to replace, or no longer available. Re can be defined as 'systematic evaluation of a product with the purpose of replication. This includes design of a new part, copy of an existing part, recovery of a damaged or broken part, development of model accuracy and inspection of a numerical model. Task is to reproducing the geometries of aero engine physical component in

			digitizing process through 3D scanning and complete conversion of physical data into CAD model by using modern measuring machines with its integrated software's (creo 2.0) extractions of information about geometry to develop part models parts which have to be reverse engineered. **3.Research Publication:***Design of Powered Wheel Dolly for Construction Stair Case* **Competencies:**New Product Development (NPD) plays a major role in this fast-moving market. Depending on functionality of the product, which is existing or an unmet by considering other aspects, new product can be developed. Considering these voids in the field of construction, in the areas of logistics while there will be lots of manpower required in transporting construction goods. Considering this as the problems effecting the health and time duration of the work, this new product is designed to carry the heavy load to the top floor using less man-power and consuming less time by using a slab dolly. **4.Research Publication:***Design of plastic component using reverse engineering approach* **Competencies:**The Reverse Engineering (RE) technique for the design of plastic components of money counting machine using articulated laser scanner and CatiaV5 is presented. Initially it is physically digitized to generate point cloud data with the help of a scanner through scanning and is exported to CAD software CatiaV5. Thus, this paper describes the processes of RE of plastic component from object digitization and analyze the error to reconstruct the CAD model. **5.Research Publication:**Biaxial Loading Analysis Of Laminated Polymer Composite Material

			Competencies: The contemporary practice of using uniaxial tests as a source for failure prediction of composite materials which are in homogeneous and anisotropic under multi-axial loading has witnessed to be inadequate. Therefore, biaxial and multi-axial tests appeared obligatory to improve our understanding the behavior of these complex materials. The present paper is focused on selection of suitable geometry for the test coupons required under biaxial loading.
5.	**Dr.V.Phanindra Bogu**	**CAD/CAM**	**1.Research Publication:***3D Printed, Customized Cranial Implant for Surgical Planning* **Competencies:**The main objective of the present work is to model cranial implant and printed in FDM machine (printer model used: mojo). Actually this is peculiar case and the skull has been damaged in frontal, parietal and temporal regions and a small portion of frontal region damaged away from saggital plane, complexity is to fill this frontal region with proper curvature. **2.Research Publication:***Effect of nickel coating on the mechanical behaviour of polymer replicated Al2O3 foams* **Competencies:** The present investigation explores the effect of Nickel coating on Alumina (Al2O3) foams under quasistatic and dynamic conditions. Initially Al2O3 foams with 10, 20 and 30 Pores Per Linear Inch (PPI) were prepared by polymeric sponge replication technique and subsequently foams were coated with nickel (Ni) by electrolytic process. **3.Research Publication:***Analytical And Numerical Validation Of Truncated Cellular Lattice Structure With Various Strut Diameters* **Competencies:**To study to mechanical behavior of a lattice structure, it is

			required to consider a unit cell, which after being repeat in space then we are considering truncated cube lattice structure. The porous bio materials of mechanical properties made from the relative new unit cell, which is namely truncated cube. We present analytical solutions that relate the dimension of the repeat unit cell to the flow ratio of the elastic modulus Poisson and the buckling load of these porous structures. Analytical and numerical validation of truncated cellular lattice structure with various strut diameters of unit cell. **4.Research Publication:***Elasticity Solutions of Functionally Graded Pressure Vessels: An Analytical and Numerical Study* **Competencies:**The theory of infinitesimal elasticity is a well known technique used to calculate the analytical elasticity solutions of pressure vessels composed of functionally graded materials and subjected to internal pressure. The elasticity modulus is varied according to the power-law equation and considered the constant Poisson's ratio value throughout the thickness of the pressure vessel. From equilibrium equations of pressure vessel, the required differential equations were derived in terms of radial displacement. **5.Research Publication:***Numerical Investigation On Flexural Strength Of Lattice Sandwich Structures* **Competencies:**Sandwich structures have huge applications attributable to their improved properties when compared with that of conventional structures. Sandwich structures give high solidarity to weight proportion and offer improved quality properties. Sandwich structures became an area of great interest for researchers throughout world because of its wide range of applications in the field of Medicine, Aerospace, Marine, Automobiles etc., By the introduction of 3d printing Lattice sandwich structures manufacturing became easy and problems faced by core failure have been

			reduced.
6.	**Dr.B.Ravinder Reddy**	**Industrial Metallurgy**	**1.Research Publication**:*Study Of Mechanical And Metallurgical Properties Of Friction Stir Welded Aluminium Alloys (AA2014 & AA6082) by addition The Tio2 nano particles And Its Simulation Analysis* **Competencies:** The present work investigates the mechanical and metallurgical properties of friction stir welded aluminium alloys AA2014 & AA6082 by the addition titanium dioxide nanoparticles and its simulation analysis by Ansys software. The hexagonal tool pin is used for FSW of dissimilar aluminium alloys and TiO2 nanoparticles were inserted during welding process.
7.	**Dr.B.Sudha Bindu**	**CAD/CAM**	**1.Research Publication**:*An Overview Of Fungal And Bacteria On Different Roof Sheets* **Competencies:**Degradation of materials will be initiated by biological growth of cyanobacteria, fungi, algae.The chief factors for growth of fungi are conductive i.e when moisture, heat, humidity and nutrients are present in right balance. Damp surfaces are readily colonized by microbial cells settling from the air. This leads to the formation of a biofilm, which can trap dust and other particulate materials, increasing its disfiguring effect. **2.Research Publication**:*Effect of Mechanical Properties on Jute Fiber Reinforced By E-Glass Fiber When Treated to Change in Environment* **Competencies**:Fiber reinforced polymer (FRP) composites are used in various atmospheric conditions, tests are under gone for their various stress concentrations when subjected to different atmospheric conditions related to their thermal expansions .The present work aims to study the change in effects when they were subjected to hygrothermal conditioning cycles like change in temperature keeping humidity as constant and change in humidity keeping temperature as constant on Jute/ E-glass composites.

			Observations on tensile tests, hardness and absorption/desorption were noticed to be dependent on the nature of hygrothermal effects and SEM analysis was conducted on the specimens. **3.Research Publication**:*Experimental investigations of ultra violet rays, wear tests and mechanical properties on jute reinforced E-Glass composites* **Competencies:** An attempt has been made to study the influence of wear parameters like UV, wear and percentage of reinforcement on the Jute reinforced E-glass composites. Reinforcement of composite is done based on Taguchi method that was applied for the experiment on UV rays to acquire data in controlled way. An orthogonal array and the analysis of variance were employed to investigate the influence of process parameters on the tensile tests before and after subjected to UV-B rays of composites. The objective is to establish a correlation between the composites. Finally, Opacity, hardness, wear and mechanical tests were conducted and morphology was studied under SEM analysis.
8.	**Dr.J.Jagdesh Kumar**	**CAD/CAM**	**1.Research Publication:***Impact of Notch Geometry on the Pressure Bearing Capacity of AISI 316L Austenitic Stainless Steel under Fatigue Loading.* **Competencies:**In the current research, pressure bearing capacity of AISI 316L austenitic stainless steel is evaluated under fatigue loading through finite element method (ANSYS 18.1) for a specimen with no notch on its surface. Thereafter, the pressure bearing capacity of the same specimen is evaluated with rectangular and V-notches at the center. **2.Research Publication:***Effect Of Notch Geometry On The Fatigue Life Of Uns S32760 Super Duplex Steel Tig Welded Joints* **Competencies:**The objective of this activity is to evaluate the fatigue lifespan of parent material (‘UNS S32760 Super Duplex stainless steel’)

			and their TIG welded joints. And it is TIG welded joints' is evaluated on Nano Universal Testing Machine. The possibility of the plan also comprises comparison of the 'Fatigue life of the parent material and the TIG welded joints. The scope further includes performing Taguchi analysis on the results to obtain optimal parameters and finding the equivalent elastic loading for the obtained experimental life of parent material based on the finite element method approach using ANSYS **3.Research Publications:***Impact of Notch Geometry On The Fatigue Life Of Aisi 316L Austenitic Stainless Steel* **Competencies**:An AISI316L is an austenitic stainless steel improved with an addition of 2.5% Molybdenum to provide improved corrosion resistance to AISI 316L stainless steel. 316L stainless steel has improved pitting corrosion resistance and has excellent resistance to Sulphates, phosphates and other salts. 316L has highly superior and better resistance than standard 18/8 types to sea water, reducing acids and solution of chlorides, bromides and iodies. AISI 316L steels are widely used as marine application such as boat rails and hardware, facades of buildings, pharmaceutical and bio-processing, Dairy and Food, brewery and other beverage industries due to its high corrosion resistance, and heat resistance provide the excellent fabric ability and formability. In this project work, the Impact of notch geometry on the fatigue life of AISI 316L austenitic stainless steel is investigated experimentally on Nano Universal Testing Machine. **4.Research Publication:***TOPSIS – Taguchi Analysis of Notch Parameters on the Fatigue Life of Super Duplex Stainless Steel* **Competencies:** The purpose of the current research is to quantify the impact of notch parameters viz. width, depth and central angle (perimeter length) on the fatigue life of UNS S32760 grade of super duplex stainless steel.

			Design/ Methodology/ Approach: Finite element analysis approach is implemented by using the popular software package ANSYS 18.1 and the experimental runs are selected as per the requirements of Taguchi L9 orthogonal array. TOPSIS approach is used along with Taguchi method to know about the impact of notch parameters and arrive at the optimal condition. Findings: It is quantitatively established that notch depth is the most critical parameter and it affects the fatigue life to a greater extent (63.4%) when compared to other factors viz. notch width (10.6%) and central angle (7.31%). **5.Research Publication**:*Response prediction of reverse engineered freeform surface by design of experiments* **Competencies**:Reverse engineering is a new technique employed in product design wherein original drawings or pertinent technical data are not available. Reverse engineering technology acquires the conceptual designs from the existing products and consequently creates digital product models. In the product design these digital products are employed with optimization principles. The investigation in this paper encompasses 3-D reconstruction of products by the reverse engineering technique and consequently identifying the deviations between the original product and the reverse engineered model.

Book Chapters			
S.no	**Faculty**	**Specialization**	**Book Chapter in Detail**
1.	Dr.V.Phanindra Bogu	CAD/CAM	Design and Analysis of Various Homogeneous Interconnected Scaffold Structures for Trabecular Bone

2.	Dr.N.Ravindra Reddy	Manufacturing	Modern Methods in Welding Technology
3.	Dr.G.Sreeram Reddy	Reverse engineering	Experimental Investigation on Reverse Engineering Techniques Employing Response Surface Methodology for Freeform Surfaces.
4.	Mr.Shaikh Ismail	Thermal Engg.	Experimental Investigation of Ball Burnishing Process parameters optimization for AI 5083 using Taguchi Method

5.5.2. Course Development

S.No.	Name of the Course Content	Developed By	Hosted in	PSO Cpmpliance
A.Y.2020-21				
1	Machine Drawing	T.Pavan Kumar	YOU tube	PSO1
A.Y.2019-20				
1	Thermodynamics	K.Ashoka chary	YOU tube	PSO1
A.Y.2018-19				
1	Kinematics of Machinery	S.Venkatesh	YOU tube	PSO1

5.5.3 Faculty Interaction with Outside World

S.No.	Name of the Faculty	Name of the Activity	Presented Place	PSO Compliance	PO Compliance
A.Y.2019-20					
1	Dr.V.V.Satayanarayana	Presented Key Note lecture on "Optimization technique In Mechanical Engineering " on 5th& 6th June2020	Shadan College of Engineering & Technology, Hyderabad	PSO2	PO1-PO6
2	Dr.Phanindra Bogu	Presented Key Note lecture on "3D Printing " on 27th Feb 2020	JNTU,Jagatiyala, Karimnagar	PSO1	PO2-PO8
3	Dr.Phanindra Bogu	Presented Key Note lecture on "Carnial Implements" on 18th July 2019	NIT, Warangal	PSO2	PO1-PO6
A.Y.2018-19					
1	Dr.G.Sreeram Reddy	Presented Key Note lecture on "Engineering Drawing" on 22nd&23rd Nov,2018	St.Peter's college of Engineering & Technology, Hyderabad	PSO1	PO2-PO8

5.5.4 COURSERA CERTIFICATION

S.No	Faculty Name	Course Title	Certification

1	V Ramalingeswara Rao	Ferrous Technology I	Coursera
2	V Ramalingeswara Rao	Ferrous Technology II	Coursera
3	V Ramalingeswara rao	Introduction to Project Management	Coursera
4	V Ramalingeswara Rao	Material Science:10 things every Engineer should know	Coursera
5	V Ramalingeswara Rao	Introduction to Engineering Mechanics	Coursera
6	K.Rajesh Kumar	Introduction to Project Management	Coursera
7	K.Rajesh Kumar	Object Oriented Programming with Java	Coursera
8	K.Rajesh Kumar	Computer Vision- Image Basics with Open CV and Python	Coursera
9	K.Rajesh Kumar	Linear Regression with Num Py and Python	Coursera
10	K.Rajesh Kumar	Custom Prediction Routine on Google AI Platform	Coursera
11	Emeema janumala	Create Informative Presentations with Google Slides	Coursera
12	Emeema janumala	Getting Started with Google Sheets	Coursera
13	Emeema janumala	Spreadsheets for Beginners using Google Sheets	Coursera
14	Rakesh challagondla	Project: Spreadsheets for Beginners using Google Sheets	Coursera
15	Rakesh challagondla	Create Informative Presentations with Google Slides	Coursera
16	Rakesh challagondla	FERROUS TECHNOLOGY I	Coursera
17	Rakesh challagondla	FERROUS TECHNOLOGY II	Coursera
18	Rakesh challagondla	INTRODUCTION TO PSYCHOLOGY	Coursera

19	Shaik Gulam Abul Hasan	Ferrous Technology - 1	Coursera
20	Shaik Gulam Abul Hasan	Material Science: 10 things every engineer should know	Coursera
21	Shaik Gulam Abul Hasan	Mechanics of Materials I	Coursera
22	Shaik Gulam Abul Hasan	Create Informative Presentations with Google Slides	Coursera
23	Shaik Gulam Abul Hasan	Spreadsheets for Beginners using Google Sheets	Coursera
24	Chintala Naveen Raj	Spreadsheets for Beginners Using Google Sheets	Coursera
25	Chintala Naveen Raj	Materials Science: 10 things every engineer should know	Coursera
26	Chintala Naveen Raj	Material Behavior	Coursera
27	Chintala Naveen Raj	Ferrous Technology I	Coursera
28	Chintala Naveen Raj	Digital Manufacturing and Design	Coursera
29	S Ramakrishna	Introduction to Psychology	Coursera
30	S Ramakrishna	Material Behavior	Coursera
31	S Ramakrishna	Build Data Analysis tools using R and DPLYR	Coursera
32	S Ramakrishna	Materials Science 10 Things Every Engineer Should Know	Coursera
33	S Ramakrishna	Understanding Research Methods	Coursera
34	T pavan kumar	Spreadsheets for Beginners using Google Sheets	Coursera
35	T pavan kumar	Create Informative Presentations with Google slides	Coursera
36	T pavan kumar	Build Data Analysis tools using R and DPLYR	Coursera

37	T pavan kumar	Business Operations Support in Google Sheets	Coursera
38	T pavan kumar	Computer Vision - Image Basics with OpenCV and Python	Coursera
39	P.sampath kumar	DIGITAL MANUFACTURING AND DESIGN	Coursera
40	P.sampath kumar	INTRODUCTION TO PSYCHOLOGY	Coursera
41	P.sampath kumar	ROAD MAP TO SUCCESS IN DIGITAL MANUFACTURING AND DESIGN	Coursera
42	P. Sampath kumar	FERROUS TECHNOLOGY 1	Coursera
43	P sampath kumar	FERROUS TECHNOLOGY 2	Coursera
44	Dr.B.sudhabindu	Advanced Manufacturing Process Analysis	Coursera
45	Dr.B.sudhabindu	Mechanics of Materials I: Fundamentals of Stress & Strain and Axial Loading	Coursera
46	Dr.B.sudhabindu	Digital Manufacturing & Design	Coursera
47	Dr.B.sudhabindu	Mechanics of Materials IV: Deflections, Buckling, Combined Loading & Failure Theories	Coursera
48	Dr.B.sudhabindu	Ferrous Technology I	Coursera
49	Shaik mohd amoodi	Introduction to Psychology	Coursera
50	Shaik mohd amoodi	Spreadsheets for Beginners using Google Sheets	Coursera
51	Shaik mohd amoodi	Create Informative Presentations with Google Slides	Coursera
52	Shaik mohd amoodi	Ferrous Technology I	Coursera

53	Shaik mohd amoodi	Ferrous Technology II	Coursera
54	Ningala praveen	Material behavior	Coursera
55	Ningala praveen	Materials science:10 things every engineer should know	Coursera
56	Ningala praveen	Create informative presentations with Google slides	Coursera
57	Ningala praveen	Computer vision- image basics with open CV and Python	Coursera
58	P. Pavani	Spreadsheets for beginners using Google sheets	Coursera
59	P. Pavani	Cyber Security in Manufacturing	Coursera
60	P. Pavani	Road Map to Success in Digital Manufacturing and Design	Coursera
61	P. Pavani	Introduction to Psychology	Coursera
62	P. Pavani	Materials Processing	Coursera
63	DRS Narsingh Rao	Digital Manufacturing and Design	Coursera
64	DRS Narsingh Rao	cyber security in manufacturing	Coursera
65	DRS Narsingh Rao	Spread sheets for beginners using google sheets	Coursera
66	DRS Narsingh Rao	create informative presentations for google slides	Coursera
67	DRS Nrasingh Rao	Computer Vision - Image Basics with OpenCV and Python	Coursera
68	Syeda Saniya Fatima	Spreadsheets for Beginners using Google Sheets	Coursera
69	Syeda Saniya Fatima	Create Informative Presentations using Google Slides	Coursera
70	Seelam Suneel Kumar	Buisness operation support in Google sheet	Coursera

71	Seelam Suneel Kumar	Object oriented programe through java	Coursera
72	Seelam Suneel Kumar	Introduction to project management	Coursera
73	Seelam Suneel Kumar	Image data augmentation with keras	Coursera
74	Seelam Suneel Kumar	Build a data science web app with streamlit phython	Coursera
75	Seelam Suneel Kumar	Introduction to project management with clickup	Coursera
76	Jagadesh Kumar Jatavallabhula	Materials Science: 10 Things Every Engineer Should Know	Coursera
77	Jagadesh Kumar Jatavallabhula	Spreadsheets for beginners using Google sheets	Coursera
78	Jagadesh Kumar Jatavallabhula	Introduction to Relational Database and SQL	Coursera
79	Jagadesh Kumar Jatavallabhula	Create Informative Presentations with Google Slides	Coursera
80	Jagadesh Kumar Jatavallabhula	Understanding Research Methods	Coursera
81	RNSV.Ramakanth	Siamese Network with Triplet Loss in Keras	Coursera
82	RNSV.Ramakanth	Linear Regression with NumPy and Python	Coursera
83	RNSV.Ramakanth	Business Operations Support in Google Sheets	Coursera
84	RNSV.Ramakanth	Building Digital Media using Graphic Design in Google Slides	Coursera
85	RNSV.Ramakanth	User Experience Design – Creating User Profiles	Coursera
86	Malathi Baddepudi	Create Your First Python Program	Coursera
87	Malathi Baddepudi	Use WordPress to Create a Blog for your Business	Coursera
88	Malathi Baddepudi	Linear Regression with Python	Coursera

89	Malathi Baddepudi	Create Employee Management System with When I Work	Coursera
90	Malathi Baddepudi	Material Processing	Coursera
91	Saluvandri Prasad kumar	INTRODUCTION TO GOOGLE DOCS	Coursera
92	Saluvandri Prasad kumar	INTRODUCTION TO PROJECT MANAGEMENT	Coursera
93	Saluvandri Prasad kumar	FERROU TECHNOLOGY-II	Coursera
94	Saluvandri Prasad kumar	GENERATE SYNTHETIC IMAGES WITH DCGANs in Keras	Coursera
95	Saluvandri Prasad kumar	CREATE CUSTOMER SUPPORT DATA WITH GOOGLE SHEETS	Coursera
96	K Srinivasa Rao	Air Pollution – A Global Threat to our Health	Coursera
97	K Srinivasa Rao	Introduction to Indoor Air Quality	Coursera
98	K Srinivasa Rao	Create Informative Presentations with Google Slides	Coursera
99	K Srinivasa Rao	Spreadsheets for Beginners using Google Sheets	Coursera
100	K Srinivasa Rao	Custom Prediction Routine on Google AI Platform	Coursera
101	Virajee Reddy Talakola	Introduction to Project Management	Coursera
102	Virajee Reddy Talakola	Perform Sentiment Analysis with scikit-learn	Coursera
103	Virajee Reddy Talakola	Materials Science: 10 Things Every Engineer Should Know	Coursera
104	Virajee Reddy Talakola	Coursera_Spreadsheets for Beginners using Google Sheets	Coursera
105	Virajee Reddy Talakola	Coursera_Creative Information Presentations with Google slides	Coursera
106	Lakshmi Sindhuja.C	Introduction to Indoor Air Quality	Coursera

107	Lakshmi Sindhuja.C	Spread sheets for beginners using Google Sheets	Coursera
108	Lakshmi Sindhuja.C	Create informative presentations with Google slides	Coursera
109	Lakshmi Sindhuja.C	Air Pollution- a Global threat to our Health	Coursera
110	Dr.M.Naveen Kumar	Digital Manufacturing & Design	Coursera
111	Dr.M.Naveen Kumar	Cyber Security in Manufacturing	Coursera
112	Dr.M.Naveen Kumar	Ferrous Technology - II	Coursera
113	Dr.M.Naveen Kumar	Ferrous Technology - I	Coursera
114	Dr.M.Naveen Kumar	Introduction to engineering mechanics	Coursera
115	Potula Chandra Kumar	Ferrous Technology I	Coursera
116	Potula Chandra Kumar	Material Behavior	Coursera
117	Potula Chandra Kumar	Materials Science: 10 Things Every Engineer Should Know	Coursera
118	Potula Chandra Kumar	Spreadsheets for Beginners using Google Sheets	Coursera
119	Potula Chandra Kumar	Create Informative Presentations with Google Slides	Coursera
120	Sravya Gunde	creative informative presentations with google slides	Coursera
121	Sravya Gunde	Ferrous Technology 1	Coursera
122	Sravya Gunde	Spread sheets for beginners using Google sheets	Coursera
123	Sravya Gunde	Material behaviour	Coursera
124	Sravya Gunde	Material science: 10 things every engineer should know	Coursera

125	Dr L Madan Ananda Kumar	Ferrous Technology I	Coursera
126	Dr L Madan Ananda Kumar	Create Informative Presentations with Google Slides	Coursera
127	Dr L Madan Ananda Kumar	Spreadsheets for Beginners using Google Sheets	Coursera
128	Dr L Madan Ananda Kumar	Digital Manufacturing and Design	Coursera
129	Dr L Madan Ananda Kumar	Roadmap to success in digital manufacturing and design	Coursera
130	K.Ashokachary	Spreadsheets for Beginners using Google Sheets	Coursera
131	K.Ashokachary	Predicting House Prices with Regression using TensorFlow	Coursera
132	K.Ashokachary	Linear Regression with NumPy and Python	Coursera
133	K.Ashokachary	Introduction to Thermodynamics Transferring Energy from Here to There	Coursera
134	K.Ashokachary	Introduction to Relational Database and SQL	Coursera
135	Rajesh Babu Gudipati	Mechanics of materials 2	Coursera
136	Rajesh Babu Gudipati	Mechanics of materials-1	Coursera
137	Kalpa Narendar Reddy	Ferrous technology II	Coursera
138	Kalpa Narendar Reddy	Ferrous technology I	Coursera
139	Kalpa Narendar Reddy	Introduction to psychology	Coursera
140	Kalpa Narendar Reddy	Roadmap to success in digital manufacturing and design	Coursera
141	Kalpa Narendar Reddy	Digital manufacturing and design	Coursera
142	S Venkatesh	Multiple Linear Regression with scikit-learn	Coursera

143	S Venkatesh	Materials Science 10 Things Every Engineer should know	Coursera
144	S Venkatesh	Introduction to Project Management	Coursera
145	S Venkatesh	Introduction to Google Docs	Coursera
146	S Venkatesh	Image Data Augmentation with Keras	Coursera
147	Pradeep Kumar Juvvadi	Roadmap to Success in Digital Manufacturing & Design .	Coursera
148	Pradeep Kumar Juvvadi	Digital Manufacturing & Design.	Coursera
149	Pradeep Kumar Juvvadi	Ferrous Technology I	Coursera
150	Pradeep Kumar Juvvadi	Ferrous Technology II	Coursera
151	Pradeep kumar Juvvadi	Cyber Security in Manufacturing .	Coursera
152	P.Raghuram Reddy	Computer vision - image basics with open CV & python	Coursera
153	P.Raghuram Reddy	Facial expression recognition with keras	Coursera
154	P.Raghuram Reddy	Introduction to project management	Coursera
155	P.Raghuram Reddy	Image data augmentation with keras	Coursera
156	P.Raghuram Reddy	Introduction to Google docs	Coursera
157	V Phanindra Bogu	Machine Learning for All	Coursera
158	V Phanindra Bogu	Linear Regression with Python	Coursera
159	V Phanindra Bogu	Project: Create Informative Presentations with Google Slides	Coursera
160	Imam Saheb Chitrachedu	Materials Science: 10Things every Engineer should know	Coursera

161	Imam Saheb Chitrachedu	Cyber Security in manufacturing	Coursera
162	Imam Saheb chitrachedu	Material Behavior	Coursera
163	Imam Saheb Chitrachedu	Spread Sheets For Beginners Using Google Sheets	Coursera
164	Imam Saheb Chitrachedu	Create Informative Presentations With Google Slides	Coursera
165	Shaik saidulu	Introduction to psychology	Coursera

5.5.5 NPTEL CERTIFICATION

S.no	Faculty name	Course Name	Certification
1	Mr.K.Rajesh kumar	Fluid Mechanics	NPTEL
2	Mr.K.Rajesh kumar	Fundementals of Welding science & Technology	NPTEL
3	Mr.P.Sampath kumar	Fundementals of Welding science & Technology	NPTEL
4	Mr.J.Pradeep kumar	Basics of Finite element analysis	NPTEL
5	Mr.Shaik saidulu	Strength of materials	NPTEL
6	Mr.K.Srinivas Rao	Refrigeration & air conditioning	NPTEL

5.6 Innovations by the Faculty in Teaching and Learning (10)

The college supports teachers for making the learning student centric. Faculty members give more importance to student centric learning rather than teacher centric. Most students cannot stay focused throughout a lecture. After about 10 minutes their attention begins to drift, first for brief moments and then for longer intervals, and by the end of the lecture they are taking in very little and retaining less. A classroom research study showed that immediately after lecture students recalled 70% of the information presented in the first ten minutes and only 20% of that from the last ten minutes. Suitable innovative teaching methodologies are followed by the faculty members to ensure the attainment of learning objectives.

A. The work must be made available on Institute Website

The methodologies are available on the Institute website so as to enable the faculty members and students to have an idea that helps them to adopt that methodology and can be used or reproduced further. The link is as follows

B. The work must be available for peer review and critique

Innovative teaching methodologies are employed right from the first year. These techniques kindle the spirit of the students, and ignite their attention as these innovation methods are quite different and interesting compared to conventional teaching methods.

The faculty members have the freedom to choose appropriate teaching methods.

The innovative teaching practices are reviewed by IQAC and relevant suggestions are given on a timely basis. The faculty adopts the methodology after discussions with the peer members and makes the changes appropriately.

C. The work must be reproducible and developed further by others

The innovative teaching methods adopted by a faculty member can be followed/ improvised by other faculty members. This enables improvisations thereby stabilizing the system. The contents are made available for in the institute website so that other faculty members can easily understand and adopt the innovative teaching methods and improvise further. As there is no copyright, it is open for all as it is published in institute website. The course materials are reproducible as per the need.

D. Statement of clear goals, use of appropriate methods, significance of results, effective presentation and reflective critique

The process is undertaken to harness these goals:

1. Enhancement of technical and life skills.
2. Improvement in placements.
3. Increase in understanding level of the subject.
4. Students are oriented towards innovative projects.
5. Improvement in Learning Improvement and self-satisfaction of the students is evident through feedback and also mainly through the performance in the examinations.

The commonly practiced methods by the departmental faculty are listed below:

1. Interactive Learning
2. Collaborative Learning
3. Flipped Classroom
4. Project Based Learning
5. Case studies and Problem based Learning
6. Use of ICT

Reflective Critique

While implementing the innovative teaching learning methods, faculty members faced problem with implementation of Flipped classroom methodology as the some students could not view the uploaded videos by the faculty due to the unavailability of internet facility at home. To overcome this, the faculty started sharing the videos through Pen drives, CDs, DVDs etc, so as to enable a student to view the videos at home.

Effective Presentation

- Motivating, engaging the learner
- Offering personal approaches to learning
- Allowing independence in learning
- Developing collaborative and team working skills
- Offers new ways of teaching the same things
- Saves time in lesson planning and administration
- Offers a more comprehensive approach to assessment

Significance of Results

These approaches helped in the pandemic greatly in reaching at all the students with uninterrupted teaching learning process.

Some of the innovative teaching methods implemented by the faculty members are listed below:

VidyaJyothi Institute of Technology(Autonomous)
(Accredited by NBA Approved By A.I.C.T.E., New Delhi, Permanently Affiliated to JNTU, Hyd)
(Aziz Nagar, C.B.Post, Hyderabad -500075)

DEPARTMENT OF MECHANICAL ENGINEERING

S.NO	Academic year	FACULTY	SUBJECT	TOPIC	TEACHING METHOD	SIGNIFICANCE OF RESULTS	GOALS
1	2017-18	Mr. C Ravi (2017-18)	Thermal engineering	Pulse detonation engine	Problem based learning	A PDE can operate from subsonic up to a hyper sonic flight speed of roughly Mach5. An idea of PDE design can have a thermodynamic efficiency higher than other designs like turbojets and turbofans.	It enables the students to learn the increase inthe efficiency of the PDE and fuel economy The PDE' overall weight and cost are reduced because of absence of moving parts
2	2017-18	Ms.J. Emeema (2017-18)	Power plant engineering	Nuclear power plant	Collaborative learning	Enables the students to actively think and process their ideas Better understanding of concepts rather than role memorization of facts and figures	To enhance learning throw working together. To increase personal growth and confidence level leading To better performance and contribute individually and as a team
3	2017-18	Mr.M. Naveen kumar (2017-18)	CAD/CAM	Cad presentation on Robberspace technologies	Creating research groups and clubs	A dream to take the world up to a new level make it more simpler more faster and more advance which lead them to a creative firm called robberspace	To spread knowledge and ignite the spark in students and convert them into flickering flame witch further shapes them into mighty blaze and revolutionize the world their lights
4	2017-18	Mrs.T.Virajee	EM	Resolution of Forces	Project based learning	Students have been exposed to Trusses and the members with the loading on it	To make the students Understand the resolution of forces in the members of the truss
5	2017-18	Mr.N.Praveen	MD	Assembly of Flange Coupling	Inquiry guided Learning	Students advised to watch NPTEL & YOU tube Lectures. Also, there expected to discuss among themselves by following Inquiry guided learning principles	To make the students ,understand the sequence of parts to be used while assembling

6	2018-19	Mr. P Sampath kumar (2018-2019)	Production Technology	Display the different machine surfaces of Machining	Project based learning	students were known to identify the differences on this three specimens and are noted as 1.The difference in the surface finish 2.The difference in lay formation	1.Application of practical teaching method to motivate the students for better understanding. 2.Increasing the level of understand by showing the machined specimen
7	2018-19	Dr. L. Madan Anand kumar (2018-2019)	THERMAL ENGINEERING	IC Engines	Collaborative learning	Enables the students to actively think and process their ideas Better understanding of concepts rather than role memorization of facts and figures	To enhance learning throw working together To increase personal growth and confidence level leading To better performance and contribute individually and as a team
8	2018-19	Mr.J. Pradeep kumar (2018-2019)	DMM-1	Shaft design	Fishbowl Technique	It enables the design from the strength and stiffness point of view for a given material	To distinguish the design from the strength and stiffness of the shaft during its usage
9	2018-19	Mr.K.Rajesh Kumar	MOFHM	Hydro power plant	Problem Based Learning	To distinguish the different turbines employed suitable the catchment areas in the hydropower plants	Conditions about head,discharge can be easily understood by students suitable to the hydropower plant
10	2018-19	Mr.C.Naveen Raj	KOM	Cam and Follower motion	Inquiry guided Learning	To understand the cams and followers, students are advised to discuss among themselves.	To generate particular motion and path with the cam and follower pairs is made possible easily.
11	2019-20	Dr.Phanindra Bogu (2019-2020)	CAD/CAM	3D printing	Project based learning	3D printing creates a lot less waste material for a single part plus materials used in 3D printing generally are recyclable. The main advantages of 3D printing are realized in its Speed, Flexibility, and Cost benefits 3D Printing is enabled with CAD modeling software's to design the customized implants and prototypes	3D printing enables you to produce complex shapes using less material than traditional manufacturing methods 3D Printing manufacture customized implants and functional prototypes.
12	2019-20	Mr. S .Prasad kumar (2019-2020)	Automobile Engineering	Advances in IC engines	Collaborative learning	Enables the students to actively think and process their ideas Better understanding of concepts rather than role memorization of facts and figures	To enhance learning throw working together To increase personal growth and confidence level leading. To better performance and contribute individually and as a team

13	2019-20	Dr..B.Sudhabindu (2019-2020)	Production Planning and control	Qualitative methods & quantitative methods in forecasting	Fishbowl Technique	The primary aim of a Qualitative Research is to provide a complete, detailed description of the research topic. It is usually more exploratory in nature. Quantitative Research on the other hand focuses more in counting and classifying features and constructing statistical models and figures to explain what is observed.	Knows the differences between the qualitative and Quantitative methods. Qualitative is measured by either by metric or statistic by experimentation where as quantitative is measured by managers Observation i.e. focused on soft skills.
14	2019-20	Mr.G.Rajesh Babu	DMM-II	Journal Bearing	Problem Based Learning	Application of bearings in mechanical engineering components is undertaken	To make the students understand the type of bearing to be employed based on load and speed.
15	2019-20	Dr.J.Jagdesh Kumar	Robotics	D-H Notations	Inquiry guided Learning	D-H notation in the robot applications is discussed by students among themselves	To make the planar motion and kinematic mechanisms with D-H notations in the robots is cleared.
16	2020-21	Dr.Phanider Bogu	Production Technology	Display the different machine surfaces of Machining	Project based learning	students were known to identify the differences on this three specimens and are noted as 1.The difference in the surface finish 2.The difference in lay formation	1. Application of practical teaching method to motivate the students for better understanding. 2.Increasing the level of understand by showing the machined specimen
17	2020-21	Dr.V.V.Satynarayana	Operation Research	CPM &PERT	Problem Based Learning	Students are informed of the differences between network scheduling and Gantt chart scheduling.	1.Relationship between activities are made clear. 2.Time required for each activities (deterministic/probalistics) explained

