PES Institute of Technology and Management

Mechanical Engg.

Part A : Institutional Information

1 Name and Address of the Institution

PES Institute of Technology and Management,
PES Campus, NH-206, Sagar Road, Guddada Arakere, Kotegangoor Post, Shivamogga-577204

2 Name and Address of Affiliating University

Visvesvaraya Technological University

3 Year of establishment of the Institution:

2007

4 Type of the Institution:

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

5 Ownership Status:

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

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

Name of Institutions	Year of Establishment	Programs of Study	Location
PES Institute of Advanced Management Studies	2008	Commerce, Computer Application, PG Department of Commerce.	NH 206, Sagar Road, Shivamogga – 577204
PES Pre University College	2009	11th and 12th Standard	NH 206, Sagar Road, Shivamogga – 577204
PES Public School	2010	CBSE-1st Standard to 10th Standard.	NH 206, Sagar Road, Shivamogga – 577204
PES Polytechnic	2011	Diploma Courses	NH 206, Sagar Road, Shivamogga – 577204

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 Engg.	UG	2010	2010	120	No	120	Applying first time	--	--	Yes	4
Computer Science and Engineering	UG	2007	2007	120	No	120	Applying first time	--	--	No	4

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
Computer Science and Engineering	PG	2014	2014	24	Yes	0	Not eligible for accreditation	--	--	0	2

Sanctioned Intake for Last Five Years for the Computer Science and Engineering	
Academic Year	**Sanctioned Intake**
2019-20	0
2018-19	0
2017-18	24
2016-17	24
2015-16	24
2014-15	24

Electronics and Communication Engineering	UG	2007	2007	120	No	120	Applying first time	--	--	0	4
Digital Electronics	PG	2014	2014	24	Yes	0	Not eligible for accreditation	--	--	0	2

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
Sanctioned Intake for Last Five Years for the Digital Electronics											
Academic Year				**Sanctioned Intake**							
2019-20				0							
2018-19				0							
2017-18				24							
2016-17				24							
2015-16				24							
2014-15				24							
Civil Engineering	UG	2013	2013	60	No	60	Applying first time	--	--	0	4
Information Science and Engineering	UG	2007	2007	60	No	60	Applying first time	--	--	0	4
Mechanical Engineering	UG	2010	2010	120	No	120	Applying first time	--	--	0	4
Electrical and Electronic Engineering	UG	2007	2007	60	No	60	Eligible but not applied	--	--	No	4
Master of Business administration	PG	2008	2008	120	Yes	60	Eligible but not applied	--	--	0	2

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

Sanctioned Intake for Last Five Years for the Master of Business administration	
Academic Year	**Sanctioned Intake**
2019-20	60
2018-19	60
2017-18	60
2016-17	60
2015-16	60
2014-15	120

8 Programs to be considered for Accreditation vide this application:

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

9 Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2019-20		2018-19		2017-18	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	74	76	79	80	77	78
Faculty in Engineering (Female)	18	18	18	20	21	21
Faculty in Maths, Science & Humanities (Male)	7	7	6	6	7	7
Faculty in Maths, Science & Humanities (FeMale)	7	7	8	8	8	8
Non-teaching staff (Male)	24	27	22	25	21	21
Non-teaching staff (FeMale)	11	13	7	8	7	8

B. Contractual* Employees (Faculty and Staff):

Items	2019-20		2018-19		2017-18	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	1	1	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 and Technology- UG	☑ Shift1	☐ Shift2
Engineering and Technology- PG	☑ Shift1	☐ Shift2
Engineering and Technology- Polytechnic	☐ Shift1	☐ Shift2
MBA	☑ Shift1	☐ Shift2
MCA	☐ Shift1	☐ Shift2

Engineering and Technology- UG Shift-1

Items	2019-20	2018-19	2017-18
Total no. of Boys	1096	1088	1188
Total no. of Girls	930	935	936
Total	**2026**	**2023**	**2124**

Engineering and Technology- PG Shift-1

Items	2019-20	2018-19	2017-18
Total no. of Boys	0	0	2
Total no. of Girls	0	0	1
Total	**0**	**0**	**3**

Engineering and Technology- MBA Shift-1

Items	2019-20	2018-19	2017-18
Total no. of Boys	68	49	48
Total no. of Girls	51	56	64
Total	**119**	**105**	**112**

11 Vision of the Institution:

To be the most preferred Institution for Engineering and Management Education, Research and Entrepreneurship by creating professionally superior and ethically strong global manpower.

12 Mission of the Institution:

To prepare students for professional accomplishments and responsible global citizenship while fostering continuous learning and to provide state-of-the-art education through the committed and highly skilled faculty by partnering and collaborating with industry and R&D institutes.

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

Head of the Institution	
Name	Dr. Chaitanya Kumar M V
Designation	Principal
Mobile No.	9380741865
Email ID	principal_pestim@pes.edu

NBA Coordinator, If Designated

Name	Dr. Jagadeesha S N
Designation	Professor and HOD, Department of Computer Science & Engineering
Mobile No.	9916104383
Email ID	hodcse@pestrust.edu.in

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	49.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	89.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	99.00
4	STUDENTS' PERFORMANCE	150	80.46
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	126.35
6	FACILITIES AND TECHNICAL SUPPORT	80	56.00
7	CONTINUOUS IMPROVEMENT	50	36.00
8	FIRST YEAR ACADEMICS	50	35.66
9	STUDENT SUPPORT SYSTEMS	50	33.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	110.00
	Total	**1000**	**714**

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60) Total Marks 49.00

1.1 State the Vision and Mission of the Department and Institute (5) Total Marks 4.00

Institute Marks : 4.00

Vision of the institute	To be the most preferred Institution for Engineering and Management Education, Research and Entrepreneurship by creating professionally superior and ethically strong global manpower.
Mission of the institute	To prepare students for professional accomplishments and responsible global citizenship while fostering continuous learning and to provide state-of-the-art education through the committed and highly skilled faculty by partnering and collaborating with industry and R&D institutes.
Vision of the Department	To emerge as a center of excellence in the field of Mechanical Engineering Education, Research and Entrepreneurship.
Mission of the Department	

Mission No.	Mission Statements
M1	Creating a platform for effective and continuous learning by offering a strong technical knowledge and skills.
M2	To motivate the students in involving academic and research activities for their career excellence and being responsible global citizens.
M3	To inculcate social, ethical and entrepreneurial values for the professional accomplishments.

1.2 State the Program Educational Objectives (PEOs) (5) Total Marks 4.00

Institute Marks : 4.00

PEO No.	Program Educational Objectives Statements
PEO1	Apply their Mechanical Engineering knowledge to solve Technical and Societal problems.
PEO2	Work effectively in a team or lead multiple teams while exhibiting interpersonal and management skills with ethical responsibilities.
PEO3	Analyze the real-world problems and develop the system and services that provide economically feasible and acceptable solutions.

1.3 Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (10) Total Marks 8.00

Institute Marks : 8.00

The Mission, Vision and PEOs of the Department disseminating is shown in the Table 1.1:

Table 1.1 : Disseminating the Vision, Mission and PEOs

Dissemination Media/Location	Mode of dissemination
College Website **https://pestrust.edu.in/ pesitm/mechanical/**	Published
HOD Cabin, Staff rooms	Display Boards
Department notice boards	Display Boards
Department Laboratories	Display Boards
Teachers Academic Record (Course file)	Documented
students Internal Assessment Books	Documented
Students Lab Records	Documented
News Bulletin	Published in student's news bulletin twice in a year
Lab manuals	Documented

Dissemination methods:
In addition, the Department Vision, Mission and PEOs are also bring awareness among the newly joined first year students during Induction program, and also display in faculty development programs, expert lecture sessions are discussed below.

- **First Year Induction Program:** In the Inaugural Session of first year induction program, we bring awareness about the institute and department vision and mission among the new entrants of students

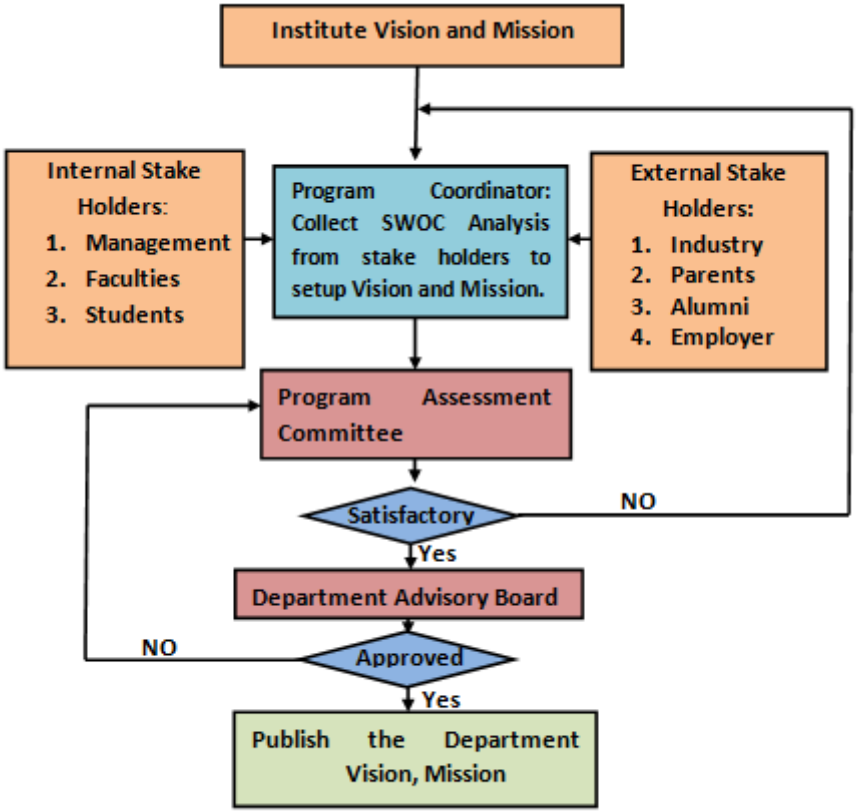
and parent's community. In addition, we also brief about the significance of program educational objectives, outcome-based education (OBE) and accreditation. To meet the stringent requirements of departmental vision the awareness is given to students and parents regarding their roles and responsibilities.

- **Faculty Development Program:** In-house faculty development program has been conducted in the Institute. Here the faculty members exchange their ideas and new trends in their research work they carried out. This could enable the faculty members to upgrade themselves that could help to achieve high professional growth rates and disseminate knowledge to the students. In recognition of this, our department also conducts few short term programs to acquire knowledge and relevant experience. During this program we are providing awareness about the Institute and Department Vision and Mission, POEs, OBE, and accreditation. Here awareness brings among the faculties to know their roles and responsibilities in achieving the set vision of the department.
- **Technical Sessions:** Experts from Industry and academia are invited to the department, to share the local and global needs with recent trends in research for both the faculties and students. Most of the delivered sessions are hands-on with the aim of gaining highest practical exposure to the students. Here, for students we bring awareness about institute and departmental vision and mission, PEOs, OBE, and accreditation. Note that, here awareness is given to the students about their roles and responsibilities to achieve the departmental vision.

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (25) Total Marks 22.00

Institute Marks : 22.00

The vision and mission of the department has been established in consultation with the stake holders to align with the institutional vision and mission. The process of defining vision, mission and PEOs of the department is presented in the Figure 1.1.



Flow chart 1.1: Vision and Mission development process of the Department.

Following steps are involved in defining the Departmental Vision and Mission:

- Strengths, Weaknesses, Opportunities and Challenges (SWOC) analysis are determined based on the received suggestions and recommendations by stake holders (External: Industry experts, Parents and Student alumni; Internal: Teaching and non-teaching staff, Students, Management, Academic expert).
- Based on the SWOC analysis, the Program Assessment Committee (PAC) to finalize the Vision and Mission of the Department. If the PAC is not satisfactory on vision and mission then go to previous step.
- The finalized Vision and Mission are placed in the Department Advisory Board (DAB) for approval. If action of DAB is not satisfactory on vision and mission then go to previous step.
- The approved Vision and Mission from DAB are disseminated. The process is as shown in the Figure 1.1.

The Program educational objectives (PEOs) of the department have been established in consultation with the Department Advisory Board (DAB) along with the departmental Vision and Mission. The process was adopted for defining the Departmental PEOs is shown in the Figure 1.2.
The PEOs are established through the following process steps:

- Vision and Mission of the Department set the basis for establishing the PEOs.
- Program Coordinator consults the stake holders and collects their views.

- Program Assessment Committee (PAC) finalizes the PEOs based on the collected information by the program coordinator. If the PAC is not satisfactory on vision and mission then go to previous step.
- Department Advisory Board (DAB) finally summarizes the PEOs. If action of DAB is not satisfactory on vision and mission then go to previous step.
- The approved PEOs from DAB are disseminated. The process is as shown in the Figure 1.2.

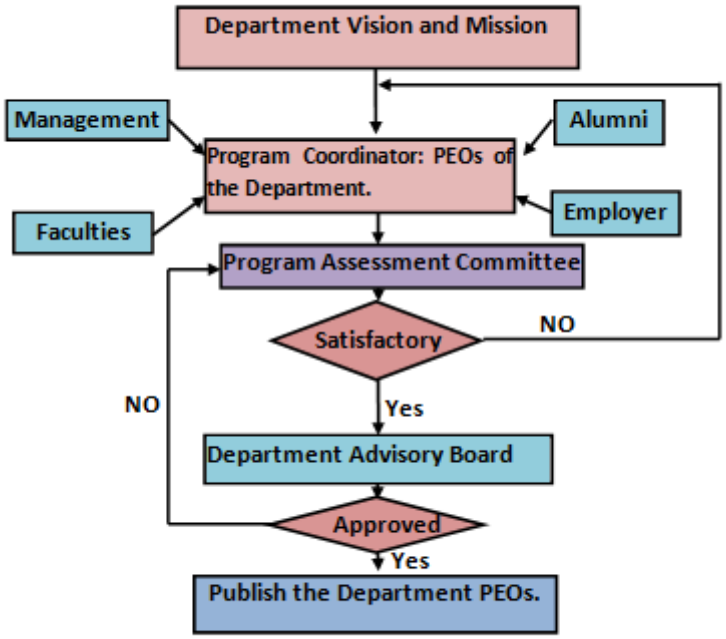


Figure 1.2: Formation of Department PEOs.

1.5 Establish consistency of PEOs with Mission of the Department (15) Total Marks 11.00

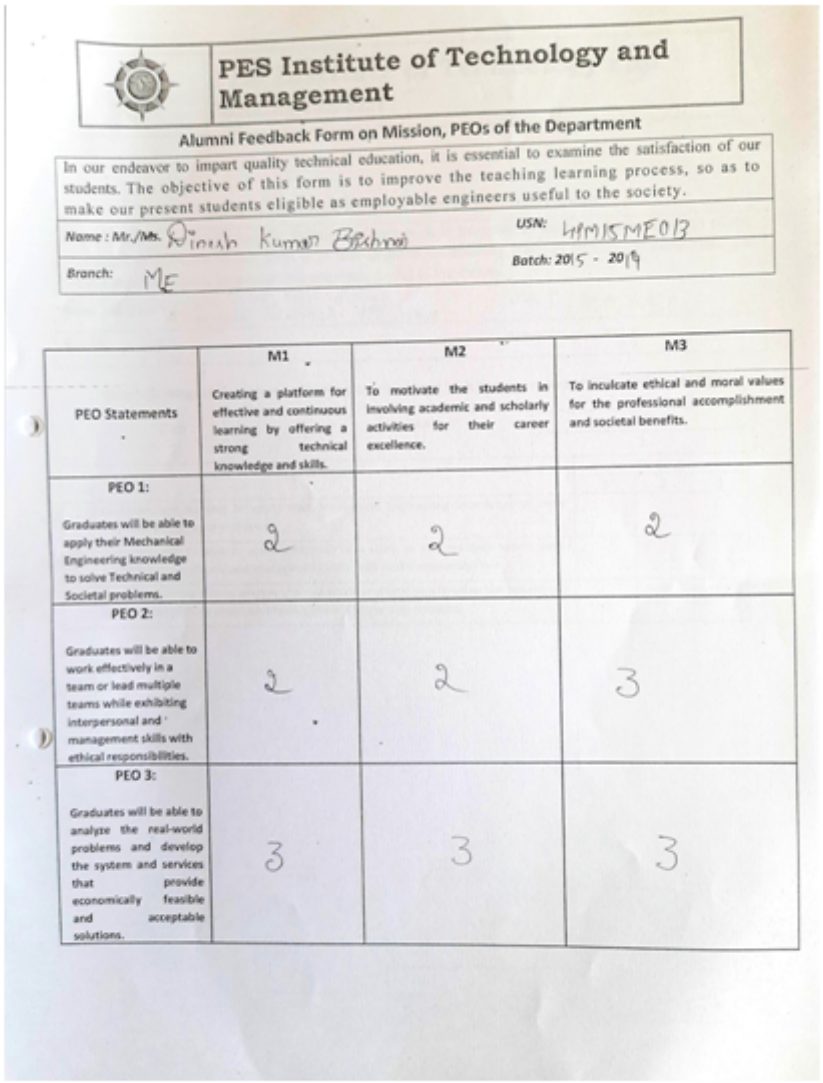
Institute Marks : 11.00

Justification and Rationale of PEO- Department Mission Mapping

Mission statements are the avowed and actively pursued functions of the department with the objective of attaining the stated Program Educational Objectives. The correlation levels of mission statements are given in the PEO-Mission matrix. Justification of the level of pursuit of the mission statements (numbered M1 to M3) is given against each PEO, in the Table1.2. Also, sample copy of the justifcation from Alumni is shown in Figure 1.3.

Table: Justification of PEO-Mission statement

PEO statements	Justification of PEO-Mission Statement Correlation Level
PEO 1: Graduates will be able to apply their Mechanical Engineering knowledge to solve the identified technical and societal problems.	• Good foundation in technical knowledge and skills (M1) needs attention of high level (level 3). Also, awareness of societal benefits (M3) requires high level of attention (level 3) in achieving this objective. • Essential instructions in academic and scholarly activities (M2) are abstemiously focused (level 2).
PEO 2: Graduates will work effectively in a team or lead multiple teams while exhibiting interpersonal and management skills with ethical responsibilities.	• Significant technical information and expertise (M1), Inculcating an attitude of professional accomplishment (M3) are moderately focused (level 2). • Inspiring scholarly activities for their career excellence (M2) need high level of attention (level 3).
PEO 3: Graduates will able to become entrepreneur and innovator to analyze the real-world problems and develop the system and services that provide economically feasible and acceptable solutions.	• Creating platform for continuous learning (M1), involving academic activities at high level (level 3) are needed for attaining this objective. • Consciousness of scholarly activities (M2) and social benefits for real world problems (M3) needs special efforts (level-2).



PES Institute of Technology and Management

Alumni Feedback Form on Mission, PEOs of the Department

In our endeavor to impart quality technical education, it is essential to examine the satisfaction of our students. The objective of this form is to improve the teaching learning process, so as to make our present students eligible as employable engineers useful to the society.

Name : Mr./Ms. Dinesh Kumar Bishnoi USN: 4PM15ME013

Branch: ME Batch: 2015 - 2019

PEO Statements	M1 Creating a platform for effective and continuous learning by offering a strong technical knowledge and skills.	M2 To motivate the students in involving academic and scholarly activities for their career excellence.	M3 To inculcate ethical and moral values for the professional accomplishment and societal benefits.
PEO 1: Graduates will be able to apply their Mechanical Engineering knowledge to solve Technical and Societal problems.	2	2	2
PEO 2: Graduates will be able to work effectively in a team or lead multiple teams while exhibiting interpersonal and management skills with ethical responsibilities.	2	2	3
PEO 3: Graduates will be able to analyze the real-world problems and develop the system and services that provide economically feasible and acceptable solutions.	3	3	3

Figure 1.3: Establish Consistency of PEOs with Mission of the Department.