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

Name of the Faculty	Max 5 Per Faculty		
	2019-2020	2020-2021	2021-2022
Dr.G.Sreeram Reddy	2	0	3
Dr. V.V.Satyanarayana	2	0	
Dr. N.Ravinder Reddy	1	0	
Dr.B.Ravinder Reddy	1	0	
Dr.L.Madan Ananda Kumar	2	0	

DrPhanindraBhogu	1	2	3
Mrs.J.Emeema	1	0	
Mr.K.Rajesh Kumar	3	2	
Mr.M.Mallesh	1	0	
Mr.P.Sampath Kumar	2	0	
Mr.M.Naveen Kumar	1	0	
Mr. DRS Narsingh Rao	1	3	5
Dr.J.Jagadesh Kumar	2	2	3
Mr.Ch.Rakesh	1	0	
Mr.ShaikGulamAbul Hasan	1	1	
Mr.T.Pavan Kumar	1	0	
Mr.C.Ravi	1	0	
Mrs.B.SudhaBindu	2	0	
Mr.Amoodi	1	2	
Mr.S.RamaKrishna	1	0	
Mr.C.Naveen Raj	1	3	3
Mr.N.Praveen	2	5	
Ms.P.Pavani	2	0	
Mrs.Syeda Saniya Fatima	1	0	
Mr.S.Prasad Kumar	1	0	
Mr.RNSVRamakanth	1	0	
Ms.B.Malathi	1	0	
Ms.LakshmiSindhuja	1	0	
Mr.K.Srinivasa Rao	1	1	
Mrs.T.Virajee	2	4	
Mr.Shaik Ismail	1	3	
Mr.M.Bhoopal Reddy	1	0	
Mr.P.Chandra Kumar	2	0	
Ms.G.Sravya	1	0	
Mr.K.Narender Reddy	1	0	
Mr.S.Venkatesh	1	0	

Mr.G.RajeshBabu	1	0	
Mr.K.Ashoka Chary	2	0	
Mr.J.Pradeep Kumar	2	0	
Mr.P.Raghuram Reddy	1	0	
Mr.K.Ravi Kumar	2	0	
Shaik Saidulu	1	2	
Sum	57	30	
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratio as per 5.1	16.5	18.27	17
Assessment [3*(Sum / 0.5RF)]	20.72	9.85	2.17
Average assessment over 3 years: 10.91			

5.8 Research and Development (75)

5.8.1 Academic Research (20)

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

• Number of quality publications in refereed/ SCI Journals, citations, Books/ Book Chapters etc. (6)

•Ph.D. guided / Ph.D. awarded during the assessment period while working in the institute (4)

All relevant details shall be mentioned. Year wise Details of Publications:

Academic Year	No: of Publications
2021-22	11
2020-21	14
2019-20	25
2018-19	16
2017-18	22
2016-17	61
2015-16	40

PhD guidance:

Name of the Professor	No: of PhD scholars
Dr. P. Venugopal Reddy	5
Dr. V.V. Satyanarayana	1
Dr.B.V.Reddi	1

Faculty PhD completions during the Assessment Years:

Sl. No.	Name of the Faculty
1	Dr.B.Sudha Bindu
2	Dr.M.Naveen Kumar
3	Dr.J.Jagadish Kumar

5.8.2 Sponsored Research (20)

2020-21

Project Title	Duration	Funding Agency	Amount
National Conference on Adventurous Materials and Advanced Manufacturing	1 Year	AICTE-GOC	1,81,700.00

2019-2020

Project Title	Duration	Funding Agency	Amount
A systematic study on characterization of Rare earth doped Nano Magnetic ceramics Synthesized by Sol-gel method	1 year	TEQIP, JNTUH	3,00,000.00
Up gradation of CAD/CAM lab for reverse engineering Building of Free from surfaces	2 years	AICTE MODROBS	11,96,078.00
			Total Amount(Z): 14,96,078.00

2018-2019

Project Title	Duration	Funding Agency	Amount
Performance Evaluation of a bio-diesel in a variable compression ratio diesel engine	2 years	AICTE MODROBS	10,39,000.00
			Total Amount(Y): 10,39,000.00

2017-2018

Project Title	Duration	Funding Agency	Amount
Ferro elastic behavior of some magnetic based multiferroics	3 years	DRDO	50,1,5000.00
Advanced mechanical properties facility in Mechanics of Solids Laboratory	2 years	AICTE MODROBS	10,59,000.00
			Total Amount(X): 60,74,000.00

2016-2017

Project Title	Duration	Funding Agency	Amount
Ferro elastic behavior of some magnetic based multiferroics	3 years	DRDO	50,15,000.00
			Total Amount: 50,15,000.00

2015-2016

Project Title	Duration	Funding Agency	Amount
Ferro elastic behavior of some magnetic based multiferroics	3 years	DRDO	50,15,000.00
			Total Amount: 50,15,000.00

Cumulative Amount(X + Y+Z) =87,90,778.00

5.8.3 Development Activities (15)

1.Research Laboratories

A research laboratory was created to carry out research activities by students and faculty on their point of interest. In this regard, the following facilities have been created in some of the thrust research areas;

1. Plasma Arc welding Machine
2. Tungsten Inert Gas Welding Machine
3. Tubular Furnaces
4. Trinoculor Microscope with Image Acquisition System
5. Fatigue Testing Machine
6. Creo 3.0
7. Ansys 17.0
8. Gibbs CAM
9. Computerized UTM
10. CRDI Diesel Engine
11. 3D Printer

These equipment are utilized and experimentation has been carried out and appropriate analysis was conducted on several mechanical engineering domain areas of research. The papers published by utilizing these resources are furnished below:

S.No.	Name of Author	Title	Journal	Month & year
A.Y.2020-21				
1	Dr.V. Phanindra Bogu	Elasticity Solutions of Functionally Graded Pressure Vessels: An Analytical and Numerical Study	Journal of The Institution of Engineers	Jan-2021
2	Mr. Kotturi Ravi Kumar	Experimental analysis of diesel engine with variable flow of acetylene gas in dual fuel mode	INTERNATIONAL JOURNAL OF AMBIENT ENERGY	Aug-2020
3	Mr. Kotturi Ravi Kumar	Experimental investigation of diesel enginewithNeem seed oil and compressed natural gas	INTERNATIONAL JOURNAL OF AMBIENT ENERGY	May-2021

4	Dr.B.V.Reddi	Investigation on the Morphological Size and physical parameters of magnetic Nanoparticles synthesized using Arc Discharge Method	Advanced Engineering Science	Feb-2021
5	Dr.B.V.Reddi	Synthesis and Characterization of Magnetic Nano-Crystallites using ARC-Discharge Method	Solid State Technology	Sep-2020
6	Dr.B.Ravindra Reddy	Study of Mechanical And Metallurgical Properties of Friction Stir Welded Aluminium Alloys (AA2014 & AA6082) byaddition the Tio_2nanoparticles and its simulation analysis	International Research Journal of Engineering and Technology	Nov-2020
A.Y.2019-20				
1	Dr.J. Jagadesh Kumar	TOPSIS – Taguchi Analysis of Notch Parameters on the Fatigue Life of Super Duplex Stainless Steel	International Journal of Innovative Technology and Exploring Engineering	Dec-20
2	Dr.J. Jagadesh Kumar	Impact of High-Velocity Oxy-Fuel ZrO2 Coating on Corrosion Resistance and Fatigue Life of AISI 316L Austenitic Stainless Steel	Advances in Materials Science and Engineering	July-2019
3	Dr.V.V.Satynarayana	Optimization of AZ91D Magnesium Alloy friction stir welded joints by Taghuchi method	International Journal of Mechanical and Production Engineering Research and development	May-2019
4	Dr.G.Sreeram Reddy	Reverse Engineering on Jet Engine Turbine Disk	International Journal of Innovative Technology and Exploring Engineering	Oct-2019
5	Dr. L.Madan Anand Kumar	Design of Powered Wheel Dolly for Construction Stair Case	International Journal of Innovative Technology and Exploring Engineering	Oct-2019
6	Mr. K Srinivasa Rao	Effect of Hydrogen enrichment on the performance and emissions of a Diesel engine fueled with Mahua biodiesel	ICRAMMES 2019	Dec-2019

A.Y.2018-19				
1	Dr.G.Sreeram Reddy	Response prediction of reverse engineered freeform surface by design of experiments	Journal of Mechanical Engineering and Services	Dec-2018
2	Dr.V.Phanindra Bogu	3D Printed, Customized Cranial Implant for Surgical Planning	Journal of The Institution of Engineers (India): Series C	Jun-2018
3	Mr. Kotturi Ravi Kumar	Control of pollutants in supercharged partially adiabatic diesel engine with carburetted methanol and crude karanja oil blended with DEE	International Journal of Ambient Energy	Jan-2019
4	Dr.B.Sudhabindu	Experimental investigations of ultra violet rays, wear tests and mechanical properties on jute reinforced E-Glass composites	International Journal of Innovative Technology and Exploring Engineering	Mar-2019
5	Dr.L. Madan Anand Kumar	Biaxial Loading Analysis Of Laminated Polymer Composite Material	International Journal of Advance Engineering and Research Development	Jun-2018
6	Mrs. J Emeema	Design and analysis of air pre-heater	International Journal of Mechanical and Production Engineering Research and Development	Jun-2018

2. Instructional Materials

During pandemic the ICT method of instructions have been improved by all the faculty members and teaching have been continued without any interruption. The online teaching compiling with the modern teaching methods have opened up a new dimensions in the skill development among the students. The institutional materials during these times have made them competent in the respective courses without getting inferior during these pandemic crisis days.

3. Working Models/Sheets/Monograms

The faculty members have developed small working models for the course Kinematics of Machinery in order to make the students understand the concepts clearly. The models like Four bar mechanism, Slider crank mechanism, Double crank mechanism etc. have been prepared and manifested in the class room during lecture hours. It reinforced the concepts very clearly in the mind of students.

The assembly of I.C. Engine by the students in the thermal laboratory has improved the parts configuration very clearly. The charts in metallurgy laboratory illustrate the micro structural changes occur during heat treatment of metals.

Power point slides and printed material on various subjects is made available in the department website. Overhead projector slides are prepared for various subjects that warrant the use of sketches. NPTEL video lecture are also shared with students for better understanding of subjects.

Working Models & Charts:

Working models are made use of, during class work and projects. Following are some of the working models;

1.4-bar mechanisms
2. I.C. engine models
3. Human Powered Vehicles
4. CNC machine
5. Refurbished Racing Car

Charts on are disseminated in the class rooms and laboratories for better understanding.

1. Metrology
2. Production Drawing
3. Welding Engineering
4. Machine Drawing
5. Metal Casting
6. Thermal Engineering
7. Metallurgical Charts
8. Mechanics of Solids
9. Mechanics of Fluids and Hydraulic Machines

5.8.4 Consultancy (from Industry) (20)

(Provide a list with Project Title, Funding Agency, Amount and Duration) Funding amount (Cumulative during assessment years)

Included in the portal directly, as done by other departments.

5.9 Faculty Performance Appraisal and Development System (FPADS) (10)

The following criteria are considered while assessing faculty performance:

Each faculty member is required to submit a self- appraisal report annually on the basis of parameters as teaching hours, number of subjects taught, research papers/articles/books published, conferences attended, papers presented in the conferences, new curricula designed/developed, participation in extracurricular/co curricular activities, extra responsibilities assigned by the university, and other contributions made towards the society. Review of the performance appraisal is made by HOD, Director/ Principal. Based on the score achieved by the faculty financial incentives are provided:

Measures taken by the Institution for attracting and retaining eminent faculty

Incentives for Faculty

- Faculty with five years of continuous service in the college, are eligible for one additional increment.
- Special incentive increments will be sanctioned for five, ten and fifteen years of service in the same cadre.
- Faculty, who scores between 60% - 80% in API score, gets an additional incentive increment of Rs.1000/- per month.
- Faculty who scores more than 80% in API score gets an additional incentive increment of Rs. 2000/- per month.
- Faculty member who have been awarded Ph.D. shall be given an incentive increment of Rs. 3000/- to Rs.8000/- per month.
- If a Faculty member publishes a paper in a research journal will be given Rs. 1000/- for first author and Rs.500/- for second author.

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

ACADEMIC PERFORMANCE INDICATORS

(TEACHING FACULTY)

(To be filled by the candidate)

1. Name : _____
2. Designation : _____
3. Department : _____
4. Date of joining : _____
5. Present Position : _____

1. Teaching Performance indicator:

S. NO	Course/ Semester		Title of the paper taught	No. of classes engaged per week	Result (Pass Percentage)	API Score (Max 20+5)
1	1st Sem	Subject-1				
		Subject-2				
		Laboratory				
2	2nd Sem	Subject-1				
		Subject-2				
		Laboratory				
3	Average of Results					
For taking Teaching Load in excess of UGC norm (max score:5)						

Score based on Results: >90% - 20, 80-90% - 15, 70-80% - 10, <70% - 5

2. Students Feedback Indicator:

S. NO	Course/ Semester		Title of the paper	Students Feedback Points	API Score (Max 20+5)
1	1st Sem	Subject-1			
		Subject-2			
		Laboratory			
2	2nd Sem	Subject-1			
		Subject-2			
		Laboratory			
3	Average of Results				

Score based on Students feedback: >9%-15: 8-9%-10: 7-8% - 5

3. Interactive class room teaching approach (As per NBA): API Score: Max10

In this method, teachers are expected to use the outcome based education system, so that weak students can learn the subject in a better way.

Documentary evidence is to be submitted along with this form

4. Publication of research papers in Journals:

S.NO	Title with Page No's	Journal	ISSN/ ISBN No.	Whether peer reviewed, Impact factor, if any	No. of co-authors	Whether you are the main author	API Score (Max 10)

For publication of each paper -5.

5. Publication of Articles/Chapters in Books:

S.NO	Title with Page No's	Journal	ISSN/ ISBN No.	Whether peer reviewed	No. of co-authors	Whether you are the main author	API Score (Max 5)

1. Participation along with presentation in Conferences/Seminars/Workshops/ Symposia/faculty development programme etc.,(outside the college)

S.NO	Title of the paper presented (if any)	Name of Conference/Seminar	Organization	Whether International/ National	API Score (Max 15)

a. Participation & presentation (per presentation- 7.5)

b. For participation (per participation- 5)

2. Examination duties assigned and performed (other then invigilation duty)

S.NO	Type of examination duty assigned	Extent to which assigned work was carried out	API Score (Max 5)

3. Co-Curricular/ Extra Curricular duties assigned by the college:

S.NO	Type of Activities assigned by the college	Average Hrs/Week	API Score (Max 5)

4. Assessment of the Teacher by the HOD:

S.NO	Type of work assigned	API Score(Max 10) (Each item carries 2 marks)
a)	Impression about the teaching work of the teacher	
b)	For extending the help in the organization of departmental workshops/seminars	
c)	For counseling the students	
d)	For mentoring the students	
e)	Any other departmental work assigned by the HOD	

5. Summary of API Scores (Maximum 100):

	Criteria	API score under different Categories	Total API score under different categories
I	Teaching, Learning and Evaluation related activities (1+2+3)		
II	Extension of the subject/ research work (4+5+6)		
III	Cocurricular & extracurricular III activities along with HOD assessment (7+8+9)		
Total API Score			

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

Academic Year	Name of the Visiting/Adjunct/Emeritus Faculty
2021-22	Dr.B.V.Reddi, Retd. Scientist, NPL
2020-21	Dr.B.V.Reddi, Retd. Scientist, NPL
2019-20	Mr. A.Suba Rao, Managing Director, Premier Engineering Industry
	Mr. J.V.Subramaiyam, Retd.Professor, OU college of Engineering,Hyderabad
2018-19	Mr. A.Suba Rao, Managing Director, Premier Engineering Industry
	Mr. J.V.Subramaiyam, Retd.Professor, OU college of Engineering,Hyderabad

2017-18	Mr.T.Venkata Rao, M.D, V.R.K.Industries
	Mr. Ramu Maddi, Manager, Arani Power Systems
2016-17	Mr.T.Venkata Rao, M.D, V.R.K.Industries
	Dr.G.HaraGopal, Retd, Professor CBIT, Hyderabad.
2015-16	Mr.T.Venkata Rao, M.D, V.R.K.Industries
	Dr. M. Komaraiah, Retd. Professor, Osmania University.
	Mr.G.Venkata Rao, Retd, Professor VASAVI College of Engineering, Hyderabad.

Criteria 6: FACILITIES AND TECHNICAL SUPPORT (80)

6.1. Adequate and well equipped Laboratories and Technical Manpower (40)

S. No.	Name of the Laboratory	No. of students per setup	Name of the Important equipment	Weekly utilization status	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
1.	Engineering Workshop Lab	30	Carpentry Vice, Wooden Mallet, Metal Jack Plane, Marking Gauges, Wood Rasp File, Hand Saw, Tenon Saw, Compass, Carpentry, Fitting And Welding Try Square, Moulding Boxes, Arc And Gas Weldings, Welding, Sledge, Chipping Hammer, Pick Up Tongs, Anvil, Forge Furnace, Rubber, Plastic And Nylon Mallet, Standard Wire Gauge, Bench Shear Machine, Fitting Bench Vice, Ball Peen, Cross Peen & Claw Hammer.	24 periods	Mr. CH Nagaraju Mr. B NarsimhuluMr.V Pavan Mr.M Vishal Mr. B Ramulu Mr. M VenkatReddy	Lab Assistant Technician Technician Technician Technician Technician	Diploma C.T.I I.T.I I.T.I I.T.I I.T.I
02.	Metallurgy & Mechanics of Solids Lab	30	Universal Testing Machine, Torsional Testing Machine, Deflection Testing Machine, Spring Testing Machine, Rockwell Hardness Testing Machine, Impact Testing	24 periods	Mr. C Venkata Rami Reddy	Lab Assistant	Diploma

			Machine, Brinell Hardness Testing Machine, Metallurgical Microscope Binacular, Jomney And Quenching Apparatus, Cutting Machine, Polish Machine, Heat Treatment Furnace, Specimen Mounting Press				
03.	Mechanics of Fluids & Hydraulic Machines Lab	30	Impact of Jet Vane Apparatus, Calibration of Venturimeter Apparatus, Calibration of Orificemeter, Determination of Loss of Head due to Sudden Contraction in a Pipeline, Determination of Friction Factor for a given Pipeline, Single StageCentrifugal Pump, Multistage Centrifugal Pump, ReciprocatingPump, Bernoullis Equation Apparatus, Pelton Wheel Apparatus , Francis Turbine, Kaplan Turbine	24 periods	Mr. A Maheshwar Reddy	Lab Assistant	Diploma
04.	Production Technology Lab	30	Wood Turning Lathes With Accessories, Arc Welding Equipment With Accessories, GasWelding Equipment, TIG Welding, Plasma Welding, Spot	24 periods	Mr. G Raju Mr.V Pavan Mr.B Jagdishwar rao	Technician Technician Technician	I.T.I I.T.I I.T.I

			Welding Machine, Fly Press (8T),Hydraulic Press (20T), Aluminium Melting Furnace, Moulding Equipment, Sand Strength Testing Machine, Permeability Tester, Sand Rammer, Mould Hardness Tester,Injection Moulding Machine, Blow Moulding Machine, Brazing Equipment, Bench Grinding Machine				
05.	Thermal Engineering Lab	30	4 Stroke Petrol Multicylinder Engine, Air Compressor Test Rig, 4 - Stroke Single Cylinder Diesel Engine Test Rig, 4- Stroke Single Cylinder Petrol Engine Test Rig, Valve Timing Diagram Setup, Vcr 4-Strorke Single Cylinder Petrol Engine, 2 - Stroke Single Cylinder Petrol Engine Test Rig, Lanchshire Boiler Model, Bab Cockx Boiler Model, Assembly/Dis Assembly Engine	24 periods	Mr. M Venkat Reddy	Technician	I.T.I
06.	Metrology and Machine Tools Lab	30	Lathe Machine, Radial Drilling Machine, Milling Machine, Planing Machine, Shaping Machine, Slotting	24 periods	Mr. B Ramulu Mr. M Vishal	Technician Technician	I.T.I I.T.I

			Machine, Cylindrical Grinding Machine, Surface Grinding Machine, Bench Grinder, Tool And Cutter Grinder, Vernier Caliper, OutsideMicrometer, Inside Micrometer, Dial Bore Gage, Dial Indicator, Gear Tooth Verneir Caliper, Granite Surface Plate, Cast Iron Surface Plate, Sine Bar, Bevel Protractor, Tool Maker's Microscope, Thread Measuring Equipment, Spirit Level, Test Mandrel, Slip Guages Box				
07.	Heat Transfer Lab	30	Composite Slab Apparatus, Lagged Pipe Apparatus, Concentric Sphere Apparatus, Thermal Conductivity of Metal Rod Apparatus, Pin-Fin Apparatus, Transient Heat Conduction Apparatus, Forced Convection Opparatus, Natural Convection Apparatus, Parallel and Counter Flow Heat Exchanger, Emissivity Apparatus,Stefan Boltzmann Apparatus, Critical Heat Flux	24 periods	Mr. M Venkat Reddy	Technician	I.T.I

			Apparatus, Heat Pipe Demonstrator, Film Wise and Drop Wise Condensation Apparatus				
08.	CAD/CAM Lab	30	CNC Lathe, CNC Milling, Solid works, Edge Cam Solid Edge, Gibbs cam Ansys.	24 periods	Mr. C Venkata Rami Reddy	Lab Assistant	Diploma
09.	PDP/ ICS Lab	30	Drawing practice Tables Pressure gauge Temperature measurementLVDT Strain gauge Thermocouple Capacitive transducer Photo & magnetic speed pickups Resistance temperature detector(RTD) Rotameter Seismic pickup McLeod gauge	24 periods	Mr. CH Nagaraju	Lab Assistant	Diploma

6.2. Laboratories: Maintenance and Overall Ambiance (10)

Maintenance

- The required equipment for carrying out the experiments has been installed in the laboratories.
- Preventive maintenance is carried out to keep the equipment in running condition.
- If any equipment fails during operation, break down maintenance is taken up.
- Technicians and laboratory assistants are trained to take up these maintenance calls.
- Charts and models are displayed in the laboratories to expose the students to gain knowledge as they work in the lab.

- Sufficient number of windows is available for ventilation and natural light and every lab has one exit.
- Lighting system is very effective, along with the natural light in every corner of the rooms.
- Emergency light connections are available in Lab in case of power failure.
- Exclusively a project lab has been provided for the students to carry out their mini and major project work.
- Fire extinguishers are provided in every laboratory.
- Standard checks are performed by mechanical, civil and electrical supervisors on a fortnight basis to ensure quality and safety in labs.

Role of Lab assistant in maintenance:

- After successful completion of laboratory for the academic year, Lab assistant checks the operating condition of equipment.
- If minor problem exists in the equipment, Lab assistants correct the problem by themselves.
- If any major problems in the equipment, service technicians will be called for servicing. Once servicing is over for particular equipment, Lab assistant monitors the condition of the corresponding equipment over a period of time.
- Apart from this, each lab is cleaned regularly to ensure clean and dust free ambience.

6.3. Safety Measures in Laboratories (10)

Sr. No	Name of the Laboratory	Safety measures
1.	Engineering Workshop Lab	• General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguisher & Hand gloves are kept in each laboratory. • Students are wearing Lab Uniform. • Well trained technical supporting staff. • Avoiding the use of damaged equipments and provides needful equipments and components. • Periodical servicing of the lab equipments. • Maintain a clean and organized laboratory • Avoiding the use of cell phones. • Appropriate storage areas. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Long hair must be completely covered
2.	Metallurgy & Mechanics of Solids Lab	• General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguisher & Hand gloves are kept in each laboratory. • Students are wearing Lab Uniform. • Well trained technical supporting staff. • Avoiding the use of damaged equipments and provides needful equipments and components. • Periodical servicing of the lab equipments. • Maintain a clean and organized laboratory • Avoiding the use of cell phones. • Appropriate storage areas. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab

		• Long hair must be completely covered
3.	Mechanics of Fluids & Hydraulic Machines Lab	• General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguisher & Hand gloves are kept in each laboratory. • Students are wearing Lab Uniform. • Well trained technical supporting staff. • Avoiding the use of damaged equipments and provides needful equipments and components. • Periodical servicing of the lab equipments. • Maintain a clean and organized laboratory • Avoiding the use of cell phones. • Appropriate storage areas. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Long hair must be completely covered
4.	Production Technology Lab	• General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguisher & Hand gloves are kept in each laboratory. • Students are wearing Lab Uniform. • Well trained technical supporting staff. • Avoiding the use of damaged equipments and provides needful equipments and components. • Periodical servicing of the lab equipments. • Maintain a clean and organized laboratory • Avoiding the use of cell phones. • Appropriate storage areas. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Long hair must be completely covered
5.	Thermal Engineering Lab	• General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed.

		• First aid box, Fire extinguisher & Hand gloves are kept in each laboratory. • Students are wearing Lab Uniform. • Well trained technical supporting staff. • Avoiding the use of damaged equipments and provides needful equipments and components. • Periodical servicing of the lab equipments. • Maintain a clean and organized laboratory • Avoiding the use of cell phones. • Appropriate storage areas. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Long hair must be completely covered
6.	Metrology and Machine Tools Lab	• General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguisher & Hand gloves are kept in each laboratory. • Students are wearing Lab Uniform. • Well trained technical supporting staff. • Avoiding the use of damaged equipments and provides needful equipments and components. • Periodical servicing of the lab equipments. • Maintain a clean and organized laboratory • Avoiding the use of cell phones. • Appropriate storage areas. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Long hair must be completely covered
7.	Heat Transfer Lab	• General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguisher & Hand gloves are kept in each laboratory. • Students are wearing Lab Uniform. • Well trained technical supporting staff.

		• Avoiding the use of damaged equipments and provides needful equipments and components. • Periodical servicing of the lab equipments. • Maintain a clean and organized laboratory • Avoiding the use of cell phones. • Appropriate storage areas. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Long hair must be completely covered.
8.	CAD/CAM Lab	• General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguisher & Hand gloves are kept in each laboratory. • Students are wearing Lab Uniform. • Well trained technical supporting staff. • Avoiding the use of damaged equipments and provides needful equipments and components. • Periodical servicing of the lab equipments. • Maintain a clean and organized laboratory • Avoiding the use of cell phones. • Appropriate storage areas. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Long hair must be completely covered
9.	PDP/ ICS Lab	• General Rules of Conduct in Laboratories are displayed. • Specific Safety Rules for students displayed. • First aid box, Fire extinguisher & Hand gloves are kept in each laboratory. • Students are wearing Lab Uniform. • Well trained technical supporting staff. • Avoiding the use of damaged equipments and provides needful equipments and components. • Periodical servicing of the lab equipments. • Maintain a clean and organized laboratory

		• Avoiding the use of cell phones. • Appropriate storage areas. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Long hair must be completely covered

6.4. Project Laboratory (20)

Facilities available in Project Laboratory	Utilization
• Computerized UTM machine • Fatigue testing machine • Computerized variable compression ratio diesel engine • 3 D Printing machine • Creo • Ansys • Auto cad • Trinocular Microscope with image acquisition system • Plasma arc welding machine • Tungsten inert gas welding machine	B Tech Final year students, PG students, Research scholars and Faculty members.

Projects carried out in the project laboratory

S No	Title of project	Name of students	Guide
2020-21			
1	Development of automatic sanitizing equipment	C Ravinder reddy, K Vamshi reddy, M Prajeet & P S Anand krishnan	Dr. B V Reddi
2	Fabrication of piezo electric shoe	P Anil kumar, P Prakash, P Pavan kalyan & S Rishi	Mr S Venkatesh
3	Design and analysis of universal gearless power transmission mechanisam	Ayaz khan, B Kiran,D. lalith, Shashanth kulkarni	Dr. V Phanindra bhogu
2019-20			
1	Synthesis of TiO_2 Nano structure with different morphologies	G. Ajay reddy, K. Durga prasad, K. Ruchitha & P. Divij	Dr. B V Reddi
2	Design and manufacturing of rocker bogie suspension	A. Hitesh kumar, G. Bhanu prasad, R. Surya teja & L Naveen	Ms. G Sravya
3	Fabrication and investigation of epoxy resin based on glass fiber coconut fiber hybrid component	V Hari krishna, Y. Abhishek raju, E. Vishal & D.Sri sai anish	Mrs B Malathi
2018-19			
1	Impact of post weld heat treatment on the Mechanical Properties of AISI 316L welded joints	Manoj, Mallikarjun, Bharath, Sainath	Dr. J Jagadesh Kumar
2	Seed sowing machine using Cam and Follower	Nenavath Shivakumar, Parsapally Johnson & Shaik Umair Ahmed	Mr K Narendar Reddy
3	Fabrication and experimental analysis of compact refrigerate by using refrigerants R134 and R-600	Aakash prasad, B. Akarsh, A. Rajendra Prasad & D. Sowmya	Mr RNSV Ramakanth

7.1 Actions taken based on the results of evaluation of each of the POs & PSOs (30)

The PO/ PSO target and attainment levels for the current academic year (2020-21) are tabulated below;

	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge			
PO1	**2.02**	**2.41**	Mathematical analysis has not been included for every details of the syllabi
1. Knowledge in basic sciences and Mathematics is planned to implement in the form of Mini and major projects. 2. Changes in the syllabi in the next regulations are proposed.			
PO2: Problem Analysis			
PO2	**1.93**	**2.32**	Basic concepts in Mathematics and Physics are found to be low
Remedial class are proposed to students who lack in knowledge in basic courses like Mathematics, Physics and Chemistry			
PO3: Design/Development of solutions			
PO3	**1.87**	**2.25**	Overall solutions in the design of Mechanical Engineering Systems are found to be low
Alternative solutions, design for manufacturing concepts are proposed to be handled while carrying out the mini and major projects.			
PO4: Conduct investigations of complex problems			
PO4	**1.88**	**2.25**	The ability of the students for solving complex problems are identified as low
Students are exposed to DOE concepts with research methodology in courses like Projects, Industry visits and Internships.			
PO5: Modern tool usage			
PO5	**1.65**	**2.10**	Modern tool usage among the students is found to be low
Keeping in view the employability of the students, technical exposure is planned in modern software tools. 2. Change in syllabus in the course ICS is proposed for the next regulations			
PO6: The engineer and society			

PO6	**1.58**	**2.00**	Awareness among the students with respect to the society and processional activities are found to be low
Guest lectures are to be arranged by industry experts such that the students learn the practices in the industry there by reducing the gap between the academia and society			
PO7: Environment and sustainability			
PO7	**1.78**	**2.20**	Conductivity of technical knowledge and environmental issues are identified to be low
Sustainability through expert lectures is proposed.			
PO8: Ethics			
PO8	**1.39**	**1.86**	On the whole, the attainment is more than the target level
1. Professional ethics have been proposed to inculcate through lectures. 2.Open elective course on this subject is proposed to imp[rove the important traits among the student community.			
PO9: Individual and team work			
PO9	**1.74**	**2.20**	On the whole, the attainment is more than the target level
1. Proposed to form groups of students and methods of peer learning is initiated. 2. Students are asked to form informal leaders during industry visits, internships and other extra cultural activities organized in the college.			
PO10: Communication			
PO10	**1.75**	**2.25**	On the whole, the attainment is more than the target level
1. Planned to organize Communication skills session that can help students to improve presentation skills. 2. A course on seminar topic is introduced and review sessions would be taken more rigorously			
PO11: Project management and finance			
PO11	**1.60**	**2.00**	On the whole, the attainment is more than the target level
1. Final year project is given the priority in executing and implementing with economic concepts. 2. Propose to make changes in the MEFA course from the next academic year.			

PO12: Life-long learning			
PO12	**1.76**	**2.18**	The courses which have not reached the target level are identified.
1. Special classes are proposed to be conducted after college hours encompassing all the core subjects of Mechanical engineering. 2. Placement training programs are proposed to be organized in the technical and psychometric domain areas			
PSO1: Problems of Thermal and Manufacturing component design			
PSO1	**1.83**	**2.25**	Comprehensive knowledge in Thermal Engineering aspects is found to be low
1. Proposed to Club the course on Thermal Engineering and proposed to offer elective courses on specialized Thermal Engineering domain subjects. 2. Additive manufacturing course in the next regulations.			
PSO2:Design development and sustainability of Mechanical Engineering solutions			
PSO2	**1.82**	**2.22**	The courses which have not reached the target level are identified.
1. More emphasis on carrying out the live projects by the students to learn the cutting edge technology of the present day problems encountered in the industries.			

The PO/ PSO target and attainment levels for the current academic year (2019-20) are tabulated below;

	Target Level	**Attainment Level**	**Observations**
PO1: Engineering Knowledge			
PO1	**2.02**	**2.40**	Knowledge levels in core engineering courses may be increased.
1. Knowledge in basic sciences and mathematics is to be enhanced by giving assignments of high quality. 2. Changes in the syllabi in the next regulations are proposed.			
PO2: Problem Analysis			
PO2	**1.93**	**2.31**	Analytical outlook in students is to be improved.
Problem analyzing skills can be improved by encouraging students to attend expert talks and undertaking good project works. Quality of projects is to be ensured by the departmental committee.			
PO3: Design/Development of solutions			

PO3	**1.87**	**2.24**	Design and development skills of students are to be further improved.
Alternative solutions, design for manufacturing concepts are proposed to be handled while carrying out the mini and major projects.			
PO4: Conduct investigations of complex problems			
PO4	**1.88**	**2.26**	Investigation skills of a given complex problem are to be enhanced in the student fraternity.
Students are exposed to DOE concepts with research methodology in courses like Projects, Industry visits and Internships.			
PO5: Modern tool usage			
PO5	**1.65**	**2.09**	Latest technologies are to be introduced to students.
1. Keeping in view the employability of the students, technical exposure is planned in modern software tools.			
PO6: The engineer and society			
PO6	**1.58**	**1.98**	Societal impact of engineering is to be appreciated by the students deeply.
To reduce the gap between the academia and society, guest lectures are to be arranged by industry experts.			
PO7: Environment and sustainability			
PO7	**1.78**	**2.19**	Knowledge on environmental impact of engineering and developing sustainable solutions is to be improved.
Through expert lectures, it is proposed to impart the above said knowledge.			
PO8: Ethics			
PO8	**1.39**	**1.85**	Ethical behaviour is to be imparted.
1. Professional ethics are to be inculcated through lectures. 2. Open elective course on this subject is proposed to improve the important traits among the student community.			
PO9: Individual and team work			
PO9	**1.74**	**2.21**	Team activities are lagging in the course structure.
Students are asked to become group leaders during industry visits, internships and other extra cultural activities organized in the college.			
PO10: Communication			
PO10	**1.75**	**2.26**	Communication skills are to be improved to meet industry standards.
Planned to organize Communication skills sessions that can help students to improve presentation skills.			
PO11: Project management and finance			
PO11	**1.60**	**1.99**	Project management and financial aspects are to be given more focus.
Final year project is given the priority in executing and implementing with economic concepts.			
PO12: Life-long learning			
PO12	**1.76**	**2.21**	Life-long learning is to be imparted.

Placement training programs are proposed to be organized in the technical and psychometric domain areas.			
PSO1: Problems of Thermal and Manufacturing component design			
PSO1	**1.83**	**2.26**	Knowledge in design aspects is found to be low
Proposed to offer elective courses on specialized Design domain subjects.			
PSO2:Design development and sustainability of Mechanical Engineering solutions			
PSO2	**1.82**	**2.25**	Imparting Design and development skills to real world is found to be low
1. Created awareness on importance of live projects to learn the cutting edge technology of the present day problems encountered in the industries.			

The PO/ PSO target and attainment levels for the current academic year (2018-19) are tabulated below;

	Target Level	**Attainment Level**	**Observations**
PO1: Engineering Knowledge			
PO1	**2.02**	**2.39**	Analysis in basic subjects has not been included for every details of the syllabi.
1. Knowledge in basic subjects is planned to implement in the form of Mini and major projects..			
PO2: Problem Analysis			
PO2	**1.93**	**2.33**	Basic concepts in Mathematics and Physics are found to be low
Remedial class are proposed to students who lack in knowledge in basic courses like Mathematics, Physics and Chemistry			
PO3: Design/Development of solutions			
PO3	**1.87**	**2.20**	Enhancement to be done on Design and development skills of students
Alternative solutions, designs for manufacturing concepts are proposed to be handled while carrying out the mini and major projects.			
PO4: Conduct investigations of complex problems			
PO4	**1.88**	**2.27**	Observation and problem solving skills are to be enhanced
Industry visits and Internships were taken up to meet the above.			
PO5: Modern tool usage			
PO5	**1.65**	**2.10**	Mechanical related tool usage is found to be low
Technical exposure is planned in modern software tools.			
PO6: The engineer and society			
PO6	**1.58**	**2.00**	Societal impact of engineering is to be appreciated by the students deeply
Guest lectures are to be arranged by industry experts such that the students learn the practices in the industry there be reducing the gap between the academia and society			
PO7: Environment and sustainability			

PO7	**1.78**	**2.20**	Technical knowledge and environmental issues are identified to be low
Sustainability through expert lectures is proposed.			
PO8: Ethics			
PO8	**1.39**	**1.87**	On the whole, the attainment is reached the target level
Professional ethics have been proposed to inculcate through lectures.			
PO9: Individual and team work			
PO9	**1.74**	**2.24**	Team work and leadership qualities are lagging in the course structure.
1. Proposed to form groups of students and methods of peer learning is initiated. 2. Students are asked to form informal leaders during industry visits, internships and other extra cultural activities organized in the college.			
PO10: Communication			
PO10	**1.75**	**2.26**	On the whole, the attainment is more than the target level
1. Planned to organize Communication skills session that can help students to improve presentation skills.			
PO11: Project management and finance			
PO11	**1.60**	**1.99**	Project management and financial aspects are to be given more focus
1. Final year project is given the priority in executing and implementing with economic concepts.			
PO12: Life-long learning			
PO12	**1.76**	**2.21**	Life-long learning is to be imparted.
1. Special classes are proposed to be conducted after college hours encompassing all the core subjects of Mechanical engineering.			
PSO1: Problems of Thermal and Manufacturing component design			
PSO1	**1.83**	**2.28**	Comprehensive knowledge in Thermal Engineering aspects is found to be low
1. Proposed to Club the course on Thermal Engineering and proposed to offer elective courses on specialized Thermal Engineering domain subjects			
PSO2:Design development and sustainability of Mechanical Engineering solutions			
PSO2	**1.82**	**2.24**	Imparting Design and development skills to real world is found to be low
2. More emphasis on carrying out the live projects by the students to learn the cutting edge technology of the present day problems encountered in the industries.			

7.2 Academic audit and action taken thereof during the period of assessment (15)

S.No	Academic Practices	2020-21	2019-20	2018-19	Actions/guidelines/suggestion
1	Success index of students	0.89	0.89	0.90	1. Proposed to organize remedial sessions to slow learners and issue Assignment sheets to those courses that are critical to understand. 2. Counseling of students, remedial classes proposed to organize to improve the success index. 3. Special classes to bright students are proposed to be conducted in order to make them ready for competitive examinations.
2	Student Faculty Ratio (SFR)	19.25	19.65	20.51	1. Despite the unavailability of requisite faculty members, efforts are put to increase the number of teaching faculty 2. Consistent efforts are made for improving the Student teacher ratio that can positively contribute to the success of students.
3	No: of faculty with PhD	12	10	8	
4	No: of Faculty registered for PhD	--	2	5	
5	No: of active MoUs				
6	Grants/ funds received for research	--	14,96,078	10,39,000	
7	FDPs/ STTPs attended	30	57	39	
8	Total No: of patents	12	9	8	
9	Faculty research publications	14	25	16	1. Higher budgets are earmarked for research activities. 2. Frugal benefits are extended to the teaching faculty in appreciation to their contribution in research. 3. Faculty is clustered under the guidance of a senior person for monitoring their

					research works.
10	Students achievement	8	3	9	1. Students are motivated to work for their projects such that it could be published in peer reviewed journals. 2. Students are motivated to participate in various co-curricular and extracurricular activities to raise the bars of their achievements.

The internal and external audit reports of AY: 2018-19 are appended in Annexure 1 & 2 respectively.

7.3. Improvement in Placement, Higher studies and entrepreneurship (10)

Placements, Higher studies and entrepreneurship activities over the three academic years are enlisted in the below table. No of students passed the examination have been effected to a great extent due to pandemic. It also has a cascading effect on no of students placed in different organizations and students who are going for higher studies. However it has opened a opportunity to the students to find other alternatives of working and hence results in improvement of entrepreneurship activities.

		AY 2020-21	AY 2019-20	AY 2018-19	AY 2017-18
S.No	**Academic Practices**	**CAY**	**CAYm1**	**CAYm2**	**CAYm3**
1	No. of students placed	31	91	124	126
2	Higher studies	5	31	41	9
3	No. of Entrepreneurs	1	2	1	1

7.4 Improvement in the quality of students admitted to the program (20)

Item		2020-21	2019-20	2018-19	2017-18
National Level Entrance Examination	No of students admitted	--	--	--	--
	Opening Score/Rank	--	--	--	--
	Closing Score/Rank	--	--	--	--
State/ University/ Level Entrance Examination/ Others TS-EAMCET	No of students admitted	74	129	180	210
	Opening Score/Rank	30917	19171	19475	17184
	Closing Score/Rank	85348	99475	99466	102828
Name of the Entrance Examination for Lateral Entry or lateral entry details TSECET	No of students admitted	29	76	53	53
	Opening Score/Rank	136	150	230	125
	Closing Score/Rank	3965	5567	4794	2502
Average CBSE/Any other board result of admitted students(Physics, Chemistry & Maths)		--	--	--	--

Total Marks: 45.59

CRITERION 8	FIRST YEAR ACADEMICS	50

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

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 Reg/Contract	Date of leaving
							CAY	CAY m1	CAY m2			
Dr D. Indira Priyadarshini	BGJPD6392Q	M.A, Ph.D	24/05/2016	Developing Writing Skills ELT	Professor	03/07/2013	100	100	100	YES	Regular	-
Dr.Murali Vemula	ADRPV4192L	M.APh.D	17/02/2020	English Common Wealth Literature	Associate Professor	07/07/2014	100	100	100	YES	Regular	-
Mrs.Sujatha Macha	AMBPM8783H	M.A	06/06/2004	English	Associate Professor	3/10/2012	100	100	100	YES	Regular	-
Dr.Rampalli Padma	CBBPK7839P	M.A Ph.D	03/01/2020	Indian writing in English	Associate Professor	12/09/2013	100	100	100	YES	Regular	-
Mr.Surender Allam	ALXPA6236A	M.A	04/4/2002	English Literature	Assistant Professor	01/08/2014	100	100	100	YES	Regular	-
Mrs. KurmapuSree Vani	BQZPK6098J	M.A	04/06/1996	English Literature	Assistant Professor	03/08/2016	100	100	100	YES	Regular	-
Mrs.Jasti .Sreedevi	AZLPJ8012F	M.A	10/05/1997	English	Assistant Professor	21/10/2016	100	100	100	YES	Regular	-
Mr. Rudraboina Vijay Kumar	BKUPR9166B	M.A	05/06/2013	English	Assistant Professor	04/04/2016	100	100	100	YES	Regular	-
Mrs. M. Hepsiba George	BAVPGO116R	M.A.	14/09/2016	English Literature	Assistant Professor	11/07/2018	100	100	100	YES	Regular	-
Mr. S Shafiulla Basha	DIJPS4549N	M.A.	21/01/2013	English Literature	Assistant Professor	31/07/2019	100	100	0	YES	Regular	-
Dr. Prabhakara Sastry	ANQPR4979L	M A Ph.D	10/06/2013	English literature	Associate	07/08/2019	0	100	0	NO	Regular	30/06/2020

Rangavajhala					Professor							
Dr. N Susheel Kumar	CDCPK8086R	M A Ph.D	23/12/2019	Applied Linguistics	Associate Professor	05/07/2019	100	100	0	NO	Regular	30/06/2021
Mr. Paola Peter Beligraham	BRAPP4028B	MA	13/02/2012	English language Teaching	Assistant Professor	01/07/2019	100	100	0	YES	Regular	-
Dr. Lakshmi Narayan Kunderu	ALTPK9283D	M. Sc, Ph. D	15/10/2005	Mathematical Modeling	Professor	22/10/2018	100	100	100	YES	Regular	-
Dr. Dindigala Raju	APIPD2241M	M.Sc, Ph.D	05/12/2011	Thermodynamics & Fluid Dynamics	Associate Professor	08/05/2008	0	100	100	NO	Regular	30/06/2020
Dr. Ravi Ramakrishna	AEVPR9521C	M. Sc, Ph. D	18/10/2011	Statistics	Professor	29/10/2001	100	100	100	YES	Regular	-
Mrs.SrilathaGorthi	ALEPG0835C	M.Sc	11/06/1989	Statistics	Associate Professor	16/06/2012	100	100	100	YES	Regular	-
Dr.SitarambabuBadeti	AITPB1502B	M. Sc, Ph. D	19/11/2016	Mathematical Modelling	Associate Professor	11/10/2014	0	100	100	NO	Regular	30/06/2020
Mr.Anagandula Sadanandam	ANQPA3005J	M.Sc	24/04/2006	Pure mathematics	Assistant Professor	08/09/2008	100	100	100	YES	Regular	-
Mr.Javini Govardhan Reddy	ANKPJ7022L	M.Sc	15/07/1999	Applied Mathematics	Associate Professor	03/03/2015	100	100	100	YES	Regular	-
Mrs.MandalaParthiNagalakshmi Anuradha	AHOPC8555H	M.Sc	15/07/1999	Applied Mathematics	Associate Professor	03/09/2015	100	100	100	YES	Regular	-
Mrs.Chakrala Sridevi	ARWPV8749E	MSc	06/06/2006	Mathematics	Assistant Professor	25/06/2014	100	100	100	YES	Regular	-
Mrs.Fouzia Tabassum	ABWPF4489P	M.Sc	25/04/2011	Applied Mathematics	Assistant Professor	10/01/2012	100	100	100	YES	Regular	-
Mrs.Rampalli V N Udayasree	BCCPR7689M	M.Sc	20/07/2005	Mathematics	Assistant Professor	08/02/2016	100	100	100	YES	Regular	-
Dr. KanapartiKondala Rao	BQHPK9573L	M.Sc Ph. D	12/10/2018	Mathematical Modelling	Associate Professor	10/08/2017	100	100	100	YES	Regular	-
Dr.Paduru Venugopal Reddy	ABKPP2316F	M.Sc, Ph.D	20/04/1981	Physics	Professor	02/09/2009	100	100	100	YES	Regular	-
Mr.Ravi Venkata Chalam	AEAPR0440K	M.Sc	23/06/1997	Physics	Associate Professor	10/10/2010	100	100	100	YES	Regular	-
Dr.Mahesh Rajendran	ATSPM2918E	M.Sc, Ph.D	24/04/2015	Electronic band	Associate	22/09/2014	100	100	100	YES	Regular	-

				structure calculations	Professor							
Dr.AnandPandarinath M	AVKPA8332J	M.Sc Ph.D	24/01/2017	Material Science	Professor	06/07/2015	100	100	100	YES	Regular	-
Mr. Chandu G	AKXPG4820D	M.Sc	20/04/2003	Pure Mathematics	Assistant Professor	20/08/2018	100	100	100	YES	Regular	-
Mrs.GeetadeviWarad	AVUPJ3617K	M.Sc	10/06/2007	Physics	Assistant Professor	01/08/2012	100	100	100	YES	Regular	-
Dr. Mamilla Laxmi	AVOPM7626D	M.Sc, Ph.D	29/08/2017	Physics	Associate Professor	19/01/2017	100	100	100	YES	Regular	-
Mr.Sagar Elle	ABBPE9438Q	M.Sc	25/04/2008	Physics	Assistant Professor	01/12/2014	100	100	100	YES	Regular	-
Mrs. Naga Kumari Gogisetty	ATFPG9932K	M.Sc	25/04/2007	Solid state Physics	Assistant Professor	11/09/2013	100	100	100	YES	Regular	-
Dr.A.Padmaja	ACIPM3453H	M E/M.Tech, Ph.D	20/05/1997	Bio Technology	Professor	02/01/2012	100	100	100	YES	Regular	-
Mrs.AnnapurnaPaturi	AGRPA2024K	M.Sc	25/07/1983	Chemistry	Associate Professor	29/08/2011	100	100	100	YES	Regular	-
Mrs.RamyasudhaPemmada	BGCPP1354F	M.Sc	02/06/2007	Chemistry	Assistant Professor	08/10/2009	100	100	100	YES	Regular	-
Mr.RachalaMuralidhar Reddy	AUPPR1320P	M.Sc	15/05/2008	Organic Chemistry	Assistant Professor	24/06/2013	100	100	100	YES	Regular	-
MrBaikaniNarsimlu	CQUPB5343P	M.Sc	12/06/2015	Organic Chemistry	Assistant Professor	19/12/2016	0	100	100	NO	Regular	31/01/2020
Mrs.Polturi Rama Devi	BJOPP2371K	M.Sc	08/05/2003	Organic Chemistry	Assistant Professor	09/08/2017	100	100	100	YES	Regular	-
Mrs. G Sujatha	FXCPS9141E	M.Sc	15/05/2008	0rganic Chemistry	Assistant Professor	23/01/2019	100	100	100	YES	Regular	-
Mrs. Saritha B	BNUPK1117J	M.Sc	10/06/2005	Organic chemistry	Assistant Professor	04/10/2018	100	100	100	YES	Regular	-
Dr. P. Suresh	CMVPP5636C	M Sc Ph.D.	27/01/2015	Inorganic chemistry	Associate Professor	13/08/2018	100	100	100	YES	Regular	-
Mrs. Prathima	BPEPA8214C	M E/M.Tech	10/01/2010	CSE	Assistant Professor	01/05/2018	100	100	100	YES	Regular	-

Mr M. Praveen	AUOPM5179Q	M E/M.Tech	21/03/2012	Software Engineering	Assistant Professor	16/06/2012	0	100	100	YES	Regular	08/06/2020
Dr. Elizebeth Kamala	ABBPE1217D	M.A. Ph.D.	17/03/2019	English Language and Literature	Assistant Professor	18/07/2017	0	0	100	NO	Regular	31/07/2019
Dr. Ramesh Babu Jampana	AHOPJ2897F	M.A. Ph.D.	18/05/2018	Physical Education	Associate Professor	04/08/2003	100	100	100	YES	Regular	-
Mr. Arutla Ravi Kumar	BFGPA8907N	MA	06/07/2015	Sociology	Assistant Professor	18/07/2011	100	100	100	YES	Regular	-
Mr.Victor John Alexander	AKDPV6668G	MA	07/06/2008	Library Science	Assistant Professor	02/07/2015	100	100	100	YES	Regular	-
Dr.Sathyanarayana Reddy Bussa	AEQPB4177F	M.Sc, Ph.D	06/06/1989	Botany	Professor	29/09/2009	0	100	100	YES	Regular	31/05/2020
Mrs.SuneethaYedla	AFLPY4051R	M.Sc	09/06/2008	Environmental science	Assistant Professor	18/07/2011	100	100	100	YES	Regular	-
Md. Sharmila K	CWCPK0109G	M Sc	21/04/2004	Chemistry	Assistant Professor	10/04/2015	100	100	100	YES	Regular	
Dr.MohammadNazeerunnisa	CCPPS1205Q	M.Sc &Ph.D	19/03/2019	Chemistry	Associate Professor	02/07/2014	100	100	100	YES	Regular	
Dr. DeepankarSenguptha	ATFPS0892P	MSc, Ph.D	15/05/1998	Physics	Professor	15/09/2011	0	100	100	NO	Regular	09/01/2020
Dr. Sadhu Srinivas Rao	CLCPS4172E	MScPh.D	12/04/2010	Chemistry	Associate Professor	14/07/2014	0	100	100	NO	Regular	25/01/2020
Dr. Kondaiah Gari Chalapathi	AWXPK1276B	MSc, Ph.D	15/06/2010	Environmental sciences	Professor	04/10/2015	0	100	100	NO	Regular	14/01/2020
Ms.M.Lavanya	CTHPM1004Q	MSc	15/07/2003	Mathematics	Assistant Professor	02/11/2020	100	0	0	YES	Regular	-
Dr.V.Rajendar	AKBPV0300M	MSc PhD	28/07/2018	Physical Chemistry	Assistant Professor	05/09/2018	100	100	100	YES	Regular	-
Dr.K.Sareen Raj	DYQPK4527P	M.A Ph D	20/06/2014	Literature	Associate Professor	02/06/2018	100	100	100	YES	Regular	
Mr.M.Durga Prasad	AQNPM6884H	MSc	20/06/2004	Fiber Optical Communication	Assistant Professor	05/07/2018	100	100	100	YES	Regular	
Mr.D.Naveen	EZEPD0847P	MSc	15/06/2018	Opto Electronics	Assistant Professor	12/07/2018	100	100	100	YES	Regular	

Mr.PVenkateswaraReddy	AEVPP2784B	MSc	01/07/1975	Solid State Physics	Associate Professor	24/10/2013	0	100	100	NO	Regular	30/06/2020
Mr.N.Phani Kumar	AOWPN8387D	M E/M.Tech	20/08/2013	Information Technology	Assistant Professor	08/05/2018	100	100	100	YES	Regular	-
Ms.K.Bhavya	COKPK8396B	M E/M.Tech	20/07/2019	CSE	Assistant Professor	11/12/2019	100	100	0	YES	Regular	-
Mr.A.Sudarshan	BDWPA1757Q	M E/M.Tech	15/01/2015	CSE	Assistant Professor	01/05/2018	100	100	100	YES	Regular	-
Mr.Y.Anjaiah	AHLPY2845B	M E/M.Tech	16/11/2014	Software Engineering	Assistant Professor	01/05/2018	100	100	100	YES	Regular	-
Ms.T.Mounica	BNOPT4130N	M E/M.Tech	22/07/2019	CSE	Assistant Professor	08/08/2019	100	100	0	YES	Regular	-
Sk.Sameerunnisa	BXVPS2870M	M E/M.Tech	25/10/2010	CSE	Assistant Professor	23/05/2012	0	0	100	NO	Regular	30/04/2019
Ms.P.Lakshmi Sony	BEXPP2666D	M E/M.Tech	18/11/2012	CSE	Assistant Professor	05/12/2018	100	100	100	YES	Regular	-
Ms.LakshmiHugar	APVPH1066F	M E/M.Tech	22/05/2016	CSE	Assistant Professor	03/12/2018	100	100	100	YES	Regular	-
Ms.S.Vandana	AISPV0296K	M E/M.Tech	18/09/2018	CSE	Assistant Professor	19/10/2018	100	100	100	YES	Regular	-
Mrs. Aruna Kumari	BAHPA6721L	ME/M. Tech	14/12/2015	EPS	Assistant Professor	04/06/2016	100	100	100	YES	Regular	-
Mr.A.Praveenkumar	BBNPP5769N	ME/M. Tech	22/12/2016	EPS	Assistant Professor	02/01/2017	100	100	100	YES	Regular	-
Mr. P.Hemanthkumar	CAOPP6530N	ME/M. Tech	22/12/2016	EPS	Assistant Professor	02/01/2017	100	100	100	YES	Regular	-
Mr. P.Satheesh	BTMPP8984J	ME/M. Tech	01-08-2015	EPS	Assistant Professor	04/01/2017	100	100	100	YES	Regular	-
Mrs. G.Prasanna	BPCPP9584N	ME/M. Tech	22-12-2013	PE & PS	Assistant Professor	02/07/2018	100	100	100	YES	Regular	-
T Sarada	AKYPT7975M	M E/M.Tech	20/11/2012	Soil Mechanics and foundation Engineering	Assistant Professor	01/06/2016	100	100	100	YES	Regular	-
A D Sandeep Kumar	CTYPK6029E	M E/M.Tech	15/10/2014	Highway Engineering	Assistant	21/07/2016	100	100	100	YES	Regular	-

					Professor							
S Raghavendra	GBLPS5523Q	M E/M.Tech	18/07/2015	Transportation Engineering	Assistant Professor	19/10/2016	100	100	100	YES	Regular	-
I Praveen Kumar Reddy	ACYPI7325Q	M E/M.Tech	22/01/2015	Infrastructural Engineering	Assistant Professor	16/11/2016	100	100	100	YES	Regular	-
V Swathi	EHNPS6092G	M E/M.Tech	12/12/2016	Structural Engineering	Assistant Professor	30/12/2016	100	100	100	YES	Regular	-
VithalBiradar	AXNPV3442R	M E/M.Tech	12/12/2016	Structural Engineering	Assistant Professor	02/01/2017	100	100	100	YES	Regular	-
K Roja	BFMPK8786B	M E/M.Tech	15/11/2016	Structural Engineering	Assistant Professor	04/01/2017	100	100	100	YES	Regular	-
G Sathya Prakash	BEEPG8379B	M E/M.Tech	15/07/2017	Structural Engineering	Assistant Professor	01/08/2017	100	100	100	YES	Regular	-
S Nagarjuna	HOWPS2510J	M E/M.Tech	20/09/2018	Structural Engineering	Assistant Professor	20/11/2018	100	100	100	YES	Regular	-
V.Ramalingeswara Rao	ABHPV8255G	M E/M.Tech	30/09/1995	Production Engineering	Assistant Professor	09/07/2010	0	100	100	NO	Regular	30/06/2020
S. Suneel Kumar	BTQPS1324B	M E/M.Tech	30/09/2005	Advanced Manufacturing Systems	Assistant Professor	30/05/2011	0	100	100	NO	Regular	30/06/2020
Mrs. PasunuruSreevani	BLTPS6564G	M E/M.Tech	01/11/2019	CAD CAM	Assistant Professor	20/02/2020	100	0	0	YES	Regular	-
Mr.Saif Bin Abdullah	BITPA5865P	M E/M.Tech	01/11/2019	CAD CAM	Assistant Professor	26/02/2020	100	0	0	YES	Regular	-

Data for first year courses to calculate the FYSFR:

Year	Number of students (approved intake strength)	Number of faculty members (considering fractional load)	FYSFR	*Assessment = (5 ×20)/ FYSFR (Limited to Max. 5)
2018-19	1020	80	13	5

2019-20	1200	84	14	5
2020-21	1200	75	16	5
Average	1140	79	14	5

Table B.8.1

***Note:** If FYSFR is greater than 25, then assessment equal to zero.

8.2. Qualification of Faculty Teaching First Year Common Courses (5) Institute Marks:5

Assessment of qualification = (5*x* +3*y*)/*RF*, *x*= Number of Regular Faculty with Ph.D, *y* = Number of Regular Faculty with Post-graduate qualification *RF*= Number of faculty members required as per SFR of 20:1, Faculty definition as defined in5.1

Year	X	Y	RF	Assessment of faculty qualification (5x + 3y)/RF
2018-19	16	51	51	4
2019-20	18	58	60	4
2020-21	17	58	60	4
Average Assessment: 4				

8.3. **First Year Academic Performance (10)** Institute Marks:6.49

Academic Performance = ((Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks in First Year of all successful students/10)) x *(number of successful students/number of students appeared in the examination)*

Successful students are those who are permitted to proceed to the second year.

Academic Performance	2019-20	2018-19	2017-18
Mean of CGPA or mean percentage of all successful students(X)	6.95	6.88	6.50
Total Number of successful students(Y)	126	173	203
Total Number of students appeared in the examination(Z)	128	179	210
API[X*(Y/Z)	6.84	6.65	6.28

Average API[AP1+AP2+AP3)/3] : 6.59

Assessment =1.5* Average API :9.885

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

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

Institute Marks: 5

S.No.	Assessment tool	It's impact on course delivery/content	Relevance towards attainment of Course outcomes
1	Mid-I & Mid-II	Two mid examinations per semester. The Question Paper will set from the first 2.5 units for the first mid examinations. Mid—II is from the remaining 2.5 units The weightage of mid examination is 20 Marks Average of two mid examinations considered for final mid examination marks.	CO1, CO2, CO3, CO4, CO5
2	Assignment-1& Assignment-2	Assignment questions are used to assess the Course Outcomes. The weightage of Assignment is 5Marks.	CO1, CO2, CO3, CO4, CO5
3	Evaluation of performance in the laboratories	In the laboratory hours continuous evaluation sheet is maintained to record the performance and regular activity of the student. This evaluation sheet record for15marks Internal Practical Examination will be conducted for 10 marks. The weightage of	CO1, CO2, CO3, CO4, CO5

		internal lab examinations is 25marks. External lab Examination will be conducted for 50marks.	
4	Semester End Examinations	The question papers will set and evaluated by the external examiners. The weightage is 75 marks.	CO1, CO2, CO3, CO4, CO5

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

Institute Marks: 5

S.No	Assessment Tool	Maximum marks	Threshold level (%)	Attainment level Criteria	Attainment level
1	Midterm Exams	25	60%	At least 70% of attempted students exceed the threshold level (60%) marks.	3
				At least 60%-69% of attempted students exceed the threshold level (60%) marks.	2
				At least 50%-59% of attempted students exceed the threshold level (60%) marks.	1
2	Semester End Examinations	75	60%	At least 70% of attempted students exceed the threshold level (60%) marks.	3
				At least 60%-69% of attempted students exceed the threshold level (60%) marks.	2
				At least 50%-59% of attempted students exceed the threshold level (60%) marks.	1
3	Labs	75	60%	At least 70% of attempted students exceed the threshold level (60%) marks.	3
				At least 60%-69% of attempted students exceed the threshold level (60%) marks.	2

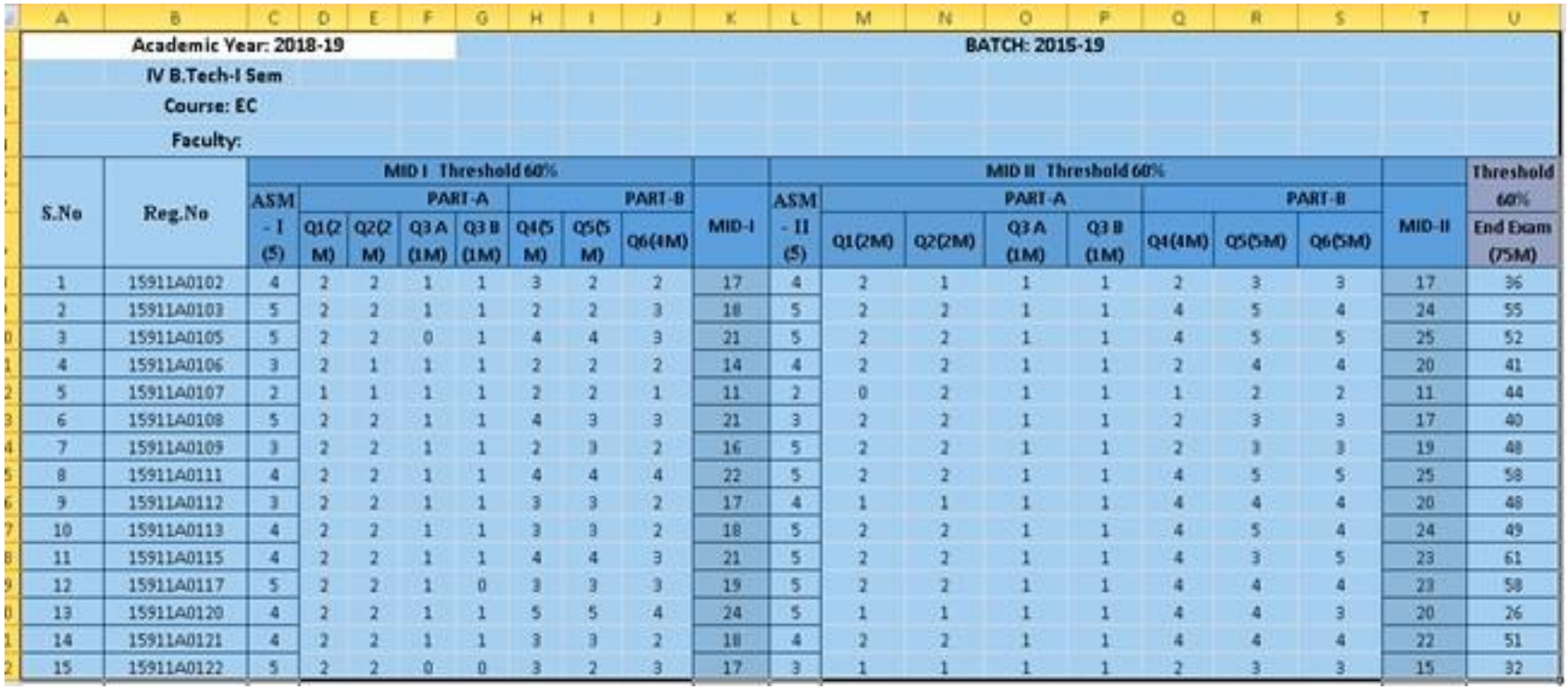
				At least 50%-59% of attempted students exceed the threshold level (60%) marks.	1

Direct Assessment Evaluation:

Assessment of course outcomes:

Course outcome	Course outcome attainment level from internal assessment	Course outcome attainment level from university exams (Semester End Examinations)	CO Attainment
CO Attainment	(Mid-1+ Mid-2) /2= $\mathbf{a_1}$	b_1	$0.25\ (a_1) + 0.75\ (b_1)$

As per university/IQAC guidelines 25% weightage is given to internal assessment and 75% weight age is given to external exam assessment.



Academic Year: 2018-19 — BATCH: 2015-19

IV B.Tech-I Sem

Course: EC

Faculty:

S.No	Reg.No	MID I Threshold 60%									MID-I	MID II Threshold 60%									MID-II	Threshold 60%
		ASM - I (5)	PART-A						PART-B			ASM - II (5)	PART-A				PART-B					End Exam (75M)
			Q1(2M)	Q2(2M)	Q3 A (1M)	Q3 B (1M)	Q4(5M)	Q5(5M)	Q6(4M)				Q1(2M)	Q2(2M)	Q3 A (1M)	Q3 B (1M)	Q4(4M)	Q5(5M)	Q6(5M)		
1	15911A0102	4	2	2	1	1	3	2	2	17		4	2	1	1	1	2	3	3	17	36
2	15911A0103	5	2	2	1	1	2	2	3	18		5	2	2	1	1	4	5	4	24	55
3	15911A0105	5	2	2	0	1	4	4	3	21		5	2	2	1	1	4	5	5	25	52
4	15911A0106	3	2	1	1	1	2	2	2	14		4	2	2	1	1	2	4	4	20	41
5	15911A0107	2	1	1	1	1	2	2	1	11		2	0	2	1	1	1	2	2	11	44
6	15911A0108	5	2	2	1	1	4	3	3	21		3	2	2	1	1	2	3	3	17	40
7	15911A0109	3	2	2	1	1	2	3	2	16		5	2	2	1	1	2	3	3	19	48
8	15911A0111	4	2	2	1	1	4	4	4	22		5	2	2	1	1	4	5	5	25	58
9	15911A0112	3	2	2	1	1	3	3	2	17		4	1	1	1	1	4	4	4	20	48
10	15911A0113	4	2	2	1	1	3	3	2	18		5	2	2	1	1	4	5	4	24	49
11	15911A0115	4	2	2	1	1	4	4	3	21		5	2	2	1	1	4	3	5	23	61
12	15911A0117	5	2	2	1	0	3	3	3	19		5	2	2	1	1	4	4	4	23	58
13	15911A0120	4	2	2	1	1	5	5	4	24		5	1	1	1	1	4	4	3	20	26
14	15911A0121	4	2	2	1	1	3	3	2	18		4	2	2	1	1	4	4	4	22	51
15	15911A0122	5	2	2	0	0	3	2	3	17		3	1	1	1	1	2	3	3	15	32

Image of Direct Assessment Sheet

In the process of Direct Assessment Evaluation,

Mid - I & Assignment-I are mapped with CO 1, CO 2 & CO3

CO 1 is mapped with question no 1,3 & 4 of mid - I question papers and Similarly, CO 2 is mapped with question no 2 ,3&5, CO 3 is mapped with question no 6.

For Mid-II & Assignment-II are mapped with CO 3, CO 4 & CO 5.

CO 3 is mapped with question no 4, CO 4 is mapped with questions no 1,3&5 and CO 5 is mapped with question no 2,3&6 of mid - II question papers.