PEO Statements	M1	M2	M3
Apply their Mechanical Engineering knowledge to solve Technical and Societal problems.	3	2	3
Work effectively in a team or lead multiple teams while exhibiting interpersonal and management skills with ethical responsibilities.	2	2	3
Analyze the real-world problems and develop the system and services that provide economically feasible and acceptable solutions.	3	2	2

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120) Total Marks 89.00

2.1 Program Curriculum (20) Total Marks 16.00

2.1.1 State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexurel. Also mention the identified curricular gaps, if any (10) Institute Marks : 9.00

PES Institute of Technology and Management, Shivamogga is affiliated to Visvesvaraya Technological University (VTU), Belagavi. Therefore, the university prescribes the syllabus/curriculum. The curriculum is designed for with the inclusion of both core and elective courses/subjects. Once in 4 years the curriculum is formulated and reviewed with the help of Board of Studies (BOS) which encompasses a chairman and senior faculty members of the associated department.
The schemes are:

- 2010 scheme
- Choice Based Credit System (CBCS) scheme for the academic year 2015
- Choice Based Credit System (CBCS) scheme for the academic year 2017
- Choice Based Credit System (CBCS) scheme for the academic year 2018

PROGRAM OUTCOMES (POs) as mentioned in Annexure I
Program outcomes point out the engineering graduates will able to gain the knowledge, skills and attitudes in their respective fields at the time of graduation. These program outcomes are common to all engineering programs. These program outcomes are identified by National Board of Accreditation and they are as follows:

PROGRAM OUTCOMES (POs) as mentioned in Annexure I
Program outcomes point out the engineering graduates will able to gain the knowledge, skills and attitudes in their respective fields at the time of graduation. These program outcomes are common to all engineering programs. These program outcomes are identified by National Board of Accreditation and they are as given in table 2,1,1:

Table 2.1.1 Programm outcomes

PO1	**Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
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.
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.
PO4	**Conduct Investigations of Complex problems**: Use research–based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	**Modern Tool Usage**: Create, Select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to mechanical physical components/parts related complex engineering activities with an understanding of the limitations.
PO6	**The Engineer and Society**: Apply Reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development.
PO8	**Ethics**: Apply Ethical Principles and commit to professional ethics, responsibilities, and norms of the engineering practice.
PO9	**Individual and Team Work**: Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary Settings.
PO10	**Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large such as able to comprehend and with write effective reports and design documentation, make effective presentations and give and receive clear instructions.

Program Specific Outcomes:

The program specific outcomes of the department have been defined in consultation with the stake holders based on the vision, mission, PEOs and university curriculum. The program specific outcomes of the department are as follows:

UNIVERSITY CURRICULUM

PO11	**Project Management and Finance**: Demonstrate knowledge and understanding of the engineering management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi disciplinary environments.
PO12	**Life-Long Learning**: Recognize the need for and have the preparation and ability to engage in independent and life-long learning the broadest context of technological change.
PSO1	Graduates shall be able to design and develop efficient Mechanical systems.
PSO2	Graduates shall be able to analyze, interpret and also lead the team in industries to provide feasible solutions to multidisciplinary engineering and societal problems.

The Process used to identify the extent of compliance of the University curriculum for attaining the Program Outcomes (POs) and Program Specific Outcomes (PSOs) is described below.

The program curriculum is categorized into various streams like Basic sciences, Basic engineering courses, Mandatory courses, Professional core courses, professional electives, open electives, project work, seminar and internship.

- Subjects in each stream such as: design, thermal and production are identified.
- Course outcomes (COs) are defined for all the subjects.
- COs are mapped with POs and PSOs.

Basic Sciences and Humanities

The stream includes courses like Engineering Mathematics, Engineering Physics, Engineering Chemistry, Constitution of India & professional ethics, Environmental studies Kannada Kali and Kannada Manasu. These courses form the fundamental basis for all engineering disciplines which provides the basic knowledge on mathematics, physics, chemistry, Indian constitution, professional ethics and importance of environment and communication. The various streams of program curriculum were presented in Table 2.1.

Basic Engineering Courses

The stream includes the courses like Basic electronics, Basic electrical engineering, Programming in C, Computer aided engineering drawing, Elements of mechanical engineering and Elements of civil engineering. These courses provide the fundamental knowledge on all engineering disciplines. Also, it gives basic exposure of all engineering stream so that in future students can correlate mechanical engineering with other streams while working in multidisciplinary environment.

Professional Core Courses

The core areas of mechanical engineering are Production, Design, and Thermal& CAD/CAM/CAE & Robotics.

Production Engineering

Production engineering is a combination of manufacturing technology with management science. The objective is to achieve the production process in the smoothly, most-sensible and cost-effective way. It encompasses the application of castings, machining processing, joining processes, metal cutting & tool design, metrology, machine tools, machining systems, automation, jigs and fixtures, and die and mould design and material science and design of automobile parts and machine designing and manufacturing.

This deals with integrated design and efficient planning of the entire manufacturing system. Subjects cover the following topics under this session are:

i. Metal Casting and Welding
ii Machine Tools and Operations
iii. Foundry Technology
iv. Non Traditional Machining
v. Foundry & Forging Labs
vi. Machine shop
vii. Metrology & Measurement Lab

By studying these courses students will develop technical skills about the manufacturing processes such as casting, extrusion, rolling, welding, turning, milling, shaping, drilling concepts and also have hands on experience to carry out the practical work. Drawing also helps students to design and develop innovative ideas that can be incorporated for future technological development.

Design Engineering

The engineering design process is the set of steps that a designer takes to go from first, identifying a problem or need to, at the end, creating and developing a solution that solves the problem or meets the need. The steps of the engineering design process are defining the problem, do background research, specify the requirements, create alternative solutions, choose the best solution, do development work, build a prototype, test and redesign, etc. Subjects cover the following topics under this session are:

i. Mechanics of Materials
ii. Kinematics of Machines
iii. Design of Machine Elements – I, II
iv. Dynamics of Machines
v. Finite Element Methods
vi. Elemental Stress analysis
vii. Design Lab
vii. Material Testing Lab

The engineering design process is a multi-step process including the research, conceptualization, feasibility assessment, establishing design requirements, preliminary design, detailed design, production planning and tool design, and finally the production.

Thermal Engineering

Thermal engineering deals with the conversion of heat energy between the mediums and into other usable forms of energy. Most of the energy from thermal sources is converted into chemical, mechanical or electrical energy. In order to achieve this, thermal engineers are experts in heat transfer. Some areas a thermal engineer may specialized in solar heating, boiler design or HVAC (heating, ventilation and air conditioning). Subjects that cover the following topics under these categories are:

i. Basic Thermodynamics
ii. Applied Thermodynamics
iii. Turbo Machines
iv. Heat & Mass Transfer
v. Energy Engineering
vi. Fluid Machines Lab
vii. Energy Conversion Lab
viii. Heat & Mass Transfer Lab

It provides a clear and detailed exposition of basic principles of thermodynamics. Concepts like enthalpy, entropy, reversibility, and availability are presented in depth and in a simple manner. Important applications of thermodynamics involve the various engineering cycles and processes which are explained in detail. Introduction to latest topics are enclosed at the end. Each topic is further supplemented with solved problems including problems from Gate, IES Exams, objective questions along with answers, review questions and exercise problems along with answers for an in-depth understanding of the subject.

CAD/CAM/CAE & Robotics along with labs.

This subject is the state-of-the-practice of CAD/CAM/CAE systems which aims to provide a broad, solid understanding of each critical issue involved with the implementation and evaluation of systems; supplies step-by-step explanations of every aspect of implementation, from initial facility planning to long-term maintenance; a study of the proliferation of personal computers and their role in organizations; a discussion of the benefits and drawbacks of value added remarketers as an alternative to purchasing from conventional CAD/CAM companies; Subjects cover the following topics under this session are:

a) Computer Integrated Manufacturing
b) Computer Aided Engineering Drawing Lab
c) Computer Aided Machine Drawing Lab
d) Computer Aided Modelling and Analysis Lab

CAD/CAM/CAE Systems is intended as a guide for software, hardware, mechanical, manufacturing, industrial, and design engineers; draftspersons; managers; purchasing agents, acquisition personnel, and company officers responsible for deciding on CAD/CAM/CAE system implementation or augmentation; and graduate-level and continuing-education students in these disciplines.

Project work technical seminar and internship

The project work, technical seminar and internship are included in final year to provide opportunity for students to develop in understanding the inter-relationship among the courses, develop and demonstrate higher order skills, and to apply the gained knowledge.
The details of subjects prescribed by university program curriculum for 2015 scheme is shown in table 2.1 (a) and various streams of program curriculum mapped with POs and PSOs is shown in table 2.1 (b). The percentage of credits of program curriculum of 2015 scheme is shown if Figure 2.2 (a).

Table 2.2 (a): Various streams of 2015 Scheme program curriculum

Year	Subject	Subject Code	Streams
I Year	Engineering Maths-I	15MAT11	Basic Science
	Physics	15PHY12	Basic Science
	Elements of Civil Engg. & Mechanics	15CIV13	Engineering Science
	Elements of Mechanical Engg.	15EME14	Engineering Science
	Basic Electrical Engineering	15ELE15	Engineering Science
	Computer Aided Engineering Drawing	15CED14	Engineering Science
	Engineering Maths-II	15MAT21	Basic Science
	Engineering Chemistry	15CHE12	Basic Science
	Programming in C & Data Structures	15PCD13	Engineering Science
	Basic Electronics	15ELN15	Engineering Science
	Workshop Practice	15WSL16	Engineering Science
	Computer Programming Laboratory	15CPL16	Engineering Science
	Engineering Physics Lab	15PHYL17	Engineering Science
	Environmental Studies	15CV18/15CV28	Humanities
	Engineering Chemistry Lab	15CHEL17	Basic Science
	Constitution of India & Professional Ethics and Human Rights (CPH)	15CIP18/28	Humanities
II Year	Engineering Mathematics – III	15MAT31	Basic Science
	Materials Science	15ME32	Core Subject
	Basic Thermodynamics	15ME33	Core Subject
	Mechanics of Materials	15ME34	Core Subject
	Metal Casting and Welding	15ME35A	Core Subject

	Machine Tools and Operations	15ME35B	Core Subject
	Computer Aided Machine Drawing	15ME36 A	Core Subject
	Mechanical Measurements and Metrology	15ME36B	Core Subject
	Materials Testing Lab	15MEL37A	Core Subject
	Mechanical Measurements and Metrology Lab	15MEL37B	Core Subject
	Foundry and Forging Lab	15MEL38A	Core Subject
	Machine Shop	15MEL38B	Core Subject
	Engineering Mathematics-IV	15MAT41	Core Subject
	Kinematics of Machinery	15ME42	Core Subject
	Applied Thermodynamics	15ME43	Core Subject
	Fluid mechanics	15ME44	Core Subject
III Year	Management and Engineering Economics	15ME51	Core Subject
	Dynamics of Machinery	15ME52	Core Subject
	Turbo Machines	15ME53	Core Subject
	Design of Machine Elements - I	15ME54	Core Subject
	Non Traditional Machining	15ME554	Core Subject
	Energy and Environment	15ME562	Core Subject
	Fluid Mechanics & Machinery Lab	15MEL57	Core Subject
	Energy Lab	15MEL58	Core Subject
	Finite Element Analysis	15ME61	Core Subject
	Computer integrated Manufacturing	15ME62	Core Subject
	Heat Transfer	15ME63	Core Subject
	Design of Machine Elements -II	15ME64	Core Subject
	Mechanics of Composite Materials	15ME652	Elective Subject
	Automobile Engineering	15ME655	Elective Subject
	Total Quality Management	15ME664	Elective Subject

	Heat Transfer Lab	15MEL67	Core Subject
	Modeling and Analysis Lab(FEA)	15MEL68	Core Subject
IV Year	Energy Engineering	15ME71	Core Subject
	Fluid Power Systems	15ME72	Core Subject
	Control Engineering	15ME73	Core Subject
	Design for Manufacturing	15ME744	Elective Subject
	Tribology	15ME742	Elective Subject
	Mechatronics	15ME753	Elective Subject
	Design Lab	15MEL76	Core Subject
	CIM Lab	15MEL77	Core Subject
	Project Phase – I	15MEP78	Project Work
	Operations Research	15ME81	Core Subject
	Additive Manufacturing	15ME82	Core Subject
	Experimental Stress Analysis	15ME832	Elective Subject
	Project Phase – II	15ME85	Project Work
	Seminar	15MES86	Seminar
	Internship / Professional Practice	15ME84	Internship

Table 2.2 (b): Various streams of 2015 Scheme program curriculum mapped with POs and PSOs

Sl No	Streams	Credits	**POS**	**PSO**
1	Basic Science and Humanities	20	1,2,6,7,8,12	1,2
2	Engineering Science	28	1,2,3,5	1,2
3	Core Subjects	118	1,2,3,4,5,6,7,8,9,10, 11, 12	1,2
4	Elective Subjects	21	1,2,3,4,5,7	1,2
5	Project Work + Seminar + Internship	11	1,2,3,4,5,6,7,8,9,10, 11, 12	1,2
All/Total		198	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	1,2

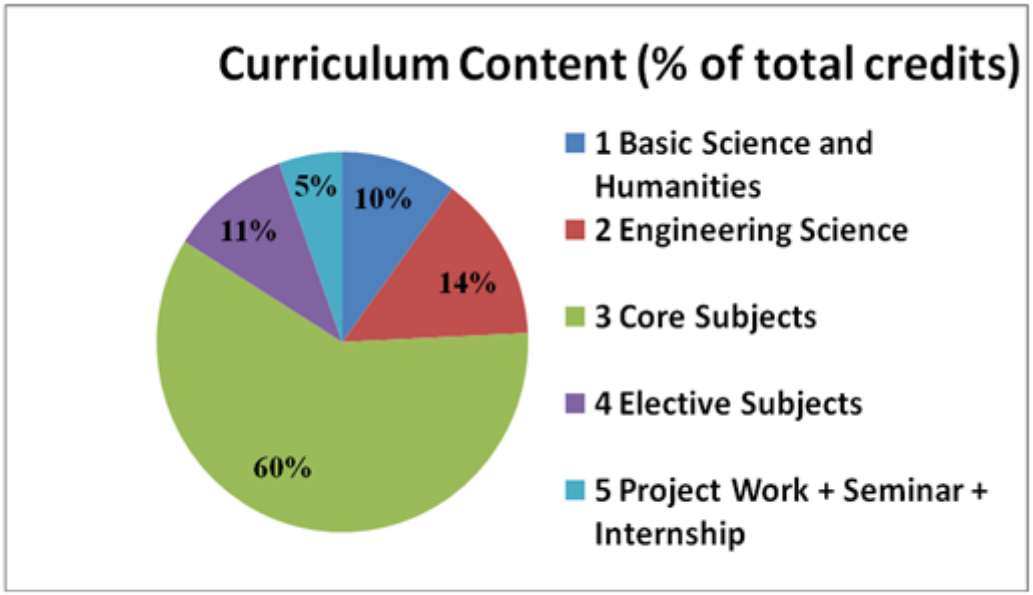


Figure 2.1 (a): Percentage of program curriculum credits for 2015 scheme.

Scheme of Examination prescribed by the University:

Table 2.3: 2014-18 Batch (2010 Scheme of examination)

2010 Scheme	**Marks**		
Examination	**Internal Assessment**	**Semester End Exam**	**Total**
Theory	25	100	125
Laboratory	25	50	75

Table 2.4: 2015-19 Batch(As per Choice Based Credit System (CBCS) scheme)

CBCS Scheme	**Marks**		
Examination	**Internal Assessment**	**Semester End Exam**	**Total**
Theory	20	80	100
Laboratory	20	80	100

Table 2.5: 2017-21 Batch (Choice Based Credit System (CBCS)

CBCS Scheme	**Marks**

Examination	Internal Assessment	Semester End Exam	Total
Theory	40	60	100
Laboratory	40	60	100

Process for Curriculum GAP Analysis

The courses and its contents prescribed in the curriculum are mapped to the relevant POs and PSOs through individual course outcomes (COs). Curriculum gaps are identified by considering the average CO – PO/PSO mapping of all courses from Table 2.2 (a). The GAP analysis was also done based by comparing the university syllabus with IIT's/NIT's syllabus. The processes used for defining and corresponding corrective action for GAP analysis is shown in Figure 2.1. The identified curricular gaps are presented in Table 2.2 (b).

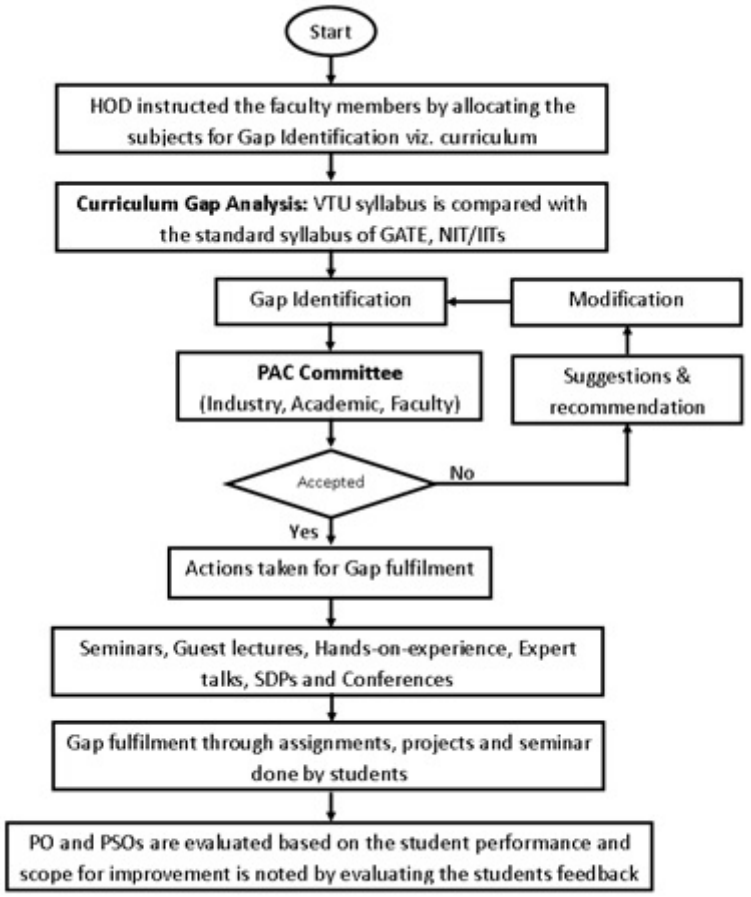


Figure 2.1: Processes to identify the curricular gaps analysis.

Table 2.2 (a): Attriculation CO-PO mapping of all courses for 2015 Scheme.

Subject	Subject Code	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
First Year														
Engineering Maths-I	15MAT11	C101	√	√	√	√								√

Physics	15PHY12	C102	√	√	√	√	√	√	√					
Elements of Civil Engg. & Mechanics	15CIV13	C103	√	√		√								
Elements of Mechanical Engg.	15EME14	C104	√	√	√	√								√
Basic Electrical Engineering	15ELE15	C105	√	√	√									√
Computer Aided Engineering Drawing	15CED14	C106	√	√			√							√
Engineering Maths-II	15MAT21	C107	√	√	√	√								√
Engineering Chemistry	15CHE12	C108	√	√	√	√		√	√					
Programming in C & Data Structures	15PCD13	C109	√	√	√		√							√
Basic Electronics	15ELN15	C110	√	√	√		√		√				√	√
Workshop Practice	15WSL16	C111	√	√							√			
Computer Programming Laboratory	15CPL16	C112	√	√	√	√	√			√	√	√		√
Engineering Physics Lab	15PHYL17	C113	√	√	√	√	√	√	√					
Environmental Studies	15CV18/15CV28	C114	√	√	√	√		√	√					
Engineering Chemistry Lab	15CHEL17	C115	√	√	√									
Constitution of India & Professional Ethics and Human Rights (CPH)	15CIP18/28	C116	√					√		√	√	√		√
Second Year														
Engineering Mathematics – III	15MAT31	C201	√	√	√	√								
Materials Science	15ME32	C202	√	√	√							√		
Basic Thermodynamics	15ME33	C203	√	√		√		√	√					√
Mechanics of Materials	15ME34	C204	√	√	√	√	√	√	√	√				
Metal Casting and Welding	15ME35A	C205	√	√	√			√			√			√
Machine Tools and Operations	15ME35B	C206	√	√										
Computer Aided Machine Drawing	15ME36 A	C207	√	√	√		√							√
Mechanical Measurements and Metrology	15ME36B	C208	√	√				√	√	√		√		√
Materials Testing Lab	15MEL37A	C209	√	√	√	√	√			√	√			
Mechanical Measurements and Metrology Lab	15MEL37B	C210	√					√			√			
Foundry and Forging Lab	15MEL38A	C211	√	√	√	√						√		
Machine Shop	15MEL38B	C212	√	√	√	√					√			√
Engineering Mathematics-IV	15MAT41	C213	√	√	√	√								
Kinematics of Machinery	15ME42	C214	√	√	√						√			
Applied Thermody mics	15ME43	C215	√	√					√					
Fluid mechanics	15ME44	C216	√	√			√							√
Third Year														
Management and Engineering Economics	15ME51	C301	√	√		√				√			√	√
Dynamics of Machinery	15ME52	C302	√	√		√		√						
Turbo Machines	15ME53	C303	√	√		√								
Design of Machine Elements - I	15ME54	C304	√	√	√								√	
Non Traditional Machining	15ME554	C306	√	√			√	√						√
Energy and Environment	15ME562	C307	√					√	√	√				√

Fluid Mechanics & Machinery Lab	15MEL57	C309	√	√	√	√					√			
Energy Lab	15MEL58	C310	√	√	√		√	√	√		√			
Finite Element A lysis	15ME61	C311	√	√	√	√	√	√						√
Computer integrated Manufacturing	15ME62	C312	√	√	√		√							√
Heat Transfer	15ME63	C313	√	√	√	√	√							
Design of Machine Elements -II	15ME64	C314	√	√	√								√	
Mechanics of Composite Materials	15ME652	C315	√	√	√	√	√				√			√
Automobile Engineering	15ME655	C316	√	√				√	√	√				√
Total Quality Management	15ME664	C318	√	√	√		√	√		√		√		√
Heat Transfer Lab	15MEL67	C319	√	√							√			
Modeling and Analysis Lab(FEA)	15MEL68	C320	√	√	√		√	√	√		√			√
Fourth Year														
Energy Engineering	15ME71	C401	√	√				√	√	√				√
Fluid Power Systems	15ME72	C402	√	√			√							
Control Engineering	15ME73	C403	√	√	√		√							
Design for Manufacturing	15ME744	C404	√	√	√	√		√	√	√	√	√	√	√
Tribology	15ME742	C405	√	√	√				√					
Mechatronics	15ME753	C406	√	√	√				√	√		√	√	
Design Lab	15MEL76	C407	√	√	√	√	√	√	√					√
CIM Lab	15MEL77	C408	√	√	√		√							√
Project Phase – I	15MEP78	C409	√	√	√		√	√	√	√	√		√	√
Operations Research	15ME81	C410	√	√	√			√					√	
Additive Manufacturing	15ME82	C411	√	√	√	√							√	
Experimental Stress Analysis	15ME832	C412	√	√	√	√					√			
Project Phase – II	15ME85	C413	√	√	√	√	√	√	√	√	√	√	√	√
Semir	15MES86	C414	√	√		√		√	√		√			
Internship / Professional Practice	15ME84	C415	√	√		√			√		√			√
Number of Subjects Mapped			**63**	**60**	**42**	**29**	**24**	**25**	**22**	**14**	**19**	**9**	**10**	**30**

Table 2.2 (a): Attriculation CO-PSO mapping of all courses for 2015 Scheme.

Subject	Subject Code	Course Code	PS01	PS02
First Year				
Engineering Maths-I	15MAT11	C101		
Physics	15PHY12	C102		
Elements of Civil Engg. & Mechanics	15CIV13	C103		
Elements of Mechanical Engg.	15EME14	C104	√	√
Basic Electrical Engineering	15ELE15	C105		
Computer Aided Engineering Drawing	15CED14	C106	√	√
Engineering Maths-II	15MAT21	C107		
Engineering Chemistry	15CHE12	C108		

Programming in C & Data Structures	15PCD13	C109		
Basic Electronics	15ELN15	C110		
Workshop Practice	15WSL16	C111	√	√
Computer Programming Laboratory	15CPL16	C112		
Engineering Physics Lab	15PHYL17	C113		
Environmental Studies	15CV18/15CV28	C114		
Engineering Chemistry Lab	15CHEL17	C115		
Constitution of India & Professional Ethics and Human Rights (CPH)	15CIP18/28	C116		
Second Year				
Engineering Mathematics – III	15MAT31	C201	√	√
Materials Science	15ME32	C202	√	
Basic Thermodynamics	15ME33	C203	√	√
Mechanics of Materials	15ME34	C204	√	√
Metal Casting and Welding	15ME35A	C205	√	√
Machine Tools and Operations	15ME35B	C206	√	
Computer Aided Machine Drawing	15ME36 A	C207	√	√
Mechanical Measurements and Metrology	15ME36B	C208	√	√
Materials Testing Lab	15MEL37A	C209	√	√
Mechanical Measurements and Metrology Lab	15MEL37B	C210	√	
Foundry and Forging Lab	15MEL38A	C211	√	
Machine Shop	15MEL38B	C212	√	√
Engineering Mathematics-IV	15MAT41	C213	√	√
Kinematics of Machinery	15ME42	C214	√	√
Applied Thermody mics	15ME43	C215	√	√
Fluid mechanics	15ME44	C216	√	√
Third Year				
Management and Engineering Economics	15ME51	C301	√	√
Dynamics of Machinery	15ME52	C302	√	√
Turbo Machines	15ME53	C303	√	√
Design of Machine Elements - I	15ME54	C304	√	√
Non Traditional Machining	15ME554	C306	√	
Energy and Environment	15ME562	C307		√
Fluid Mechanics & Machinery Lab	15MEL57	C309	√	√
Energy Lab	15MEL58	C310	√	√
Finite Element A lysis	15ME61	C311	√	√

Computer integrated Manufacturing	15ME62	C312	√	√
Heat Transfer	15ME63	C313	√	√
Design of Machine Elements -II	15ME64	C314	√	√
Mechanics of Composite Materials	15ME652	C315	√	√
Automobile Engineering	15ME655	C316	√	
Total Quality Management	15ME664	C318	√	√
Heat Transfer Lab	15MEL67	C319	√	√
Modeling and Analysis Lab(FEA)	15MEL68	C320	√	√
Fourth Year				
Energy Engineering	15ME71	C401	√	√
Fluid Power Systems	15ME72	C402	√	√
Control Engineering	15ME73	C403	√	√
Design for Manufacturing	15ME744	C404	√	√
Tribology	15ME742	C405	√	√
Mechatronics	15ME753	C406	√	√
Design Lab	15MEL76	C407	√	√
CIM Lab	15MEL77	C408	√	√
Project Phase – I	15MEP78	C409	√	√
Operations Research	15ME81	C410	√	√
Additive Manufacturing	15ME82	C411	√	√
Experimental Stress Analysis	15ME832	C412	√	√
Project Phase – II	15ME85	C413	√	√
Semir	15MES86	C414	√	√
Internship / Professional Practice	15ME84	C415	√	√
Number of Subjects Mapped			**62**	**55**

Table 2.2 (b): The identified curricular gaps

Sl. No.	POs	List of Gap Indentified
1	6	Apply design, thermal and manufacturing concepts towards safety issues for mechanical components under service condition.
2	7	Development of Machines for environmental sustainable.
3	8	Follow the professional ethics and responsibility related to the design, thermal and production fields.
4	9	To achieve final finished products through team work.
5	10	Communicate effectively on the projects reports.
6	11	Management principles and handling finance to manage the projects.

2.1.2 State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10) Institute Marks : 7.00

2018-19

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Subject: Composite Materials GAP: Practical Exposure on Manufacturing Techniques of Composites.	Hands on session on Demonstration of manufacturing of composite	16/09/2018	Mahantesh M R Assistant Professor, PESITM Shivamogga	90	POs = PO1, PO6, PO9, PO10; PSOs = PSO1
2	Subject: Manufacturing Process GAP: Practical orientation on Casting	Practical demonstration	27/09/2018	Mr. Ashok R. Banagar Mr. Ganesh U L Mr. Vinod V Rampur Assistant Professor, PESITM Shivamogga	100	POs = PO1, PO7, PO9; PSOs = PSO1, PSO2
3	Subject: Total Quality Management GAP: study of organizational data using analytical and experimental methods.	Case studies of various organizations	05/10/2018	Vinod V Rampur, Assistant Professor	90	POs = PO1, PO8, PO9, PO10, PO11; PSOs = PSO1
4	Subject: Experimental stress analysis GAP: Experimental conduction of photoelastic materials to identify the fringe orders for measuring the principal stresses using Poloriscope.	Practical demonstration	18/10/2018	Santosh M B, Assistant Professor, PESITM Shivamogga	85	POs=PO1, PO2, PO8, PO9; PSOs = PSO1, PSO2

5	Subject: Automation and Robotics GAP: Practical exposure on Automation.	Technical talk on Automation	12/02/2019	Harshavardhan R Herigoudar,	80	POs = PO1, PO8, PO9; PSOs = PSO1, PSO2
6	Subject: Kinematics of Machines GAP: Identification of davis steering mechanisms	Prcatical demo & simulation of various mechanism deliverd videos	15/02/2019	Prasanna Nayak Assistant Professor, PESITM Shivamogga	90	POs = PO1, PO2, PO6, PO7, PO9, PO11; PSOs = PSO1, PSO2
7	Subject: Heat and Mass Transfer GAP: Practical exposure related to conversion of Heat & Work.	Demonstration of energy conversion through experiments	22/02/2019	Ajey C P Assistant Professor, PESITM Shivamogga	80	POs = PO1, PO2, PO6, PO8; PSOs = PSO1

2017-18

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Subject: Applied Thermodynamics GAP: Fuels and requirements in future	Technical Talk on “Fuel for Future”	25/09/2017	Dr. G P Prabhukumar, Retd. Principal and Professor of UBTCE, Davangere.	90	POs = PO5, PO6, PO10, PO11; PSOs = PSO1
2	Subject: Manufacturing Process GAP: Casting in future	Technical Talk on “Cast your future with casting”	13/10/2017	Mr.Chandrashekhar, Managing Director, Spherocast Pvt. Ltd. Shivamogga.	85	POs = PO1, PO9, PO11; PSOs = PSO1
3	Subject: Applied thermodynamics GAP: Cryogenic insulators	Technical Talk	23/10/2017	Dr. S L Bapat, Professor, IIT Bombay.	90	POs = PO1, PO6, PO7; PSOs = PSO1
4	Subject: Energy Engineering GAP: Renewable Energy Sources	Expert Talk	08/11/2017	Sri. H Raghavendra Prabhu, Sri. Vishnu Chinagundi, Sri S N Jayaram, KSCST, Bangalore.	85	POs = PO1, PO6, PO7, PO11; PSOs = PSO1
5	Subject: Automotive Engineering GAP: Combustion in I C Engine	Technical Talk	26/02/2018	Dr. G P Prabhukumar, Retd. Principal and Professor of UBTCE, Davangere.	92	POs = PO1, PO6, PO7, PO9; PSOs = PSO1
6	Subject: Computer Aided Machine Drawing GAP: Part Modeling using CATIA	Training on solid and surface Modeling	02/03/2018	Mr. Preetham Annappa , Trainer, Cyber Metrics Solutions, Bangalore.	86	POs = PO1,PO5, PO11, PO12; PSOs = PSO1, PSO2

2016-17

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Subject: Automobile Engineering GAP: Hands on experience on IC Engines.	Signifying the prominence of Bio-Fuel	10/08/2016	Dr Basavarajappa, Professor, PESITM, Shivamogga.	80	POs = PO1, PO6, PO7, PO12; PSOs = PSO1, PSO2
2	Subject: Computer Aided Machine Drawing GAP: Part Modeling using CATIA	Training on solid and surface Modeling	03/03/2017	Mr. M S Sudarshan, Director, MSM consultancy services, Bangalore.	85	POs = PO1, PO5, PO8, PO9 PO11, PO12; PSOs = PSO1, PSO2
3	Subject: Computer Aided Machine Drawing GAP: Basic knowledge of getting employability in modeling software	Technical talk on getting employable and staying employable	12/03/2017	G V Dasarathi Director CADEM technologies, Banaglore.	80	POs = PO1, PO5, PO11, PO12; PSOs = PSO1, PSO2
4	Subject: Automobile Engineering GAP: Hands on experience on IC Engines.	Two days workshop on Advances in IC Engine	31/03/2017	Dr Banapur Math Professor, BVB college of Engineering, Hubli. and Dr Ananad M Shivapuji Senior scientist, IISc Bangalore	80	POs = PO1, PO6, PO7, PO10, PO11, PO12; PSOs = PSO1, PSO2

2.2 Teaching - Learning Processes (100) Total Marks 73.00

2.2.1 Describe processes followed to improve quality of Teaching & Learning (25) Institute Marks : 16.00

The academic planning begins with university calendar which depicts the semester beginning, last working day, tentative schedule of practical and theory examination. The process of defining teaching learning process is presented in the Figure 2.3

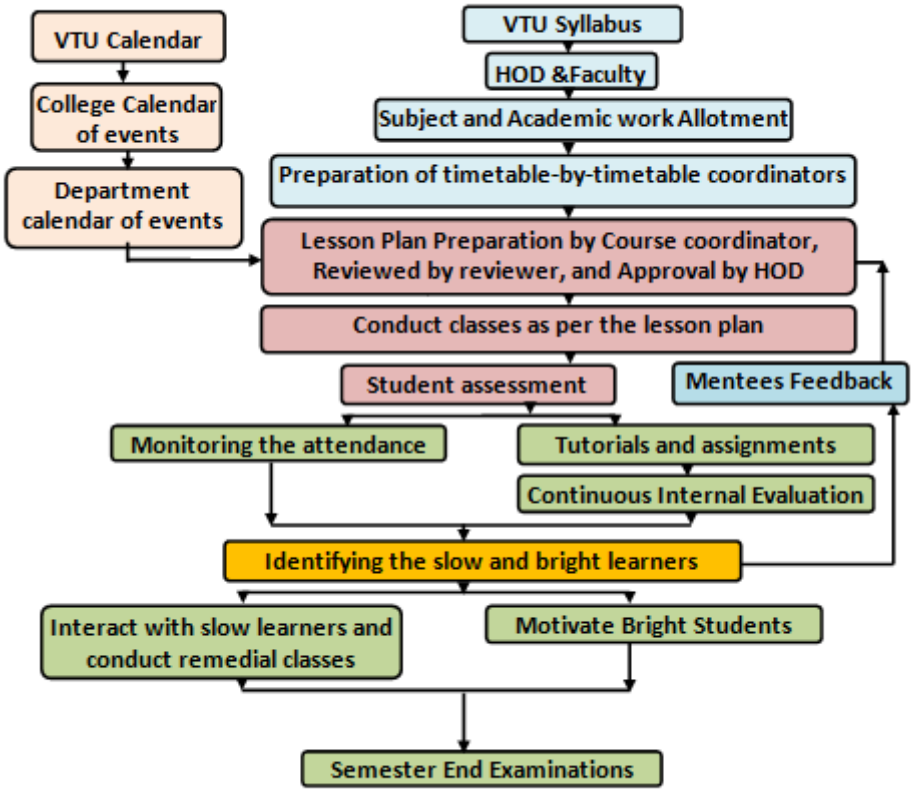


Figure 2.3: Process for Teaching Learning Process.

A. Visvesvaraya Technological University Academic calendar

Visvesvaraya Technological University (VTU) academic calendar is prepared at the beginning of the semester by the university and sent to the College. Figure 2.4 show the academic calendar for ODD semester of 2018-2019. This calendar contains the information pertaining to semester beginning and last working day, tentative schedule of practical and theory examination dates. In similar manner, the university prepare every year academic calendar for both the even and odd semester and send to the college.

B. College and department calendar of events

The college academic calendar is prepared in-line with the VTU calendar. The departmental calendar is prepared by referring both VTU and college academic calendars. The Figure 2.4 shows the college and departmental academic calendar of events. This calendar contains general holidays and academic activities. In turn, the academic activities enclosed the dates of three internal assessments, departmental activities such as: faculty development program, student development program, NSS program *etc*. In similar mode the college and departmental calendar of events were made at the very beginning of even and odd semester and distributed to all faculty members.