ASSESSMENT OF CO's FOR THE COURSE						
CO	Method	value	Avg	CO Attainment (Internal)	CO Attainment (End Exam)	Overall CO Attainment
CO 1	ASM I	3	3.0	2.95	3.00	2.99
	MID I - PART A - Q1	3.0				
	MID I - PART A - Q3 A	3.0				
	MID I - PART B - Q4	3.0				
CO 2	ASM I	3	3.0			
	MID I - PART A - Q2	3.0				
	MID I - PART A - Q3 B	3.0				
	MID I - PART B - Q5	3.0				
CO 3	ASM I	3	2.8			
	ASM II	3.0				
	MID I - PART B - Q6	3.0				
	MID II - PART B - Q4	2.0				
CO 4	ASM I	3	3.0			
	MID II - PART A - Q1	3.0				
	MID II - PART A - Q3 A	3.0				
	MID II - PART B - Q5	3.0				
CO 5	ASM I	3	3.0			
	MID II - PART A - Q2	3.0				
	MID II - PART A - Q3 B	3.0				
	MID II - PART B - Q6	3.0				

Indirect Assessment Evaluation:

Assessment Tools	Assessment Frequency	Assessed by	Reviewed by	Assessing CO'S
Course End Survey	At the end of the Course	Course Coordinators &IAC	IAC	CO1 – CO5

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

8.5.1. Indicate results of evaluation of each Relevant PO and/or PSO, if applicable (15)

Institute Marks: 10

PO Attainment:

Course	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
A21001 English	-	2.27	1.95	2.92	-	2.43	1.95	1.95	1.95	2.92	0.97	2.92
A21002 Mathematics	1.96	1.96	1.96	1.96	1.96	1.83	-	-	1.31	1.31	1.31	1.31
A21004 Chemistry	1.98	1.45	1.32	1.32	1.82	1.58	1.32	1.32	-	1.06	-	1.58
A21501 PPS I	1.88	1.88	1.88	1.88	1.88	1.25	-	1.25	1.88	1.88	0.63	1.88
A21081 ELS Lab	3	3	-	2	-	2.33	-	2	2	3	1	3
A21083 Chemistry Lab	3	2	1	1.67	2.75	2	1.75	1.2	1	1	-	2.4
A21381 EWS	1.67	1	3	1	2.33	3	-	-	1	2	-	-
A21581 PPS Lab I	3	3	3	3	2	2	-	2	3	3	1	3
A22006 Mathematics II	2.35	2.35	2.35	2.35	2.35	2.19	-	-	0.78	1.57	1.57	1.57
A22007 Engineering Physics	1.79	1.79	1.64	2.09	1.64	1.79	1.79	1.12	1.79	2.09	1.19	2.24

A22302 EGM	1.94	1.94	1.77	1.24	1.77	2.12	-	-	-	-	-	1.41
A22303 Engineering Mechanics	1.9	1.74	1.58	1.27	1.27	0.95	-	-	-	-	-	0.63
A22502 PPS II	3	3	3	3	3	1	-	2	3	3	1	3
A22084 ECS Lab	-	2	-	2.33	2	2	-	3	2.67	3	1	3
A22085 EP Lab	2.4	2.2	2.6	2.6	2	2	2	1.4	2	2	1.8	2.6
A22582 PPS Lab II	3	3	3	3	2	1	-	2	3	3	1	3
Average	2.35	2.16	2.15	2.10	2.06	1.84	1.76	1.75	1.95	2.20	1.13	2.24

PO Attainment Level :

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.35	2.16	2.15	2.10	2.06	1.84	1.76	1.75	1.95	2.20	1.13	2.24
CO Attainment	2.35	2.16	2.15	2.10	2.06	1.84	1.76	1.75	1.95	2.20	1.13	2.24

PSO Attainment:

Course	PS01	PS02
A21001 English	0.97	-
A21002 Mathematics	1.96	1.96
A21004 Chemistry	1.1	1.98
A21501 PPS I	0.63	0.63
A21081 ELS Lab	-	-
A21083 Chemistry Lab	1.67	2.5
A21381 EWS	2.8	3
A21581 PPS Lab I	1	1
A22006 Mathematics II	2.35	1.57
A22007 Engineering Physics	2.24	2.24
A22302 EGM	-	1.84
A22303 Engineering Mechanics	1.9	1.77

A22502 PPS II	1	1
A22084 ECS Lab	-	2.4
A22085 EP Lab	3	3
A22582 PPS Lab II	1	1
Average	1.66	1.85

PSO Attainment Level:

Course	**PSO1**	**PSO2**
Direct Attainment	1.66	1.85
CO Attainment	1.66	1.85

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

Institute Marks: 10

(The attainment levels by direct (student performance) are to be presented through Program level Course-PO matrix as indicated)

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

POs	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge			
PO1	1.96	2.35	Target Level attained.
• To enhance knowledge and improving the skillset of the students, emphasis on subjects like Mathematics, basic sciences and multi-disciplinary areas are laid for the overall development of the students. • Explicit attention is paid to the students by assigning the topics chosen for improvement.			
PO2: Problem Analysis			
PO2	1.78	2.16	Target Level attained.
• Students are given assignments that would elevate their interest in the core sciences and these assignments are designed with respect to their mental abilities. • Various concepts and strategies are adopted to attain the target in this regard.			
PO3: Design/Development of solutions			
PO3	1.79	2.15	Target Level attained.
• The students are offered the basic and key steps to designing concepts. • Experiential design solutions are encouraged through science activities to address the societal needs.			
PO4: Conduct investigations of complex problems			
PO4	1.71	2.10	Target Level attained.
• Assignments and tutorial classes are conducted in Mathematics-I, Engineering Graphics & Modelling that are integral for engineering programme. • Challenges in achieving good results in these subjects have been addressed with the help of these strategies.			

PO5: Modern tool usage			
PO5	1.73	2.05	Target Level attained.
• More emphasis is laid on the ability to use modern tools in teaching learning processes, particularly in subjects such as Engineering Physics, Chemistry and English to heighten the competency of the students.			
PO6: The engineer and society			
PO6	1.52	1.84	Target Level attained.
• Slip tests and assignments helped a lot in achieving better results in difficult subjects.			
PO7: Environment and sustainability			
PO7	1.42	1.76	Target Level attained.
• Guest lectures are organized by the experts from industry to expose the students to experiential learning. • This strategy helped us meet the target exponentially.			
PO8: Ethics			
PO8	1.34	1.75	Target Level attained.
• Induction programme and Value-added courses were conducted that contributed to strong ethical culture for the overall development of the students.			
PO9: Individual and team work			
PO9	1.51	1.95	Target Level attained.
• Sessions on Soft skills, particularly in communication/ interpersonal skills are encouraged that contributed to the overall success.			
PO10: Communication			
PO10	1.72	2.20	Target Level attained.
• Various strategies have been developed and implemented in the form of literary activities to meet the target. • Make-up classes for the students from vernacular background helped in addressing the challenge.			
PO11: Project management and finance			
PO11	0.92	1.13	Target Level attained.
• Engineering Mechanics and Engineering Physics are the subjects that were challenging for students. • This challenge was met with the help of make-up classes and slip tests.			

PO12: Life-long learning			
PO12	1.8	2.24	Target Level attained.
• Assignments, tutorials and guest lectures by industry experts helped in meeting this challenge with better outcome.			

PSOs Attainment Levels and Actions for Improvement- (2019-2020)

PSO1 : An ability to analyze and solve problems of welding special materials and employing reverse engineering techniques for the design of mechanical engineering components.			
PSO1	1.48	1.66	Target Level attained.
• Innovative teaching learning methods are practiced for the subjects that do not meet the target through Assignments & Tutorials.			
PSO2: An ability to design, develop and implement mechanical engineering solutions in view of sustainability, environmental issues with social responsibility.			
PSO2	1.57	1.85	Target Level attained.
• To promote study and research in diverse technical fields, students are exposed to guest lectures and make up classes.			

CRITERION 9	STUDENT SUPPORT SYSTEMS	50

9.1 Mentoring system to help at individual level: **(5)**

Types of mentoring : All round mentoring
Number of students per mentor : 20
Frequency of Meetings : Fortnight (and need based)

Mentoring process

Mentoring is for overall development of the student. Counseling books are maintained by faculty where all details of the students are recorded. The following details are maintained in the counseling book of each student:

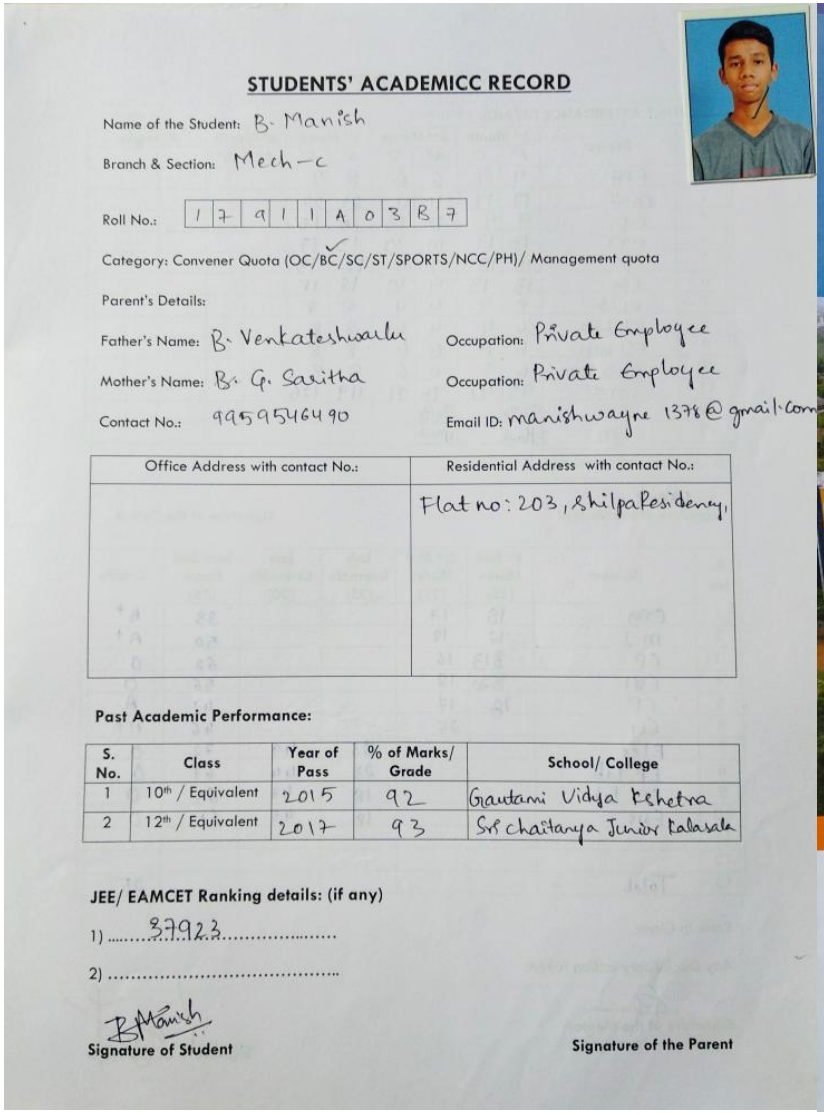
- Personal Information
- Past Academic Performance
- List of academic achievements
- Monthly attendance

The mentors will meet the students periodically and monitor their performance and their progress. Guidance is given to students for the improvement. The followings are take care by each mentor.

- Monitoring Regularity of the students.
- Monitoring Performance of the students.
- Personal Counseling for Career Guidance
- The parents of poorly performing students are informed through SMS and call.
- Students are encouraged to participate in technical events.

List of Mentors for academic year 2020-21

File No	Class/Sem	Hall Ticket	No of Students	Name of the Mentor	Designation
1	II/I	20911A030-20911A0323	22	Mrs. J. Emeema	Assistant professor
2	II/I	20911A0323-20911A0323	22	Mrs. Ravi Chirra	Assistant professor
3	III/I	19911A0301 -19911A0321	21	Mrs. P Sampath Kumar	Assistant professor
4	III/I	19911A0322-19911A0342	20	Mr.Shaik Mohd Amoodi	Assistant professo
5	VI/I	18911A0301-18911A0321	18	Mr C Naveenraj	Assistant professo
6	VI/I	18911A0323-18911A0345	19	Mr K Ravi Kumar	Assistant professo



STUDENTS' ACADEMICC RECORD

Name of the Student: B. Manish

Branch & Section: Mech-C

Roll No.: 17 91 1A 03 B7

Category: Convener Quota (OC/BC/SC/ST/SPORTS/NCC/PH)/ Management quota

Parent's Details:

Father's Name: B. Venkateshwarlu Occupation: Private Employee

Mother's Name: B. G. Savitha Occupation: Private Employee

Contact No.: 9959546490 Email ID: manishwayne1378@gmail.com

Office Address with contact No.:	Residential Address with contact No.:
	Flat no: 203, Shilpa Residency,

Past Academic Performance:

S. No.	Class	Year of Pass	% of Marks/ Grade	School/ College
1	10th / Equivalent	2015	92	Gautami Vidya Kshetra
2	12th / Equivalent	2017	93	Sri Chaitanya Junior Kalasala

JEE/ EAMCET Ranking details: (if any)

1) 87923

2) .....

B. Manish
Signature of Student

Signature of the Parent

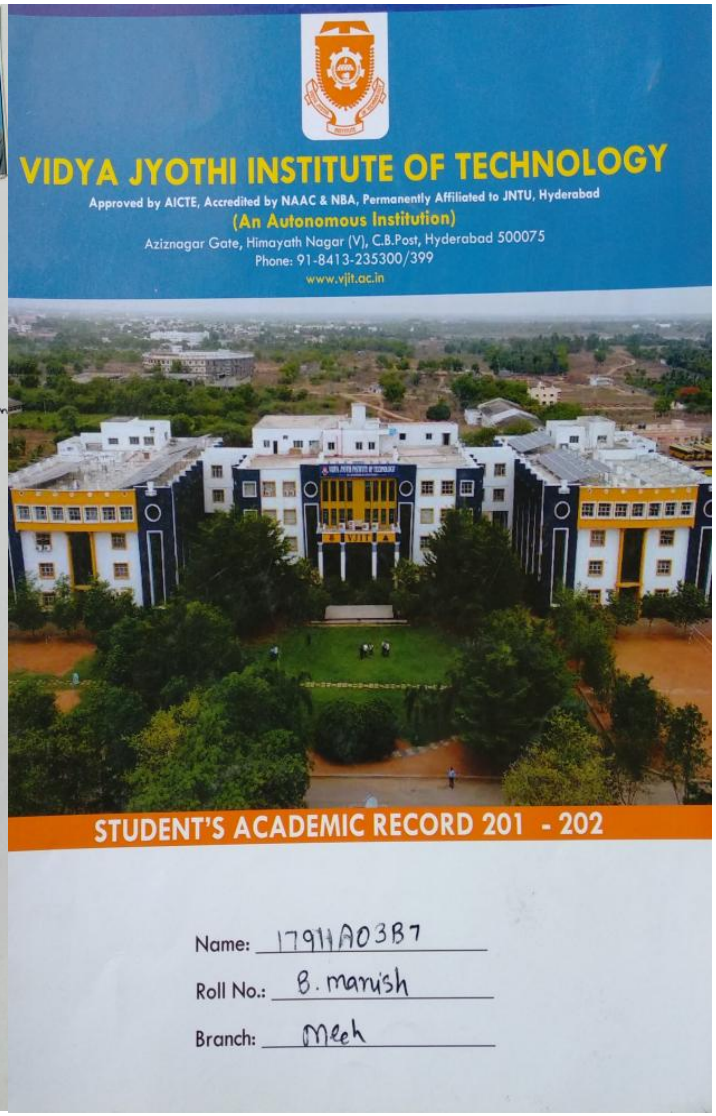


Fig 9.1.1: Sample mentor book to record the students' details from the first year to final year.

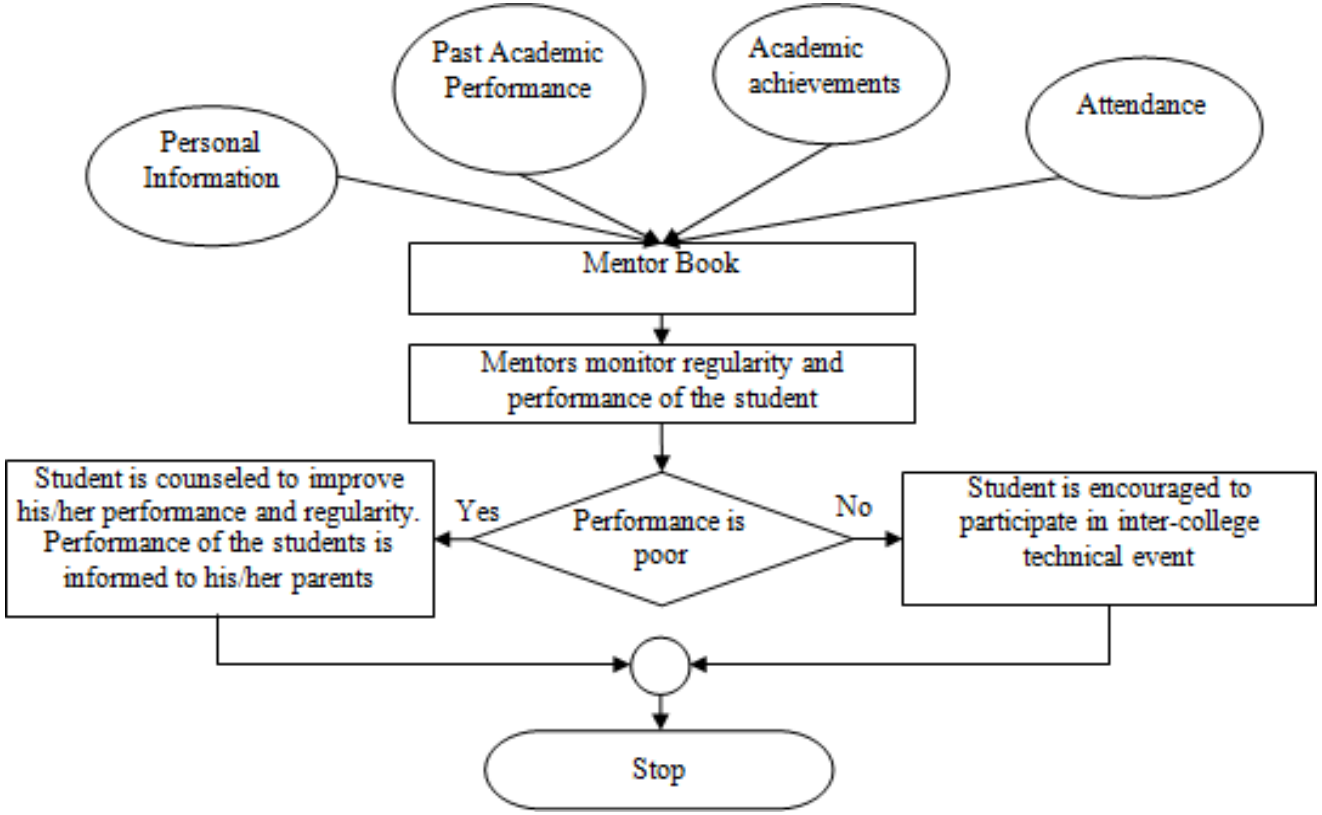


Figure9.1.2FlowchartofMentoringProcess

By Implementing mentoring system in the Institute, the following parameters are improved

Efficacy of mentoring system

S.No	Parameters	Outcomes
1.	Regularization of Student Attendance	Enhanced learning process
2.	Academic Performance	Intellectual Curiosity
3.	Involvement of students in Co-curricular Activities and Extra-Curricular Activities	Team Building, Effective Communication and Leadership Skills
4.	Guidance towards Self learning	More number of students enrolled for certifications
5.	Placement's guidance	Enhanced Placements
6.	Counselling students towards overall well being	Improved self-confidence,self-esteem and holistic development
7.	Extended support to peer related issues in consultation with parents	Overcoming negativebehavioral traits

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

Feedback collected for all course: YES

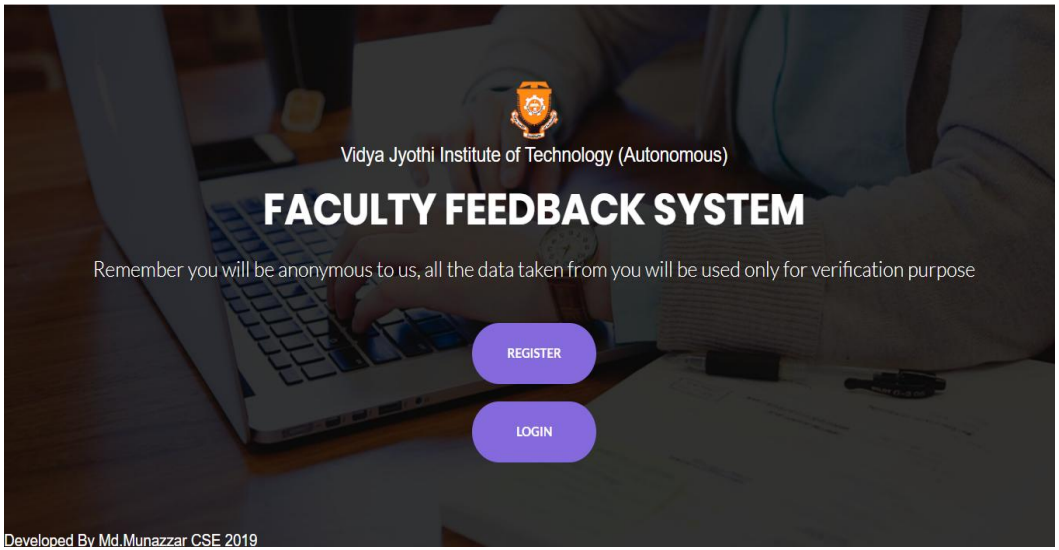
Average percentage of student's participation: 90% to 95%

Feedback collection process

Feedback on all the faculty members is taken from the students against the below mentioned parameters

1. Subject Knowledge
2. Communication
3. Presentation skills
4. Punctuality
5. Control over the class
6. Audibility
7. Professionalism
8. Content of Lecture
9. Clarification of doubts
10. Explanation with examples

Students are suggested to provide feedback in a scale of 1-10 against each parameter (1 being lowest and 10 being highest). Feedback is collected by using a web application which improves speed and efficiency of the process.



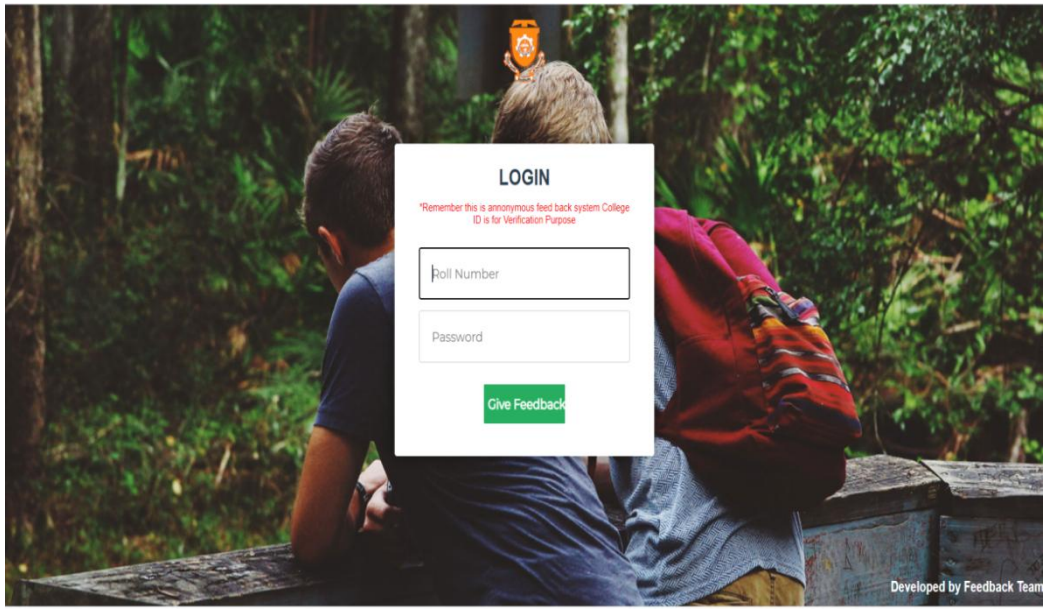


Fig 9.2.1 Feedback-form login

Figure 9.2.1 shows online feedback-form login for the students. Currently feedback is taken through online mode and the faculty feedback system is developed by VJIT, Computer Science Engineering students of 2019 batch. In this form the current semester theory and laboratory is displayed along with faculty member's photo. The student has to fill the form and he/she gives feedback points from 1 (low) to 10 (high) for the ten parameters mentioned above.

System of Reward:
Best Teacher award would be conferred to the faculty members who secure highest rating in feedback and also generate good results. Student feedback is one of the important parameters in performance rating of faculty.

Corrective Actions:
Based on the students' feedback, faculty members are advised with relevant suggestions from Head of the Department.

9.3. Feedback on facilities **(5)**

Facilities assessment is based on student feedback, its analysis and thereafter subsequently corrective action is taken. Below mentioned questionnaire is intended to collect information related to student's satisfaction towards facilities and services provided with in the college campus. Students are suggested to provide feedback for the following parameters on a qualitative scale ranging from 1 to 5

Student feedback form on facilities

Students should read each point carefully and award points as per the scale given below against each item. The scale is 1-5.

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

S.No	Statement	1	2	3	4	5
1	Rate your satisfaction level on canteen facilities					
2	Rate your satisfaction level on transport facilities					
3	The campus has adequate power supply					
4	The classrooms are clean and well maintained					
5	Do you have adequate facilities for Sports and Games					
6	The functioning of the health center					
7	Grievances/problems are redressed/solved well in time					

8	Available reading space in library/seminar is satisfactory					
9	The campus is green and eco-friendly					
10	Clean drinking water is available in the department and in the campus					
11	Toilets/washrooms are hygienic and properly maintained					
12	The office staff in the department are helpful					
13	Internet facility is available in the department					
14	Photocopying facility in the Library/Department					
15	The library/seminar staffs are cooperative and helpful					

The feedback is collected from the students through Google forms. The corrective measures will be taken based on the student feedback on facilities.

9.4 Self-Learning **(5)**

Self-learning is promoted in the institute by providing following facilities:

- High speed Internet facility:Internet facility has been provided through Apollo online leased line and also through a private provider by installing receiver in the campus.
- Digital Library has been established in the central library with 35 computers.
- Technical Symposium
- E-Journals
- E-Learning Sites
- NPTEL video lectures
- Coursera online course
- Webinars
- Virtual labs

Flexibility in academics with scope for self learning:

1. **Home-Work Assignment** is a regular feature being practiced with emphasis on solving numerical problems.
2. **Subject Specific Lectures** are arranged for each course to outreach the syllabus content boundary.

3. **Student Seminars** are arranged on topics related to practical being performed for helping them to understand the relation between theory and the need for the experiments. Every student has to participate in this program.
4. Bright students are encouraged to give seminars on current topics of interest allotted by the teachers.
5. Group discussion on student Project work monitored by the senior staff.

Scope for Self Learning

1. Emphasis on Laboratory Training:

Entrance to engineering education is based on multiple choice tests resulting in a memory base system to expose them to empirical experience, which is the base for science and technology education, we have adopted a procedure with major emphasis on practical's being performed beyond the syllabus requirement.

2. E-learning Resources for Students:

S.No	Medium for self learning	Available Place	Purpose
1	NPTEL Video Courses, NPTEL web courses.	Central library	Self-learning
2	E-Books (McGraw-Hill, Springer, Taylor and Francis, Cambridge, IS, Oxford),	Central library	Self-learning
3	Journals, AICTE-INDEST, IEEE, ASME, ASCE, DELNET N-LIST (INFLIBNET)	Central library	Self-learning
4	Books in the department library available for competitive exam like GATE, IES GRE, TOEFEL, and GMAT	Central library	Self-learning
5	Previous project reports	Department library	To extend the already existing project and getting new innovative ideas in developing new projects
6	Digital Library	Central library	Self learning

- Modern teaching aids like Multimedia, Projectors, and Internet enabled Computer systems are used for class room instruction and to enhance student learning experiences.
- The students are also encouraged to use computer software packages for their Projects.

- Wi-Fi facility in the campus.
- Use of LCD projectors in the classroom.

Digital Library

- Established in the central library equipped by 35 computers with internet connection.
- CD Rom's around 1800 are available.
- Availability of e-Journals 1077 & e-books from NLIST 1,25,000
- Previous years question papers of JNTU/Autonomous for all the courses
- E-books for all the courses
- Lecture notes and lab manuals
- Project reports
- Support to students for self learning through NPTEL videos

List of Webinars

Webinar Title	Expert	Institute	Date
International Webinar on Research Techniques and tips for Article Writing	Dr.Muhummad Hadi	IGBC	3rd July 2020

International Online Internship: For B.Tech/B.E Students 3 weeks International online internship is conducted from the department of Civil Engineering from 17th August 2020 to 7th December 2020.

Learning beyond syllabus: The professional chapters, technical clubs, students association and certification programs provide students a scope for self-learning. The following are the various activities conducted under various professional chapters.

Participation in IUCEE Annual student Forum events

S. No	Name of the Workshop	Venue	Date	Theme	Number of Participants
1.	7th IUCEE Annual Student Forum IASF 2020	Anurag Group of Institutions, Hyderabad	4th to 8th January 2020	Challenge for a Change	10
2.	Supra Saeindia – 2018	Buddh International Circuit, Greater Nodia	11 To 16th June, 2018	Aplication of engineering skills in designing a racing car	13

List of Regional SPEED workshop conducted at VJIT

S. No	Name of the Workshop	Date	Theme	Number of Participants
1	Regional Student Forum – 2018	29th September to 1st October 2018	Fostering Engineers of Tomorrow	65
2	Regional Student Forum – 2017	7th to 9th September 2017	Empowering the Millennials	42
3	First year student workshop	2nd March 2017	Effective Engineering Education	22
4	3rd Regional student forum	1st to 3rd September 2016	Engineering Education for Multifaceted Engineers	10
5	2nd Regional Student Forum -2015	3rd to 5thAugust 2015	Engineering Education for Multifaceted Engineers	18
6	E-Myths workshop	12th September 2015	What is Engineering? What do Engineers do? And the importance of being an Engineer	28
7	1st Regional Student Forum -2014	15th to 17th September 2014	Engineering Education Without Borders	18

Regional SPEED workshops conducted by VJIT Students

S. No	Name of the college	Date	Place	Student Facilitator
1	Anurag Group of Institutions Annual Student forum	4th to 8thJanuary 2020	Hyderabad	Ms. B. Shivani Ms. P. Harika Ms. K. Sai Chaitanya Reddy Ms. Pravallika Mr. V. Sai Ganesh
2	MLRIT	4th to 6th January 2019	Hyderabad	Ms Pravalika Nandu
3	Anurag College of Engineering	12th to 16th November 2018	Hyderabad	Ms Pravalika Nandu
4	MVJ College of Engineering	15th to 17th September 2017	Bangalore	Harsh Sharma
5	MLR Institute of technology	30thAugust to 1st September 2017	Hyderabad	K.R. RoshidChandran
6	MLR Institute of Technology	30thAugust 2017 to 1stSeptember 2017	Hyderabad	C.N.S. Revathi
7	SR Engineering College	15th to 17th September 2016	Bhimavaram	C Kavyasree,
8	MLR Institute of technology	19th to 21st September 2016	Hyderabad	P Ajay and H Roopak
9	Vignan Institute of information &technology	17th to 19th August 2016	Vizag	B Santosh Pawan Kumar
10	ABES Engineering College	30th August 2016 to 2ndSeptember 2016	Noida	K Nikhita
11	SR Engineering College	6th to 8th August 2015	Warangal	A Swarnamani, B Santosh Pawan Kumar C Kavyasree
12	AMITY University	9th to 11th September, 2015	Noida	A Swarnamani
13	Pulla Reddy Eng.College	23rd to 25th July,2015	Kurnool	P Prathyusha
14	Mangalam College of Engineering	27th to 29th July, 2015	Kerala	H Roopak

15	BH Gardi College of Engineering & Technology	27th to 29th July, 2015	Rajkot	B Santosh Pawan Kumar and P Ajay
16	HITAM Engineering College	18th to 20th July, 2015	Hyderabad	B Santosh Pawan Kumar

Virtual Labs: Institute has IIIT, Hyderabad virtual labs nodal center, through this center students are accessed to labs through online. The following listed laboratories are accessed by our students.

- Fluid Machinery Lab
- Hydraulics and fluid mechanics lab
- Fluid mechanics lab

This helped our students in learning basic and advanced concepts through remote experimentation

Courseera:.VJIT registered with Coursera for self study during pandemic covid -19. The students are completed around 2000+ certifications in various domains of Mechanical Engineering.

9.5. Career Guidance, Training, Placement Cell (10)

Objectives of the Career Guidance Cell:

- To provide information about various career options available to the students,
- To conduct a survey among students on their career options
- To organize programs and to create awareness about the importance of higher studies in India and abroad.
- To organize diagnostic tests for the competitive exams such as CAT, GRE, TOEFL, GMAT and to counsel them for higher studies
- To organize coaching classes on CAT, GRE, TOEFL, GMAT etc.
- To organize and offer various programs on Personality Development, Soft Skills and Communication Skills.
- To invite companies' organizations for campus interviews and provide them necessary facilities for conducting written test, group discussion, technical and HR interviews etc.
- To arrange industrial visit for pre final year and final year students.
- To organize mock interview, group discussion, experience sharing by eminent personalities, business communication skills and conduct online/offline tests on problem solving and aptitude tests.

- To display various job advertisements, opportunities and career column in leading news papers.

Career Guidance Cell Team

Name of the Faculty	Designation
Dr.G.Sreeram Reddy	Convener
Dr.D.ArunaKumari	Member
Dr.K.Vasanth	Member
Mr.B.Srinivasulu	Member
Dr. C.N.Ravi	Member

Career Guidance for Higher studies:

Institute received a funding of Rs.8,49,997/- from AICTE Prerana – 2019 Scheme for preparing SC/ST Students for Higher education.

- The Institute organizes seminars, workshops on soft skills and placement orientation program to impart the skills and guidance for higher education to the students.
- Language lab has interactive software which enables the students to prepare for GRE and TOEFL examinations.
- Large number of books on career guidance and competitive examinations are available in Library

Under career guidance cell, students are trained for British English Council (BEC) program. BEC is a certification course given by Cambridge English. It is associated to the Common European Framework of reference for Languages. Some employers require non-native speakers of English to demonstrate a qualification and proof of training in the English language, before offering an interview or a job in some client servicing roles. This certificate is one of the myriad of certificates on offer. Out of the 115 students appeared for BEC Preliminary B1 Level exam from Telangana Academy for Skill & Knowledge TASK, 19 students are from VJIT. Among them 5 students topped the exam and got B2 Level of certification i.e. *BEC Vantage*. The remaining 14 students got through the exam with good grades.