VTU Calendar

Visvesvaraya Technological University Belagavi

Academic Calendar for ODD Semester of 2018-2019 (Aug 2018 – Jan 2019)

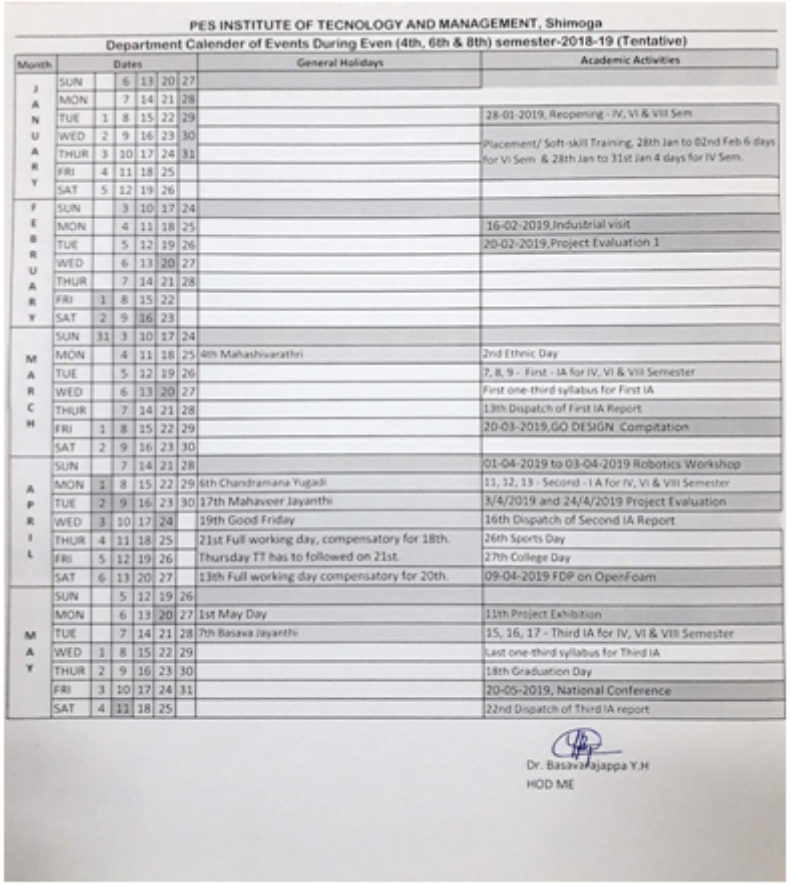
	I Sem B.E/B.Tech/ B.Arch	III, V Sem B.E/B.Tech III, V VII, & IX Sem B.Arch	VII Sem B.E / B.Tech	III & V Sem MCA	III Sem MBA	III Sem M.Tech	III Sem M.Arch.
Commencement of ODD Semester	13.08.2018	01.08.2018	06.08.2018	01.08.2018	01.08.2018	01.08.2018 [Internship of 16 Weeks]	10.09.2018
Last Working day of ODD Semester	17.01.2019 [Includes 3 Weeks Induction Program]	30.11.2018	04.12.2018	30.11.2018	30.11.2018	30.11.2018	05.01.2019
Practical Examination	21.01.2019 To 30.01.2019	03.12.2018 To 14.12.2018	06.12.2018 To 14.12.2018	03.12.2018 To 07.12.2018	-	-	-
Theory Examinations	04.02.2019 To 18.02.2019	17.12.2018 To 18.01.2019	17.12.2018 To 18.01.2019	10.12.2018 To 28.12.2018	05.12.2018 To 29.12.2018	05.12.2018 To 22.12.2018	09.01.2019 To 22.01.2019
Summer Project / Professional training	-	-	-	-	03.01.2019 To 16.02.2019 [Submission of report to VTU by 08.03.2019]	-	23.07.2018 To 07.09.2018 [Professional training]
Commencement of EVEN Semester	25.02.2019	01.02.2019	01.02.2019	01.02.2019	18.02.2019	28.12.2018	01.02.2019

NOTE.

- VII Semester B.E / B.Tech students shall have to undergo **Internship** for a period of four Weeks.
- I Semester B.E/ B.Tech / B.Arch Students shall compulsorily undergo **Induction Program** for a period of 3 Weeks as per the schedule given by VTU.

1. The faculty/staff shall be available to undertake any work assigned by the university.
2. If any of the above date is declared to be a holiday then the corresponding event will come into effect on the next working day.
3. Notification regarding Calendar of Events relating to the conduct of University Examination will be issued by the Registrar (Evaluation) from time to time.

REGISTRAR



PES INSTITUTE OF TECNOLOGY AND MANAGEMENT, Shimoga

Department Calender of Events During Even (4th, 6th & 8th) semester-2018-19 (Tentative)

Month		Dates						General Holidays	Academic Activities
JANUARY	SUN		6	13	20	27			
	MON		7	14	21	28			
	TUE	1	8	15	22	29			28-01-2019, Reopening - IV, VI & VIII Sem
	WED	2	9	16	23	30			Placement/ Soft-skill Training, 28th Jan to 02nd Feb 6 days for VI Sem & 28th Jan to 31st Jan 4 days for IV Sem.
	THUR	3	10	17	24	31			
	FRI	4	11	18	25				
	SAT	5	12	19	26				
FEBRUARY	SUN		3	10	17	24			
	MON		4	11	18	25			16-02-2019,Industrial visit
	TUE		5	12	19	26			20-02-2019,Project Evaluation 1
	WED		6	13	20	27			
	THUR		7	14	21	28			
	FRI	1	8	15	22				
	SAT	2	9	16	23				
MARCH	SUN	31	3	10	17	24			
	MON		4	11	18	25		4th Mahashivarathri	2nd Ethnic Day
	TUE		5	12	19	26			7, 8, 9 - First - IA for IV, VI & VIII Semester
	WED		6	13	20	27			First one-third syllabus for First IA
	THUR		7	14	21	28			13th Dispatch of First IA Report
	FRI	1	8	15	22	29			20-03-2019,GO DESIGN Competation
	SAT	2	9	16	23	30			
APRIL	SUN		7	14	21	28			01-04-2019 to 03-04-2019 Robotics Workshop
	MON	1	8	15	22	29		6th Chandramana Yugadi	11, 12, 13 - Second - I A for IV, VI & VIII Semester
	TUE	2	9	16	23	30		17th Mahaveer Jayanthi	3/4/2019 and 24/4/2019 Project Evaluation
	WED	3	10	17	24			19th Good Friday	16th Dispatch of Second IA Report
	THUR	4	11	18	25			21st Full working day, compensatory for 18th.	26th Sports Day
	FRI	5	12	19	26			Thursday TT has to followed on 21st.	27th College Day
	SAT	6	13	20	27			13th Full working day compensatory for 20th.	09-04-2019 FDP on OpenFoam
MAY	SUN		5	12	19	26			
	MON		6	13	20	27		1st May Day	11th Project Exhibition
	TUE		7	14	21	28		7th Basava Jayanthi	15, 16, 17 - Third IA for IV, VI & VIII Semester
	WED	1	8	15	22	29			Last one-third syllabus for Third IA
	THUR	2	9	16	23	30			18th Graduation Day
	FRI	3	10	17	24	31			20-05-2019, National Conference
	SAT	4	11	18	25				22nd Dispatch of Third IA report

Dr. Basavarajappa Y.H
HOD ME

Figure 2.4: College and Departmental Calendar.

C. Subject and academic work allotment

The departmental subject and academic work allotment meeting is held after the end of the semester to allot the subjects for next semester commencement. The subjects were allotted to the faculty members based on their respective specialization and experience. At the same time academic work allotment were made and informed to the faculty members. The concerned academic work (additional responsibilities) allotments for individual faculty were displayed in the timetable. The Lesson plan, COs, mapping of COs and POs are prepared by the subject-handling faculty members in consultation with the department subject experts before the commencement of the semester and is duly approved by the head of the department which are made available to the students. The sample copy of class time table and individual faculty lesson schedule is shown in Figure 2.5. According to the lesson plan, work done is included in the academic file to ensure coverage of syllabus and duly monitored by the head of the department.

Class Time Table

PES Institute of Technology and Management

Issue/ Rev. No: 3.0/R0	Date: 15/12/2016	Page: 1 of 1	Form No: R/PP-03/TLIA-04

DEPARTMENT OF MECHANICAL ENGINEERING

Semester: VI 'B' — With Effect from: 28-01-2019

CLASS TIME TABLE

Class Room: LH – 01 [GROUND FLOOR] — Class Teacher: Mr. Prasanna Nayak H.

DAY/TIME PES	8:00-9:00	9:00-10:00	10:00-10:30	10:30-11:30	11:30-12:30	12:30-1:30	1:30-2:30	2:30-3:30	3:30-4:30
MON	FEM	DME-II	BREAK	CIM	MCM/AE	LUNCH BREAK	TQM	FORUM ACTIVITIES	
TUE	DME-II	CIM		MCM/AE	FEM		HT	TQM	FORUM ACTIVITIES
WED	CIM	FEM		DME-II	TQM		DME-II	HT	FORUM ACTIVITIES
THU	TQM	HT		MCM/AE	FEM		B1 – HT LAB B2 – FEA LAB B3 –MENTORING/NPTEL		
FRI	MCM/AE	DME-II		FEM	CIM		B2 – HT LAB B3 – FEA LAB B1 – MENTORING/NPTEL		
SAT	HT	HT		B3 – HT LAB B1 – FEA LAB B2 – MENTORING/NPTEL					

SUB CODE	SUBJECT	FACULTY
15ME61	Finite Element Method [FEM]	Mr. Prasanna Nayak H. [PNH]
15ME62	Computer Integrated Manufacturing [CIM]	Mr. Vinod V. Rampur [VVR]
15ME63	Heat Transfer [HT]	Mr. Ajey C. P. [ACP]
15ME64	Design of Machine Elements – II [DME – II]	Mr. Mujeebur Rehman [MR]
15ME652	Mechanics of Composite Materials [MCM]	Mr. Ashok R. Banagar [ARB]
15ME655	Automotive Engineering [AE]	Mr. Shivanand D. C. [SDC]
15ME664	Total Quality Management [TQM]	Dr. Manjunath Patel G. C. [Dr. MPGC]
15MEL67	Heat Transfer Lab [HT Lab]	B1 – Mr. Ajey C P + Mr. Abhishek C R B2 – Mr. Abhishek C R + Mr. Ajey C P B3 – Mr. Rajashekhar M C + Mr. Kiran Kumar K
15MEL68	Modeling and Analysis Lab [FEA Lab]	B1 – Mr. Mujebur Rehman + Mr. Amruth M B2 – Mr. Ashok R Banagar + Mr. Ganesh U. L. B3 – Mr. Santosh M B + Mr. Amruth M

24.01.19
Coordinator
Mr. Ashok R. Banagar

Dasevarajappa Y. H.

Principal
Dr. Chaitanya Kumar M. V.

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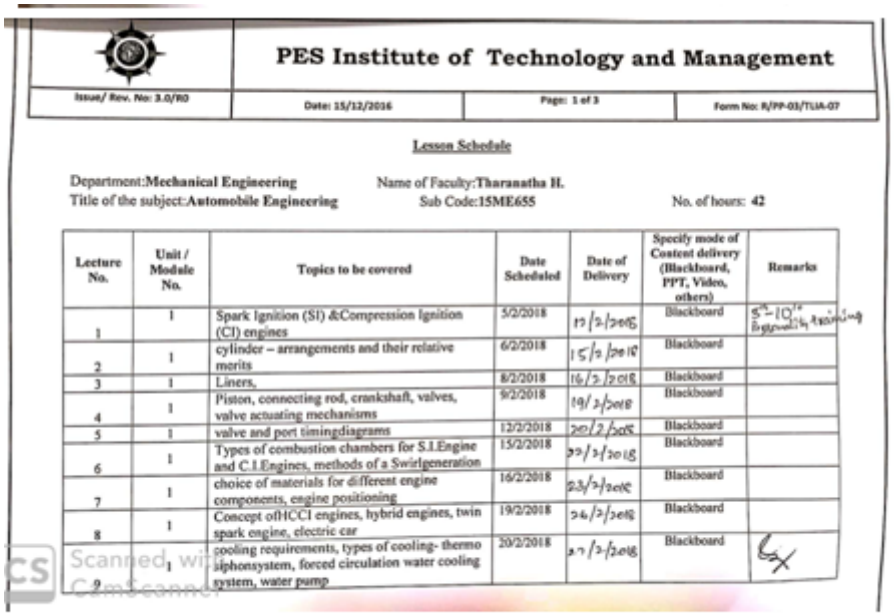
Lesson Schedule



PES Institute of Technology and Management

Issue/ Rev. No: 3.0/R0	Date: 15/12/2016	Page: 1 of 3	Form No: R/PP-03/TLIA-07

Lesson Schedule

Department:Mechanical Engineering Name of Faculty:Tharanatha H.
Title of the subject:Automobile Engineering Sub Code:15ME655 No. of hours: 42

Lecture No.	Unit / Module No.	Topics to be covered	Date Scheduled	Date of Delivery	Specify mode of Content delivery (Blackboard, PPT, Video, others)	Remarks
1	1	Spark Ignition (SI) &Compression Ignition (CI) engines	5/2/2018	12/2/2018	Blackboard	
2	1	cylinder – arrangements and their relative merits	6/2/2018	15/2/2018	Blackboard	
3	1	Liners,	8/2/2018	16/2/2018	Blackboard	
4	1	Piston, connecting rod, crankshaft, valves, valve actuating mechanisms	9/2/2018	19/2/2018	Blackboard	
5	1	valve and port timingdiagrams	12/2/2018	20/2/2018	Blackboard	
6	1	Types of combustion chambers for S.I.Engine and C.I.Engines, methods of a Swirlgeneration	15/2/2018	22/2/2018	Blackboard	
7	1	choice of materials for different engine components, engine positioning	16/2/2018	23/2/2018	Blackboard	
8	1	Concept ofHCCI engines, hybrid engines, twin spark engine, electric car	19/2/2018	26/2/2018	Blackboard	
9	1	cooling requirements, types of cooling- thermo siphonsystem, forced circulation water cooling system, water pump	20/2/2018	27/2/2018	Blackboard	

Figure 2.5: Sample copy of the class time table and individual lesson schedule

D. Conduct classes as per the lesson plan

The lesson plan of each subjects were given to the students well in advance before the commencement of the semester. The various teaching methods follow to deliver the course subject by the faculty members are listed below:

- Chalk and talk.
- Power point presentation (PPT)
- Demonstration through charts/models/equipments .
- Group discussion/Quiz.
- Tutorials.
- Seminars/Expert talks.

The above teaching methods are explained:

Table 2.4: Teaching method adopted for a course

Chalk and talk	Faculty members conduct chalk and talk method in a class room creates a conversation, mutual opinions and comments among students through writing on black board. This method provides visible thinking and opportunity to reflect every student on what they know related to the syllabus.
Power point presentation (PPT)	Power point presentation method provides encouragement and support to the students by facilitating the structuring of contents in a professional manner with an aid of images and videos.

Demonstration through charts/ models/equipments	Charts/Models/Equipments of teaching aid helps large number of students to learn more easily and effectively by exposing them on practical aspects of theory studied in classrooms.
Group Discussion/Quiz	Group discussion/Quiz is an important activity in academic. It is a systematic and purposeful interactive oral process. Here the exchange of ideas, thoughts and feelings take place through oral communication. The exchange of ideas takes place in a systematic and structured way in classroom.
Tutorials	Tutorials help the students in analyzing and solving the engineering problems based on the theory dealt during lectures. The tutorial sessions makes the concept clear to the students.
Seminars	Students are made to present a seminar during their academic year. In this, the students are supposed to present on a particular topic by referring to various books, reputed Journals of National and International.

E. The student academic assessment

The scheme for student academic assessment was set by the university. Following are the various schemes set by university from 2010 to till date:

- For 2018 scheme: Academic assessment year 2018-2019. Continuous Internal Evaluation (40 Marks) and Semester End Examination (60 Marks).
- For 2017 scheme: Academic assessment year 2017-2018. Continuous Internal Evaluation (40 Marks) and Semester End Examination (60 Marks).
- For 2015 scheme: Academic assessment year 2015-2016. Continuous Internal Evaluation (20 Marks) and Semester End Examination (80 Marks).
- For 2010 scheme: Academic assessment year 2010-2011. Continuous Internal Evaluation (25 Marks) and Semester End Examination (100 Marks).

According to 2018 and 2017 scheme for theory and practical exams, the continuous internal evaluation (CIE) consists of 40 marks and 60 marks for semester end exam (SEE). The CIE, 40 marks for each theory subjects, 30 marks will be allotted by considering the average of three internal test and 10 marks allocation for assignments/seminars/quiz prescribed by the university. The practical of 40 marks include record write-up, conduction of experiments, and internal examination on the same. For 60 marks of theory SEE, students must write five full questions, selecting one full question from each module carrying 20 marks. Later the 100 marks will be converted to 60 marks. The SEE practical will be conducted for 100 marks and reduced to 60 marks. However, in 2015 scheme, 20 marks will be allotted to CIE and 80 marks to SEE both for theory and practical subjects. For 2010 scheme, there shall be a maximum of CIE 25 Marks in each theory & practical subject comprising a maximum of SEE 100 marks for theory and 50 marks practical lab sessions. For both 2015 and 2010 scheme, three internal tests are offered to the student, after the evaluation an average marks consisting of best two tests of internal marks will be considered.

F. Methodologies to support weak students and encourage bright students:

Guidelines to identify weak students

The slow learners and bright students are identified based on their overall performance in university exams and continuous internal assessment marks. The Counsellors or mentors regularly conduct meetings regarding the progress of their mentees and are responsible to identify the students who scored less than 60% marks in their internals. Under the HOD direction, the students Counselors evaluates the progress card of those students who score below 60% marks in 3 or more subjects and below 75% attendance are intimated to their parents. The respective subject teachers decide the course of action needed to improve the performance of academically weak students. The process used to identify the slow learners and bright students is shown in Figure 2.6.

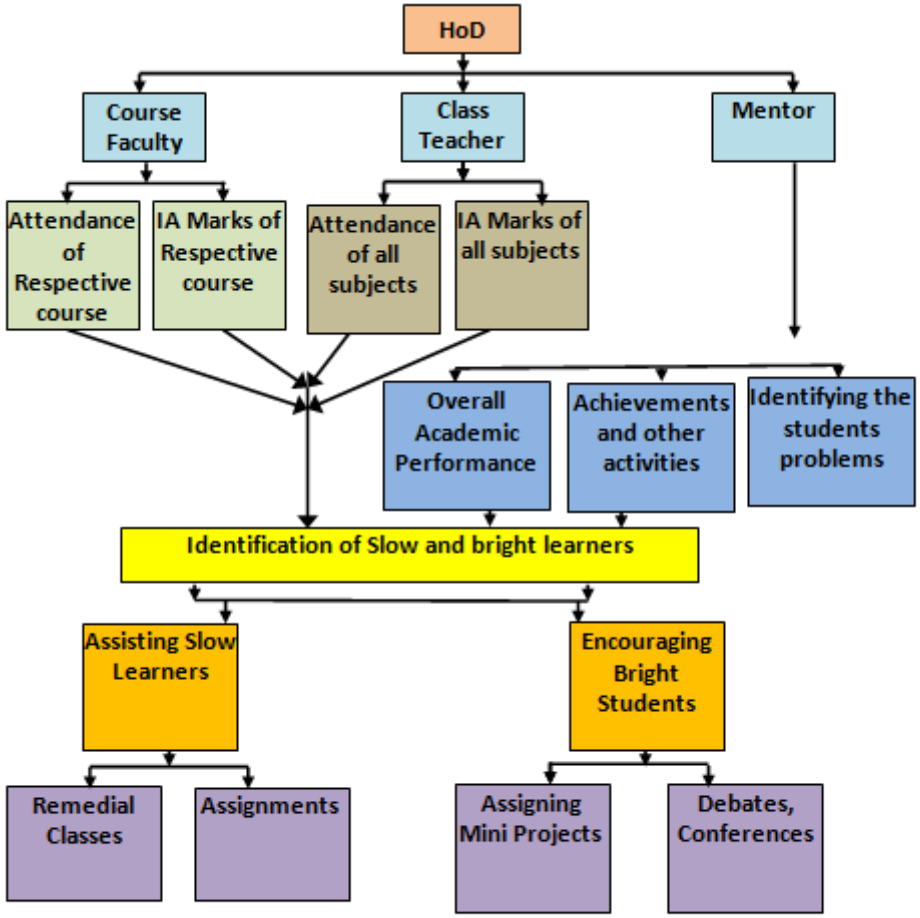


Figure 2.6: Process to identify slow and bright learners

Guidelines to identify the slow learners and action taken for their improvements are presented in Table 2.5

Table 2.5 Process for identifying slow learners and corresponding action taken

Identification Criteria	Actions taken
Students scoring less than 60% of marks in Internal Assessment	• Student counselor follows their Progress regularly advising students about attending classes, making up classes missed, and getting additional help. • Intimating parents to counsel their wards. • Conduction of remedial classes.
Diploma students who entered with less basics of mathematics.	• Conduction of remedial classes

Students who fail in semester exams	• Conduction of extra classes to those who failed in previous semester subjects.

Guidelines to identify the fast learners and motivation for further improvements are presented in Table 2.6

Table 2.6 Process for identifying fast learners and action taken for further improvements

Identification Criteria	Actions taken
Students promoted with First Class Distinction (FCD) in their Semester exams.	They are encouraged to take up mini projects and participate in inter college.
Top five students of each section	Book Coupons worth of Rs. 750 will be given

G. Feedback from students on teaching learning process and actions taken

At the end of the semester, all the students are required to fill a feedback-form apprising the faculty using a scale of 1 (high) to 10 (low). Classes are supervised by senior Professors and the HOD of the department. They give constructive comments to improve the quality of teaching and the teaching-learning process. Based on the feedback the HOD counsels the faculty members who have secured low scores and negative comments, if any, in the feedback. This motivates them to improve their skills and abilities. The training / orientation programs are conducted by professional experts to master the skills.

H. Improve teaching learning

Following are the steps explained improvement in teaching learning processes:

i) Quality of classroom teaching

The following teaching methods are adopted by the faculty:

- Well-structured lesson plans are prepared and executed for all theory and practical courses, reviewed by Reviewer and HOD.
- LCD Projectors are used as teaching aids.
- National Programme on Technology Enhanced Learning (NPTEL) videos and other video resources, internet sources for effective teaching
- Faculties are encouraged to register for NPTEL advanced courses and get online certifications.

ii) Maintenance of Course files

A course file is prepared by the concerned faculty who is handling the subjects. The course file includes the following documents:

- **Calendar of events:** It includes university, college and department calendar of events.
- **Time table:** Time table includes the clear schedule of the subjects and labs allotted to the faculty.
- **Syllabus copy attested by HOD:** After the subject allotment, attested syllabus copy will be issued to the concerned faculties.
- **Previous university question papers:** The faculty members will maintain the photocopy of the previous year question papers in their course file.
- **Lesson plan:** Lesson plan is prepared for each lecture hour in the teaching plan by the course coordinator before the commencement of the semester, which will be reviewed and approved by the head of the department. The lesson plan includes pre-requisites for the course, course objectives, and course outcomes.
- **Question Bank:** Question banks are prepared in line with the university question papers.
- **Tutorial:** Tutorial contains module wise questions which will be discussed before the Internal Assessment.
- **Internal question papers with scheme:** Test question papers with scheme prepared by the course coordinator, reviewed by the reviewer and approved by HOD.

iii) Conduction of Laboratory Experiments and Continuous Assessment in laboratory

Laboratory Experiment Conduction

- Lab in charge of respective lab will prepare the manuals, material requirements, conduction of experiments and cycle of experiments before commencement of semester.
- The Laboratories are conducted in sessions of 3 hours prescribed by the university curriculum. In each session the faculty explains the procedure, theory, calculations and applications of the experiment.
- The students will write the necessary details in the observation book, and then conducts the experiment, tabulate the readings, calculate and evaluate the results
- The calculated results are represented in the form of graphs and documented in the record book by the students, and are evaluated by concerned faculty.
- The experiments are evaluated by the faculties according to lab rubrics developed.

Continuous Assessment
The evaluation is made based on submission of laboratory observations, records, conduction, and viva-voce of the student. Internal test is conducted at the end of the semester and evaluated as per Laboratory Rubrics.

2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20) Institute Marks : 15.00

Process for Internal Semester Question Paper setting and evaluation and effective process implementation
Process for conduction of internal assessment

- The department conducts three internal assessments as per college academic calendar. Also, department identifies internal question paper review committee members and instruct to check the internal assessment papers according to the format and revised blooms level.
- The test coordinator prepare internal assessment timetable and circulate the same to the staff and students and will be displayed on the department notice board.
- The question paper and scheme of evaluation is prepared by the course coordinator as per the course outcomes and revised blooms taxonomy. The prepared question paper and the scheme are verified by the reviewers. The evaluation process of assessment is shown in Figure 2.7 (a).
- Approved question papers are submitted to the test coordinator for internal test conduction.
- Evaluation is carried out by the course faculty according to scheme & CO-PO attainment calculation, measurement analysis has to be done.
- A sample of IA question paper is shown in Figure 2.7 (b) in which CO1 refers to Course Outcome 1 and L2 , L3 refers to Revise Blooms Level 2 and 3.

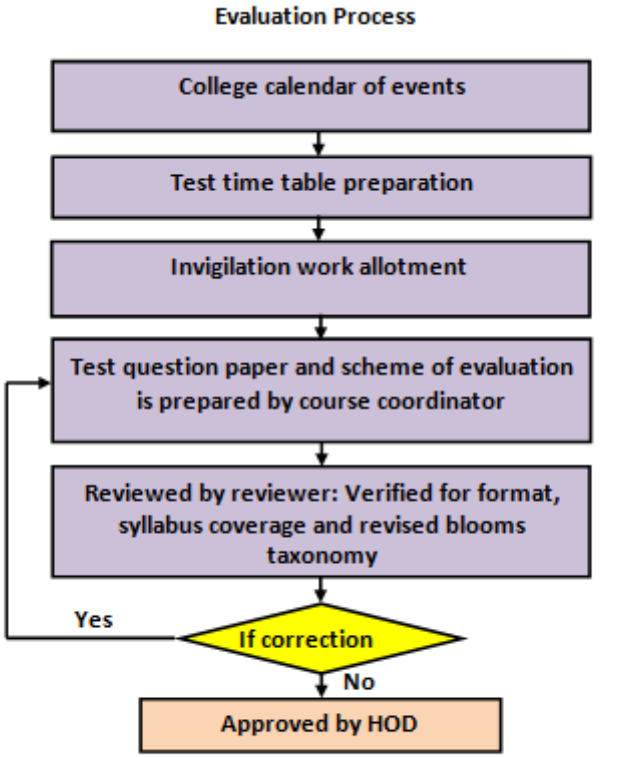


Figure 2.7 (a): Process for conduction of internal assessment

Internal Assesment

PES INSTITUTE OF TECHNOLOGY & MANAGEMENT

PESITM education for the real world

NH-206, Sagar Road, Shivamogga-577204

DEPARTMENT OF MECHANICAL ENGINEERING

FIRST INTERNAL ASSESSMENT

Semester: III | Sec: B

Subject: Mechanics of Materials | Sub-code:18ME32

Date: 11- 09- 2019 | Time: 08:30 am -09:15 am

Max.Marks: 30 | Subject In charge: Dr C M Sharanaprabhu

NOTE: Answer any one question from Part A and one question from Part B

PART A

1 a) Derive an expression for the total extension of the tapered circular bar cross section of diameter D and d, when it is subjected to an axial pull of load P. (L2) (CO1) (07M)

b) For the laboratory tested specimen the following data were obtained: i) Diameter of the specimen=25 mm, length of specimen= 300 mm, extension under the load of 15 kN=0.045 mm, load at yield point=127.65 kN, maximum load =208.6 kN, length of specimen after failure=375 mm, Neck diameter =17.75mm, determine i) young's modulus, ii) yield point stress, iii) ultimate stress, iv) percentage elongation, v) percentage reduction in area, vi) safe stress adopting a factor of safety of 2. (L3) (CO1) (08M)

2 a) Sketch the typical stress-strain curve for mild steel material. (L2) (CO1) (05M)

b) A round bar with stepped portion is subjected to the forces as shown in Fig. 1. Determine the magnitude of force P, such that net deformation in the bar does not exceed 1mm. E for steel is 200 GPa and that of aluminium is 70 GPa. Big end diameter and small end diameter of the tapering bar are 40mm and 12.5 mm respectively. (L3) (CO1) (10M)

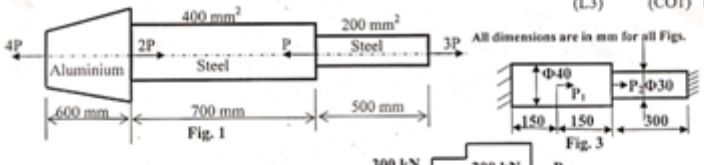


Fig. 1

Fig. 3

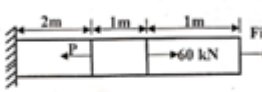


Fig.2

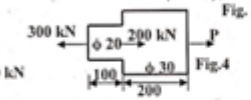


Fig.4

PART B

3 a) Derive the relation between Modulus of elasticity and Bulk modulus. (L2) (CO1) (06M)

b) Determine the magnitude of the load P necessary to produce zero net change in the length of the straight bar shown in the Fig.2. A=400 mm². Also find stresses in different segments. (L3) (CO1) (9M)

4 a) A stepped bar of steel, held between two supports as shown in Fig. 3 is subjected to loads P_1=80 kN and P_2=60 kN. Find the reactions at the ends. (L3) (CO1) (08M)

b) Determine the stress in different segments of a circular bar shown in Fig. 4. Also find the total elongation of the bar if E=200 GPa. (L3) (CO1) (07M)

Figure 2.7 (b): Internal Assessment (IA) question paper.

Assignments / Seminars/ Quiz

The theory internal assessment is conducted only for 75% of internal marks remaining 25% of internal marks were given to assignments/seminars/quiz as explained below.

- Assignments are given related to the course and it will be evaluated by the respective course faculty.
- Seminars and quiz are conducted by the respective course faculty.

Evaluation

- The faculty after every internal assessment test evaluate the internal books in line with scheme and solutions. Further the solutions will be discussed in the class which enable the students to understand the mistakes.
- The average of the marks obtained from highest of two tests out of three is considered as final internal assessment marks.
- Assignments/ seminars/ quiz are used as tool for practice and evaluation of Internal Assessment.

Question Paper Review Committee

1st Year

Sl. No	Subject Code	Subject	Currently Handling Faculties				Faculties for Reviewing
			Faculty - 1	Faculty - 2	Faculty - 3	Faculty - 4	Faculty – 1
1	18ME15	Elements of Mechanical Engineering	Mr. Maltesh Kumar Deshpande	Mr. Amruth M	Mr. Ajey C P	Mr. Vinod V Rampur	Dr. Basavarajappa Y H

2nd Year

Sl. No	Subject Code	Subject	Currently Handling Faculties		Faculties for Reviewing
			Faculty - 1	Faculty - 2	Faculty – 1
1	17MAT31	Engineering Mathematics – III	Mrs.Vedha L K	Dr. Aveesh	Dr. Aveesh
2	17ME32	Material Science	Mr. Praveena R	Mr. Amruth M	Dr. Sharanaprabhu C M
3	17ME33	Basic Thermodynamics	Mr. Rajashekhara M C	Dr. Basavarajappa Y H	Dr. Basavarajappa Y H
4	17ME34	Mechanics of Materials	Mr. Ashok R Banagar	Dr. Sharanaprabhu C M	Dr. Sharanaprabhu C M
5	17ME35A	Metal Casing and Welding	Dr. Manjunath Patel G C		Prof. Gowtam J K
6	17ME35B	Machine Tools and Operations	Mr. Koushik P K		Dr. Manjunath Patel G C
7	17ME36B	Mechanical Measurements and Metrology	Prof. Gowtam J K		Dr. Manjunath Patel G C

3rd Year

Sl. No	Subject Code	Subject	Currently Handling Faculties		Faculties for Reviewing
			Faculty - 1	Faculty - 2	Faculty – 1
1	15ME51	Management and Engineering Economics	Mr. Harish G V	Mr. Vinod V Rampur	Dr. Manjunath Patel G C
2	15ME52	Dynamics of Machinery	Mr. PrasannaNayak H	Mr. Santosh M B	Dr. Sharanaprabhu C M
3	15ME53	Turbo Machines	Mr. Abhishek C R	Mr. Shivananda D C	Dr. Basavarajappa Y H

4	15ME54	Design of Machine Elements I	Dr. Girisha L	Mr. MujeburRehaman	Dr. Sharanaprabhu C M
5	15ME551	Refrigeration and Air Conditioning	Mr. Rajashekhar M C		Dr. Basavarajappa Y H
6	15ME554	Non Traditional Machining	Mrs. Ramya C R	Mr. Koushik P K	Dr. Manjunath Patel G C
7	15ME562	Energy and Environmental	Dr. Basavarajappa Y H	Mr. Abhishek C R	Dr. Basavarajappa Y H
8	15ME563	Automation and Robotics	Mr. Harish G V		Dr. Manjunath Patel G C

4th Year

Sl. No	Subject Code	Subject	Currently Handling Faculties		Faculties for Reviewing
			Faculty – 1	Faculty - 2	Faculty - 1
1	15ME71	Energy Engineering	Mr. Tharanath H	Dr. Kiran Kumar K	Dr. Basavarajappa Y H
2	15ME72	Fluid Power System	Mr. Ajey C P	Mr. Shivananda D C	Dr. Basavarajappa Y H
3	15ME73	Control Engineering	Mr. Ganesh U L	Mr. Mahanthesh M R	Dr. Manjunath Patel G C
4	15ME742	Tribology	Mr. Santosh M B	Mr. PrasannaNayak H	Dr. Sharanaprabhu C M
5	15ME744	Design for Manufacturing	Prof. Gowtam J K		Dr. Manjunath Patel G C
6	15ME753	Mechatronics	Mr. Ashok R Banagar	Mr. Ganesh U L	Dr. Manjunath Patel G C

4th Year OTES

Sl. No	Subject Code	Subject	Currently Handling Faculties	Faculties for Reviewing
			Faculty – 1	Faculty – 1
1.	10ME71	Engineering Economics	Mrs. Ramya C R	Dr. Manjunath Patel G C
2.	10ME72	Mechanical Vibration	Dr. Girisha L	Dr. Sharanaprabhu C M
3.	10ME73	Hydraulics and Pneumatics	Mr. Ajey C P & Mr. Rajashekhara M C	Dr. Basavarajappa Y H

4.	10ME74	Operational Research	Prof. Gowtam J K & Mr. Ganesh U L	Dr. Manjunath Patel G C
5.	10ME758	Total Quality Management	Dr. Manjunath Patel G C	Prof. Gowtam J K
6.	10ME761	Experimental Stress Analysis	Mr. Santosh M B	Dr. Sharanaprabhu C M

2.2.3 Quality of student projects (25)

Institute Marks : 18.00

The project coordinators appointed by the Head of the department are responsible for planning, scheduling and execution of all the activities related to the student project work. The Process adopted for monitoring the quality of student projects is depicted in figure 2.8.

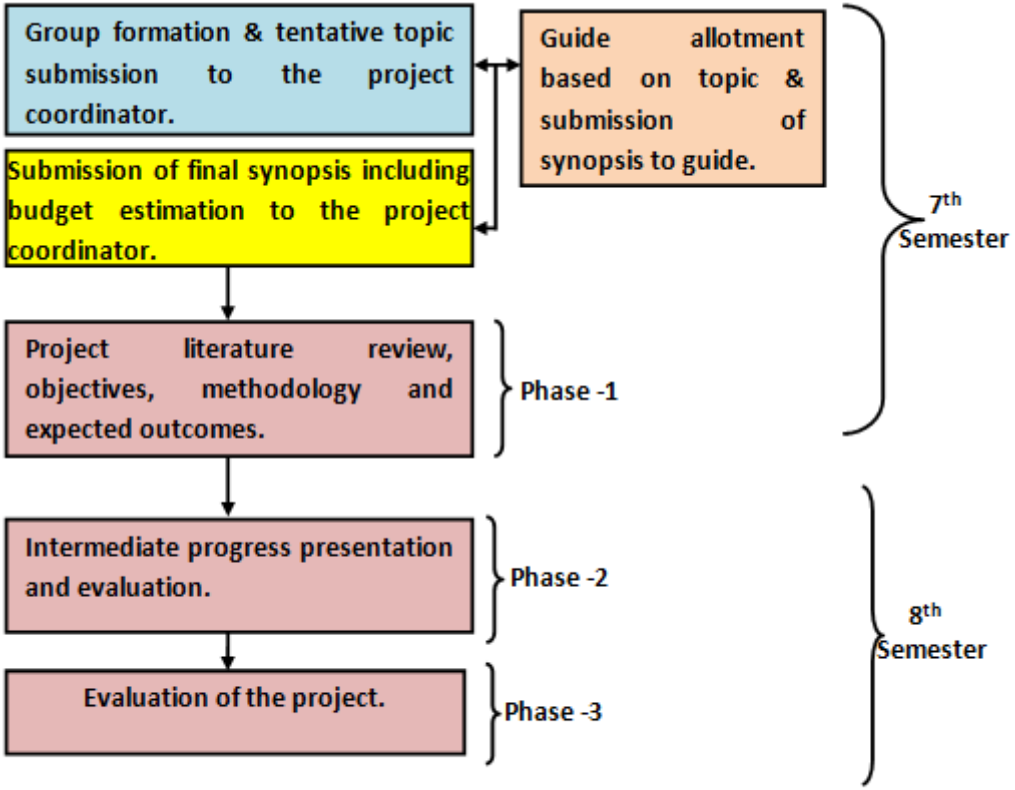


Figure 2.8: Process flow for quality of student project

Identification of projects and allocation methodology

The identification of projects and allocation methodology was done in the beginning of the seventh semester. An initiative taken for project selection and exhibition is shown in Figure 2.9. Table 2.7 provides the details of Identification of projects and allocation methodology.

- Students are informed to form their batches and register with the project coordinators. Each project batch can have minimum two to a maximum four students. On registration they will receive project batch identification number which is used as reference throughout the academic year.
- Faculty need to propose the projects in their domain. The same will be displayed in the notice board. The students based on their area of interest and competency can select the projects proposed by the faculty or their own ideas.
- The students approach the faculty and discuss their ideas. Then they are informed to submit the detailed synopsis and present before the panel.
- If any suggestions/modifications, need to be incorporated.
- HoD along with project coordinators will allocate the guides based on their domain and expertise.
- Finalized project synopsis duly signed by their concerned guide is submitted to coordinators.

Initiatives for quality of student projects

The initiatives taken for quality of students projects are mentioned below

- The faculties motivate the students to carry out projects in house by providing essential resources.

- Faculty or guide could take care of the student project reports to evade Plagiarism. Important short extracts from published work can be included within quotation marks and appropriately referenced. Plagiarism of less than 20% will only be accepted as the report.
- Proper attention made not only to the technical contents but also to the organization of the report and clarity of the expression.
- Implementation details chalked out in advanced.
- Format Guidelines provided to students.
- Further the students are encouraged to participate in project exhibitions, present/publish their work in conferences/journals.
- Also encouraged to apply for funds under various external funding schemes such as KSCST, VTU, IEI *etc*.