The following Mechanical department students are certified in the BEC program:

S. No	Roll. Number	Name	Branch
1	15911A0390	Mohd Umair Ahmed	Mechanical Engineering
2	15911A0393	Sharath Kumar	Mechanical Engineering

Apart from the BEC program our students are also certified in *Hindu STEP* (Standardized Test of English Proficiency) and College to Corporate.

Hindu STEP

Hindu STEP is an English certification program conducted by the Hindu group and Vidya Jyothi Institute of Technology. In this platform students had a pleasure to take up this particular course which consists of 60 hours under which, 40 hours of online course and 20 hours of face to face training.

List of Mechanical students certified in Hindu STEP

S.No	Roll. No	Student Name	Grade
1	17915A0308	BARDHA SHASHI KUMAR REDDY	8.4
2	17915A0313	BOMPALLY RAVI TEJA	6.5
3	16911A03J9	GUBBA ANUDEEP	6.0
4	16911A03J3	DEEPIKA	8.5
5	16911A03J7	VISHAL ELIKA	9.3
6	17915A0310	BATHULA RAJASHEKAR REDDY	9.2

List of activities conducted under career Guidance cell:

S.No	Date	Name	From	Topic
1.	13rd August 21	Ritu Ashar	Co-Founder& Chief learning Officer	AWS Cloud Computing
2.	08th August 21	Yeshwanth Chintaginjala	Software Development Engineer II At Paypal	Prepration Strategies For Product Base Companies
3.	06th August 21	Sandeep	Triumphant Institute Of Technology Education Pvt.Ltd	Carrier Oppurtunities Prepration Strategy Through GATE-22
4.	03rd August 21	Sri Harsha	TCS Careers	Ninja Hiring Process
5.	10th July 21	Sree Latha Shankar	Head-Ameccaz	Cyber Security Services Campus to Corporate Orientation
6.	03rd July 21	Bhagwan Gorti	CEO& Founder Positive Solutions	Integrated Information System Enterprise Excellence
7.	27th June 21	Hardik Nahata	AI Engineer,Aspecto Technologies	Machine Learning in Alexa Works
8.	25th June 21	Sushma patur	Times Of India	Impact of COVID-19 on Students career & how to be Exam Ready in Pandemic
9.	19th June 21	KrishnaKumar Dev	Talentio	Manage To get 1 Crore Package From Amazon
10.	13th June 21	Aniket Chile	Experts Insights on Cognizant	How To Crack Cognizant
11.	06thJune 21	Rajeev Markanday, Palash Gupta	Hitbullseye	Career Options After Graduation
12.	05thJune21	Siddharth Ghosh	Talentio	Journey of Life in Pandemic
13.	04 thJune 21	Venkata Ramana Reddy,Sandeep Bandari	JNTU	About Gate,Jobs& Higher Education Opportunities
14.	21stMay 21	Karthikeyan	R&D Scientist in Robotics Controls	Webniar On Robotics
15.	13 th May 21	Code Chef Team	Code Chef	Coding Contest
16.	15th December 2020	Niketa Dediha	Principal consultant, Exponent consultancy, USA	Higher education opportunities in Germany & Europe
17.	10th October 2020	MR.Karthik Ganapathi	CEO-VSG Software solutions	Importance of student chapters in engineering education

18.	3rd October 2020	M.S.R.Murthy	Sr. Consultant, TCS	Engineering a build skill switch from college to job
19.	2nd October 2020	Dr.Srinivasrao	Vice president, Tech & Research Ramky Enviro Engineers pvt Ltd	Circular Economy
20.	26th September 2020	Prof Sunil Kumar Garg	California State University	Higher studies in USA ,Canada, Australia
21.	14th August 2020	Pooja Tak	Nasa Space Apps Challenges	Nasa Space Apps Challenges
22.	29th may 2020	Dr.Palla Rajeswarreddy	Chairman, Anurag University	How covid-19 lockdown has created new challenges
23.	28th January 2020	K M Daviel	FACE	Technical Workshop
24.	4th October 2019	Mr. Vinod	Sales force	How to Clear sales force certification
25.	1st October 2019	Mr. Sudipta,	Director, Lean Techno	Importance of Lean Certification
26.	14th September 2019	Mr. Quazi	HPE	How to improve coding skills
27.	29th August 2019	Mr. Sathish	Gillette Men's grooming & Sakshi Media	How to get internships
28.	27th August 2019	Ms. Aditi & team	Machint Solutions	Robotics and AI
29.	4th July 2019	Mr. Balaji Srinivasan	Virtusa	What industries looking for?
30.	4th July 2019	Mr. Krithivasan	Virtusa	How to crack virtusa Neural Hackathon
31.	10th December 2018	Mr. T.Sridhar	Hyderabad Institute of Electrical Engineers	Importance of Core Engineering
32.	29th September 2018	Mr. Praveen Kamath	Wipro	Career Guidance in Software Industry
33.	17th August 2018	Mr. Muquayyar Ahmad	Upgrade	Data Science, Machine Learning and Full Stack
34.	17th August 2018	Mr. Ravi Joti	Upgrade	Data Science, Machine Learning and Full Stack
35.	14th May 2018	Mr. Siddharth	Toast Masters	Public Speaking
36.	20th January 2018	Mr. Emmanuel	Epam Systems	Orientation
37.	20th January 2018	Ms. Akhila	Deloitte	Orientation
38.	20th January 2018	Mr. Sharath	Radio Mirchi	Orientation
39.	29th December 2017	Mr. Jayanth Challa	ACE Info Solutions	Info on US Degree Programs

40.	8th December 2017	Mr.Venkat Kanchanapally	Suntek Corporation	Importance of Pre-Placement Training
41.	8th December 2017	Mr. Jaffar	Talentio	Scope of Cloud Computing services
42.	3rd November 2017	Ms.Pooja Jain	Amazon	Information on WebServices
43.	28th October 2017	Mr. Sainath	Cogent	Scope in Information Management Services
44.	7th October 2017	Mr. VK.Kishore	Sentini Geosol	Current Market changes
45.	15th September 2017	Mr. Prasad Kodukulla	Cyient	Scope for Mechanical Engineers
46.	22nd August 2017	Mr. Pankaj	Qlik Software	Data Analytics
47.	27th July 2017	Mr. Shankar	Advantics	Big Data Analytics
48.	17th June 2017	Mr. Dinesh Chandrasekhar	Hitachi Consultancy	Engineering the Digital Future
49.	9th June 2017	Mrs. Ishitha Tripathi	Deloitte	Corporate Readiness
50.	6th June 2017	Mrs. Akhila M	Deloitte and RJ, Mirchi 95	Life Skills
51.	6th June 2017	Mrs. Ruchi Saha	Change-inc	Skills for Tomorrow
52.	5th June 2017	Mr. Emmanuel Gosula	Epam Systems	Disruptive Technologies
53.	29th May 2017	Mr. Krithivasan Siva	Virtusa Polaris	Industry Readiness
54.	13th February 2017	Dr.Balaji Utla	Kria Health Ltd	Innovations Health Care in India
55.	13th February 2017	Ramesh	Kria Health Ltd	Internship Benefits
56.	7th February 2017	Garima Kapoor	ETS Career Guidence	Career Guidence in GRE,TOFEL
57.	5th February 2017	Sanjay Narang	Made Easy	Career Guidence in Gate

Training & Placement

The placement cell is headed by Mrs. Shikha Kaushal, placement officer coordinates with department coordinators to communicate the placement related information to the students and for necessary information to be collected.

Name	Designation	Department
Mrs. Shikha Kaushal	Head-Training and Placement.	Training & Placements
Mr. Y. Praveen Kumar	Assistant TPO	Training & Placements, CSE
Mr. Shaik Ismail	Assistant TPO	Training & Placements, Mech

Ms.Y.Sree Chaitanya	Data Analyst	Training & Placements
Mr. Vijay Babu	Aptitude and Problem Solving Trainer	Training & Placements
Mr. Yogesh Raghavwar	Faculty Coordinator	CSE
Ms. Manasa Thogaru	Faculty Coordinator	CSE
Mr. Hussain Shaik	Faculty Coordinator	EEE
Ms. Vijay Lakshmi	Faculty Coordinator	EEE
Mr. Venkatesh Saleti	Faculty Coordinator	Mech
Mr. Subhanvali Shaik	Faculty Coordinator	ECE
Mr. Akram	Faculty Coordinator	ECE
Mr. M. Suresh Babu	Faculty Coordinator	IT
Mrs. Kavita	Faculty Coordinator	MBA
Mr. Raghavendra	Faculty Coordinator	Civil
Ms. Azra Amreen	Faculty Coordinator	AI

Training & Placement Process

The Training and Placements Cell of Institute applies a unique concept to get the maximum result. At 2nd year level it provides common placement oriented training for all the students. In that time students are taught with basics of aptitude, logical reasoning, verbal ability and C coding. At 3rd year level they are given a choice to enroll for placements if they are interested in. The registered students are issued a placement ID card with unique placement ID. Normal observation is – around 70% of students enroll for the placements.

Students are provided with about 120 hrs of Verbal, 120 hrs of Quant and Problem Solving and about 200 hrs of core training. So from 2nd year to 4th year each job aspiring student gets about 400 hrs of Industry Readiness Training. The total training also includes Company Specific dedicated training to improve the competency of the students.

We also invite Guests from Industry and arrange seminars on Skill Development and technical talks and many other topics. The main objective of conducting these seminars by industry professionals is to fill the gap bridge between Industry and Academia.

Campus Placement Procedure:

- Invitations are sent to companies/organizations in the form of brochures with relevant information along with response sheets enquiring about the recruitment details, Soft copies of the brochure and response sheet are also sent.
- The company fills the response sheet and sends it by e-mail post to the Training and Placement Department, VJIT.

- Once the details are received, the placement officer and coordinators get in touch with the company and a mutually convenient date is fixed for the Campus Placement process.

Many of the companies follow below procedure to hire students:

1. Online Test on Aptitude and Technical subjects
2. Group Discussion
3. Technical Interview
4. HR Interview

9.6. Entrepreneurship Cell

EDC (Entrepreneurship Development Cell) of the institute is committed to encourage entrepreneurship among students. The center invites various renowned entrepreneurs to share their experiences. Lectures and awareness programs are regularly conducted to enlighten the students about the joys and problems of entrepreneurship. Guest lectures are conducted throughout the year to involve the students in the various activities.

Objectives of EDC

- To organize Entrepreneurship Awareness Camps, Entrepreneurship Development Program. Faculty Development Programs and Skill Development Programs in the institution for the benefit of students
- To motivate and develop entrepreneurship among the students
- To initiate innovative student projects each year for new innovative product development
- To arrange interaction with entrepreneurs and create a mentorship scheme for student entrepreneurs.

Fund Received

Received a sponsorship for conducting Entrepreneur awareness program from DST NIMAT in the academic year 2018-19 an amount of Rs. 1,00,000/- and in 2019-20 an amount of Rs. 20,000/-. Under this total 6 awareness workshops conducted to the final year students.

EDC List of Committee members are given below

S.No	Name	Position	Department
1	Dr. E. Saibaba Reddy	Chief Patron	Director
2	Dr. A. Padmaja	President	Principal
3	Dr. M. Vadivel	EDC Coordinator	ECE
4	Dr. B. Vijaya Kumar	Member	CSE HOD
5	Dr. K. Vasanth	Member	ECE HOD
6	Dr. Sreeram Reddy	Member	MECH HOD
7	Prof. Srinivasulu	Member	IT HOD
8	Dr. Pallavi Badry	Member	CIVIL HOD
9	Dr. A. Srujana	Member	EEE HOD
10	Dr. P Chakradhar	Member	MBA HOD
11	Mrs. T. Deepika	Dept. Coordinator	CIVIL
12	Mr. K. Srinivasa Rao	Dept. Coordinator	CSE
13	Mrs. M. Vijaya Shanthi	Dept. Coordinator	IT
14	Mr. S. Saravanan	Dept. Coordinator	ECE
15	Mrs. V. Vijaya Lakshmi	Dept. Coordinator	EEE
16	Mr. S Prasad Kumar	Dept. Coordinator	MECH
17	Mrs. Suneela Bharathi	Dept. Coordinator	MBA

Incubation Centers

The Institute has Two Incubation Centers,

- MSME Recognized Business Incubation center with registration ID : HI/BI Registration Number : HIBITS000288 with effective from 10th January 2020
- Data Ready Technology Corp. a Canada corporation, located in Toronto, Ontario, Canada with effective from 19th February 2019 to 18th February 2021

Events organized by EDC

List of Activities

S. No.	Date	Activity	Name of the Resource Person
1	24.08.21	International webinar session on "The Risks & Rewards of Being an Entrepreneur"	Mrs.Ritu Ashar, Co-founder & Chief Learning Officer, Workfall, Singapore
2	04.05.21	Orientation session on "Govt. schemes for startup & Qualities to Become a Successful Entrepreneur"	Mr. Mohan E, CEO, Infinite Desire Entrepreneurship Solutions, Chennai, Tamilnadu
3	08.04.21	Orientation session on "Entrepreneurship & Innovation Management"	Mr. Rajeev YSR, Vice President -Business Strategy, ETO Motors Pvt. Ltd., Hyderabad.
4	27.01.21	Orientation session on "National Innovation and Startup Policy (NISP)"	Dr. RajaniKanth Aluvalu, HOD/CSE Department, Vardhaman College of Engineering, Hyderabad
5	11.01.21	Orientation session on "National Education Policy (A focus on Innovation and Entrepreneurship)"	Mr S Mahaboob Hussain, Vice President, Consulting Services, Basha Research Corporation (BRCorp), Hyderabad.
6	07.01.21	Webinar on "Legal Patent filing procedure in India"	Mrs. Pooja Kumar, Founder & Director, Innove Intellects, Ghaziabad.
7	02.01.21	webinar on "Idea to Invoice (i2i) , A Successful Innovator Journey"	Dr.Dinesh Chandrasekar, Chief Innovation Officer, Pactera Edge, Hyderabad
8	28.12.20	Workshop on "Entrepreneurship and Innovation as Career Opportunity"	Mr.KALYAN.K, Founder & CEO EduTech Innovations, Hyderabad.
9	23.12.20	Webinar Session on "Problem Solving and Ideation Workshop"	Mr.Madhu Parvathaneni, Managing Director madBlocks Technologies Pvt. Ltd., Hyderabad.

10	10.10.20	Webinar on "Business plan - A route map to success"	Dr. M. Anil Ramesh, Professor -Marketing & Strategy Siva Sivani Institute of Management, Hyderabad
11	03.10.20	Webinar on "Decoding the Entrepreneur Journey: CVRINDIA Innovations"	Mr.Sanjay Sanju, Founder & CEO CVRINDIA,Bangalore, Karnataka
12	26.09.20	Webinar on "Startup Ideas and Incubation Support from Government Schemes"	Dr. R. HAFEEZ BASHA, Director, International Relations, Incubation Center , Ashoka Group of Institutions, Hyderabad
13	` 19.09.20	Webinar on "Innovation & Entrepreneurship "	Dr. Shanta Thoutam, Innovation/ Startup, Evangelist & OSD(Textiles) , Govt. of Telangana, Hyderabad
14	19.08.20	Webinar on Ideation to Patenting	Mr.Balaji Devarajan, Head – Centre for IPR, KPR institute of Engineering and Technology
15	09.07.20	Webinar on The Power of Innovative Entrepreneur	Mr.Mohammed Vaseem Siddiqui, Managing Director Flivv Web Development Pvt. Ltd.
16	03.02.20	One Day Workshop on Starting up for a cause	Mr Kishore Vodapally, Head of BD & Marketing, ALC India Ltd., Ms Sneha Kulukuru, Technical Consultant, ALC India Ltd.,
17	03.10.19 - 05.10.19	3 Day Workshop on Entrepreneurship Awareness Camp under DST-NIMAT 2019-20 sponsored by NSTEDB, New Delhi and EDII, Ahmedabad	Mr.Lokesh Nathany, Founder , DiSRUPPt Thinking K. C.Choudhury, Asst. Director, MSME-Development Institute Dr.V.Vishnu Vandana, Associate Professor, Anurag Group of Institutions Dr. Nandita Sethi, Founder & Managing Director,The Entrepreneur Zone Mrs. P. Suneela Bharathi, Associate Professor, VJIT Mrs. J.Sreedevi, Assistant Professor, VJIT Mrs. K. Kavitha, Assistant Professor,VJIT Dr. P. Chakradhar, Professor,VJIT
18	05.03.19 - 07.03.19	3 Day Workshop on Entrepreneurship Awareness Camp under DST-NIMAT 2018-19 sponsored by NSTEDB, New Delhi and EDII, Ahmedabad	Mr. Surender Chowdary, Manager, JIO, Mumbai Mr. P. Sridhar, Chief Executive, Peacock Finance Mr. G Nikeelu, Founder, Digital Connect

19	25.02.19 - 27.02.19	3 Day Workshop on Entrepreneurship Awareness Camp under DST-NIMAT 2018-19 sponsored by NSTEDB, New Delhi and EDII, Ahmedabad	Dr. Radhika Meenakshi Shankar, Entrepreneurship Management Consultant, Wise Owl Consulting Services Dr. Vandana, Asso. Professor, Anurag Group of Institutions Mr. GulshanBist, Assistant Director, MSME-DI, Mr. P. Sridhar, Chief Executive, Peacock Finance Mr. Sri Charan, Founder, StuMagz
20	21.02.19 - 23.02.19	3 Day Workshop on Entrepreneurship Awareness Camp under DST-NIMAT 2018-19 sponsored by NSTEDB, New Delhi and EDII, Ahmedabad	Ms. Suneela Bharathi, Associate Professor, VJIT, Dr. Vandana, Asso. Professor, Anurag Group of Institutions Mr. GulshanBist, Assistant Director, MSME-DI, Mr. M. Rama Rao, Professor, NEC, Narsaraopet
21	14.02.19 - 16.02.19	3 Day Workshop on Entrepreneurship Awareness Camp under DST-NIMAT 2018-19 sponsored by NSTEDB, New Delhi and EDII, Ahmedabad	Dr. Vandana, Asso. Professor, Anurag Group of Institutions Dr P Chakradhar, Professor, VJIT Mr.GulshanBist, Assistant Director, MSME-DI, Mr. P. Sridhar, Chief Executive, Peacock Finance Mr.Karan Shah, Creative Designer, 8FX
22	07.02.19 - 09.02.19	3 Day Workshop on Entrepreneurship Awareness Camp under DST-NIMAT 2018-19 sponsored by NSTEDB, New Delhi and EDII, Ahmedabad	Dr. Radhika Meenakshi Shankar, Entrepreneurship Management Consultant, Wise Owl Consulting Services Dr. Vandana, Asso. Professor, Anurag Group of Institutions Mr. GulshanBist, Assistant Director, MSME-DI, Mr. P. Sridhar, Chief Executive, Peacock Finance Mr. Sri Charan, Founder, StuMagz
23	01.10.18	One day workshop on Entrepreneur Journey	Mr. Sri Charan Lakkaraju, CEO, stuMagz Mr. Nikeelu Gunda, Founder,Digital Connect Mr. karan shah, Founder 8FX
24	17.09.18	EDC Logo competition	VJIT E CELL Logo contest
25	20.01.18	Entrepreneurship Orientation Program	Dr. T. Rammohan Rao, Vasavi College of Engg., Hyderabad.

26	29.11.17 – 13.12.17	Two week Faculty Development Program (FDP) on Entrepreneurship	Conducted by Center for Entrepreneurship Development (CED), Hyderabad.
27	16.01.17	E CELL Faculty coordinators visit to ALEAP Industrial Estate, Hyderabad	Arranged by Center for Entrepreneurship Development (CED)
28	27.08.16	Orientation Lecture on Entrepreneurship	Mr. Vikram Mishra, Wadwani Foundation
29	09.01.16	VIPANI Product launch competition	MBA Dept., VJIT
30	23.12.15	EDC Awareness Program	Dr. T. Rammohan Rao, Vasavi College of Engg., Hyderabad
31	17.10.15	One day workshop on “Idea Generation & Business Opportunities”.	Dr. P. V. Rama Rayulu, Vice – President Business Opportunities Hub (BOH)
32	25.07.15	One day work shop on “Self employment opportunities in NDT (Non Destructive Technology).	Mr. B. Srinivas, Training Manager, Kalva Engineers Pvt. Ltd., Hyderabad.
33	28.06.15	Role of Public sector Banks in setting up small and medium industries	Mr. S. V. Saravanan, AGM, SME wing of SBI

Consolidated list of Entrepreneurs

MECH Dept.

S. No.	Academic Year	Name of the Student	Company Name	Type of service	Registered Number
1	2016-17	Mr.Mudavath shankar	Marquetech solution Private Limited	Manufacturing	U31100TG2020PTC142403
2	2016-17	Rajkumar Ukkuturi	POD 3D	Sheet metal fabrication and casting patterns	GSTIN36AFWPU8109F2ZR
3	2015-16	Asheesh Somla Bhookya	Balaji Foods	Milk Products	-

Institution's Innovation Council (IIC)

MIC has envisioned creation of Institution's Innovation Council (IIC) across selected HEIs. A network of these IICs will be established to promote innovation in the Institution through infinite modes leading to an innovation promotion eco-system in these campuses. For more information of IIC and current calendar activities, please visit https://iic.mic.gov.in/login

Focus of IIC

- To create a vibrant local innovation ecosystem.
- Start-up supporting Mechanism in HEIs.
- Prepare institute for Atal Ranking of Institutions on Innovation Achievements Framework (ARIIA).
- Smart India Hackathon (SIH).
- National Innovation and Start-up Policy for Students and Faculties.
- Establish Function Ecosystem for Scouting Ideas and Pre-incubation of Ideas.
- Develop better Cognitive Ability for Technology Students.

Internal (Teaching/Non teaching) Committee Members of IIC

S. No.	Name of Staff	Designation	Assigned Roles
1	Dr. A. Padmaja	Principal	Head of Institute
2	Dr. E. Sai baba Reddy	Director	President
3	Dr. A. Srujana	Professor & HOD	Vice President
4	Dr. Vasanth Kishore	Professor & HOD	Convener
5	Dr. Siddhartha Ghosh	Professor & HOD	Innovation Activities
6	Prof. B. Srinivasulu	Professor & HOD	NIRF Coordinator
7	Dr.M.Vadivel	Associate Professor	ARIIA Coordinator
8	Dr.M.Nagabhushana Rao	Professor	IPR Activity Coordinator
9	Mr.Y. Praveen Kumar	Associate Professor	Internship Activity Coordinator
10	Dr. KVR. Satya Kumar	Professor	Start up Activity Coordinator
11	Mr.B .EswarBabu	Associate Professor	Social Media
12	Mrs. G. Srilatha	Academic Coordinator	Member
13	Mr. R. Venkata Chalam	Sr. Admin.Officer	Member
14	Dr. B. Vijayakumar	Professor & HOD	Member
15	Dr G Sreeram Reddy	Professor & HOD	Member
16	Dr Pallavi Badry	Professor & HOD	Member
17	Dr. P. Chakradha	Professor & HOD	Member
18	Prof. M. Rajendra Prasad	Professor & HOD	Member
19	Dr C. N. Ravi	Professor	Member
20	Mr. K. Srinivasa Rao	Associate Professor	Member
21	Mrs. M Vijaya Shanthi	Associate Professor	Member
22	Mrs. V. Vijayalaxmi	Associate Professor	Member

23	Mrs. P. Suneela Bharathi	Associate Professor	Member
24	Ms. Sree Devi Jasti	Associate Professor	Member
25	Mr. D. Srinivas	Associate Professor	Member
26	Dr Masarath Jahan	Assistant Professor	Member
27	Mr.S.saravanan	Assistant Professor	Member
28	Mr S Prasad Kumar	Assistant Professor	Member
29	Mrs. T. Deepika	Assistant Professor	Member
30	Mrs.K Neha	Assistant Professor	Member

External Committee Members of IIC

S. No.	Name of Staff	Organization	Assigned Roles
1	Mr.D Sreenu	Canara Bank	Bank/Investor
2	Mr.Emmanuel Gosula	EPAM Software Engineering & Product Development Services	Expert from nearby Industry
3	Dr.Shanta Thoutam	Government of Telangana	Expert from nearby Industry/Industry association/ Ecosystem Enablers
4	Dr.M.Anil Ramesh	Siva Sivani Institute of management	Start up/ Alumni Entrepreneur
5	Dr. Nandita Sethi	The Entrepreneur Zone	Start up/ Alumni Entrepreneur
6	Mr.Sri Charan Lakkaraju	stuMagz	Start up/ Alumni Entrepreneur
7	Dr.Prakriti Bhattacharya	IPexcel	Patent expert

List of Activities

S. No.	Date	Activity	Name of the Resource Person
1	24.08.21	International webinar session on "The Risks & Rewards of Being an Entrepreneur"	Ritu Ashar, Co-founder & Chief Learning Officer, Workfall, Singapore
2	04.05.21	Orientation session on "Govt. schemes for startup & Qualities to Become a Successful Entrepreneur"	Mr. Mohan E, CEO, Infinite Desire Entrepreneurship Solutions, Chennai, Tamilnadu
3	08.04.21	Orientation session on "Entrepreneurship & Innovation Management"	Mr. Rajeev YSR, Vice President -Business Strategy, ETO Motors Pvt. Ltd., Hyderabad.
4	27.01.21	Orientation session on "National Innovation and Startup Policy (NISP)"	Dr. RajaniKanth Aluvalu, HOD/CSE Department, Vardhaman College of Engineering, Hyderabad
5	11.01.21	Orientation session on "National Education Policy (A focus on Innovation and Entrepreneurship)"	Mr S Mahaboob Hussain, Vice President, Consulting Services, Basha Research Corporation (BRCorp), Hyderabad.
6	07.01.21	Webinar on "Legal Patent filing procedure in India"	Mrs. Pooja Kumar, Founder & Director, Innove Intellects, Ghaziabad.
7	02.01.21	webinar on "Idea to Invoice (i2i) , A Successful Innovator Journey"	Dr.Dinesh Chandrasekar, Chief Innovation Officer, Pactera Edge, Hyderabad
8	28.12.20	Workshop on "Entrepreneurship and Innovation as Career Opportunity"	Mr.KALYAN.K, Founder & CEO EduTech Innovations, Hyderabad.
9	23.12.20	Webinar Session on "Problem Solving and Ideation Workshop"	Mr.Madhu Parvathaneni, Managing Director madBlocks Technologies Pvt. Ltd., Hyderabad.

9.7. Extra Curricular & Co Curricular Activities

The department of Physical Education looks after the Games and Sports activities. The department is headed by two qualified Physical Directors and one lady Physical instructor with the required infrastructure. The college has exclusive amenities block for indoor games like Table Tennis,

Chess, Carrom and also has well developed playgrounds for Football, Basketball, Volleyball, Shuttle Badminton. Kho- Kho, Kabaddi, Cricket etc.

The participation of students in Games & Sports activities are fundamentally of two types.
1. Intramural games & sports activity
2. Extramural activities outside the college

Major Activities:
Organizing intercollegiate tournaments in Tennis, Volley ball, Basketball, Cricket & Table Tennis etc.

Intramural activities:
Intramural competitions will be conducted in February & March every year and the prizes will be distributed on Annual Day function.

Gymnasium: Separate Gymnasium facility for Boys and Girls is provided.

Facilities for Girl Students:
The colleges encourage participation of girl students in intra and inter institutional sports & games competitions. The following are the sports & games arranged by the college;

Indoor: Carrom, Chess, Table Tennis, Badminton etc.

Outdoor: Volleyball, Basketball, Foot ball, Throw ball, Tennikoit, Kho-Kho are conducted separate selection trials for girl students for picking up talented players for participation at Inter Collegiate tournaments.

Sports Program Calendar

S.No	Name of the Events	Time Period	Name of the Sports & Games
1	University Selections	August to January	All Sports &Games (Athletics &Cricket, Volley Ball, Basket Ball, Badminton, Table tennis etc.)
2	Inter Engineering Collegiate Tournaments	September to March	All Games
3	Intramural Competitions	December to March	All Sports &Games
4	State Level Inter Engg. Colleges Sports fest	September to March	Games
5	JNTUH Zonal Competitions	January to March	Sports &Games
6	Annual day Competitions	February to March	Sports &Games

PHYSICAL FACILITIES

1. Basketball Court
2. Volley ball Court
3. Table Tennis hall
4. Gymnasium Hall
5. Cricket Ground along with net practise
6. Store Room for sports equipment
7. Football, throw ball and tennicoit

List of Equipment

Sl. No	List of Equipment in the Gymnasium.
1	Multi Purpose Bench (Multi Gym)
2	Steel Dumbell-50 kg
3	Bench Press
4	Leg Press(Multi Gym)
5	Seated Chest Press(Multi Gym)
6	Dumbbells /Plates/Rods ect.
7	Cross Trainer/Massager
8	Ab Slimmer/Cycle etc
9	Treadmills
10	Vibrator
11	Boxing kit bags

Students Participation at State/National/International Level Sports/Games
2019-2020

S.No	Name of the Student	Name of the Sport/Game	University / National / Inter National Level	Place & Date & Year
1	S Tanish Reddy	Cricket	National Inter-Collegiate Sports	Gitam University Hyderabad 27th to 28th December 2019
2	K Sai Teja Goud	Cricket	National Inter-Collegiate Sports	Gitam University Hyderabad 27th to 28th December 2019
3	K Sai Kumar Patil	Cricket	National Inter-Collegiate Sports	Gitam University Hyderabad 27th to 28th December 2019
4	Ms.S Swapna	Kho-Kho	South Zone Inter University	Ambedkar University, Srikakulam, A.P October 2019
5	Ms.K Sravya	Kabaddi	South Zone Inter University	VelTech University, Chennai. October 2019
6	Ms.M Shivani	Handball	South Zone Inter University	Calicut University, Kerala. October 2019

7	Ms.N Kavya Reddy	Handball	South Zone Inter University	Calicut University, Kerala. October 2019
8	Ms. Bhavana	Handball	South Zone Inter University	Calicut University, Kerala. October 2019

2018-2019

S.No	Name of the Student	Name of the Sport/Game	Univ/National/Inter National Level	Place & Date & Year
1	P.Amrutha	Volley ball	Inter College Sports Meet	Gokaraju Rangaraju Institute of Engineering & Technology February 2019
2	P.Amrutha	Volley ball	Natioanl Level	Anurag Group Of Institutions
3	Mr. Nazeem Sharif	Boxing	All India Inter University	Vidyapeet University, Rajasthan. February 2019
4	Mr.B. Shashi Kiran	Boxing	All India Inter University	Vidyapeet University, Rajasthan. February 2019
5	Ms. M. Shivani	Handball	South Zone Inter University	Anna University, Chennai. January 2019
6	Mr.B.Vinod Kumar	Hockey	South Zone Inter University	Annamalai University, Chennai. December 2018
7	Mr.B. Shiva	Handball	South Zone Inter University	Geetham University, Vizag, A.P December 2018
8	Mr.Ranjith Kumar Yadav	Wrestling	All India Inter University	Devi Bansilal University, Haryana November 2018
9	Mr.K. Abhishek-	Baseball	All India Inter University	Panjab University, Patiala. November 2018
10	Mr.M. Dinesh	Kho-Kho	South Zone Inter University	S.V University, Tirupathy, A.P October 2018
11	Ms.Ch.Geethanjali	Volleyball	South Zone Inter University	K.L University, Guntur, A.P October 2018
12	Mr.K. Abhishek-	Softball	All India Inter University	Maharishi Dayanand University, Haryana. February 2018
13	Mr.B.Vinod Kumar	Hockey	South Zone Inter University	Annamalai University, Chennai. January 2018
14	Ganesh (C) and Team of 12 Players	Volleyball	State level	Sports Meet'19 Sreenidhi Institute of Science and Technology Campus, on 23rd to 25th September 2019
15	Ganesh (C) and Team of 12 Players	Volleyball	National level	Sports Fest'19 National Institute of Technology Campus, Warangal on 14th to 15th April 2019
16	Shiva (C) and Ganesh (C) Team of 24 Players	Handball & Volleyball	National level	Sports Fest'19 Vidya Jyothi Institute of Technology Campus, Hyderabad on 2nd to 3rd April 2019
17	Ramesh (C) Teja (C)	Kabaddi, Kho-	National level	Sports Fest'19 Vidya Jyothi Institute of Technology

	Sai Kumar Reddy (C)Team of 44 Players	Kho, Basketball, TableTennis & Carroms		Campus, Hyderabad on 2nd to 3rd April 2019
18	Ganesh (C) and Team of 12 Players	Volleyball	State level	Sports Meet'19 Symbiosis Law College Campus, Shadnagar, Hyderabad on 1st to 2nd March 2019
19	K. Haritha Rathnam,	Kick-Boxing	National level	Kick-Boxing Federation Cup'19 WAKO Shree Shiv Chhatrapati Sports Complex, Pune on 24th to 29th March 2019
20	Ganesh (C) EEE-IV and Team of 12 Players	Volleyball	11th Indian Open	Sports Fest'19 Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering and Technology Bachupally, Hyderabad on 13th to 14th February 2019
21	B. Shashi Kiran	Boxing	National level	2nd All India Invitational Championship'19 Jatin Das Park (Hazra), Kolkata on 22nd to 25th January 2019
22	Ganesh (C) EEE-IV and Team of 12 Players	Volleyball	National level	Sports Fest Arena'19 BITS Pilani Hyderabad Campus on 23rd to 25th January 2019
23	Ganesh (C) and Team of 12 Players	Volleyball	State level	Sports Meet'19 National Institute of Standards and Technology Campus, Nagole on 7th to 9th January 2019
24	Ganesh (C) and Team of 12 Players	Volleyball	National level	Sports Bout'19 Anurag Group of Institution Campus, Gatkesar, Hyderabad on 4th to 5th January 2019
25	Ganesh (C) and Team of 12 Players	Volleyball	National level	Sports Fest'18 Cherabudi Venkata Ramana Campus, Hyderabad on 28th to 29th December 2018
26	Mr. B. Shashi Kiran	Boxing	State level	2nd Elite Senior Boxing Championship' Telangana Boxing Association, Lal Bahadur Shastri Stadium, Hyderabad on 24th to 25th October 2018
27	Ganesh (C) and Team of 12 Players	Volleyball	National level	Sports Fest Aura'18 Chaitanya Bharathi Institute of Technology Campus, Gandipet, Hyderabad on 18th to 20th September 2018
28	Rahul (C) and Team	Volleyball	State level	Sports Meet'18 Tec Mahindra Campus, Medchal

	of 12 Players			on 16th to 17th March 2018
29	Rahul (C) and Team of 12 Players	Volleyball	National level	Sports Fest-18 Maturi Venkata Subba Rao Engineering *College* Campus Hyderabad. 20th to 21st March 2018
30	Mr. Pavan Kumar Yadav	Wrestling	National level	Senior National Wrestling Championship'18 Telangana Wrestling Association at Nalgonda on February 2018
31	Rahul (C) and Team of 12 Players	Volleyball	JNTUH Zone-C	Jntuh Zone-C Tournament Malla Reddy *College Of Engineering* Campus. 22nd to 23rd February 2018
32	P. Suman (C) and Team of 12 Players	Kabaddi	National level	Blitz-18 Hyderabad Malla Reddy *College Of Engineering* Campus. 2nd to 3rd February 2018
33	Rahul (C) and Team of 12 Players	Volleyball	State level	Sports Fest-18 BVRIT Hyderabad Campus. 9th to 10th January 2018
34	P. Suman (C) and Team of 12 Players	Kabaddi	National level	BITS Pilani Hyderabad Campus. 2nd to 4th January 2018

2017-2018

S.No	Name of the Student	Name of the Sport/Game	Univ/National/International Level	Place & Date & Year
1.	Mr.Abhishek	Softball	All-India Inter University	Maharishi Dayanand University, Haryana. February 2018
2.	Mr.B.Vinod Kumar	Hockey	South Zone Inter University	Annamalai University, Chennai. January 2018
3.	Rahul (C) and Team of 12 Players	Volleyball	National	Sports Fest-18 MVSR Campus Hyderabad. 20th to 21st March 2018
4.	Rahul (C) and Team of 12 Players	Volleyball	JNTUH Zone-C	Jawaharlal Nehru Technological University, Hyderabad Zone-C Tournament Malla Reddy College of Engineering Campus. 22nd to 23rd February 2018
5.	P. Suman (C) and Team of 12 Players	Kabaddi	National level	Blitz-18 Malla Reddy College of Engineering Hyderabad Campus. 2nd to 3rd February 2018

6.	Rahul (C) and Team of 12 Players	Volleyball	State level	Sports Fest-18 B.V. Raju Institute of Technology Hyderabad Campus. 9th to10th January 2018
7.	P. Suman (C) and Team of 12 Players	Kabaddi	National level	BITS Pilani Hyderabad Campus. 2nd to 4th January 2018
8.	Rahul (C) and Team of 12 Players	Volleyball	State level	Sports Fest-17 ACE Engineering College Campus Hyderabad. 28th to 30th December 2017
9.	P. Suman (C) and Team of 12 Players	Kabaddi	National level	Arena One-17 SAKSHI Television Narasimha Engineering College Campus. 23rd to 24th December 2017
10.	Naveen (C) and Team of 12 Players	Volleyball	State level	Sports Fest-18 BVRIT Campus Medak. 7th to 9th April 2017
11.	Rahul (C) and Team of 12 Players	Volleyball	National level	CHAK DE-17 Sports Fest Guru Nanak Institute of Technology Campus Hyderabad. 30th March 2017 to 1st April 2017
12.	Mr.S.S Jawahar Mr.Nikhil Mr.Swarnendu Ms.P.Suman Mr.S.H.Akhil	Badminton Volleyball Table Tennis Kabaddi Basketball	National level	Vidya Jyothi Institute of Technology, Hyderabad. 3rd to 4th March 2017
13.	B.Shashi Kiran	Kick Boxing	State level	Telangana Elite Senior Boxing Championship, Lal Bahadur Stadium, Hyderabad 14th to 15th October 2017
14.	Mr.B.Nikhil Sai	Volleyball	South Zone Inter University	SRM University, Chennai. December 2017
15.	Mr.Shiva	Handball	South Zone Inter University	Anna University, Chennai. October 2017

YOGA

Yoga is widely practiced as a way to plug physical, psychological, and spiritual well-being. Through systematic practice of Yoga, the efficacy of yoga for functioning in healthy individuals and people experiencing illness or pain has been exponentially positive.

VJIT through the practice of Yoga proposes an analog between the physical, psychological, and spiritual effects of the practice among our students and staff. Physical systems activated through yoga practice ensures overall fitness and the psychological benefits include enhanced coping, self-efficacy, and positive mood, while the spiritual mechanisms improve acceptance and mindful awareness. VJIT encourages yoga's influence on students to establish the efficacy of yoga for good health and to know how posture, breath, and meditative activity affect the body, mind, and spirit.

VJIT believes that practicing Yoga can build up a healthy lifestyle. Students are subjected to pressure, which leaves them stressed and with no time to relax. Institute Yoga center regularly conducts sessions, as it shall provide a holistic development among our students. We collaborate with Heartfulness Meditation to conduct weekly sessions to all are faculty and students. Every year International Yoga Day is Celebrated on 21st June at VJIT. The first-year students are introduced to positive practices of Yoga during the Orientation Programme. The faculty are also given yoga sessions to maintain good health.

2020-21

S. No	Activity	Speaker/ Resource Person	Duration From	Duration To	Number of Participants
1	Epigenetics, Well being & Meditation	Dr. Sairam, Cofounder, URBANKISSAN Inc., USA & HFN Trainer	03-07-2020	03-07-2020	85
2	COHERENCE- Ensuring a sense of	Dr. Pari Plavi. MD, PhD, FCGP; Former Professor and HOD, Osmania Medical College	10-07-2020	10-07-2020	64

	Well-being and purpose through the hassles of daily life				
3	Change your thoughts and change your destiny	Dr SK.Kamruddin, MA., MBA., M.Phil., Ph.D Dept of Management and Commerce, Maulana Azad National Urdu University (A Central University), Hyderabad	17-07-2020	17-07-2020	72
4	How to change Scalar to Vector in the context of life	Dr.P.V.S.Siva Prasad, Professor/CSE, Nalla Malla Reddy Engineering College	24-07-2020	24-07-2020	56
5	Leading with Heart	Ramana Vemuri Technocrat, Entrepreneur & Heartfulness trainer	21-07-2020	21-07-2020	67
6	Empowerment of self potential	Dr.Suresh Purini Associate Professor, Dept of C.S.E, IIITH	07-08-2020	07-08-2020	68
7	Using Intuitive Over Intelligent Knowledge for Decision-making	Dr. UMA SUBBARAMAN, Ph.D Economist, teacher, management consultant	14-08-2020	14-08-2020	69
8	Impressions and its Impact to our conscious growth	Mr. Srinivas Pamarthi Project Manager, Bank of America, Hyderabad	21-08-2020	21-08-2020	54
9	Aspiration & Life style	V.Madhumati Preceptor & Heartfulness Trainer	20-08-2020	20-08-2020	62
10	ENERGISE your time- the Heartfulness way	Dr K Pavan kumar MBBS,DCH,DNB(pead)	04-09-2020	04-09-2020	72
11	Stress management & sleep with Heartfulness	Dr.JAYARAM THIMMAPURAM Wellspam York hospital, U.S.A and TEDX speaker	11-09-2020	11-09-2020	96
12	Evolution is transcendence from GNAN to VIGNAN	Mr.Manohar Bandarum Founder of a technology startup in smart water management	19-09-2020	19-09-2020	67

13	Journey well travelled	Mr. Samir Sahu Technopreneur,Heartfulness Trainer	26-09-2020	26-09-2020	59
14	How to Expand our consciousness	Dr.B.J.C.Babu, Retired Professor, BITS, Pilani GOA Campus	03-10-2020	03-10-2020	78
15	Work Life Balance – The Heartfulness Way	Mr.B.Goutham Sharma Asst. General Manager, Canara Bank Circle Office, Secunderabad	17-10-2020	17-10-2020	81
16	Nurturing a Joyful Heart	Mr. D. Anant, Educator, Technologist	31-10-2020	31-10-2020	58
17	How about Meditation in Corporate World?	Mr. Krishna Maramganti Head-Testing CoE, HTC Global Services Inc.	07-11-2020	07-11-2020	68
18	Rejuvenation by Cleaning	Dr. S.S. Ramakrishnan, Retired Professor & Head, Dept. of Metallurgy PSG College of Tech., Coimbator	21-11-2020	21-11-2020	76
19	Heartful Eating	Mr. Chakradhar, Senior Manager, WIPRO, Hyderabad	28-11-2020	28-11-2020	68
20	Meditation and Inner Engineering	Mr. Manish Agarwal, Independent Financial advisor	04-12-2020	04-12-2020	67
21	Everyone speaks about Meditation but few prefer to Practice	Dr. Mohan Kumar Singuru Dean – Students, MVGR College of Engineering Vizianagaram	19-12-2020	19-12-2020	57
22	Regulation of Mind & Experience of God through Heartfulnessmeditation	Sri V. R. S. Naga Sarma CA, Retd. GM (Fin.) Hindustan Shipyard Ltd., Vishakapatnam	26-12-2020	26-12-2020	51
23	The purpose of Human existence and steps to achieve with	Mr. V. Ramakrishna M.Tech (IIT KGP)Hearfulness Trainer	16-01-2020	16-01-2020	70

	Heartfulness				
24	We are islands within ourselves	Mr. M. Ravikumar,Chartered Accounts	23-01.2021	23-01.2021	56
25	Evolution through Heartfulness	Mr. N. V. Krishna Rao Zonal Coordinator, Heartfulness Institute, Telangana	30-01-2021	30-01-2021	63
26	To live best version of your life	Sri T. V. Ramana Dy. General Manager (Finance & Accounts) The Singareni Collieries Company Ltd., Manuguru	06-02-2021	06-02-2021	54
27	Meditation as a tool from conflicts to coherence	Dr. K. Sirisha Family physician and diabetologist, Omega Clinics, Kukatpally, Hyderabad	20-02-2021	20-02-2021	66
28	Emotional Intelligence	Capt. Vineet Singh Ranawat Ashram Manager, Kanha shantivanam, Global HQ of Hearfulness	06-03-2021	06-03-2021	71
29	Change your thought – Change your destiny	Dr. Mettu Pradeep Reddy, Professor in Paediatrics, Malla Reddy Medical College for women, Suraram, Hyderabad	20-03-2021	20-03-2021	53
30	International Yoga Day Celebrations	Ms. Neelima, Yoga Trainer & Life Skills Trainer Ms Kamakshi Shika, Executive Coach, Life Coach and Corporate Trainer, Heartfulness Institute Dr. Shaik Kamruddin, Assistant Professor, Moulana Azad National Urdu University, Heartfulness Trainer Mr. B Goutham Sharma, Asst. General Manager Canara	21.06.2021	25.06.2021	264

		Bank , Heartfulness Trainer Ms. Veeravalli Bindu, International Yoga Practitioner and Trainer, III Year B.Tech, IT, VJIT.			

2019-20

S. No	Activity	Speaker/ Resource Person	Duration From	Duration To	Number of Participants
1	International Yoga Day	Dr.Pavan, Pediatrist, Brighter Minds and Heartfulness Trainer	21-06-2019	21-06-2019	495
2	Spiritual Retreat Through Heart Fullness	Mr.Manish Agarwal, Independent Financial Advisor, Heartfulness Trainer	08-02-2020	10-02-2020	300
3	Well Being in Society	Sri.V.R.S.Sarma, CA, Retired GM ShipYard and Heartfulness Trainer	14-02-2020	14-02-2020	63
4	Ensuring a Sense of Well-Being in Daily Life	Dr.S.Mohan Kumar, Professor and Heartfulness Trainer	21-02-2020	21-02-2020	61
5	Understanding Purpose of the Hassles Free Living	Mr.V.Rama Krishna, Heartfulness Trainer	28-02-2020	28-02-2020	65

6	Coherence and Cohesive Harmony	Dr.S.S.Rama Krishnan, Retired Professor PSG College and Heartfulness Trainer	06-03-2020	06.03.2020	66
7	Scalar and Vectors in the Life Style	Dr.P.V.S.Siva Prasad,Professor,Nalla Malla Reddy College and Heartfulness Trainer	13-03-2020	13-03-2020	98
8	Heart and Leadings in Live	Dr.Pariplavi, Retired HoD, Osmania Medical College and Heartfulness Trainer	20-03-2020	20-03-2020	95
9	Evolution through Heartfulness	Mr.N.V.Krishna Rao, Zonal Coordinator, Heartfulness and Trainer	27-03-2020	27-03-2020	91
10	Empowerment of Will Power	Mr.B.Manohar, Founder Technology Start up in smart water management and Heartfulness Trainer	03-04-2020	03-04-2020	78
11	Meditation in Decision-Making	Mr.D.Ananth, Educationalist and Heartfulness Trainer	10-04-2020	10-04-2020	84
12	Importance of Inner Peace in Life	Mr. Sameer Sahu, Technoprenuer in IT and	17-04-2020	17-04-2020	82

		Heartfulness Trainer			
13	Intuitive Knowledge Attainment	Dr.P.Suresh, Professor,IITH and Heartfulness Trainer	24-04-2020	24-04-2020	97
14	Life Skills to Achieve Life Goals	Mr.M.Ravi Kumar, CA and Heartfulness Trainer	01-05-2020	01-05-2020	96
15	Inner Conscious Development	Mr.Vijay, AI, Reliance	08-05-2020	08-05-2020	85
16	Impact of Inner Harmony	Dr.Kamaruddin, Professor, Maulana Azad National Urdu University	15-05-2020	15-05-2020	78
17	Lifestyle Before and After Meditation	Dr.Sai Ram Reddy, Cofounder &Director, Urban Kisaan Farms Inc., USA	22-05-2020	22-05-2020	79
18	Boost Your Immune System by Inner Power	Dr.K.Sirisha, Family Physician and Diabetologist, Omega Clinics and Heartfulness Trainer	29-05-2020	29-05-2020	81
19	Peace and Sleep Coordination	Dr.M.Pradeep Reddy, Professor,Pediatrics, Malla Reddy Medical College for	05-06-2020	05-06-2020	79

		Women,Hyderbad and Heartfulness Trainer			
20	Stress Management by Meditation Practices	Sri.T.V.Ramana, Dy General Manager, The Sinagareni Collaries and Heartfulness Trainer	12-06-2020	12-06-2020	92
21	Transcendence for Better Lifestyle	Mr.M.Krishna, Head Testing CoE, IITC Global Services and Heartfulness Trainer	19-06-2020	19-06-2020	91
22	International Yoga Day	Dr.K.Indira Pavan, Consultant Dermatologist and Heartfulness Trainer Ms.Kamakshi, Certified Life Coach	21-06-2020	23-06-2020	390
23	Inner Journey for Good well Being Lifestyle	Sri.G.Chakradhar, Senior Manager, Wipro and Heartfulness Trainer	26-06-2020	26-06-2020	93

2018-19

S. No	Activity	Speaker / Resource Person	Duration From	Duration To	Number of Participants
1	Meditation for Begineers	Dr.P.V.S.Siva Prasad,Professor,Nalla Malla Reddy College and Heartfulness Trainer	21st January 2019	21st January 2019	142
2	Restore Positivity and Positive Thinking	Mr.B.Manohar, Founder Technology Start up in smart water management and Heartfulness Trainer	31st October 2018	31st October 2018	128
3	What is cleaning	Prof.N.L.V.Prasad Rao, retired Professor,VJIT and Heartfulness Trainer	24th October 2018	24th October 2018	76
4	Benifits of Meditation	Dr.S.S.Rama Krishnan, Retired Professor PSG College and Heartfulness Trainer	3rd October 2018	3rd October 2018	83
5	Importance of prayer	Dr.Kamaruddin, Professor, Maulana Azad National Urdu University	26th September 2018	5th September 2018	67
6	Peace Walk	Dr.S.Mohan Kumar, Professor and Heartfulness Trainer	19th September 2018	13th August 2018	78

7	The Art of Living	Mr.V.Satyanarayana Redyy, Civil Engineer and Art of Living Trainer	12th September	12th September	112
8	Happiness in Corporate World	Sri.G.Chakradhar, Senior Manager, Wipro and Heartfulness Trainer	5th September	5th September	89
9	Being Lost	Mr.M.Krishna, Head Testing CoE, IITC Global Services and Heartfulness Trainer	29th August	29th August	93
10	Understanding Peace	Mr.Vijay, AI, Wipro and Heartfulness Trainer	22nd August	22nd August	76
11	Let go of worries and anxiety	Dr.K.Sirisha, Family Physician and Diabetologist, Omega Clinics and Heartfulness Trainer	15th August 2018	15th August 2018	91
12	How Habits change Destiny	Sri.T.V.Ramana, Dy General Manager, The Sinagareni Collaries and Heartfulness Trainer	8th August 2018	8th August 2018	94
13	Anti-Ragging Awareness Program and Haritha-Haaram,	Samshabad zone DCP Ms.Padmaja Reddy, Moinabad CI Mr. Venkateswarlu and SI	28th July 2018	28th July 2018	88

		Mr.Mahendranath			
14	The Science of Stillness	Dr.Pariplavi, Retired HoD, Osmania Medical College and Heartfulness Trainer	24th July 2018	24th July 2018	75
15	Meditation Follow Up session	Prof.N.L.V.Prasad, retired Professor, and Heartfulness Trainer	2nd July 2018	2nd July 2019	104
16	International yoga day celebrations at VJIT	Dr. A. Sadananda chary, Prof. Osmania University	21st June 2018	21st June 2018	340

2017-18

S. No	Activity	Speaker / Resource Person	Duration From	Duration To	Number of Participants
1	A journey within you	Sri.G.Chakradhar, Senior Manager, Wipro and Heartfulness Trainer	7th March 2018	7th March 2018	155
2	How to control your thoughts and emotion	Mr.B.Manohar, Founder Technology Start up in smart water management and Heartfulness Trainer	7th February 2018	7th February 2018	109
3	Navigative the ocean of life with peaceful mind	Prof.N.L.V.Prasad Rao, retired Professor,VJIT and	3rd January 2018	3rd January 2018	99

		Heartfulness Trainer			
4	In campus meditation master classes for faculty	Prof.N.L.V.Prasad, retired Professor, and Heartfulness Trainer	29th December 2017	30th December 2017	32
5	The Purpose of Human Existence	Mr.M.Krishna, Head Testing CoE, IITC Global Services and Heartfulness Trainer	1st November 2017	1st November 2017	92
6	Regulation of Mind	Dr.P.V.S.Siva Prasad,Professor,Nalla Malla Reddy College and Heartfulness Trainer	27th September	27th September	87
7	Change Your Thought	Dr.M.Pradeep Reddy, Professor, Pediatrics and Heartfulness Trainer	6th September 2017	6th September 2017	67
8	We are islands within ourselves	Dr.Pariplavi, Retired HoD, Osmania Medical College and Heartfulness Trainer	23rd August 2017	23rd August 2017	89
9	Evolution through Heartfulness	Dr.Kamaruddin, Professor, Maulana Azad National Urdu University	9th August 2017	9th August 2017	95
10	International yoga day	Dr. A. Sadananda chary, Prof. Osmania University	21st June 2017	21st June 2017	70
11	Weekly meditation class	Mr.Vijay, AI, Wipro and Heartfulness Trainer	7th June 2017	7th June 2017	67

NATIONAL SERVICE SCHEME (NSS)

- NSS activities are partially financed by the affiliating University. **E. Giri Prasad Goud** is the Coordinator. The college has provided a separate office and other facilities are created to run this program.
- This unit organizes Medical Camps, awareness of nutrition issues among the villagers, environmental protection, and education awareness programme among rural population.
- The institute has UBA center and received Rs. 50,000/- funding from MHRD. Unnat Bharat Abhiyan, a flagship national program of Ministry of Human Resource Development (MHRD), Government of India and IIT Delhi to develop villages in the vicinity of Institution. Under this we have adopted 2 villages Reddypally Village, Moinabad Mandal, and Aziz Nagar Bakaram.
- Every year NSS team organizes one week special camp to the near by villages of the Institute.
- NSS 5th special camp was organized during 29th March 2019 to 4th April 2019 at Reddypally Village, Moinabad Mandal, Ranga Reddy, Telangana. The camp involved 40 NSS volunteers. The village is about 10 km away from VJIT and having a population of 1000. The following activities are conducted.

S. No	Date	Event	Organized at
2021-2022			
1.	25thOctober 2021	Breast Cancer Awareness	VJIT NSS & Dr. Reddy's Foundation for Health Education
2.	11th October 2021	Karaoke (Fund Raising Event)	VJIT
3.	2nd October 2021	Fit India Freedom Run	JNTUH
4.	27th September 2021	Imortance Of Adherence ToDiaetesTheraphy	VJIT
5.	25th September 2021	Pre RD Selections	JNTUH
6.	24th September 2021	NSS DAY	VJIT
7.	5th September 2021	Teachers Day	VJIT NSS
8.	4th September 2021	'National Wild Life Day'	VJIT NSS
9.	15th August 2021	'Independence Day Celebrations'	VJIT NSS

10.	24th July 2021	Haritha Haram-2021	VJIT NSS
11.	19th July 2021	Ergonomics	VJIT NSS & Dr. Reddy's Foundation for Health Education
12.	15th July 2021	Anthakshari (A Faculty Recreation Program)	VJIT NSS
13.	10th July 2021	Awareness program on Cyber Crime	VJIT NSS & VJIT Women Empowerment Cell
14.	29th June 2021	Pandemics, Immunity & Immunization	VJIT NSS & Dr. Reddy's Foundation for Health Education
15.	21st June 2021	International Yoga Day Celebrations	VJIT NSS
16.	20th June 2021	International Father's Day	VJIT NSS
17.	16th June 2021	Covid-19 Vaccination drive	VJIT NSS & Anurag University
18.	12th June 2021	World Day Against Child Labour	VJIT NSS
19.	25th May 2021	Revised Guidelines for Prevention and Management of Covid-19	VJIT (VJIT NSS & Dr. Reddy's Foundation for Health Education)
20.	11th May 2021	Managing High Blood Pressure (HYPER TENSION) during these challenging times	VJIT (VJIT NSS & Dr. Reddy's Foundation for Health Education)
21.	6th May 2021	SWACHATHA	VJIT (VJIT NSS, VJIT REDC & MGNCRE)
22.	5th May 2021	Nutrition Care- During and post COVID	VJIT (VJIT NSS & Dr. Reddy's Foundation for Health Education)
23.	12th April 2021	Discussions with Sarpanch of Aziznagar Village on Empowering Rural Women	VJIT (VJIT NSS) & AZIZNAGAR
24.	9th April 2021	Survey conducted on Income Generation of Women in Aziznagar Village	VJIT NSS & VJIT WEC
25.	8th March 2021	International Women's Day Celebrations	VJIT NSS, VJIT WEC
26.	8th March 2021	2K Run in Support of Women in Farming	VJIT NSS, VJIT WEC
27.	6th March 2021	Virtual Disscussion on POSH	VJIT NSS, VJIT WEC
28.	29TH & 30th January	Rural Entrepreneurship Awareness Program	VJIT NSS, VJIT REDC
29.	8th January 2021	Rangoli Competition	VJIT NSS &Yukthi

30.	6th January 2021	Rural Entrepreneurship Awareness Program	VJIT NSS, VJIT REDC
31.	26th November 2020	Webinar on Constitution Day	VJIT NSS
32.	16th October 2020	Bathukamma	VJIT NSS &Yukthi
33.	02 October 2020	Circular Economy	VJIT NSS
34.	15th August 2020	Independence Day Celebrations	VJIT NSS
35.	21st June 2020	International Yoga Day	VJIT NSS

S. No	Date	Event	Organized at
		2019-2020	
1.	3rd May 2020	COVID-19 Activity- 7 (Groceries Distribution)	Mokila thanda, Shankarpally
2.	27th April 2020	COVID-19 Activity-6 (Groceries Distribution)	Gachibowli,
3.	24th April 2020	COVID-19 Activity-5 (Groceries Distribution)	Bibinagar
4.	18th April 2020	COVID-19 Activity- 4 (Groceries Distribution)	Nanakramguda,
5.	18th April 2020	COVID-19 Activity-3 (Groceries Distribution)	Indira nagar,
6.	6th April 2020	COVID-19 Activity-2 (Groceries Distribution)	Kothaguda
7.	6th April 2020	COVID-19 Activity- 1 (Groceries Distribution)	Kondapur
8.	8th March 2020	Women's day celebrations	VJIT
9.	7th ,8th &9th February 2020	Spiritual Retreat (Meditation)	Kanha Shanthi Vanam
10.	25th January 2020	Health Camp	Vidya Jyothi Institute of Technology
11.	2nd October 2019	Swachh Bharat & say no to plastic campaign	Bandlaguda Jagir Municipal Corporation
12.	31st August 2019	Go Green Ganesha	Vidya Jyothi Institute of Technology
13.	24th to 25th August 2019	AirTel Marathon	Ganti Mohana Chandra Balayogi SATS Indoor Stadium
14.	17th August 2019	Haritha Haram	Vidya Jyothi Institute of Technology

15.	15th August 2019	Independence Day Celebrations	Vidya Jyothi Institute of Technology
16.	19th to 20th July 2019	Rural immersion Programme	Vidya Jyothi Institute of Technology
17.	21st June 2019	International Yoga Day	Vidya Jyothi Institute of Technology

S.No	Date	Event	Organized at
2018-2019			
1	29th March 2019 to 4th April 2019	NSS Special Camp	Reddypally Village, Moinabad Mandal, Ranga Reddy, Telangana
2	2nd February 2019	University level youth festival	Jawaharlal Nehru Technology University Hyderabad
3	26th January 2019	Republic day celebrations	Vidya Jyothi Institute of Technology
4	24th September 2018	Inter college youth festival and NSS day	Anurag Group of Institutions, Hyderabad
5	15th August 2018	Independence day	Vidya Jyothi Institute of Technology
6	28th July 2018	Anti Ragging Awareness programe & Harithaharam	Vidya Jyothi Institute of Technology
7	21st June 2018	Yoga day	Vidya Jyothi Institute of Technology
2017-2018			
1	3rd February 2018	University level youth festival	Jawaharlal Nehru Technology University Hyderabad
2	26th January 2018	Republic day celebrations	Aziznagar govt. school
3	26th January 2018	NSS parade	Vidya Jyothi Institute of Technology
4	11th January 2018	Wall of kindness	Vidya Jyothi Institute of Technology
5	11th January 2018	Road safety awareness program	Vidya Jyothi Institute of Technology
6	11th January 2018	NSS orientation day	Vidya Jyothi Institute of Technology
7	17th August 2017	Women Empowerment – SHE TEAM	Vidya Jyothi Institute of Technology
8	15th August 2017	Independence Day Celebrations	Rakshana Deepam Moinabad Mandal RR.
9	5th August 2017	University Level Swachh Pakwada programme	Jawaharlal Nehru Technology University

			Hyderabad
10	29th July 2017	Haritha Haram	Zilla Parishad High School Moinabad, Himayathnagar Village Moinabad
11	23rd July 2017	Plantation Drive	Regulakunta Cheruvu, Deepthi Nagar, Miyapur, Hyderabad
12	15th July 2017	Lake Cleaning Drive	Regulakunta Cheruvu, Deepthi Nagar, Miyapur, Hyderabad
13	14th July 2017	Haritha Haram – 2017	Vidya Jyothi Institute of Technology
14	1st July 2017	Organ Donation Campaign	Shilapakala Vedika, Hitech City
15	21st July 2017	International Yoga Day – 2017	Vidya Jyothi Institute of Technology
2016-2017			
1	7th May 2017	Wings for Life – World Run	People's Plaza Necklace Rd, Raj Nagar, Khairatabad, Hyderabad
2	26th April 2017	Health Camp-2017	Vidya Jyothi Institute of Technology
3	23rd April 2017	Volunteering for Fission Labs	Nalgonda, Telangana
4	23rd April 2017	5k run for Malaria Free India	People's Plaza Necklace Rd, Raj Nagar, Khairatabad, Hyderabad
5	22nd April 2017	Earth Day 2017	Vidya Jyothi Institute of Technology
6	22nd April 2017	Blood Donation Camp	Vidya Jyothi Institute of Technology
7	14th April 2017	National Workshop on State & Central Schemes for SC/ST & BC	Jawaharlal Nehru Technology University Hyderabad
8	20th to 21st March 2017	National Level Youth Meet on Safe Water for Future	Malla Reddy Engineering College, Dhulapally, Hyderabad.
9	10th to 16th March	4th Special Camp	Anthappaguda Village, Shankarpally Mandal, RR (Enclosed Separate PDF File)
10	9th February 2017	Promotion on Cashless Transaction	Vidya Jyothi Institute of Technology
11	7th to 8th February	State Level NSS Youth Festival	Jawaharlal Nehru Technology University

	2017		Hyderabad
12	4th February 2017	University Level NSS Youth Festival	Jawaharlal Nehru Technology University Hyderabad
13	28th January 2017	Red Ribbon Club Program	Osmania University, Hyderabad
14	22nd January 2017	University Level Young Voter's Festival	Jawaharlal Nehru Technology University Hyderabad
15	22nd January 2017	Awareness Program on Bhuvan Panchayat App by National Remote Sensing Centre	Institution of Electronics and Telecommunication Engineers, Hyderabad
16	8th January 2017	Village Awareness program on digital payment	Bakaram Village, Moinabad Mandal, Hyderabad
17	29th December 2016	Awareness Program on Digital Payment	Vidya Jyothi Institute of Technology
18	22nd December 2016	Training Workshop on Digital Training Workshop	Jawaharlal Nehru Technology University Hyderabad
19	29th September 2016	Save Water Campaign	Vidya Jyothi Institute of Technology
20	11th July 2016	Haritha Haram	Vidya Jyothi Institute of Technology
21	8th July 2016	Tree Plantation Program - Haritha Haram-Cyberabad Commisionerate, Gachibowli	Cyberabad Police Commisionerate along with Vanguards
22	24th June to 18th July 2016	Tree Plantation Program - Haritha Haram- Moinabad Plantation	20 Govt. Schools of Moinabad Mandal, Council for Green Revolution, & Vanguards
23	14th June 2016	World Blood Donors Day – 2016	At Hitech City by NTR Trust
24	27th April 2016	First Aid Kit Distribution	Vidya Jyothi Institute of Technology

Activities done under Special Camp

S. No	Date	Event	Organized at
2019-2020			
1.	3rd May 2020	COVID-19 Activity- 7 (Groceries Distribution)	Mokila thanda, Shankarpally
2.	27th April 2020	COVID-19 Activity-6 (Groceries Distribution)	Gachibowli,
3.	24th April 2020	COVID-19 Activity-5 (Groceries Distribution)	Bibinagar

4.	18th April 2020	COVID-19 Activity- 4 (Groceries Distribution)	Nanakramguda,
5.	18th April 2020	COVID-19 Activity-3 (Groceries Distribution)	Indira nagar,
6.	6th April 2020	COVID-19 Activity-2 (Groceries Distribution)	Kothaguda
7.	6th April 2020	COVID-19 Activity- 1 (Groceries Distribution)	Kondapur

5th Special camp at Reddypally village, Moinabad mandal:29th March 2019 to 4th April 2019			
Day	**Date**	**Day**	**Programme**
Day 1	29th March 2019	Friday	Special camp Inauguration Skill Development and Interactive session to the students
Day 2	30th March 2019	Saturday	Village Household survey
Day 3	31st March 2019	Sunday	Creating awareness on Yoga Conducted Cultural events to the students
Day 4	1st April 2019	Monday	Organized Swatch Bharat in the entire village.
Day 5	2nd April 2019	Tuesday	Dental camp Creating awareness on self-Health
Day 6	3rd April 2019	Wednesday	Visited Vivekananda old age home and distributed fruits to the senior citizens
Day 7	4th April 2019	Thursday	Creating awareness on Girl Health and distributed necessary kits to the students

Institute encourages students to participate in extension activities and to help neighborhood community. Institute has different social activity clubs like HITA, AKROSH AND Avashah-Handa that help. NSS teams participated & organized camps in the flood affected areas of Warangal, Mahaboobnagar District and Kurnool Town and distributed food material about three hundred families. In addition, protected water sachets bread and biscuits were distributed over a period of one week.

HITA-SERVICE WITH PLEASURE

HITA

Institute encourages students to participate in extension activities and to help neighborhood community. Institute has different social activity clubs like HITA, Akrodh, AVASHAH-Hands that Help.

HITA is a student service club: where students are working with pleasure for the betterment and development of the society, helping and understanding the needs of the under privileged society. HITIAN's believes in the world of "Service to Mankind is Service to God" but this should be done with pleasure and hence it brought us the thought of forming a Club named – HITA.

S.No	Date	Name of the Event	In Collaboration with	Organized at
2018-2019, 2019-20				
1	8th February 2020	Spiritual Retreat Through Heart fullness	Vidya Jyothi Institute of Technology	Kanha, shanthivanam, Heart fullness centre, Hyderabad
2	19th October 2019	Diwali sweets distribution	Vidya Jyothi Institute of Technology	Manikonda to unprivileged children
3	7th September 2019	Awareness on use of eco-friendly ganesh idols &also distributed rose saplings	Yukthi	Vidya Jyothi Institute of Technology
4	8th March 2019	Charity stall in phoenix -2k19	Vidya Jyothi Institute of Technology	Vidya Jyothi Institute of Technology
2017-2018				
1	29th July 2017	Haritha Haram	Vidya Jyothi Institute of Technology	ZPHS Moinabad, Himayath nagar Village Moinabad
2	23rd July 2017	Plantation Drive	LIVE THE LAKE Initiative, SAHE and GHMC	Regulakunta Cheruvu, Deepthi Nagar, Miyapur, Hyderabad
3	14th July 2017	Haritha Haram – 2017	Vidya Jyothi Institute of Technology	Vidya Jyothi Institute of Technology
4	26th April 2017	Health Camp-2017	Abbott Pharmaceutical Limited,	Vidya Jyothi Institute of Technology

			Hyderabad	
5	22nd April 2017	Earth Day 2017	Vidya Jyothi Institute of Technology	Vidya Jyothi Institute of Technology
6	22nd April 2017	Blood Donation Camp	Lions Club, Jubilee Hills	Vidya Jyothi Institute of Technology
2016-2017				
1	13th April 2107	HITA Anniversary	Vidya Jyothi Institute of Technology	Vidya Jyothi Institute of Technology
2	12th January 2017	Kite and Rangoli Festival	Yukthi	Vidya Jyothi Institute of Technology
3	9th January 2017	New Year Thanks Giving Event	Vidya Jyothi Institute of Technology	Vidya Jyothi Institute of Technology
4	1st January 2017	Blanket Distribution	Vidya Jyothi Institute of Technology	Banjarahills, Hyderabad
5	25th December 2016	Thanksgiving Event at an Orphanage	Vidya Jyothi Institute of Technology	Mathruabhaya Foundation, Medipally Uppal
6	28th October 2016	Eco-Friendly Diwali	Vidya Jyothi Institute of Technology	Vidya Jyothi Institute of Technology
7	29th September 2016	Save Water Campaign	Vidya Jyothi Institute of Technology	Vidya Jyothi Institute of Technology
8	16th August 2016	Donation of Clothes and Toys	Vidya Jyothi Institute of Technology	Shanti Nilayam, Bakaram Village, Moinabad Mandal.
9	11th July 2016	Haritha Haram	Telangana Government	Vidya Jyothi Institute of Technology
10	8th July 2016	Tree Plantation Program - Haritha Haram	Cyberabad Police Commisionerate, Vanguards	Cyberabad Police Commisionerate, Gachibowli
11	24th June to 18th July 2016	Tree Plantation Program - Haritha Haram	Council for Green Revolution, Vanguards	20 Govt. & Private Schools Moinabad mandal
12	14th June 2016	World Blood Donors Day –	Nandamuri Taraka Ramarao	Hitech City, Hyderabad

		2016	Trust	
13	10th March 2016	Wealth out of waste	Vidya Jyothi Institute of Technology	Vidya Jyothi Institute of Technology
14	18th February 2016	Visit to an Orphanage	Vidya Jyothi Institute of Technology	Shantinilayam, Bakaram
15	5th January 2016	Chennai Flood Relief Program	Vazahi, Bangalore and Peace Welfare Society, Hyderabad	Vidya Jyothi Institute of Technology

Apart from the NSS activities, VJIT has other active NGO associations like **Street cause**, **NAP Foundation** - Helping Hands for Children, **Earthlings and Cultigate**. Under these associations, a number of activities have been conducted.