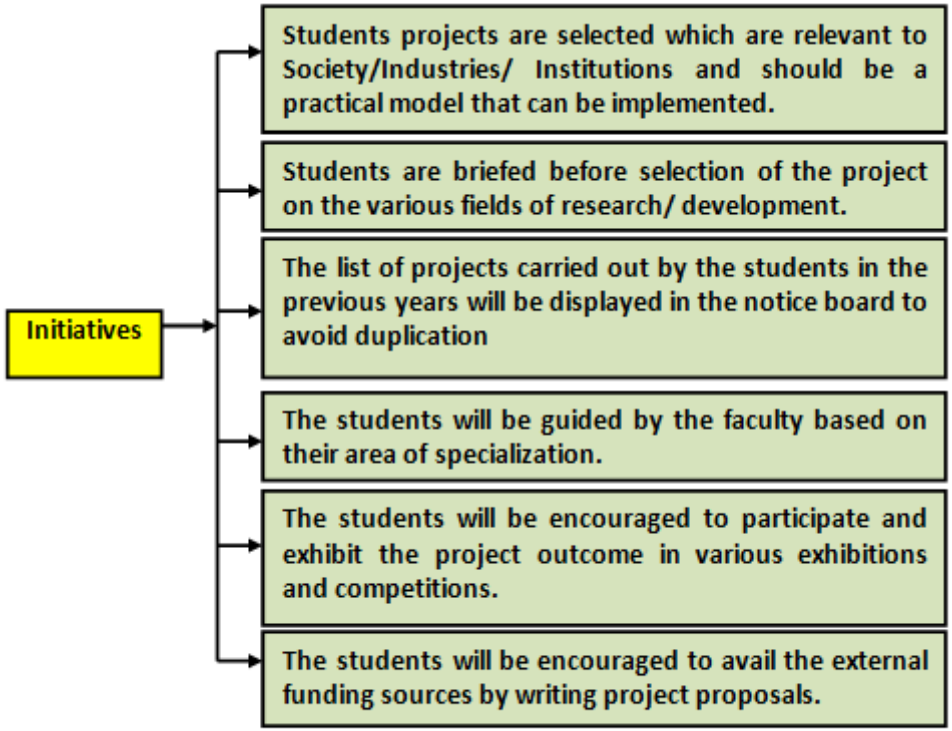


Figure 2.9: Initiative taken for project selection and project exposure

Table 2.7: Process of Identification of projects and allocation methodology

Timeline	Task	Particulars
SEVENTH SEMESTER		
1st week	Call for project batch	Students are informed to form their batch.
7th week	**Project Phase-I (Project Screening)** Call for Project titles with synopsis submission	Students are instructed to submit the title with synopsis.
11th week	**Project Phase-I (Project Evaluation-I)** Presentation on literature review, methodology.	Presentations are reviewed by a committee consisting of Project coordinator, Head of the department and some senior faculty.
18th week	**Project Phase-I (Project Evaluation-II)** Presentation on Methodology and work completed so far.	Presentations are reviewed by a committee consisting of Project coordinator, Head of the department and some senior faculty.
EIGTH SEMESTER		
4th week	**Project Phase-II (Project Evaluation-I)** Presentation on Methodology, work completed so far and individual contribution.	Presentations are reviewed by a committee consisting of Project coordinator, Head of the department and some senior faculty.
10th week	**Project Phase-II (Project Evaluation-II)** Presentation on future work individual contribution and report writing.	Presentations are reviewed by a committee consisting of Project coordinator, Head of the department and some senior faculty.
13th week	**Project Phase-II (Project Evaluation-III)** Final project presentation along with report	Presentations are reviewed by a committee consisting of Project coordinator, Head of the department and some senior faculty.

Process for monitoring and evaluation

- The students should meet their respective guide once a week and update their progress.
- Using the rubrics mentioned in table 2.8, the project guides along with coordinators will evaluate the project work.

Table 2.8 : Rubrics for evaluation of UG Project Work

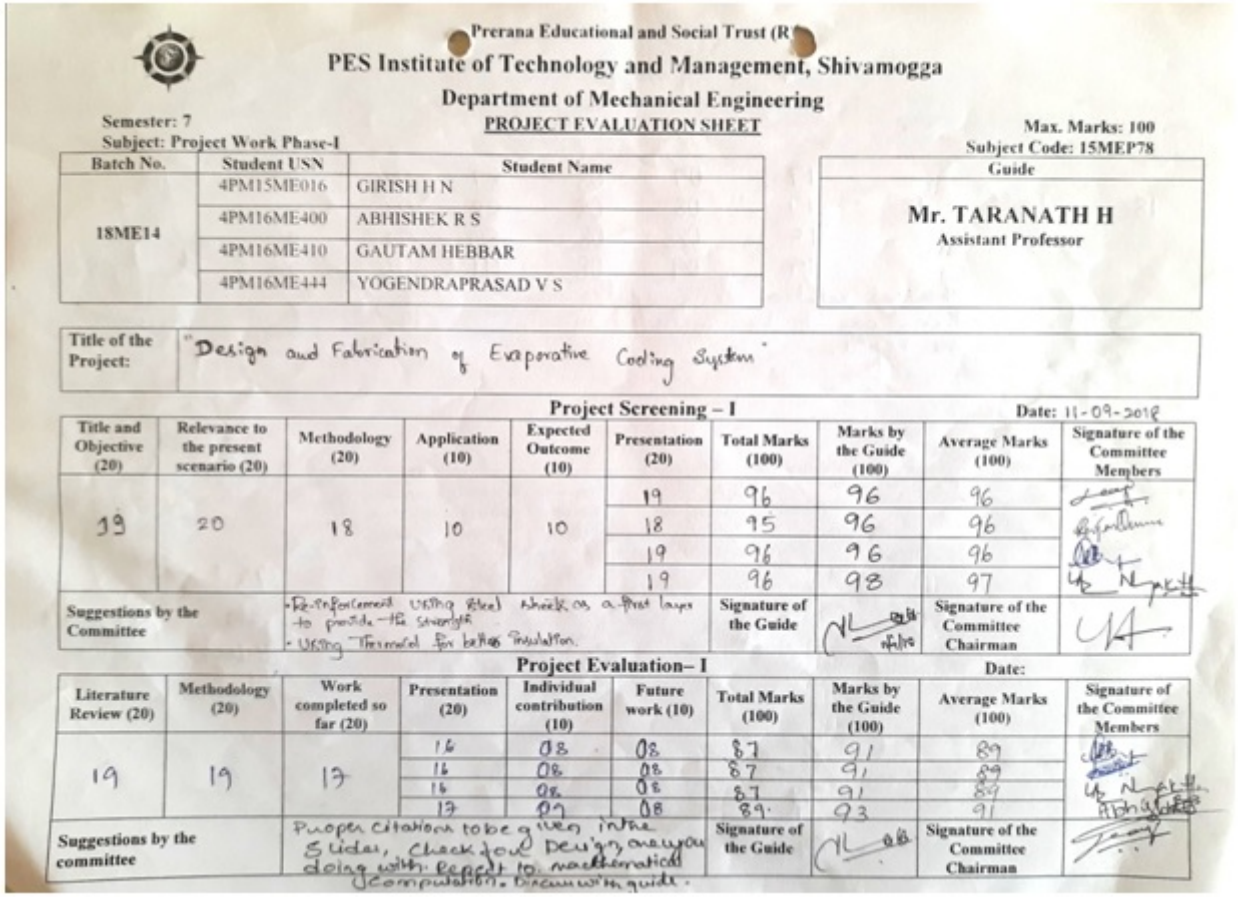
Review No	Agenda	Assessment	Review Assessment weightage (Marks)
01	Project Work Phase-I	Rubric-1	**50% (100)**
02	Project Work Phase-II	Rubric-2	**50% (100)**
Total Weightage (Marks)			**100% (200)**

Project Work Phase-I

The project phase-I is carried out preferably after the first internals during the 7th semester. The total weightage for this review is 100 out of 200 Marks. In this phase the average marks of three sessions was considered for the total marks. The marks distribution and rubrics is shown in the Table 2.8. The presentation should be given in front of the students (7th semester), coordinators and guide on the scheduled time and day of presentation. During the presentation the concerned group must clarify the questions and doubts raised by the audience. The project coordinators along with the guide will review the presentation and demonstration. The evaluation is jointly done by guide and project coordinators. Sample copy of rubric developed and project phase evaluation-I is presented in Figure 2.10

Project Work Phase-II

The project phase-II is carried out preferably before the first internals in the 8th semester. The total weightage for this review is similar marks of project work phase-I. In this phase the total marks were taken form average marks of three sessions. The marks distribution and rubrics is shown in the Table 2.8. The presentation processes and evaluation were similar to that of phase-I. Sample copy of rubric developed and project phase evaluation-II is presented in Figure 2.11.



Prerana Educational and Social Trust (R)

PES Institute of Technology and Management, Shivamogga

Department of Mechanical Engineering

PROJECT EVALUATION SHEET

Semester: 7 | Max. Marks: 100

Subject: Project Work Phase-I | Subject Code: 15MEP78

Batch No.	Student USN	Student Name
18ME14	4PM15ME016	GIRISH H N
	4PM16ME400	ABHISHEK R S
	4PM16ME410	GAUTAM HEBBAR
	4PM16ME444	YOGENDRAPRASAD V S

Guide
Mr. TARANATH H Assistant Professor

Title of the Project: "Design and Fabrication of Evaporative Cooling System"

Project Screening – I Date: 11-09-2018

Title and Objective (20)	Relevance to the present scenario (20)	Methodology (20)	Application (10)	Expected Outcome (10)	Presentation (20)	Total Marks (100)	Marks by the Guide (100)	Average Marks (100)	Signature of the Committee Members
19	20	18	10	10	19	96	96	96	
					18	95	96	96	
					19	96	96	96	
					19	96	98	97	

Suggestions by the Committee: • Re-Reinforcement using Steel sheets as a first layer to provide the strength. • Using Thermocol for better insulation.

Signature of the Guide | **Signature of the Committee Chairman**

Project Evaluation– I Date:

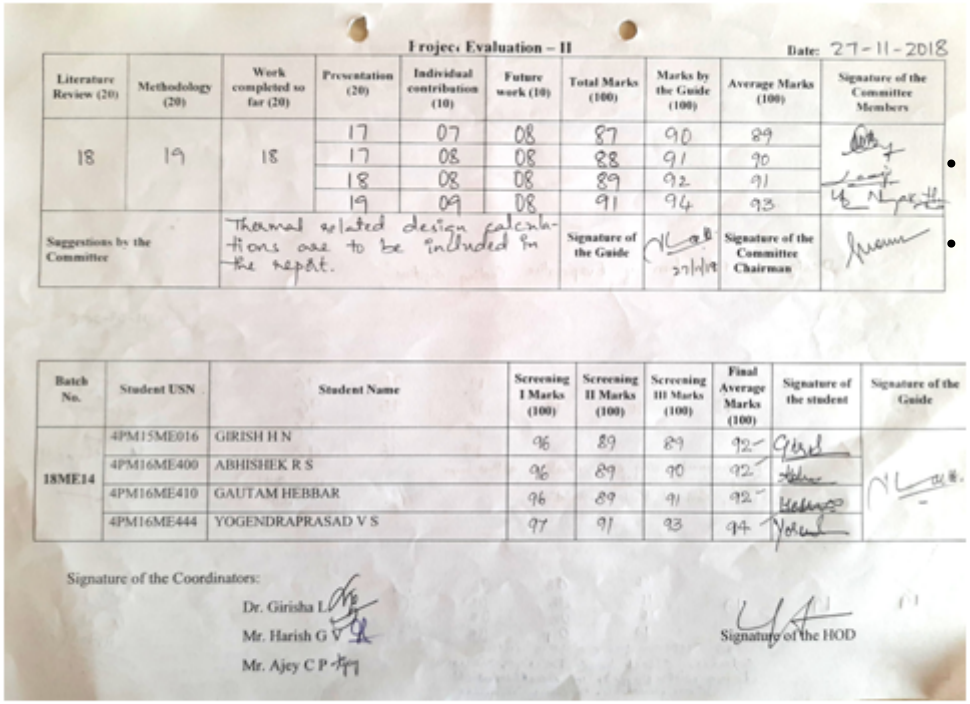
Literature Review (20)	Methodology (20)	Work completed so far (20)	Presentation (20)	Individual contribution (10)	Future work (10)	Total Marks (100)	Marks by the Guide (100)	Average Marks (100)	Signature of the Committee Members
19	19	17	16	08	08	87	91	89	
			16	08	08	87	91	89	
			16	08	08	87	91	89	
			17	09	08	89	93	91	

Suggestions by the committee: Proper citation to be given in the slides, check for Design analysis you doing with respect to mathematical computation. Discuss with guide.

Signature of the Guide | **Signature of the Committee Chairman**

Report Evaluation

The final draft copy of the report (in the suggested format) should be submitted during second phase of third project evaluation presentation and review to their respective guides. Guides will review the report according to the given format, any discrepancies in the report is brought to the notice of the students. The students must incorporate the given suggestions in their final copy of the report. The final approved report by the guide must be submitted in hardbound as per the format prescribed by the VTU. The total weightage for this review is 34 Marks of out of 100 Marks. Since, in second phase the total



Project Evaluation – II

Date: 27-11-2018

Literature Review (20)	Methodology (20)	Work completed so far (20)	Presentation (20)	Individual contribution (10)	Future work (10)	Total Marks (100)	Marks by the Guide (100)	Average Marks (100)	Signature of the Committee Members
18	19	18	17	07	08	87	90	89	
			17	08	08	88	91	90	
			18	08	08	89	92	91	
			19	09	08	91	94	93	

Suggestions by the Committee	Thermal related design calculations are to be included in the report.	Signature of the Guide	27/11/18	Signature of the Committee Chairman	

Batch No.	Student USN	Student Name	Screening I Marks (100)	Screening II Marks (100)	Screening III Marks (100)	Final Average Marks (100)	Signature of the student	Signature of the Guide
18ME14	4PM15ME016	GIRISH H N	96	89	89	92		
	4PM16ME400	ABHISHEK R S	96	89	90	92		
	4PM16ME410	GAUTAM HEBBAR	96	89	91	92		
	4PM16ME444	YOGENDRAPRASAD V S	97	91	93	94		

Signature of the Coordinators:

Dr. Girisha L

Mr. Harish G V

Mr. Ajey C P

Signature of the HOD

Figure 2.10: Rubrics for evaluation of Project Phase-I

marks were considered by taking average of three sessions as shown in project phase-II rubrics.

Quality of completed projects/working prototypes

Final project demo for the working prototype and the report are evaluated by a panel.

- Best Project was identified by conducting Project exhibition and each project is evaluated by an external expert.
- The projects are evaluated and are awarded internal assessment marks for maximum 200. Projects are graded according to the project contribution towards attainment of PO's and PSO's. Best projects are identified and depicted below.

Table 2.9, 2.10 and 2.11 provides the details of best project of academic year 2018-19, 2017-18 and 2016-17.

Table 2.9: Best Project Academic Year CAY – 2018 -19

Prerana Educational and Social Trust (R)

PES Institute of Technology and Management, Shivamogga

Department of Mechanical Engineering

PROJECT EVALUATION SHEET

Semester: 8
Subject: Project Work Phase-II

Max. Marks: 100
Subject Code: 15ME85

Batch No.	Student USN	Student Name
18ME24	4PM13ME083	SANTOSH KUMAR SINGH
	4PM15ME061	RAJAT PANDEY
	4PM15ME096	VIBHUTI NARAYAN ACHARYA
	4PM15ME090	TEJAS M

Guide
Mr. PRASANNA NAYAK H

Title of the Project:	Design and fabrication of pico hydro turbine

Project Evaluation – I

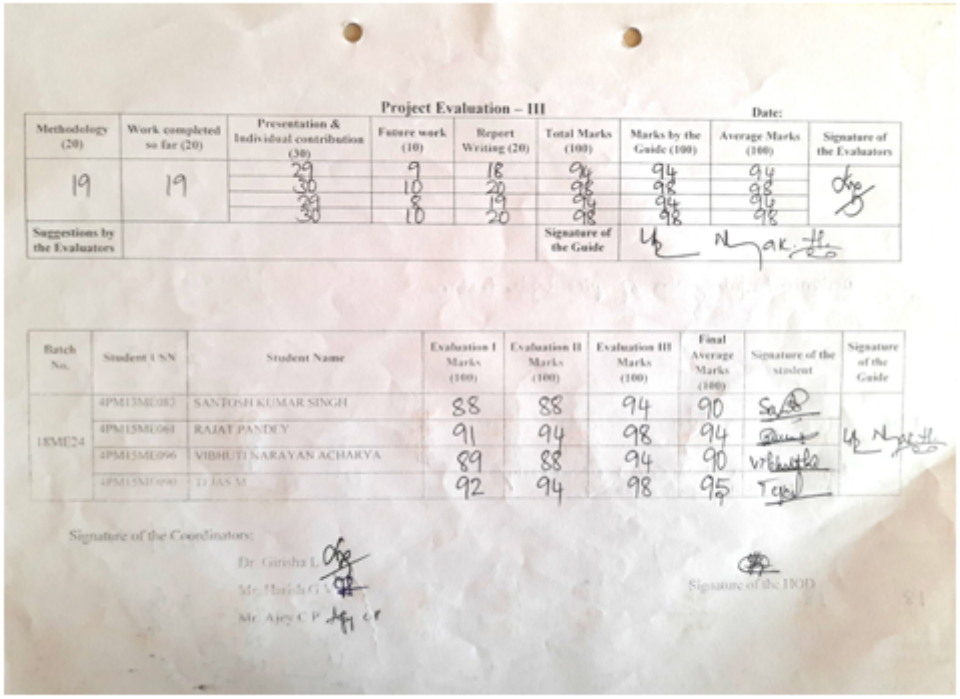
Date: 20/2/19

Methodology (20)	Work completed so far (20)	Presentation & Individual contribution (30)	Future work (10)	Report Writing (20)	Total Marks (100)	Marks by the Guide (100)	Average Marks (100)	Signature of the Evaluators
18+1	18+1	27	09	18	90	85	88	
		28+1	09+1	18+1	91+3	87	89+2	
		27	09	18	90	88	89	
		27	09	18	90	94	92	
Suggestions by the Evaluators	Experiment work should carried out at early/ Show the detail design calculations.				Signature of the Guide			

Project Evaluation – II

Date: 04/04/2019.

Methodology (20)	Work completed so far (20)	Presentation & Individual contribution (30)	Future work (10)	Report Writing (20)	Total Marks (100)	Marks by the Guide (100)	Average Marks (100)	Signature of the Evaluators
18	18	25	08	18	87	89	88	
		28	08	18	90	94+3	92+2	
		25	08	18	87	89	88	
		28	08	18	90	94+3	92+2	
Suggestions by the Evaluators					Signature of the Guide			



Project Evaluation – III

Date:

Methodology (20)	Work completed so far (20)	Presentation & Individual contribution (30)	Future work (10)	Report Writing (20)	Total Marks (100)	Marks by the Guide (100)	Average Marks (100)	Signature of the Evaluators
19	19	29	9	18	96	94	94	
		30	10	20	98	98	98	
		29	8	19	96	94	94	
		30	10	20	98	98	98	

Suggestions by the Evaluators

Signature of the Guide

Batch No.	Student USN	Student Name	Evaluation I Marks (100)	Evaluation II Marks (100)	Evaluation III Marks (100)	Final Average Marks (100)	Signature of the student	Signature of the Guide
18ME24	4PM15ME083	SANTOSH KUMAR SINGH	88	88	94	90		
	4PM15ME085	RAJAT PANDEY	91	94	98	94		
	4PM15ME096	VIBHUTI NARAYAN ACHARYA	89	88	94	90		
	4PM15ME090	TEJAS M	92	94	98	95		

Signature of the Coordinators:

Dr. Girisha L

Mr. Harish G

Mr. Ajey C P

Signature of the HOD

Figure 2.11: Rubrics for evaluation of Project Phase-II

Sl. No.	USN	Name of the Student	Title of the project	Name of the Guide	POs
01	4PM14ME018	DILIPKUMAR B N	Bio-CNG Production, Bottling and Utilization for CI Engine	Dr. BASAVARAJAPPA Y H	PO8, PO9 PO10, PO11 PO12
	4PM14ME095	VIJAY T V			
	4PM15ME009	DARSHAN B M			
	4PM16ME438	SWAROOP N			
02	4PM15ME063	RAVI C C	Development of Automatic Sorting Machine for Municipal Solid Waste	Mr. MAHANTHESH M R	PO1, PO5 PO8, PO9 PO10, PO11 PO12
	4PM15ME071	SANJAY G			
	4PM15ME092	ULLAS J SUBEDAR			
	4PM16ME401	AKASH G N			
03	4PM15ME033	MANJUNATH R	Development and Characterization of Electroplated Thin Film Coating of Nickel on Steel	Mrs. RAMYA C R	PO8, PO9 PO10, PO11 PO12
	4PM15ME042	MOHAN			
	4PM16ME411	GIRISH BENNUR			
	4PM16ME442	VIJAY V G			

Table 2.10: Best Project Academic Year CAYm1 – 2017 -18

Sl. No.	USN	Name of the Student	Title of the project	Name of the Guide	POs
1	4PM15ME400	ABHISHEK R	BIODIESEL	Dr. BASAVARAJAPPA	PO8

2	4PM15ME401	ADARSH B L	FROM CHICKEN FEATHER AND WASTE	Y H	PO9 PO10 PO11 PO12
3	4PM15ME413	KIRAN M B			
4	4PM14ME008	ASHWINI			
1	4PM14ME432	SUHAS R	GENERATION AND UPGRADATION OF BIOGAS USING KITCHEN WASTE	Mr. SHIVANANDA D C	PO8 PO9 PO10 PO11 PO12
2	4PM15ME407	CHAITHRA M			
3	4PM15ME431	SHREERAM G NAYAK			
4	4PM15ME433	SUNIL KUMAR A			
1	4PM12ME050	SYED SALMAN	HYDROGEN POWERED VEHICLE	Mr. RAJSHESHARA M C	PO8 PO9 PO10 PO11 PO12
2	4PM14ME031	LOHITHA M S			
3	4PM14ME034	MADHU M G			
4	4PM14ME045	MD. SHAHID			

Table 2.11: Best Project Academic Year CAY m2– 2016 -17

Sl. No.	USN	Name of the Student	Title of the project	Name of the Guide	POs
1	4PM13ME016	Chetan S A	Design and fabrication of agricultural soil digging machine	Mr. Praveen R	PO1 PO2 PO3 PO8 PO9 PO10 PO11 PO12
2	4PM13ME029	Hemanth Kumar K R			
3	4PM13ME039	Malathesh Gujjar U			
4	4PM13ME040	Rakesha P			
1	4PM13ME078	SaifansabWalikar	Fabrication and Demonstration of portable domestic waste burner	Dr. Girisha L & Mahanthesh M R	PO1 PO2 PO3 PO8 PO9 PO10 PO11 PO12
2	4PM13ME105	Vaibhav R Mathapati			
3	4PM13ME112	Vinaykumar R			
4	4PM14ME429	Sharanakanth			
1	4PM13ME085	Shamanth M K	Plastic Recycling for a Green Environment	Dr. BASAVARAJAPPA Y H	PO8 PO9 PO10 PO11 PO12
2	4PM13ME093	Sreeraman M S			
3	4PM13ME103	Thippeswamy C			
4	4PM13ME108	Vidyabhooshan R			

Impact analysis of Projects

- New innovative ideas are evolved.
- Skills or abilities of students improved.
- Knowledge on various aspects of project management was developed.
- Confidence level of the students was boosted.
- Improved teamwork spirit.
- Implementation and deployment of the project for social benefits.
- Document preparation and presentation.

2.2.4 Initiative related to industry interaction (15)

Institute Marks : 12.00

Four companies are having a continuous touch with the undergraduates. Regularly the department organized the workshops and trainings. The companies having a MOU with the Mechanical Engineering department are:

1. Shanthala sphero cast Pvt. Ltd., Shivamogga
2. Vijaya Technocrats Pvt. Ltd., Shivamogga
3. Pragathi industries Pvt. Ltd., Shivamogga
4. IMTMA Bengaluru.

A sample MoU agreemnet copy of Pragathi steel casting is shown in below.

सत्यमेव जयते

INDIA NON JUDICIAL

Government of Karnataka

Rs. 20

e-Stamp

Certificate No.	:	IN-KA30046733237814R
Certificate Issued Date	:	17-Jun-2019 05:08 PM
Account Reference	:	NONACC (GV)/ kadedcs07/ SHIMOGA/ KA-SM
Unique Doc. Reference	:	SUBIN-KAKADEDCS07880618387130 43R
Purchased by	:	PRINCIPAL PESITM SHIVAMOGGA
Description of Document	:	Article 12 Bond
Description	:	AGREEMENT
Consideration Price (Rs.)	:	0 (Zero)
First Party	:	PRINCIPAL PESITM SHIVAMOGGA
Second Party	:	PRAGATHI STEEL CASTINGS PVT LTD
Stamp Duty Paid By	:	PRINCIPAL PESITM SHIVAMOGGA
Stamp Duty Amount(Rs.)	:	20 (Twenty only)

सत्यमेव जयते

GOVERNMENT OF KARNATAKA SUDA COMPLEX

Please write or type below this line

MEMORANDUM OF UNDERSTANDING (MOU)

BETWEEN

PES Institute of Technology and Management, Shivamogga

&

Pragathi Steel Casting Pvt. Ltd., Shivamogga

Principal
PES Institute of Technology & Management
NH-206, Sagar Road, SHIVAMOGGA-577 204.

For PRRAGATHI STEEL CASTINGS PVT. LTD.

AUTHORISED SIGNATORIES

Statutory Alert:
1. The authenticity of this Stamp Certificate should be verified at "www.shcilestamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

Any divergence or difference derived from the interpretation or application of the MoU shall be resolved by arbitration between the parties as per the Arbitration Act, 1996. The place of the arbitration shall be at District Head Quarters of the First Party. This undertaking is to be construed in accordance with Indian Law with exclusive jurisdiction in the Courts of **Shivamogga.**

AGREED:

PES Institute of Technology & Management, Shivamogga	**Pragathi Steel Casting Pvt. Ltd., Shivamogga.,**
Principal PES Institute of Technology & Management NH-206, Sagar Road, SHIVAMOGGA-577 204. Authorized Signatory	For PRRAGATHI STEEL CASTINGS PVT. LTD., Authorised Signatory AUTHORISED SIGNATORIES

PES Institute of Technology & Management, Shivamogga	**Pragathi Steel Casting Pvt. Ltd., Shivamogga**
Prerana Education Trust ®, Shivamogga NH-206, Sagar Road, Shivamogga -577204, India.	No. 41, Shimoga, Bhadravathi Indutrial Area, Machenahalli Nadige Post, Shimoga, Karnataka, 577222, India
principal_pesitm@pes.edu.in	admin@prragathisteelcast.com
Pestrust.edu.in/pesitm	http://www.prragathisteelcast.com/

Witness1:

Witness2:

For PRRAGATHI STEEL CASTINGS PVT. LTD.,

Witness3:

Witness4:

AUTHORISED SIGNATORIES

MOU was signed at PESITM premises with Pragathi Steel Casting for professional interactions and sharing knowledge with the students.

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

Institute Marks : 12.00

Industrial Visit

Learning from textbooks, lectures and other study material does not suffice for holistic learning. Practical and hands-on learning is essential for better understanding of work processes. Industrial visits are organised to expose the students for industry environment which enhances the practical understanding of the concepts. The detail of the Industrial visits organized by the department is shown in Table 2. 12.

Table 2.12 Details of Industrial visits

Si No	Date of Visit	Organization Visited	Number of Students Visted	Program outcome

1	20/11/2019	Bhomika Alloy casting Pvt. Ltd., Shivamogga	104	PO1, PO6, PO7, PO8, PO9, PO11 & PO12, PSO1 & PSO2
2	25/02/2019	PATELS INN Gokarting at Banglore	04	PO1, PO4, PO5, PO6, PO7, PO8, PO9, PO11 & PO12 PSO1 & PSO2
3	16/02/2019	Varahi Underground Project and Mani Dam at Hosangadi	120	PO1, PO6, PO7, PO8, PO9, PO11 & PO12 PSO1 & PSO2
4	23/03/2018	Vijay Technnocrats Pvt. Ltd. at Shivamogga	117	PO1, PO6, PO7, PO8, PO9, PO11 & PO12 PSO1 & PSO2
5	20/10/2017	Vijay Technnocrats Pvt. Ltd. at Shivamogga	120	PO1, PO6, PO7, PO8, PO9, PO11 & PO12 PSO1 & PSO2

Practical and hands-on training is essential for better understanding of work processes. Industrial training enhances real life of the industry environment. In this regard over 108 students carried out internships in various 60 companies. The details of the training program of students are listed in Table 2.13 and Table 2.14, 2.15 and 2.16 shows students undergone professinal internship at various companies.

Table 2.13: Training programs for Students

a)

b)

c)

Figure 2.12: Students visited a) Bhomika Alloy casting Pvt. Ltd., Shivamogga, b) Varahi Project, c) PATELS INN Gokarting

Table 2.14: Students Internship Training Details of Academic Year (CAY) 2019-2020

Academic Year	Date Period	Number of students undergone internship training	Number of industries offered internship training	Duration
2019-2020	04/07/2019 to 28/07/2019	126	32	4 weeks
2018-2019	07/07/2018 to 31/07/2018	102	27	4 weeks
2017-2018	08/01/2018 to 24/01/2018	26	11	3 Days, 15 Days & 20 Days
2016-2017	10/01/2017 to 26/01/2017	88	13	3 Days, 15 Days & 20 Days

Date: 04/07/2019 to 28/07/2019

Sl.no	USN	Name	Industries/Company Name & Place	Duration
1	4PM14ME082	Shravan Kumar DN	K S S Industries Tumkur	4 weeks
2	4PM14ME086	Sohan S	National Aerospace Laboratory, Bangalore	4 weeks
3	4PM15ME004	Ameeth E.	Malnad Alloy Castings Pvt Ltd Machenahalli Shivamogga	4 weeks
4	4PM15ME005	Ashish K. S.	Malnad Alloy Castings Pvt Ltd Machenahalli Shivamogga	4 weeks
5	4PM15ME006	Azman Hussain	VRL Hubbali	4 weeks
6	4PM15ME017	Girisha G. N.	Sree S.G.K Industries Shimoga	4 weeks
7	4PM15ME018	Girisha N. E.	Inventeron Technologies & Business Solutions Bangalore	4 weeks
8	4PM15ME020	Harish Kumar B R	Sree S.G.K Industries Shimoga	4 weeks
9	4PM15ME048	Nahusha G. V.	Inventeron Technologies & Business Solutions Bangalore	4 weeks
10	4PM15ME050	Nandeesha A B	Crystaline Engineering Tumkur	4 weeks
11	4PM15ME055	Pavan K.	Malanad Alloys Castings Pvt Ltd Machenahalli Shimoga	4 weeks
12	4PM15ME056	Pradeep Kumar N. H.	Suprajit Automotive Work Doddaballapur	4 weeks
13	4PM15ME060	Rahul R. M.	JSW Steels Bellari	4 weeks
14	4PM15ME069	Sachin S. Biradar	K C Engineering Pune	4 weeks
15	4PM15ME075	Shashikant Almelkar	Suprajit Automotive Work Doddaballapur	4 weeks
16	4PM15ME086	Suhas S.	Malanad Alloys Castings Pvt Ltd Machenahalli Shimoga	4 weeks
17	4PM15ME099	Vinay Kumar G.	Malanad Alloys Castings Pvt Ltd Machenahalli Shimoga	4 weeks
18	4PM15ME101	Yunus Khan	Perfect Alloys Components Pvt Ltd Shimoga	4 weeks
19	4PM16ME002	Abhishek Arkachari	Cubistry Tech Solutions Bangalore	4 weeks
20	4PM16ME004	Ajay Chandrappaguttur	Sree S.G.K Industries Shimoga	4 weeks
21	4PM16ME005	Ajith P Karnalli	Inventeron Technologies & Business Solutions Bangalore	4 weeks
22	4PM16ME006	Amit Basavant Sanadi	Cubistry Tech Solutions Bangalore	4 weeks
23	4PM16ME007	Anveshprakash Varekar	Cubistry Tech Solutions Bangalore	4 weeks
24	4PM16ME008	Apeksha H N	Cubistry Tech Solutions Bangalore	4 weeks
25	4PM16ME009	Arjun K V	Flow & Force Engineers, Bangalore	4 weeks
26	4PM16ME010	Arun G	BHEL Bangalore	4 weeks
27	4PM16ME011	Arunkumar M O	Hanu Heat Treaters Peenya Industrial Area Bangalore	4 weeks
28	4PM16ME012	Betageri Akhilesh	Cubistry Tech Solutions Bangalore	4 weeks
29	4PM16ME013	Bharath P S	ACE-Micromatic Bangalore	4 weeks
30	4PM16ME014	Chaithra T S	Hanu Heat Treaters Peenya Industrial Area Bangalore	4 weeks
31	4PM16ME015	Chaitra R O	Cubistry Tech Solutions Bangalore	4 weeks
32	4PM16ME016	Chandana R	BHEL Bangalore	4 weeks
33	4PM16ME017	Chethan D Gowda	Inventeron Technologies & Business Solutions Bangalore	4 weeks
34	4PM16ME018	Darshan K E	Hanu Heat Treaters Peenya Industrial Area Bangalore	4 weeks
35	4PM16ME019	Darshan K Giriradder	Cubistry Tech Solutions Bangalore	4 weeks
36	4PM16ME020	Darshan S P	Hanu Heat Treaters Peenya Industrial Area Bangalore	4 weeks
37	4PM16ME021	Devaraja H	South Western Railway HHP Diesel Loco Shed, Hubballi	4 weeks
38	4PM16ME023	Dheerajkumar D	Bhumika Alloy Castings Shivamogga	4 weeks
39	4PM16ME025	Doddanagouda B P	Cubistry Tech Solutions Bangalore	4 weeks
40	4PM16ME026	Gururaj P	Hindustan Shipyard Ltd, Visakhapatnam	4 weeks
41	4PM16ME027	Gurushree M S	Hindustan Shipyard Ltd, Visakhapatnam	4 weeks

42	4PM16ME029	Jagdeesha Paled	BHEL Bangalore	4 weeks
43	4PM16ME030	Jeevana N G	Hanu Heat Treaters Peenya Industrial Area Bangalore	4 weeks
44	4PM16ME032	Kartik G Walvekar	Cubistry Tech Solutions Bangalore	4 weeks
45	4PM16ME033	Kiran Kasar	Cubistry Tech Solutions Bangalore	4 weeks
46	4PM16ME034	Kiran Kumar K V	ACE-Micromatic Bangalore	4 weeks
47	4PM16ME036	Kumar Gourav S	Shanthala Spherocast Pvt Ltd Machenahalli Shivamogga	4 weeks
48	4PM16ME037	Lekhanmurthy M K	Bhumika Alloy Castings Shivamogga	4 weeks
49	4PM16ME039	Mahadevayya K	BHEL Bangalore	4 weeks
50	4PM16ME040	Mahesh Dr	BHEL Bangalore	4 weeks
51	4PM16ME042	Manoj M D	BHEL Bangalore	4 weeks
52	4PM16ME043	Manoj S	South Western Railway HHP Diesel Loco Shed, Hubballi	4 weeks
53	4PM16ME044	Manoj S	Sree S.G.K Industries Shimoga	4 weeks
54	4PM16ME045	Manojkumar M	ACE-Micromatic Bangalore	4 weeks
55	4PM16ME046	Manthan O M	BEML Limited Bangalore	4 weeks
56	4PM16ME048	Mohammed Rahaber	Inventeron Technologies & Business Solutions Bangalore	4 weeks
57	4PM16ME050	Mustafali Ulla	Cubistry Tech Solutions Bangalore	4 weeks
58	4PM16ME051	Nandish S	HAL Bangalor e	4 weeks
59	4PM16ME053	Nayana H	Toyota Industries Engine India Pvt Ltd, Bangalore	4 weeks
60	4PM16ME054	Nikhil P Mirashi	Hanu Heat Treaters Peenya Industrial Area Bangalore	4 weeks
61	4PM16ME055	Nikith H L	BEML Limited Bangalore	4 weeks
62	4PM16ME056	Nithin J C	Shanthala Spherocast Pvt Ltd , Machenahalli Shimoga	4 weeks
63	4PM16ME058	Nitish S Hiremal	Gas Turbine Research Establishment Bangalore	4 weeks
64	4PM16ME059	Pavan Kumar I	Inventeron Technologies & Business Solutions Bangalore	4 weeks
65	4PM16ME062	Prajwal S	Sree S.G.K Industries Shimoga	4 weeks
66	4PM16ME064	Prashanth S	Crystaline Engineering Tumkur	4 weeks
67	4PM16ME066	Praveen P S	Crystaline Engineering Tumkur	4 weeks
68	4PM16ME067	Rachan B V	Bhumika Alloy Castings Shivamogga	4 weeks
69	4PM16ME068	Raghavendra Lande	Crystaline Engineering Tumkur	4 weeks
70	4PM16ME069	Raghu G M	Crystaline Engineering Tumkur	4 weeks
71	4PM16ME070	Rahul Baliga R	BEML Limited Bangalore	4 weeks
72	4PM16ME071	Rahul Sheetal Upadhye	Hindustan Shipyard Ltd, Visakhapatnam	4 weeks
73	4PM16ME072	Rakesh B Govannavar	Cubistry Tech Solutions Bangalore	4 weeks
74	4PM16ME074	Ramesh P T	Sansera Engineering Limited, Bangalore	4 weeks
75	4PM16ME075	Ramesha K	Crystaline Engineering Tumkur	4 weeks
76	4PM16ME076	Ravikiran V	Crystaline Engineering Tumkur	4 weeks
77	4PM16ME077	Ravikumar G	Cubistry Tech Solutions Bangalore	4 weeks
78	4PM16ME078	Rudresha M	Crystaline Engineering Tumkur	4 weeks
79	4PM16ME079	S Revanth	BEML, KGF	4 weeks
80	4PM16ME081	Sachin B K	Cubistry Tech Solutions Bangalore	4 weeks
81	4PM16ME084	Sagar N	Cubistry Tech Solutions Bangalore	4 weeks
82	4PM16ME086	Sanath S	Cubistry Tech Solutions Bangalore	4 weeks
83	4PM16ME087	Sanjay S	Crystaline Engineering Tumkur	4 weeks
84	4PM16ME088	Sanju G R	Crystaline Engineering Tumkur	4 weeks