STREET CAUSE

Street Cause, a Hyderabad based student run NGO, which is spread across 30+ undergraduate institutions all over the twin cities. Street Cause is an NGO comprising of students who intend on doing their bit for the betterment of society with the objective of helping the underprivileged and destitute in every way possible. Every volunteer ensures utmost commitment and transparency throughout his/her term. The organization abides by its rules and keeps the incomes and expenses completely transparent.

Street Cause VJIT has won the "Best Youth Organization Award" in the year 2010. A few of the events have been conducted in collaboration with corporates such as Deloitte, Gold Drop Industries, Indian Red Cross Society and others.

STREET CAUSE ACTIVITIES

S.No	Date	Name of the Event	Organized at
2020-2021			
1.	9th September 2021	Go Green Ganesha	Vidya Jyothi Institute of Technology
2.	4th January 2021	Reconstruction of washrooms	Siara Homes,Vanasthalipuram
3.	6th December 2020	Providing basic needs to home.	Asha kuteer,Uppal
4.	25th October 2020	Flood Project-II	Ranganayakulugutta,Hayathnagar
5.	17th October 2020	Flood Project-I	Ranganayakulugutta,Hayathnagar

6.	2nd October 2020	Slum project-II	Slum in Bachupally
7.	3rd September 2020	Installation of electricals	Sanihitha homes,secunderabad
8.	31st August 2020	Installation of RO water purifier	Sudheer foundation,Hyderabad
9.	23rd August 2020	Adoption of families in Slum	Slum in Bachupally
2019-2020			
1.	24th April 2020	Covid-19,Project-5	Banjarahills, Hyderabad
2.	22nd April 2020	Covid-19,Project-4	Saroornagar, Hyderabad
3.	18th April 2020	Covid-19,Project-3	Sudheet foundation , Hyderabad
4.	31st March2020	Covid-19,Project-2	Vathsalaya homes,Hyderabad
5.	28th March 2020	Covid-19,Project-1	Sanihitha Homes,secunderabad
6.	29th November 2019	Installation of pipes,motor,water tank	Sanihitha Homes,secunderabad
7.	29th August 2019	Eco-Dantha	Aziznagar,Moinabad
2018-2019			
1	4th August 2019	Day Spent in orphanage	Shanthi Nilayam, Moinabad
2	16th June 2019	Day Spent in orphanage	Shanthi Nilayam, Moinabad
3	15th August 2018	Independence day celebrations	Shanthi Nilayam, Moinabad
4	18th September 2018	Provided Printer	Shanthi Nilayam, Moinabad
2017-2018			
1	4th to 10th March 2018	Books donated to orphanage	Shanthi Nilayam, Moinabad
2	1st April 2018	Run 4 Cause	People's plaza, Hyderabad
3	14th January 2018	Hyderabad youth assembly	Carlton business school, Suryanagar colony, Somajiguda
4	24th December 2017	Blanket distribution for old age people	Gudimalkapur, Mehdipatnam, Hyderabad
5	21st to 23rd October 2017	A fund raiser box cricket tournament	Government college of physical Education Domalguda
6	22nd October 2017	Pedal for a Cause 2.0	Hyderabad Bicycling Club,

			Necklace Road, Hyderabad
7	2nd September 2017	Bucket Nimarjanam	Necklace Road, Hyderabad
8	27th August 2017	Leadership is the capacity to translate vision into reality	Carlton Business School, Suryanagar colony, Somajiguda
2016-2017			
1	8th April 2017	Impact Day	Hydershakote Village, Hyderabad
2	19th January 2017	Clothes donations for differently abled	Nanal Nagar, Hyderabad
3	7th January 2017	An effort towards cashless economy	Mehdipatnam, Hyderabad
4	3rd January 2017	Stress releasing techniques for retired residents	Chilkalguda, Secunderabad
5	2nd January 2017	Clothing and Blanket Drive for Women	Vidya Jyothi Institute of Technology & Mehdipatnam
6	31st December 2016	Reuse of plastic water bottles	Suncity, Bandlaguda, Hyderabad
7	6th December 2016	Blanket Drive	Different Areas of Hyderabad
8	30th October 2016	Women Empowerment	Nanal Nagar, Hyderabad
9	28th October 2016	Home for the aged and disabled	Mehdipatnam, Hyderabad
10	6th October 2016	Women Empowerment	Radha Krishna Balika Bawan
11	3rd October 2016	Career Guidance in orphanage	Bairagiguda, Suncity
12	2nd October 2016	Public awareness program for stagnation of water and construction of bathukamma pond	Padma Rao Nagar, Secunderabad
13	30th September 2016	Visit to the Home for the old and differently abled	Kinnera Welfare Society, Hyderabad

NAP FOUNDATION - HELPING HANDS FOR CHILDREN

NAP Foundation is an NGO run by Kandula Neha. This NGO has started in the year of January 2018. It has adopted an Orphanage and is been looking after those 80 kids who are staying in the orphanage. The main motto is to bring out HIDDEN talent in CHILDREN and also to help

NEEDY. A Team of 50 Volunteers who always participates in all kinds of events in collaboration with other organizations and NGOs for Volunteering

Activities Conducted NAP

S.No	Date	Event Name	Collaboration	Organized at
2018-2019				
1.	15th November2020	Special Dinner	Vidya Jyothi Institute of Technology	Ashritha Orphanage
2.	24th July 2020	Special Dinner	Vidya Jyothi Institute of Technology	Ashritha Orphanage
3.	9th April 2020	Groceries Distribution to health care workers	Vidya Jyothi Institute of Technology	NAP Foundation - Secunderabad
4.	23rd February 2020	EYE CAMP	Lions Club and Vidya Jyothi Institute of technology	Ashritha Orphanage
5.	27th October 2019	Diwali Celebrations	Vidya Jyothi Institute of Technology	Asritha Orphanage
6.	18th September 2019	Clothes Donation	Vidya Jyothi Institute of Technology	Asritha Orphanage
7.	15th August 2019	Rakhi Celebrations	Vidya Jyothi Institute of Technology	Asritha Orphanage
8.	22nd June 2019	Books Distribution	Vidya Jyothi Institute of Technology	Asritha Orphanage
9.	7th April 2019	Dental Camp	Astheticdent Dental and cosmic clinic	Asritha Orphanage
10.	10th March 2019	Pinkathon	Colors and Bajaj Electronics	Necklace Road, Hyderabad
11.	18th February 2019	Tribute to Martyred Soldiers	Sai Maa Study Center	Gandhi Nagar, Hydeabad
12.	1st January 2019	New Year Celebrations	Vidya Jyothi Institute of	Asritha Orphanage

			Technology	
13.	2nd December 2018	Sweater Distribution	Vidya Jyothi Institute of Technology	Asritha Orphanage
14.	14th November 2018	Children's Day Celebration	Vidya Jyothi Institute of Technology	Asritha Orphanage
15.	8th October 2018	Grace cancer Run	Grace Cancer Foundation	Jalavihar, Hyderabad
16.	26th August 2018	Airtel Hyderabad Marathon	Hyderabad Runners	Somajiguda, Hyderabad
17.	20th May 2018	Whitathon	L.V Prasad EyeInstitute	Peoples Plaza, Hyderabad

EARTHLINGS NGO

Earthlings an Environmental NGO runs by **Sriram Arumilli** founded on Oct- 2016. Their Mission is to protect Environment. A team of 80 volunteers are working to Creating awareness to people about protecting the environment with innovative methods. They organize, large scale plantations, cleaning, renovating and protecting inland water bodies.

Activities Conducted

S. No	Date	Event Name	Collaboration	Organized at
2019-2020				
1.	16th February 2020	Adorn Hyderabd	Lions Club and Vidya Jyothi Institute of technology	Khairtabad
2.	13th October 2019	Race for Grace	Grace Cancer Foundation	IMAX, Hyderabad
3.	25th August 2019	Airtel Marathon Hyderabad	Waste Management Partner	Ganti Mohana Chandra Balayogi Athletic *Stadium*
4.	21st July 2019	Seed Ball Making	Vidya Jyothi Institute of Technology	Kukatpally Housing Board, Hyderabad
2018-2019				
5.	19th May 2019	Anti Plastic Awareness Camp	Vidya Jyothi Institute of Technology	Kukatpally Housing Board, Hyderabad
6.	24th February 2019	Hyderabad Club Run	Waste Management Partner	University of Hyderabad
7.	10th February 2019	Saveathon	HDFC Bank	Peoples Plaza, Necklace

				road, Hyderabad
8.	27th January 2019	Adorn Hyderabad	Vidya Jyothi Institute of Technology	Secunderabad Railway Station
9.	2nd December 2018	Beat the Cold	Vidya Jyothi Institute of Technology	Nanal Nagar, Hyderabad
10.	7th October 2018	Race for Grace	Grace Cancer Foundation	Necklace Road, Hyderabad
11.	18th September 2018	Clay Idol Distribution	Eco-Friendly Ganesh	Value Labs, Hyderabad
12.	27th August 2018	Airtel Hyderabad Marathon	Waste Management Partners	Ganti Mohana Chandra Balayogi Athletic ***S**tadium*
13.	1st July 2018	Adorn Hyderabad	Vidya Jyothi Institute of Technology	Begumpet, Hyderabad
14.	18th March 2018	Spreading Smiles	Vidya Jyothi Institute of Technology	Mahima Ministries, Chandanagar, Hyderabad

CULTIGATE

Cultigate - Start up started by **Sanghishetty Praneeth** in the year of July 2019. At present there are 110 Volunteers to support their cause. They trade all kind of plants and plant accessories at reasonable prices, they are unique at selling ayurvedic plants which are very rare and which cures many diseases and all the money which they earn through will be using for awareness events and will be using for social causes.

In future they will create a platform where people can come and explore their hidden talents, OT (open talks) chapter. Within 2 years cultigate is planning to start an eco friendly store and supply unique handmade product.

Activities Conducted:

S.No	Date	Event Name	Organized at
1.	2nd February 2021	Ride for nature	North INDIA.
2.	5th June 2020	Planted Saplings	Aziz Nagar, Moinabad.
3.	29th May 2020	Team Cultigate From Vijayawada.Distibuted Groceries For Poor People.	Vijayawada, AP.

4.	5th May 2020	Groceries distribution for poor.	Lower Tankband, Nathaji Nager.
5.	30th April 2020	One meal a day	Hyderabad.
6.	9th April 2020	Food packet distribution	East Zone of Hyderabad.
7.	8th April 2020	Food packet distribution	West Zone of Hyderabad.
8.	5th April 2020	Food packet distribution	South Zone of Hyderabad.
9.	4th April 2020	Food packet distribution	North Zone of Hyderabad.
10.	25th Decemeber 2019	Blanket donation	Medhipatnam, Gudimalkapur.
11.	2nd November 2019	HARSHAVARDHAN	Vidya Jyothi Institute of Technology
12.	15th September 2019	Food Donation at Orphanage	Government Primary School, Hyderbasti, Secunderabad
13.	30th August 2019	Distribution of Eco Friendly Ganesha and plant	Vidya Jyothi Institute of Technology , Hyderabad
14.	14th August 2019	Clothes and Food Donation to Homeless	Gandhi Hospital, Secunderabad
15.	7th August 2019	Food and Book Donation at Orphanage	Government Primary School, Hyderbasti, Secunderabad
16.	5th August 2019	Planting and Distribution of 500 plants with children	Viveka Vardhani School, Aziz Nagar, Hyderabad

Co-Curricular and Extra Curricular Activities

VJIT conducts subsequent/underneath events annually to reflect positive personality development amongst students as a part of curricular/ co-curricular activities.

All the events/clubs are organized by student teams respectively demonstrating their leadership and team skills.

Annual Events

Phoenix (February) Phoenix is the college's annual technical and sports fest that happens in the month of February where in the sports events are handled by sports coordinators and the technical events are handled by the respective department's students.

Crescendo (March) Crescendo is the college's annual cultural fest which is organized by the students from the Yukthi club in the month of March. The cultural club conducts workshop on various arts on the college's annual day.

Several competitions like mimicry, singing, and dance battles are conducted. Participation from the other college's also observed.

Teacher's Day (5th of September) after our parents, the people who most significantly impact our lives – and a life-long love for a particular subject – are our teachers. Teachers' Day is an occasion to celebrate this unique role that gives adults the power to shape young minds and thereby the future of a country. Teacher's day is celebrated every year on the 5th of September and is conducted by the college students.

Women's Day (8th of March) A few competitions like Mehendi designs, Rangoli, Elocution, Hair Styling, Paper Craft, and Women Entrepreneurship were proposed to draw parallels between work and healthy entertainment.

Bathukamma (October) "Bathukamma" – Telangana's floral festival marks the beginning of sharadh ruthuvu which is celebrated in the month of October. All the women folk at VJIT, in their traditional attire assembled, celebrated in the campus, with the floral conical stacks placed in the centre, women of vjit then danced around clapping hands in rhythm moving in unison. The celebration was followed by Dandiya a traditional folk dance form performed especially at Navaratri Days, originated in Vrindavan by Lord Krishna.

Clubs:

Photography Club: A couple of students from the Vidya Jyoti Institute of Technology who were very passionate about photography and the technique that lies underneath every extraordinary picture, started a club known as "VJIT PGC" in the year 2013. Some of the competitions are selfie contest, musical.ly contest, dubsmash contest, etc that are the current trends on the social networking media as of today. The facebook link is given below

https://www.facebook.com/VJITPGC/

Literary Club: The literary club aims to develop analytical and creative thinking skills. It offers opportunities to appreciate different types of literature and increase their own literary skills. The Literary Club aims at not only refining the literary skills of the students but also developing in them logic and curiosity to know more and to instill in them a confidence to speak well. They conduct debate, elocution and floor crossing competitions.

Dance Club: The College's dance club has been taking care of all the dance related activities that take place during the Crescendo (that takes place in the month of march).

SPICMACAY (Society for the Promotion of Indian Classical Music and Culture amongst Youth): It is a non-political, nationwide voluntary movement founded in 1977 by Dr. Kiran Seth, Professor-Emeritus at IIT-Delhi who was awarded the 'Padma Shri' for his contributions to the art in 2009. Spicmacay VJIT was established with it's main objective being the collaboration of students from different years and branches coming together to represent various Indian Art Forms. We have a team of dedicated classical dancers, singers and instrumentalists who are ever-ready and proud to display their interest in various cultural art forms. We aim at showcasing the beauty that our culture beholds.

VJIT Radio: The VJIT Campus radio program which is powered by Younify, is a program which is run by students from various branches and years working together to make this a success. We are a team of 32 members who are divided into 8 different teams where each team works on the individual focused task with only one aim in mind to get out listeners the best content possible and one they truly deserve. The first show was aired on the 7th June 2020. The aim of the college radio is to make the students not lose the connection with the college during the lockdown period.

Annual Events 2021-2022

S. No	Event	Date	Chief guest
1	Bathukamma Celebrations	11th October2021	P.Sabitha indra Reddy – Minister of state for education Telangana
2	Teachers day	4th september2021	Dr.E.Saibaba Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology.
3	Independence day	15th august 2021	Dr.E.Saibaba Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology.
4	Cybercrime awareness Program	7th July 2021	B.Raju-Moinabad CI
5	International Yoga day celebration	21st to 23rd June 2021	K.Neelima HFN Yoga Trainer ,S.Kamakshi IL Executive Coach ,Life Coach ,Corporate Trainer ,Dr.Shaik Kamruddin ,Heartfulness Trainer ,B.Goutham Sharma Heartfulness Trainer

Annual Events 2020-2021

S. No	Event	Date	Chief guest
1	Women's Day	6th March 2021	Sunaina Ticko, Founder & CEO Brainpreneurs ,Sree Latha Shankar HR Professional ,Geeta Goti HR Corporate Governance and Labour Compliance
2	MOU with EEE CS, Hyderabad	8th February 2021	Er.Rakesh Reddy, MD EE Engg.Construction services
3	Republic Day	26th January 2021	Dr.E.Saibaba Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology,
4	Rangoli Competition	12th January 2021	Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology
5	Orientation Program	20th & 21st November 2020	
6	Virtual Bathukamma Celebrations	24th October 2020	Dr.E.Saibaba Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology,Srilatha ,Academic Coordinator
7	Teachers Day (Vrtual)	5th September 2020	Dr.E.Saibaba Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology
8	Independence Day	15th August 2020	Dr.E.Saibaba Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology
9	All that Count is Right Attitude(Webinar)	9th July 2020	Anindita Sinha, Head of corporate Communications ,L&T Metro Rail Ltd
10	Covid-19 New challenges in Technical Education & Way forward	30th June 2020	Dr. A. Govardhan, Rector,JNTUH
11	International Yoga Day	21st to 23rd June 2020	Dr.K.Indra Pavan , Dermatologist,Heartfullness Trainer, ,S.Kamakshi IL Executive Coach ,Life Coach ,Corporate Trainer
12	Research Methodology and good administrative skills (Webinar)	12th June 2020	Dr. Pradeep kumar Ramancharla, IIIT Registrar

Annual Events 2019-2020

S. No	Event	Date	Chief guest
1	Accelarating engineering Skills To Challenge the Covid19 Crisis Times	30th May 2020	Dr,BVR Mohan Reddy Founder and Executive Chairman Cyient ltd.Hyd
2	Transition Of Life:s Perspective after Covid19 impact(Webinar)	22nd May2020	Padma Bhushan Dr,D.Nageshwar reddy Chairman & Chief of Gastroenterology AIG
3	Womens Day	7th March 2020	Dr. Lakshmi Rathna Marakani, Divisional Director & HOD Gynecology,NICE Hospital
4	Project Expo	29th February2020	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
	Republic Day	26th January 2020	Dr. P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology,
5	Alumni Meet (Milan)	28th December 2019	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology,Dr.Sidharth Gosh,Head of TPO
6	Bathukamma Celebrations	5th October 2019	Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology,
7	Traditional Day	14th September 2019	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology, Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology, Srilatha , Academic Coordinator
8	Teachers Day	5th September 2019	Dr. P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology
9	Independence Day	15th August 2019	Dr. P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology
10	Orientation Day	2nd August 2019	Dr.P.Rajeshwar Reddy, MLC & Govt.Whip, Secretary & Correspondent VJIT.Dr. P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology
11	Graduation Day	14th July 2019	Chief Guest:Sri B.Janardhan Reddy, Secretory to Govt. of Telangana Education department

			Guest of honour: Sri Lokesh Nathani,Founder Disruppt Thinking-LLP
12	Meditation Program	24th to 26th June 2019	Dr. P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
13	International Yoga Day	21st June	Mr. M.Gangadhar, Govt.Official

Annual Events 2018-2019

S. No	Event	Date	Chief guest
1	Udhbav 19, Techno Cultural Fest.	2nd April 2019	Dr. Pratapsinh Kakasaheb Desai President, Indian Society for Technical Education
2	Women's Day	8th March 2019	Dr. Thishitha Tej. Clinical Nutritionist
3	Alumni Meet (Milan)	2nd February 2019	Dr.P.Rajeshwar Reddy, MLC Govt Whip Govt of Telangana, Correspondent & Secretary, Vidya Jyothi Institute of Technology
4	Republic Day	26th January 2019	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
5	Traditional Day	13th October 2018	Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology
6	Fresher's Day	22nd September 2018	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
7	Teachers Day	5th September 2018	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
8	Independence Day	15th August 2018	Dr. P. Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
9	Anti Ragging Awareness Program	28th July 2018	Ms. P.V. Padmaja, DCP, Shamshabad
10	Orientation Day	19th July 2018	Dr.P.Rajeshwar Reddy
11	Graduation Day	14th July 2018	Sri. BVR. Mohan Reddy, IIT Hyderabad.
12	Faculty Orientation Program	7th July 2018	Dr. GVV Sharma, Associate Professor, Department of Electrical Engineering IIT Hyderabad.

Annual Events 2018-2019

S. No	Event	Date	Chief guest
1	Udhbav 19, Techno Cultural Fest.	2nd April 2019	Dr. Pratapsinh Kakasaheb Desai President, Indian Society for Technical Education
2	Women's Day	8th March 2019	Dr. Thishitha Tej. Clinical Nutritionist
3	Alumni Meet (Milan)	2nd February 2019	Dr.P.Rajeshwar Reddy, MLC Govt Whip Govt of Telangana, Correspondent & Secretary, Vidya Jyothi Institute of Technology
4	Republic Day	26th January 2019	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
5	Traditional Day	13th October 2018	Dr. A. Padmaja, Principal, Vidya Jyothi Institute of Technology
6	Fresher's Day	22nd September 2018	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
7	Teachers Day	5th September 2018	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
8	Independence Day	15th August 2018	Dr. P. Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
9	Anti Ragging Awareness Program	28th July 2018	Ms. P.V. Padmaja, DCP, Shamshabad
10	Orientation Day	19th July 2018	Dr.P.Rajeshwar Reddy
11	Graduation Day	14th July 2018	Sri. BVR. Mohan Reddy, IIT Hyderabad.
12	Faculty Orientation Program	7th July 2018	Dr. GVV Sharma, Associate Professor, Department of Electrical Engineering IIT Hyderabad.

Annual Events: 2017-2018

S. No	Event	Date	Chief guest
1	Women's Day	10th March 2018	Ms.V.Harshitha, Director,Yenrol Lubex Pvt Ltd Ms.Alka Gupta ,Graphologist
2	Republic Day	26th January 2018	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
3	Crescendo	24th January 2018	Mr. Sri Krishna & Malavika (Singers)
4	Phoenix	23rd to 24th January 2018	Mr. Jitender Reddy (Member of Parliament - TRS Floor Leader)
5	Traditional day	21st January 2018	Dr A. Padmaja (Principal Vidya Jyothi Institute of Technology)
6	Alumni Meet (Milan)	6th January 2018	Dr.P.Rajeshwar Reddy, MLC Govt Whip Govt of Telangana, Correspondent & Secretary Vidya Jyothi Institute of Technology
7	Bathukamma	27th September 2017	Dr A. Padmaja (Principal Vidya Jyothi Institute of Technology)
8	Engineers Day	15th September 2017	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
9	Teachers Day	9th September 2017	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
10	Independence Day	15th August 2017	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
11	Graduation Day	15th July 2017	Dr.S.Ramachandram,VC,Osmania University, Hyderabad
12	Faculty Orientation Program	24th June 2017	Prof. MLP Rao,Former prof, OU, Hyderabad Prof.Harish N Dixit, IIIT Hyderabad
13	International Yoga Day	21st June 2017	Dr.ALV Kumar Scientist, Nuclear Fuel Complex Hyderabad

Annual Events: 2016-17

S. No	Event	Date	Chief guest
1.	Women's Day	8th March 2017	Dr.Syamala Prasad,Sr Consultant(Obstetrics&Gynecology), BHEL general Hospital
2.	Phoenix	3rd to 4th March 2017	Mr. G. R. Kiran Kumar (senior PRO TSRTC)
3.	Republic Day	26th January 2017	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
4.	Crescendo	24th January 2017	Sri Anantha Sri Ram (Lyricist)
5.	Traditional Day	21st January 2017	Dr A. Padmaja (Principal Vidya Jyothi Institute of Technology)
6.	Alumni Meet (Milan)	7th October 2017	Dr.P.Rajeshwar Reddy, Correspondent & Secretary Vidya Jyothi Institute of Technology
7.	Teachers Day	6th September 2016	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
8.	Bathukamma	27th September 2016	Dr A. Padmaja (Principal Vidya Jyothi Institute of Technology)
9.	Engineers Day	15th September 2016	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
10.	Independence Day	15th August 2016	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
11.	Orientation Day	3rd August 2016	Dr.P.Venu Gopal Reddy, Director, Vidya Jyothi Institute of Technology
12.	Graduation Day	23rd July 2016	Dr.N.Yadaaiah, Registrar, Jawaharlal Nehru Technological University

CRITERION 10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120

10.1 ORGANIZATION, GOVERNANCE AND TRANSPARENCY (40)

10.1.1 State the Vision and Mission of the Institute (5)

(Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations)

Vision:

- To develop into a reputed Institution at National and International level in Engineering, Technology and Management by generation and dissemination of knowledge through intellectual, cultural and ethical efforts with human values
- To foster Scientific Temper in promoting the World class professional and technical expertise

Mission:

- To create state of art infrastructural facilities for optimization of knowledge acquisition
- To nurture the students holistically and make them competent to excel in the global scenario
- To promote R&D and Consultancy through strong Industry Institute Interaction to address the societal problems

10.1.2 Availability of the Institutional Strategic Plan and its Effective Implementation and Monitoring

The strategic plan of the college is developed involving all the stakeholders through group discussions, workshops and adopting a participatory approach at institutional and department level. The Promoter Society is committed to educational development, infrastructural augmentation and institutional growth.. Management gathers information from all stakeholders, observers and evaluates the best practices and strategies of other institutions to strive for excellence. According to the perspectives of the Society, college determines the infrastructure and various activities for academic advancement, and allocates budget accordingly.

The strategic/perspective plans of all the departments are prepared after the institutional plan is drafted keeping in view the vision and mission of the institute. The plan is made with the innate characteristics of primacy and flexibility covering all the aspects of academic, administrative and quality issues. Academic activities are planned by adapting outcome based education adopting student-centric teaching methods, choice-based credit system, industry-oriented live projects, Participation in Hackathons, technical conferences etc.,. The administration involves the committees in various matters like course structure and continuous evaluation, training &placement, industry interaction, career counselling, entrepreneurship. Outreach and financial performance facilitates and ensures that teaching learning process runs smoothly and productively. Quality sustenance is carved out by training the faculty on cutting edge technologies, recruiting doctoral degree holders in different disciplines, arranging infrastructure

to nurture the R&D activity, promotion of professional bodies and their activities for the overall development of staff and students.

The plan is developed with an objective of achieving excellence through optimum utilization of resources.

Institution has a strong Strategic plan prepared for 2015-20 aiming at clearly formulated objectives.

1. Facilitating high-quality knowledge
2. Curriculum as per industry trends/New Courses Introduction/Fast Track Curriculum
3. Fostering human values and all-round development
4. Development of competencies and skills/ Enabling to handle the technological challenges
5. Promote R&D and Consultancy through strong Industry Institute Interaction to address the societal problems
6. Create good infrastructural facilities for optimization of knowledge acquisition
7. Nurture the students holistically and make them competent to excel in the global scenario

The management conducts regular review of compliance to strategic plan (both long term goals and short term goals). It aims to conceptualize learning outcomes in more comprehensive terms and desires that its graduates possess distinguished academic and personal abilities. The management feels that quality of faculty and diversified educational system has an important role to play in an institution to reach its full potential.

To have more faculty with PhD qualification at all levels

The institution encourages the existing faculty to pursue higher qualification and there is a considerable increase in the number of faculty registered for Ph.D. The institution aims at having 50% faculty with doctoral degree within next two years. The institution has excellent retention rate of faculty, thereby focusing on administrative stability, clarity, engagement in various faculty development programs. The management has implemented several measures for faculty satisfaction and retention.

The strategic plan was successfully implemented based on the actionable tasks mentioned in strategic plan and the outcomes are clearly visible now.

Strategic Plan 2020-25

S.No	Plan	Target	Action
1.	NIRF Ranking	Participation in every academic year Ranking below 200 Band	1. Student outcomes improvement 2. Placements Quality Improvement 3. Research Publications

			4. Perception Focused on the above parameters during the years 2019-20:28.54 score ***2020-21: 251-300 rank band***
2.	ARIIA Ranking	Participation in every academic year 1. Innovation, Pre-Incubation & Incubation Centre/Facilities exists in campus 2. Start-ups have received Grant / funding from Pre-Incubation/Incubation Centre/Facilities 3. Co-Incubation Partnership: Co-Incubation Partnership made with other Institutions either to offer incubation support (or) to receive incubation support 4. Idea / Prototype / Innovation have received Grant / funding from Pre-Incubation / Incubation Centre / Facilities 5. IP Granted and Published: Tech Transfer and Commercialized 6. Total Expense towards innovation, IPR and Startup	Focused on the below initiatives 1. MoE MIC Inititives quarter wise initiated as per the calender 2. Programs Conducted by Institute Related to IPR, Entrepreneurship / Start-ups & Innovation 3. I&E Programs Organized within the Campus 4. Short time & Elective / Core Credit in Innovation/IPR/Entrepreneurship 5. IPR Cell / Patent Facilitation Unit 6. Support from the institute for IPR
3.	NAAC	To get A+ Grade in NAAC	1. Action on NAAC PEER TEAM Comments 2. SSR Submitted and waiting for peer team visit

4.	NBA under Tier-1 for CSE,IT,ECE,EEE & Mech departments/NBA Civil Accreditation	1. To get Accreditation for Civil 2. To apply for Accreditation Under Tier-1 for CSE,IT,ECE,EEE and Mech Departments	1. Civil department accredited under TIER-2 with 748 score 2. Initiated efforts towards applying for NBA Under Tier-1
5.	Autonomous Renewal	Preparing the autonomous document	1. Autonomous expert committee visit completed.
6.	Teaching and Learning Plan	1. Development of smart class rooms with state-of- art facilities 2. Use of more LCD and laptops in teaching and learning 3. Extensive use of online Teaching and Learning resources (INFLIBNET) 4. Teacher's skill enhancement through attending conferences and FDP's/STTP	1. Facilities have been increased. 2. LCD projectors are available in all the class rooms and Laboratories 3. Learning resources have been increased. 4. Financial support provided for Teachers to enhance effective teaching skills.
7.	Curriculum Improvement	1. Internal and External Assessment: 30:70 2. More MoUs for Student Exchange Programmes 3. Introduction of MOOC's Credit Courses 4. B.Tech Degree with Major/Minor 5. To strengthen in the area of patents/Students Innovation patents submission.Suggestions given in academic council and BoG Minutes	1. This has been initiated and implemented for the academic year 2021-22 2. 2,3,and 4 points are planning to implement for the academic year 2022-23 and further years. 3. Suggestions have been noted and are under planning to be implement in a phased manner. 4. Suggestions will be taken from stakeholders
8	To increase the pass percentage	Incremental improvement of 5% every year	Department wise strategic plan has been prepared to improve in this

			direction.
9.	Attract Funds for Research Projects	All departments need to apply for research proposals. And identify the sources forreceiving funding	Applying for more funded research projects / proposals. 1. Total 16 research projects worth 153.845 lakhs granted during the last 5 academic years from UGC,DST and DRDO.
10.	Research Centers of University (ECE,EEE& Civil)	All Eligible departments	1. CSE & Mech Depts recognized in 2019-20 2. Applied for ECE,EEE and Mech Departments in 2020 3. Targeting for all departments to have recognized research centers.
11.	To increase the faculty with Ph.D qualification	1. Encouraging more internal faculty members to pursue Ph.Ds 2. Recruiting more Ph.D'S	1. Across all the departments 102 faculty have registered for Ph.D's. 2. Recruiting more Ph.D's, has been increased.
12.	Enhancing Quality Research Publications	1. Encouraging for more peer reviewed publications	3. Focusing more on quality research papers. 4. As on 2021(September) 230 Scopus and 61 WoS publications are there. 5. Target is to increase to 500 by 2025 as per the strategic plan of the departments. 6. Publications in indexed journals:Financial support to teachers
13.	Applying for patents	To strengthen in the area of patents/Students Innovation patents submission.	Plan has been initiated 1. As on 2021(September)11 patents have been granted, 30 patents published and 11 are in applied status. 2. 3 students have applied for patents. 3. Planning to support students to apply for more patents. 4. To focus on the revenue

			generation.
14.	Quality Improvement Schemes Funding (AICTE/DST)	Applying for the schemes in AICTE AQIS and DST	1. As on today total 9 projects granted with 59.80 lakhs from AICTE
15.	Incubator for Startups	Applying for AICTE 'Technology Business Incubators' and 'Livelihood Business Incubators' DST : Technology Business Incubators' DST : EDC funding	1. Institute has recognized MSME –Incubation Center 2. Data Ready 3. DST NIMAT funding received for 2 academic years 4. Plan has been initiated to apply for more schemes
16.	Placements Quality Improvement	1. To target for placement drives, only for an Annual Salary Package of 3 lakhs and above 2. To enhance the Technical/Coding skills in students 3. Professional Communication Skills 4. Core Companies plan	1. Necessary measures have been initiated to improve average salary package. 2. Training plan initiated to improve coding skills
17.	Green Audit	1. Procedure for Green Audit 2. Activities under Green Campus 3. Plastic free campus	Implementation of Green Initiatives 1. Rainwater Harvesting Pits 2. Solid Waste Water Management 3. Conducting Green Landscape Audit,Carbon footprint & Energy Audit, and Environmental Audit every academic year
18.	Energy Audit	**1.** Energy Audit Recommendation **2.** Electricity Bill Analysis **3.** Use of Solar Power PV and analysis (No. of units reduction)	1. Conducting Internal & External Energy audits annually
19.	Internal and External Academic Audit	Internal and external academic audit every academic year at the end of 2nd semester	Initiated and implementation every academic year
20.	Infrastructural	Improvement in	As per the Departments needs and

	Facilities	infrastructural facilities	student needs the Institute focuses on increasing infrastructural facilities annually.
21.	Enhance Engagement with Society and Industry Industry Institute Cell	1. Invite Industry experts for motivating students and provide practical knowledge 2. Strengthen Campus placement and training facility by building more industry linkages 3. Promote/Encourage students to work on real projects for industries	1. Department wise IIC Coordinators to strengthen IIC 2. Signing MoU's with Industries 3. Establish more Center Of Excellences
22.	Enhance alumni engagement	More interactions with alumni	More interactive sessions and also include senior alumni in BoG/IQAC/Academic council as members

Prime Focus Points-Academic Year Wise

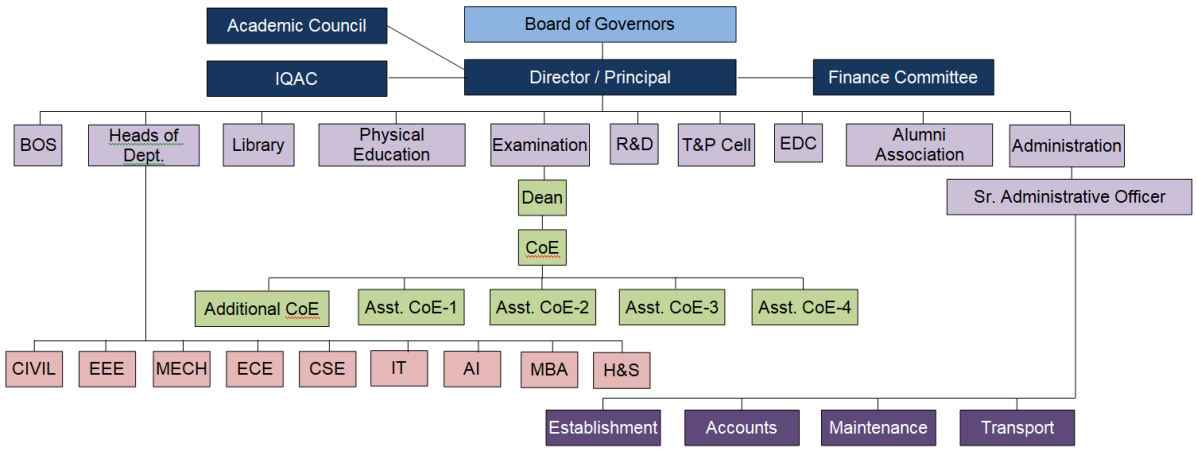
S. No.	Academic Year	Main Focus
1.	2020-21	1. New Programs as per industry needs 2. NIRF Ranking 3. ARIIA Ranking 4. Placements quality improvement/average salary package enhancement 5. NBA Civil Department 6. To get good score and grade in NAAC.
2.	**2021-22**	1. Curriculum Improvement 2. NBA Accreditation under Tier-1 CSE,ECE,IT,EEE & Mech departments 3. Quality Faculty Recruitment 4. Strengthening IIIC Cell/MoU's 5. Research Projects/Research Centers/Industry collaborative Centers 6. Alumni engagement 7. Consultancy facilities
3.	**2022-23**	1. Consultancy revenue generation on small projects

		2. Start Ups/Incubation facilities
4.	**2023-24**	1. Industry driven Courses 2. Towards Patents revenue generation 3. Industry collaborative Centers
5.	**2024-25**	Overall Strategic plan for 2020-25 and set parameters for improvement and preparing the plan for the academic years 2025-30

10.1.3 Governing body, administrative setup, functions of various bodies, service rules, procedures, recruitment and promotional policies (10)

List the governing, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; and attendance therein, in a tabular form. A few sample minutes of the meetings and action-taken reports should be annexed.
The published rules including service rules, policies and procedures; year of publication shall be listed. Also state the extent of awareness among the employees/students.

Organization Chart



Governing Body: The Governing Body of the Institution carries responsibility for ensuring effective management of the Institution and for planning its future development. The Governing body looks after the affairs of the Institution and demonstrates the primary objectives of teaching and research .It includes considering and approving the strategic plan for the institution, and identifying the financial, physical and staffing strategies. The members of the body are dedicated eminent personalities such as educationists and industrialists etc.

The Board of Governors meet twice in a year and takes policy decisions on financial, academic, and administrative matters for the development of the institution. They render advice for starting

new academic programs etc. The board meets to review various academic activities undertaken and monitors the progress of various academic programmes to meet the institution's vision and mission by taking the views of stake holders into account. The Board being an advisory body formulates rules and regulations for corrective actions to be taken for smooth functioning and better attainment of academic activities of the institution.

- The Chairman is the functional head of the college. He mainly looks after academics, development of infrastructural facilities and overall institutional growth. Chairman present the proposals to the Governing Body for its approval.
- The Secretary& Correspondent is the chief executive of the College. He coordinates with the sponsoring Society, College Management Committee and the Governing Body.

Academic Council:

The Academic Council shall have powers to:

- Scrutinize and approve the proposals with or without modification of the Boards of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto etc., provided that where the Academic Council differs on any proposal, it shall have the right to return the matter for reconsideration to the Board of Studies concerned or reject it, after giving reasons to do so.
- Make regulations regarding the admission of students to different programmes of study in the college keeping in view the policy of the Government.
- Make regulations for sports, extra-curricular activities, and proper maintenance and functioning of the playgrounds and hostels.
- Recommend to the Governing Body proposals for institution of new programmes of study.
- Recommend to the Governing Body institution of scholarships, studentships, fellowships, prizes and medals, and to frame regulations for the award of the same.
- Advise the Governing Body on suggestions pertaining to academic affairs made by it.
- Perform such other functions as may be assigned by the Governing Body.

Director advises the Management, administrative and developmental activities by keeping himself at pace with the latest trends in education. He shall be an active experienced person having distinguished himself in academic and administrative work.

The Principal is the chief academic administrator and a bridge between the Management, Staff and Students.

Board of Studies:

The Board of Studies of a Department in the college shall:

- prepare syllabi for various courses keeping in view the objectives of the college, interest of the stakeholders and national requirement for consideration and approval of the Academic Council;
- suggest methodologies for innovative teaching and evaluation techniques;
- suggest panel of names to the Academic Council for appointment of examiners; and coordinate research, teaching, extension and other academic activities in the department/college.

Heads of Departments

- HODs shall report to the Principal on the matters that come within their purview.
- HOD is responsible for the functioning of their department as per the laid down policies of the college.
- HOD prepares budget estimation of the department for every Academic year.
- HOD will constitute various committees in the department to help in various academic matters

Members of Governing Body

BOARD OF GOVERNORS MEETING

The meeting of Board of Governors (BOG) of Vidya Jyothi Institute of Technology, Hyderabad is held on 14th November, 2019 in the Directors chamber at 11.30 AM, to discuss the agenda given in the circular. The following are the members of BOG meeting;

S. No.	Name of the Member	Qualifications and current engagements	Position in the BOG
Chairperson:			
1	Dr. R. Pradeep Kumar	M.Tech., Ph.D., Professor of Civil Engg., & Registrar IIIT, Hyderabad	Chairman
Members of the Trust/ Society/ Management:			
2	Dr. P. Rajeshwar Reddy	MLC, Govt. Whip., M.Sc., Ph.D Secretary & Correspondent of VJES	Member
3	MrKrishna Palla	B.Tech, MPS (USA)	Member
4	Mrs. S. Neelima	M.Tech., Joint Secretary of VJES	Member
5	Dr. M. Govind Ram Reddy	M.Sc., Ph.D Member of VJES	Member
Educationist:			
6	Dr. E Sai Baba Reddy	Director, VJIT	Member
UGC Nominee:			
7	Dr. ArpanaBeniwal	Associate Professor,	Member

		Vivekananda College, University of Delhi, Delhi	
Member from State Government:			
8	Mr. Navin Mittal	i/c CTE, Govt. of Telangana, Ex-Officio member	Member
Member from Industry			
9	Dr. Balaji Utla	CEC, Chairman	Member
One Nominee of the University to which the Institute of affiliated:			
10	Dr G Vijaya Kumari	Professor of CSE,JNTUH	Member
Two Faculty members of the Institution:			
11	Dr P Venugopal Reddy	Ph,D, Professor of Physics Dean Examinations	Member
12	Dr. B. Vijaya Kumar	M.Tech., Ph.D., HoD & Professor of CSE	Member
13	Dr. V.V. Satyanarayana	M.Tech., Ph.D., IQAC Head Professor of Mech. Engg.	Member
Head of the Institution, Ex-officio			
14	Dr. A. Padmaja	M.Tech., Ph.D., Principal VJIT	Member Secretary

The Institute has several committees constituted by the Principal and also nominates the coordinators of various committees with their roles and responsibilities.

The Institute has IQAC and the functions of IQAC are given below.

- IQAC is responsible for fixing quality parameters for various academic and administrative activities.
- Monitoring the organization of class work and related academic activities.
- Conducting Internal Quality Audits periodically to verify the effectiveness of measures taken in reaching the quality parameters.
- Documenting various programs/academic activities leading to quality improvement and reviewing their effectiveness in quality improvement/ sustenance.

Members of Internal Quality Assurance Cell (IQAC)

Member		Name	Position
Chairman	1	Dr. E. Saibaba Reddy	Director
Co-Chairperson	2	Dr.A.Padmaja	Principal
Member from Management	3	Dr. P. Rajeshwar Reddy	Secretary & Correspondent, VJES

Member from Management	4	Ms. S. Neelima	Joint-Secretary, VJES
Member	5	Dr. P. Venugopal Reddy	Dean. Exams
Coordinator IQAC	6	Dr. V V Satyanarayana	Prof in Mech
Teachers to represent all levels (Members)	7	Dr. G.Sreeram Reddy	HOD(Mechanical)
	8	Dr. B. Vijaya Kumar	HOD (CSE)
	9	Dr. A. Srujana	HOD (EEE)
	10	Dr. Siddhartha Ghosh	Professor, Head, AI & TPO
	11	Dr. K. Vasanth	HOD (ECE)
	12	Dr. Pallavi Badry	HOD (Civil)
	13	Prof. B. Srinivasulu	Professor & Head, IT
	14	Prof. M. Raiendraprasad	Professor & Head, H&S
	15	Dr. P. Chakradhar	Professor & Head, MBA
	16	Dr. Ravi Mathey	Professor, CSE & CoE
	17	Dr. C.N. Ravi	Professor, EEE
Member	18	Mr. R. Venkata Chalam	Sr. Administrative Officer
Member	19	Ms. G.Srilatha	Academic Coordinator
Member	20	Mr. Shubhajit Jagadev	Associate Director & Head. Cisco ASC & ITC, India (Industrialist)
Member	21	Mr. P. Nirdosh Reddy	Executive Engineer, TSSPDCI, (Parent)
Member	22	Dr. P. Radha Krishna	Professor & HoD Department of Computer Science And Engineering, NIT, Warangal (Parent)
Member	23	Mr. Suresh Kuppu	Founder Trustee ofSloka School (Nominee from local Society)
Member	24	Mr. E. Sathish Reddy	Tech Mahindra Program Manager (Alumni)
Member	25	Mr. Raghav Srusti	Account Manager, ESP Business Siemens Industry Software (lndia) pvt Ltd. Hyderabad

			(Alumni)
Member	26	Mr. Anurag Patlolla	Senior developer, Cognizant technology solutions (Alumni)
Member	27	Mr. D. Sai Varun Reddy	Tech lead, Zemosolabs (Alunmi)
Member	28	Ms. K. Neha	Student
Member	29	Mr. J. Venkateshwara Rao	Student

The Academic Review Committee consists of the following members

S.No	Name of Member in ARB	Position in the ARB
1	Dr. P Venugopal Reddy	Chairman
2	Dr. A Padmaja	Convener
3	Ms. G Sreelatha, Academic Coordinator	Member
4	Dr. Pallavi badry HOD (CIVIL)	Member
5	Dr. B. Vijaya Kumar HOD (CSE)	Member
6	Dr. K. Vasanth HOD (ECE)	Member
7	Dr. A. Srujana HOD (EEE)	Member
8	Dr. Siddartha Ghosh ,HOD (IT)	Member
9	Dr.G.Sreeram Reddy HOD (Mech)	Member
10	Mr M Rajendra Prasad HOD (H&S)	Member
11	Dr. P. Chakradhar, HOD (MBA)	Member

RTI committee:

The basic objective of the Right to Information Act is to promote transparency and accountability in the working of the organization. The Act is a big step towards making the citizens informed about the activities of the government.

S.No.	Name	Designation
1.	Dr.A.Padmaja	Convener
2.	Mr.R.Venkata Chalam	Member
3.	Dr.G.Sreeram Reddy HOD (Mech)	Member

Finance Committee:

The Finance Committee advices the governing body on all matters related to financial policies and management of the finance of the Institute. To examine the audit report of the Institute and present the same to the Governing body for its approval.

S.No	Name of the Member	Position in the FC
1	Dr E Saibaba Reddy	Chairman
2	Mrs S Neelima	BOG Nominee
3	Shri G Janardhan Rao	Finance officer JNTUH

4	Dr A Padmaja	Member
5	Dr P Venugopal Reddy	Member
6	Mr R V Chalam	Member
7	Mrs G Srilatha	Member

In continuation to the above, department level committees DAB (Department advisory board) constituted by the respective heads to develop and recommend the Vision & Mission statement of the department & provide guidelines for formulation of programme educational objectives (PEOs) and Programme specific outcomes(PSOs),Receive the reports of programme assessment committee and monitor the progress of the programme.

Defined rules, procedures, recruitment, and promotional policies

The revised rules and policies are well documented and brought in the form of a booklet HR Policy. The HR policy is available in all the departments and each employee is educated on the code of conduct by HoD at the time of appointment. Copy is also available in the library and also on college website.

The staff recruitment at each level is through advertisement in newspapers as well as keeping the same on the website. Staff members are recruited through selection committee constituted by affiliating University JNTUH. The selection committee consists of the Director as its Chair Person, Principal, Affiliating University Nominees –Two Members, Subject experts –Two members and HoD of concerned department. For internal promotion through CAS, the norms of AICTE & Affiliating University are followed.

Welfare schemes available for teaching and non teaching staff

Welfare schemes for teaching staff

- Staff Members are eligible for the following incentives and rewards, based on their performance, contribution and years of service at the Institution. These are applicable to staff members with a minimum of 1 year service in the Institution
- For producing 100% results in a theory paper: Rs 1000/- Cash Award
- For producing 95% results in a theory paper : Rs.500/- Cash Award
- For producing 90% results in a theory paper : Rs.300/- Cash Award
- Professional Society Life Membership Fee – 50% paid by the Management for Faculties with minimum three years of service at the Institution (Maximum One Professional Society per staff member)
- Paper publication in National/International journals with an Impact factor as first and second author is given Rs 1000/and Rs 500/ respectively as one time incentive
- Paper publications in International Conferences of Prime Institutions -100% TA, 100% Registration Fees, on Duty and Cash Reward
- For paper presentation in a national conference the institute will sponsor by paying the registration fee along with duty leave
- Accredited departments with Accreditation of 3 years – Faculty are given one time incentive to Faculty and supporting Staff members.
- Best Teacher award is presented to eligible teachers every year on the eve of Teacher's day celebrations with a cash award of Rs10,000/-
- Special incentive increments will be sanctioned on completion of 5yrs, 10yrs and 15 yrs service in the same cadre

- Group insurance given to the faculty
- Transport Facilities: Only 25% of charges are levied to avail college transport
- Maternity leave up to six months maternity leave is applicable for women staff
- Interest free loan in the case of medical emergency are sanctioned to the employees and it has to be repayable in 10 monthly installments
- Faculty who scores between 60% - 80% in API score, gets an additional incentive increment.
- Faculty who scores more than 80% in API score gets an additional incentive increment

Welfare schemes for non teaching staff

- Supporting staff Members are provided with free computing skills programs
- EPF/ESI facility is provided to all eligible teachers and non teaching staff members.
- Additional increments are sanctioned recognizing their commitment towards their duties
- Special incentive increments will be sanctioned on completion of 10 yrs and 15 yrs service in the same cadre
- Transport Facilities: Only 25% of charges are levied to avail college transport
- Maternity leave up to six months maternity leave is applicable for women staff
- Interest free loan in the case of medical emergency are sanctioned to the employees and it has to be repayable in 10 monthly installments

10.1.4 Decentralization in working and grievance redressal mechanism (10)

List the names of the faculty members who have been delegated for taking administrative decisions. Mention details in respect of decentralization in working. Specify the mechanism and composition of grievance redressal including anti ragging committee and Sexual harassment committee.

Grievance and redressal committee is constituted in the college to attend the grievances. All the grievances addressed by the stakeholders are examined by the Grievance Redressal Committee, and appropriate solutions are suggested. Three different committees are constituted for staff, students and women.

Grievance Redressal Committee for staff:

Staff can lodge a complaint personally/ write/e-mail to any member of the Cell. Suggestion/ Compliant Boxes are provided at office of the Principal for staff to lodge their complaints/ suggestions.

Functions:

- To identify systemic flows and flaws in the design and administration of various issues and to seek solutions
- A grievance redressal committee looks into the complaints from the aggrieved
- The report of grievance committee is forwarded to Principal for further action

- Corrective measures are taken and recorded in the register
- Complaints can be sent to **https://grievance.vjit.ac.in**

Grievance Redressal Committee for staff:		
1.	Dr. G. Sreeram Reddy	Convener
2.	Mrs. G.Srilatha	Member
3.	Mr. R.Venkata Chalam	Member
4.	Dr. B.Sathyanarayana Reddy	Member
5.	Mr M Rajendra Prasad	Member

Grievances and Redressal committee for students & Parents:

Grievances and Redressal Committeis formed in order to keep the healthy working atmosphere and to uphold the dignity of the College by ensuring strife free atmosphere in the College to promote cordial relationship among students and between students and teachers. This Cell records the complaints given by the students /parents and solves their problems. Suggestion / complaint boxes have been installed at different places in the College campus. The person concerned can personally approach /write / e-mail to any member of the Cell.

Functions:

- A grievance Redressal committee is formed to look in to the complaints from the aggrieved.
- Suggestion/ Compliant Box are provided at Office of Principal for students to lodge their complaints/ suggestions.
- The report of grievance committee is forwarded to Principal for further action
- Corrective measures are taken and recorded in the register.
- Complaints can be sent to**https://grievance.vjit.ac.in**

Grievance Redressal Committee		
1.	Dr. B Vijaya Kumar HOD (CSE)	Convener
2.	Mrs. G.Srilatha, Academic Coordinator	Member
3.	Dr. Pallavi Badry HOD (CIVIL)	Member
4.	Dr. K. Vasanth HOD (ECE)	Member
5.	Dr. A. Srujana HOD (EEE)	Member
6.	Dr. G.Sreeram Reddy HOD (Mech)	Member
7.	Mr. B. Srinivasulu (IT)	Member
8.	Dr. P. Chakradhar, HOD (MBA)	Member
9.	Mr M Rajendra Prasad HOD (H&S)	Member

Women Grievance Redressal committee:

In view of the increasing number of girl students in the campus, Women Grievance Redressal Cell makes every effort to ensure that the girls feel safe and secure. The cell resolves common problems of girl students and also takes up individual cases of sexual harassment, if any. In this respect, it is punishable.

Functions:

- The committee will deal with the cases / complaints of sexual harassment and any other type of harassment of the female students, teaching and nonteaching women staff of the college
- The Cell shall process all the individual complaints and take suitable action there on in the manner and mode as per the college norms
- The Cell may form / review the guidelines / policy for redressal of the grievance as required from time to time, which may be in accordance with those issued by Supreme Court and Government Agencies If girl/woman are being harassed, this is what she can do: Keeping record of all incidents of women harassment

Women Grievance Committee		
1	Dr. Pallavi Badry HOD (CIVIL)	Convener
2	Mrs. G Srilatha, Academic Coordinator	Member
3	Dr. A. Srujana (EEE)	Member
4	Dr. D.Aruna Kumari (CSE)	Member
5	Mrs. T.Devi (IT)	Member
6	Mrs. J.Emeema (MECH)	Member
7	Mrs. K. Pavani (ECE)	Member
8	Mrs. Suneela Bharathi (MBA)	Member

Anti-ragging Committee:

The basic functions of the committee are:

- To create self confidence and congenial environment among the newly admitted students by conducting frequent interactive sessions to clear the doubts related to academic matters, social interaction and compatibility**.**The anti ragging committee provides a ragging free campus for newly admitted students to have a pleasant and fruitful academic stay in this college.
- Faculty is deputed at various locations inside the college campus to monitor the student activities. Faculty sees that no student groups are formed and if observed, the group is dispersed to avoid any nuisance. The punishment for ragging is displayed at various places to make the students aware of seriousness of the administration for preventing ragging.
- To conduct an enquiry and identify the culprits on receipt of complaint.
- Based on the first hand information and prime-facie evidence, the committee submits its report to the Principal for necessary disciplinary action. Severe punishment will be imposed on the accused, if proven.

S.No.	Member	Department	Position
1.	Dr. G. Sreeram Reddy	HOD, Mech	Convener
2.	Dr. B Vijaya Kumar	HOD, CSE	Member
3.	Dr. Siddartha Ghosh	HOD, IT	Member

4.	Dr. K. Vasanth	HOD,ECE	Member
5.	Dr. A. Srujana	HOD,EEE	Member
6.	Dr. Pallavi Badry	HOD,Civil	Member
7.	Mr. Rajendra Prasad	HOD,H&S	Member
8.	Dr. J. Ramesh Babu	Physical Director	Member

10.1.4 Delegation of financial Powers (10)

Institution should explicitly mention financial powers delegated to the Principal, Heads of Departments and relevant in charges. Demonstrate the utilization of financial powers for each year of the assessment years

Institution has well defined mechanism to monitor effective and efficient use of available resources.
The lab in charges submits the proposals as per the lab requirement to the HOD. The HOD, after careful discussion submits the proposal in the prescribed format to the Director. The Director, in turn submits them to the BOG. The BOG after assessing the projected income for the academic year, allocates budget to each department depending on their requirements and priorities.

Name of the administrator	Financial Power
BOG	Above Rs50 lakhs
Finance Committee	Rs 5 lakhs to Rs 50 lakhs
Director	Rs 5,00,000/- lakhs
HOD's	Rs10,000/-

10.1.5 Transparency and availability of correct/Unambiguous information in public domain (5)
(Information on policies, rules, processes and dissemination of this information to stakeholders is to be made available on the website)

- Dissemination and availability of Institute and programme specific information is made available on the website.

Transparency in Administration

- The file movement system is in operation and involves all senior functionaries in decision making.
- The decisions of Governing body as well as the academic bodies are circulated to the staff through proper channel.
- All Heads of the Department keep the staff informed about the administrative/academic decisions taken.

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

10.2.1 Adequacy of budget allocation (5)
(The institution needs to justify that the budget allocated during assessment years was adequate)

Budget is allotted to each department towards up-gradation of laboratories, laboratory consumables and repair of laboratory equipment etc., internal adjustments are made as per the urgency, in specific cases. Each practical laboratory maintains its own record in the form of stock register which records the information related to new purchases, repairs etc. The allocated budget shall always adequate and the budget gets sanctioned based on the budget predictions given by the department for every academic year.

10.2.2 Utilization of allocated funds (15)
(The institution needs to state how the budget was utilized during assessment years)

Funds are allocated by BOG of the College. Department Heads are intimated about the funds allocated against their budget proposals. 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 proposal basis from the accounts office of the college on approval by the Secretary.

Major works like construction, up gradation of existing infrastructure, procurement and maintenance of common utilities, house-keeping, procurement of furniture etc. are controlled by the supervisors. During the last three years, the budget was utilized to meet expenses such as staff salaries, infrastructure development, purchase of equipment, expenses towards consumables and contingencies, travel etc. Every year almost 65% of the budget is spent on staff salaries, 10% on infrastructure development, about 10% on purchase of equipment, about 10 % on library development and the rest 5% on other expenses. This has been the general pattern of utilization of budget for the last 5 years.
The details of budget allocation, sanction and expenditure statement of last 3 years as shown in 10.2.

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

CFY -- 2020 - 2021 (Current Financial Year)
CFY*m*1 -- 2019 –2020 (Current Financial Year Minus 1)
CFY*m*2 -- 2018 – 2019 (Current Financial Year Minus 2)
CFY*m3* -- 2017 – 2018 (Current Financial Year Minus 3)

Table 1: CFY 2020-21

Total Income:42,93,88,151.00				**Actual Expenditure:43,12,60,991.00**			**Total No. of Students : 4283**
FEE	**GOVT**	**GRANT (S)**	**OTHER SOURCES(Specify)**	**Recurring Including Salaries**	**Non-recurring**	**Special Projects / any other, specify**	**Expenditure per student**
41,38,48,382.00	0	0	1,55,39,769.00	42,72,43,693.00	40,17,298.00	0	1,00,691.34

Table 2: CFYm1 2019-20

Total Income:42,82,50,292.00				**Actual Expenditure: 43,01,57,934.00**			**Total No. of Students : 4058**
FEE	**GOVT**	**GRANT (S)**	**OTHER SOURCES(Specify)**	**Recurring Including Salaries**	**Non-recurring**	**Special Projects / any other, specify**	**Expenditure per student**
38,88,45,653.00	0	0	3,94,04,639.00	42,82,40,433.00	19,17,500.00	0	1,06,002.44

Table 3: CFYm2 2018-2019

Total Income : 40,73,06,700.00				**Actual Expenditure:40,88,28,485.00**			**Total No. of Students : 4118**
FEE	**GOVT**	**GRANT (S)**	**OTHER SOURCES(Specify)**	**Recurring Including Salaries**	**Non-recurring**	**Special Projects / any other, specify**	**Expenditure per student**
37,61,36,941.00	0	0	3,11,69,759.00	40,23,22,432.00	65,06,053.00	0	99,278.41

Table 4: CFYm3 2017-2018

Total Income : 39,35,49,604				**Actual Expenditure :39,67,36,362**			**Total No. of Students : 4085**
FEE	**GOVT**	**GRANT (S)**	**OTHER SOURCES(Specify)**	**Recurring Including Salaries**	**Non-recurring**	**Special Projects / any other, specify**	**Expenditure per student**
36,60,18,785.00	0	0	2,75,30,819.00	39,27,69,179.00	39,67,183.00	0	97,120.28

Institute Consolidated Budget

Items	Budgeted in 2020-2021	Provisional Expenses 2020-2021	Budgeted in 2019-2020	Actual Expenses 2019-2020	Budgeted in 2018-2019	Actual expenses in 2018-2019	Budgeted in 2017-2018	Actual expenses in 2017-2018
Infrastructure Built-Up	5,00,00,000	3,95,05,631	6,50,00,000	5,92,65,452	6,00,00,000	5,64,03,408	6,00,00,000	5,97,19,460
Library	30,00,000	23,73,261	20,00,000	15,14,817	50,00,000	44,04,133	48,00,000	46,38,464
Laboratory equipment	45,00,000	40,17,298	20,00,000	19,17,500	70,00,000	65,06,053	43,00,000	39,67,183
Laboratory consumables	7,00,000	6,52,463	25,00,000	18,16,683	60,00,000	56,90,491	32,00,000	30,27,039
Teaching and non-teaching staff salary	28,00,00,000	27,54,30,747	28,00,00,000	27,40,52,813	23,00,00,000	22,79,35,997	25,00,00,000	24,86,15,013
Maintenance and spares	90,00,000	84,35,942	80,00,000	76,37,611	80,00,000	75,39,494	70,00,000	66,14,195
R&D	45,00,000	42,85,042	15,00,000	12,16,699	25,00,000	23,40,409	30,00,000	26,27,683
Training and Travel	25,00,000	22,51,040	70,00,000	68,17,001	60,00,000	56,01,580	40,00,000	34,52,750
Miscellaneous expenses	7,00,000	6,75,592	3,00,000	2,41,451	3,20,000	3,06,105	7,00,000	6,53,241
Others specify	9,55,00,000	9,36,33,975	8,00,00,000	7,56,77,907	9,50,00,000	9,21,00,815	6,50,00,000	6,34,21,334
Total	**45,04,00,000**	**43,12,60,991**	**44,83,00,000**	**43,01,57,934**	**41,98,20,000**	**40,88,28,485**	**40,20,00,000**	**39,67,36,362**

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

(The institution needs to make audited statements available on its website)

CFY -- 2020 - 2021Yes URL…….. www.vjit.ac.in
CFY*m*1 -- 2019 –20 Yes URL……. www.vjit.ac.in
CFY*m*2 -- 2018 - 2019 Yes URL……... www.vjit.ac.in
CFY*m3* -- 2017 – 2018Yes URL……... www.vjit.ac.in

10.3 Program Specific Budget Allocation, Utilization (30)

CFY -- 2020 – 2021 (Current Financial Year)
CFY*m*1 -- 2019 – 20 (Current Financial Year Minus 1)
CFY*m*2 -- 2018 – 2019 (Current Financial Year Minus 2)
CFY*m3* -- 2017 – 2018 (Current Financial Year Minus 3)

Table :1 For CFYm 2020-21					
Total Budget	385600	Actual Expenditure	353951	No. of Students	Expenditure Per Student
Non recurring	Recurring	Non recurring	Recurring	720	491.60
0	385600	0	353951		

Table :2 For CFYm1 2019-20					
Total Budget	790000	Actual Expenditure	744557	No. of Students	Expenditure Per Student
Non recurring	Recurring	Non recurring	Recurring	819	909.11
0	790000	0	744557		

Table :3 For CFYm2 2018-19					
Total Budget	**1268000**	Actual Expenditure	**1148897**	No. of Students	Expenditure Per Student
Non recurring	Recurring	Non recurring	Recurring	929	1236.70
100000	1168000	83780	1065117		

Table :4 For CFYm3 2017-18					
Total Budget	**788000**	Actual Expenditure	**726591**	No. of Students	Expenditure Per Student
Non recurring	Recurring	Non recurring	Recurring	957	759.24
0	788000	0	726591		

Items	Budgeted in 2020-2021	Actual expenses in 2020-2021	Budgeted in 2019-2020	Actual expenses in 2019-2020	Budgeted in 2018-2019	Actual expenses in 2018-2019	Budgeted in 2017-2018	Actual expenses in 2017-2018
Laboratory equipment	0	0	0	0	100000	83780	0	0
Software	0	0	0	0	0	0	0	0
Laboratory consumables	128600	117859	140000	139314	300000	242631	180000	151773
Maintenance and spares	5000	1670	30000	10065	150000	139641	170000	161000
R&D	100000	90000	90000	76254	320000	304580	50000	42508
Training and Travel	150000	142872	510000	505704	378000	361490	370000	358095
Miscellaneous expenses	2000	1550	20000	13220	20000	16775	18000	13215
Total	385600	353951	790000	744557	1268000	1148897	788000	726591

10.3.1 Adequacy of budget allocation (10)
(Program needs to justify that the budget allocated over the assessment years was adequate for the program)

The budgetary estimates are prepared at the department level by the HOD in consultation with the Lab Heads and other senior faculty. The vision and mission of the institute and the department is always taken into consideration while preparing such budgetary estimates. The estimates are compiled and forwarded to the director and placed before the Governing body for consideration and approval. The budgetary allocations are found to be adequate as the allocations are primarily based on the requirements forwarded by the department. Every year a portion of the budget is set apart for the service and maintenance of laboratories. The budget contains a component which is being utilized for the development of staff.

10.3.2 Utilization of allocated funds (20)
(Program needs to state how the budget was utilized during the last three assessment years)

The allocated budget is utilized for establishing new laboratories with the high configuration. Every year a portion of the budget is set apart for the service and maintenance of laboratories. The budget contains a component which is being utilized for the development of faculty programmes including summer vocational activities for students and staff.

10.4 Library and Internet (20) **Institute Marks 20.00**

10.4.1 Quality of learning resources (hard/soft) (10)

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

Allocated budget for library is sufficient and utilized properly for purchasing new books, magazines and establishing digital library with digital journals.
Number of library technical staff: 6
Number of library staff with degree in Library Management: 5
Computerization for search, indexing, issue/ return records - Yes
Bar-coding used -Yes
Library services on Internet/ Intranet INDEST or other similar membership Archives:
Library services on internet / intranet - Yes
INFLIBNET N-LIST, NDL or other similar membership - Yes
Archives- 1665

Number of titles: **7009** number of volumes: **53374**

Year	Number of New Titles added	Number of New edition added	Number of New Volumes added
2020-2021	137	120	2076
2019-2020	299	132	2037
2018-2019	366	263	6790
2017-2018	269	169	7141
2016-2017	727	235	4276

Library expenditure on books, magazines / journals, and miscellaneous contents expenditures in Rs:

Year	Books	Magazine/Journals(for hard copy subscription)	Magazine/Journals(for soft copy subscription)	Misc. contents
2020 - 2021	6,64,144	4,94,204	11,75,300	13,386
2019-2020	3,00,000	-	11,32,007	82,810
2018-2019	32,05,786	1,97,473	9,50,978	49,896
2017-2018	33,13,356	1,88,456	9,26,976	2,09,676
2016-2017	20,83,197	1,82,800	8,91,125	38,229

- Relevance of available learning resources including e-resources – Yes
- INFLIBNET N-LIST, NDL, NPTEL, DELNET, IEEE, ASCE& ASME.
- EBSCO E-Books
- IUCEE Webinar series

Support to students for self-learning activities

Accessibility to Students: All the learning resources available in the library are accessible to users.

Year	No. of Technical Magazines/Periodicals	No. of Total Technical Journals subscribed	
		In Hard copy	In Soft Copy
2020 - 2021	20	131	1100
2019-2020	-	-	1100
2018-2019	20	81	957
2017-2018	20	81	980
2016-2017	29	126	940

Digital Library Information:

No. of Terminals	:	35
Server	:	Two
Internet Band width	:	40 MBps
Number of e-Books	:	6,225 EBSCO, INFLIBNET, N-LIST and Delnet
Online video lectures	:	NPTEL for all courses (support to students for self-learning)
Number of users per day	:	250 – 300
Accessibility to students	:	9AM to 6 PM

10.4.2 **Internet (10)**

Institute Marks 10.00

Name of the Internet provider	Apollo Online Solutions , Pioneer Internet Services
Available band width	600 MBPS
WiFi availability	Yes
Internet access in labs, classrooms, library and offices of all Departments	Yes
Security arrangements	Yes

Annexure I

(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

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

(B) PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Analyze and solve problems of thermal and manufacturing in the comprehensive design of mechanical engineering components.

PSO2: An ability to design, develop and implement mechanical engineering solutions keeping in view the sustainability and environmental issues with social responsibility.

Declaration

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

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

Head of the Department	**Head of the Institute**
Name: Dr. G. Sreeram Reddy	Name: Dr. A. Padmaja
Designation: Professor & HOD (Mechanical)	Designation: Principal
Signature: Head of Department Mechanical Engineering VIDYA JYOTHI INSTITUTE OF TECHNOLOGY HYDERABAD-500 075	Signature: PRINCIPAL Vidya Jyothi Institute of Technology Himayatnagar (Vill), C.B. Post., Hyderabad-75.
	Seal of the Institution: Vidya Jyothi Institute of Technology

Place: Hyderabad

Date: 21-02-2022