85	4PM16ME089	Santhosha C Chinnikatti	Cubistry Tech Solutions Bangalore	4 weeks
86	4PM16ME090	Shantviresh M Haveri	Sansera Engineering Limited, Bangalore	4 weeks
87	4PM16ME091	Sharath P	Crystaline Engineering Tumkur	4 weeks
88	4PM16ME092	Shaviz Ahamed	Cubistry Tech Solutions Bangalore	4 weeks
89	4PM16ME093	Shiva Kumar G	Cubistry Tech Solutions Bangalore	4 weeks
90	4PM16ME095	Shreyas S	Cubistry Tech Solutions Bangalore	4 weeks
91	4PM16ME096	Sourabh S Jinjarwad	Cubistry Tech Solutions Bangalore	4 weeks
92	4PM16ME097	Suhas G Bharadwaj	Terra Power plant Systems, Peenya Bangalore	4 weeks
93	4PM16ME098	Sumanth Kumar K C	Sansera Engineering Limited, Bangalore	4 weeks
94	4PM16ME099	Sumanth N G	Cubistry Tech Solutions Bangalore	4 weeks
95	4PM16ME102	Sushruth S R	Cubistry Tech Solutions Bangalore	4 weeks
96	4PM16ME103	Tejaswi M O	Flow & Force Engineers, Bangalore	4 weeks
97	4PM16ME104	Veerakumar Gouraj	Terra Power Plant Systems Bangalore	4 weeks
98	4PM16ME105	Veerana Gowda B C	Cubistry Tech Solutions Bangalore	4 weeks
99	4PM16ME106	Vijay S K	Sansera Engineering Limited, Bangalore	4 weeks
100	4PM16ME107	Vijaykumar S	BEML Limited Bangalore	4 weeks
101	4PM16ME108	Vikas H S	Sree S.G.K Industries Shimoga	4 weeks
102	4PM16ME109	Vilas S	Flow & Force Engineers, Bangalore	4 weeks
103	4PM16ME110	Vinay S K	Crystaline Engineering Tumkur	4 weeks
104	4PM16ME111	Vinayaka A	BEML Limited Bangalore	4 weeks
105	4PM16ME112	Vinayaka R B	Flow & Force Engineers, Bangalore	4 weeks
106	4PM16ME113	Vinyas D R	Inventeron Technologies & Business Solutions Bangalore	4 weeks
107	4PM16ME114	Viresh Badiger	Cubistry Tech Solutions Bangalore	4 weeks
108	4PM16ME404	Anoop G M	Vijay Technnocrats Pvt Ltd, Machenahalli Shimoga	4 weeks
109	4PM16ME422	Pradeep Kumar S	Ultra Tech Bangalore	4 weeks
110	4PM16ME423	Rahul Dhanshetty	Mahindra CIE Automotive Ltd Stampings Zaheerabad Telangana	4 weeks
111	4PM16ME431	Shreyas Babu	Vijay Technnocrats Pvt Ltd, Machenahalli Shimoga	4 weeks
112	4PM16ME435	Suraj Mahalthkar M. R.	Sree S.G.K Industries Shimoga	4 weeks
113	4PM16ME436	Suraj P.	Vijay Technnocrats Pvt Ltd, Machenahalli Shimoga	4 weeks
114	4PM17ME400	Abhishek Gouda	South Western Railway HHP Diesel Loco Shed, Hubballi	4 weeks
115	4PM17ME405	Dharmendra H N	ACE Designers Ltd, Peenya Industrial Area Bangalore	4 weeks
116	4PM17ME406	E Manjunatha	ACE Designers Ltd, Peenya Industrial Area Bangalore	4 weeks
117	4PM17ME407	Harshawardhan D. E.	Flow & Force Engineers, Bangalore	4 weeks
118	4PM17ME411	Manojkumar S	Sree S.G.K Industries Shimoga	4 weeks
119	4PM17ME413	Naveenkumar T. C.	HAL Bangalore	4 weeks
120	4PM17ME414	Pavankumar V	Sree S.G.K Industries Shimoga	4 weeks
121	4PM17ME415	Pradeep Kumar L.	ACE Designers Ltd, Peenya Industrial Area Bangalore	4 weeks
122	4PM17ME416	Praveen C. Shetty	ACE Designers Ltd, Peenya Industrial Area Bangalore	4 weeks
123	4PM17ME418	Sanjay B	Flow & Force Engineers	4 weeks
124	4PM17ME419	Shankara G.	Flow & Force Engineers	4 weeks
125	4PM17ME420	Tejaswini S.	Toyota Industries Engine India Pvt Ltd, Bangalore	4 weeks
126	4PM17ME422	Vinayak Nagendra Naik	Divagi TorqTransfer Systems, Sirsi	4 weeks

Table 2.15: Students Internship Training Details of Academic Year (CAY) 2018-2019

Date: 07/07/2018 to 31/07/2018

Sl.	USN	Name	Industries/Company Name & Place	Duration
1	4PM13ME083	Santosh Kumar Singh	Workshop Training center N E Railway, Gorakhpur	4 weeks
2	4PM14ME018	Dilip Kumar B N	Naetek Ferrocastings Pvt Ltd, Machenahalli, Shimog	4 weeks
3	4PM14ME047	Mohammed T. Ahmed	MS Industries, Tumkur	4 weeks
4	4PM14ME095	Vijay T V	Naetek Ferrocastings Pvt Ltd, Machenahalli, Shimoga	4 weeks
5	4PM15ME001	Abhishek S R	Sri Annapoorneshwari Alloy Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
6	4PM15ME003	Akarsh M Beturmath	KSS Industries, Bangalore	4 weeks
7	4PM15ME007	Bharath Gowda G	JSW Steels, Ballari	4 weeks
8	4PM15ME009	Darshan B M	Shanthala Spherocast Pvt Ltd, Machenahalli, Shimoga	4 weeks
9	4PM15ME010	Darshan Manjunath Bhat	Divgi TorqTransfer Systems, Sirasi	4 weeks
10	4PM15ME011	Darshankarthik A M	Naetek Ferrocastings Pvt Ltd, Machenahalli, Shimoga	4 weeks
11	4PM15ME012	Devaraj Barki	KSS Industries, Bangalore	4 weeks
12	4PM15ME013	Dinesh Kumar Bishnoi	Malnad Prime Machining Technologies Pvt Ltd Machenahalli, Shimoga	4 weeks
13	4PM15ME015	Ganesh Laxmeshwar	JSW Steels, Ballari	4 weeks
14	4PM15ME016	Girish H N	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
15	4PM15ME019	Gowtham V	Prragathi Steel Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
16	4PM15ME021	Imad Ahamed I	Swayam Alloy Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
17	4PM15ME022	K Vishal	KC Engineering, Pune	4 weeks
18	4PM15ME023	Keerthi C.	Valarmathy Metal Works Pudukkottai, TamilNadu	4 weeks
19	4PM15ME024	Keerthi T H	SAI Krupa Indistries Pvt Ltd, Machenahalli Shimoga	4 weeks
20	4PM15ME025	Kiran T M	Raghav Metal Coating, Bangalore	4 weeks
21	4PM15ME026	Kuppinakeri Jnanesha	SLR Metaliks Limited, H B Halli, Ballari	4 weeks
22	4PM15ME027	Lohith Kumar B N	Swayam Alloy Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
23	4PM15ME028	Madhav M Karpur	KSS Industries, Bangalore	4 weeks
24	4PM15ME029	Madhu C	Eshwarr Steel Tech Pvt Ltd, Machenahalli Shimoga	4 weeks
25	4PM15ME030	Madhuchandra H R	Sumuka Steels Pvt Ltd, Machenahalli Shimoga	4 weeks
26	4PM15ME031	Malleshi Lagamanna B	KSS Industries, Bangalore	4 weeks
27	4PM15ME033	Manjunath R	Prragathi Steel Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
28	4PM15ME035	Manjunatha G T	JSW Steels, Ballari	4 weeks

29	4PM15ME036	Manjunatha H K	Raghav Metal Coating, Bangalore	4 weeks
30	4PM15ME037	Manohara U	NMDC Limited, Ballari	4 weeks
31	4PM15ME038	Mir Jibraan Hussain	Sri Balaji Technocast, Machenahalli Shimoga	4 weeks
32	4PM15ME039	Mohammed Muntaqeem	Swayam Alloy Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
33	4PM15ME042	Mohan Kumar G S	Prragathi Steel Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
34	4PM15ME045	Nabeelur Rahaman	Sri Balaji Technocast, Machenahalli Shimoga	4 weeks
35	4PM15ME046	Nagabhushan V. Gudi	Sri Balaji Technocast, Machenahalli Shimoga	4 weeks
36	4PM15ME047	Nagreddy	JSW Steels, Ballari	4 weeks
37	4PM15ME049	Nandan N V	Valarmathy Metal Works Pudukkottai, TamilNadu	4 weeks
38	4PM15ME058	Premkumar M	KSS Industries, Bangalore	4 weeks
39	4PM15ME051	Nandishwar Reddy B	MS Industries, Tumkur	4 weeks
40	4PM15ME052	Naveen Kumar S	MS Industries, Tumkur	4 weeks
41	4PM15ME053	Nikhil M	MS Industries, Tumkur	4 weeks
42	4PM15ME054	Niranjan Suresh Hegde	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
43	4PM15ME057	Pradyumna S. Hegde	Valarmathy Metal Works Pudukkottai, TamilNadu	4 weeks
44	4PM15ME059	Raghavendra H	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
45	4PM15ME061	Rajat Pandey	NHPC Limited, Tanakpur Power Station Champawat UttarKand	4 weeks
46	4PM15ME063	Ravi C C	NMDC Limited, Ballari	4 weeks
47	4PM15ME064	Ravi Kiran P	KSS Industries, Bangalore	4 weeks
48	4PM15ME065	Rizwan H	KSS Industries, Bangalore	4 weeks
49	4PM15ME067	Roshan Dsouza	KSS Industries, Bangalore	4 weeks
50	4PM15ME068	Sachi Gowda S	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
51	4PM15ME071	Sanjay G	MS Industries, Tumkur	4 weeks
52	4PM15ME072	Sanjay P S	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
53	4PM15ME073	Sanjay S L	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
54	4PM15ME074	Shabari Girish Hosamata	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
55	4PM15ME076	Shashwath Shetty	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
56	4PM15ME078	Shivamurthy B S	MS Industries, Tumkur	4 weeks
57	4PM15ME079	Shivaraj Totager	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
58	4PM15ME081	Siddanth P Jain	Malnad Prime Machining Technologies Pvt Ltd Machenahalli, Shimoga	4 weeks
59	4PM15ME082	Siddesha N H	MS Industries, Tumkur	4 weeks
60	4PM15ME083	Subramanya M G	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
61	4PM15ME084	Subramanya C	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
62	4PM15ME090	Tejas M	Shanthala Spherocast Pvt Ltd, Machenahalli, Shimoga	4 weeks
63	4PM15ME092	Ullas J Subedar	MS Industries, Tumkur	4 weeks
64	4PM15ME093	Varun A N	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
65	4PM15ME096	Vibhuti Narayan Acharya	Bokaro steel Plant, Jharkhand	4 weeks
66	4PM15ME097	Vikas B Muddebihal	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
67	4PM15ME098	Vikhil Akhilesh Olivera	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
68	4PM16ME400	Abhishek R.S.	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
69	4PM16ME401	Akash G.N.	NMDC Limited, Ballari	4 weeks
70	4PM16ME402	Akshay Shiransangi	K C Engineering Pune	4 weeks
71	4PM16ME405	Basavaraj B.M.	NMDC Limited, Ballari	4 weeks

72	4PM16ME406	Bharma Gowda B.S.	K C Engineering Pune	4 weeks
73	4PM16ME407	Chandan L.	Adhishakthi Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
74	4PM16ME408	Chethan S.P.	NMDC Limited, Ballari	4 weeks
75	4PM16ME409	Faraz Ahamed Shariff	MS Industries, Tumkur	4 weeks
76	4PM16ME410	Goutama Hebbar	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
77	4PM16ME411	Girisha Bennuru	SLR Metaliks Limited, H B Halli, Ballari	4 weeks
78	4PM16ME412	Hemavathi M.	NMDC Limited, Ballari	4 weeks
79	4PM16ME413	Janardhana H.	Vinayaka Precisions Peenya Bangalore	4 weeks
80	4PM16ME414	Kiran Kumar S.	Adhishakthi Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
81	4PM16ME415	Krishna Naik	NMDC Limited, Ballari	4 weeks
82	4PM16ME416	Mannakhan Rahamath	MS Industries, Tumkur	4 weeks
83	4PM16ME417	Manoj Kumar B.U.	Adhishakthi Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
84	4PM16ME418	Mithun D.C.	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
85	4PM16ME419	Mohammed Talha	Swayam Alloy Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
86	4PM16ME424	Raje Gowda	Adhishakthi Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
87	4PM16ME425	Ramesh U.	CIM Tools Pvt Ltd, Peenya Bangalore	4 weeks
88	4PM16ME426	Sanjay M.S.	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
89	4PM16ME427	Santhosha M.	Vinayaka Precisions Peenya Bangalore	4 weeks
90	4PM16ME428	Shankar K.R.	CIM Tools Pvt Ltd, Peenya Bangalore	4 weeks
91	4PM16ME429	Shashidhar Tubaki	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
92	4PM16ME430	Shivanand Y.K.	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
93	4PM16ME432	Suhel H.M.	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
94	4PM16ME433	Sunil Kumar H.	Ind-Lab Equipments Pvt Ltd, Bangalore	4 weeks
95	4PM16ME437	Suresh I.K.	K C Engineering Pune	4 weeks
96	4PM16ME438	Swaroop N.	Naetek Ferrocastings Pvt Ltd, Machenahalli, Shimoga	4 weeks
97	4PM16ME439	Swathi P.	Sri Annapoorneshwari Alloy Castings Pvt Ltd, Machenahalli Shimoga	4 weeks
98	4PM16ME440	Tejas Naik	CIM Tools Pvt Ltd, Peenya Bangalore	4 weeks
99	4PM16ME441	Vasanth Kumar S.	NMDC Limited, Ballari	4 weeks
100	4PM16ME442	Vijay V.Govinda	TATA Marcopolo, Dharwad	4 weeks
101	4PM16ME443	Vinayaka	SLR Metaliks Limited, H B Halli, Ballari	4 weeks
102	4PM16ME444	Yogendra Prasad V.S.	Prragathi Steel Castings Pvt Ltd, Machenahalli Shimoga	4 weeks

Table 2.16: Students Internship Training Details of Academic Year (CAY) 2017-2018

Date: 10/01/2017 to 26/01/2017

Sl.no	USN	Name	Industries/Company Name & Place	Duartion
1	4PM16ME056	Nithin J C	Perfect Alloy components Pvt Ltd, Shivamogga	25 Days
2	4PM17ME412	N Tanveer Zaidi	AERDC HAL, Bangalore	
3	4PM15ME063	Ravi C C	Shanthala Spherocast Pvt Ltd, Machenahalli Shivamogga	15 Days

4	4PM15ME076	Shashwath Shetty	Shanthala Spherocast Pvt Ltd, Machenahalli Shivamogga	15 Days
5	4PM15ME046	Nagabhushan Venkatesh Gudi	Arvind Motors Pvt Ltd, Shivamogga	15 Days
6	4PM15ME045	Nabeelur Rahaman	Arvind Motors Pvt Ltd, Shivamogga	15 Days
7	4PM15ME027	Lohith Kumar B N	Arvind Motors Pvt Ltd, Shivamogga	15 Days
8	4PM15ME039	Mohammed Muntaqeem	Arvind Motors Pvt Ltd, Shivamogga	15 Days
9	4PM15ME021	Imad Ahamed I	Arvind Motors Pvt Ltd, Shivamogga	15 Days
10	4PM15ME025	Kiran T M	Volvo Buses India Pvt Ltd, Hoskote, Bangalore	15 Days
11	4PM14ME067	Sachin T.K.	Micromatic Machine Tools Pvt. Ltd, Peenya Industrial Area, Bangalore	10 Days
12	4PM14ME087	Sumanth B.Hanchinal	Micromatic Machine Tools Pvt. Ltd, Peenya Industrial Area, Bangalore	10 Days
13	4PM14ME074	Sanjaykumar M.	Micromatic Machine Tools Pvt. Ltd, Peenya Industrial Area, Bangalore	10 Days
14	4PM15ME430	Shravan Sammannavar	Micromatic Machine Tools Pvt. Ltd, Peenya Industrial Area, Bangalore	10 Days
15	4PM15ME432	Sunil Basavanneppa Ganagi	Micromatic Machine Tools Pvt. Ltd, Peenya Industrial Area, Bangalore	10 Days
16	4PM15ME009	Darshan B M	Pearlite Liners Pvt. Ltd. N.T. Road, Shivamogga	3 Days
17	4PM14ME064	Rakshit Mishra	Gujarat Fluorochemicals Ltd, Gujarat	3 Days
18	4PM15ME059	Raghavendra H	Naetek Ferrocastings Pvt Ltd, Machenahalli, Shivamogga	3 Days
19	4PM15ME074	Shabari Girish Hosamata	Naetek Ferrocastings Pvt Ltd, Machenahalli, Shivamogga	3 Days
20	4PM15ME098	Vikhil Akhilesh Olivera	Naetek Ferrocastings Pvt Ltd, Machenahalli, Shivamogga	3 Days
21	4PM15ME068	Sachi Gowda S	Vijay Technnocrats Pvt Ltd, Machenahalli, Shivamogga	3 Days
23	4PM15ME071	Sanjay G	Vijay Technnocrats Pvt Ltd, Machenahalli, Shivamogga	3 Days
24	4PM15ME081	Siddanth P Jain	Malnad Alloy Castings Pvt Ltd, Machenahalli, Shivamogga	3 Days
25	4PM15ME084	Subramanya C	Malnad Alloy Castings Pvt Ltd, Machenahalli, Shivamogga	3 Days
26	4PM15ME090	Tejas M	Malnad Alloy Castings Pvt Ltd, Machenahalli, Shivamogga	3 Days

Impact Analysis of Industrial visit

- Students are exposed to real time practical experience of the concepts studied in the classrooms and realized the practical importance of the subjects.
- Industrial visit creates more interest in the subjects.
- Students are inspired to do hard work and get placed in such industries.
- Students were exposed to the industry standards and workplace culture.

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120) Total Marks 99.00

Define the Program specific outcomes

3.1 Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20) Total Marks 18.00

:

PSO1	Graduates shall be able to design and develop efficient Mechanical systems.
PSO2	Graduates shall be able to analyze, interpret and also lead the team in industries to provide feasible solutions to multidisciplinary engineering and societal problems.

3.1.1 Course Outcomes(COs)(SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (5) Institute Marks : 5.00

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

Course Name :	**C2 02**	**Course Year :**	**2016-2017**

Items	**2019-20**
C2 02.1	Describe the crystal structures and mechanical properties of basic materials, and various modes of failure.
C2 02.2	Interpret the microstructures of ferrous and non-ferrous materials during solidification.
C2 02.3	Illustrate the processes of heat treatment of various ferrous materials.
C2 02.4	Interpret the properties and potentialities of various materials available and material selection procedures.
C2 02.5	Illustrate the different composite materials and their processing, applications.

Course Name :	C2 16	Course Year :	2016-2017

Items	2019-20
C2 16.1	Interpret the concept of fluid properties, fluid static behavior.
C2 16.2	Apply the principles of fluid kinematics and dynamics while addressing problems of fluid flow systems.
C2 16.3	Recognize and design fluid flow systems with minimum loss of energy considering laminar and turbulent conditions.
C2 16.4	Apply the concept of boundary layer and Dimensional analysis in fluid flow.
C2 16.5	Interpret the basic concept of compressible flow and CFD.

Course Name :	C3 01	Course Year :	2017-2018

Items	2019-20
C3 01.1	Interpret needs, functions, roles, scope and evolution of Management. Importance and purpose of Planning, hierarchy of planning and also analyze its types.
C3 01.2	Discuss the purpose of organization, Meaning and nature of directing, Motivation Theories, Meaning and steps in controlling.
C3 01.3	Interpret Microeconomics & Macroeconomics, equilibrium between demand & supply, various interest rate methods and implement the suitable one.
C3 01.4	Examine different economic analysis methods-PW, AW, IRR, FW for decision making.
C3 01.5	Estimate various depreciation values of commodities and taxation concept.

Course Name :	C3 13	Course Year :	2017-2018

Items	2019-20
C3 13.1	Interpret the basic modes of heat transfer and Compute temperature distribution in steady-state.
C3 13.2	Analyze the heat transfer through extended and insulated surfaces in steady and unsteady state.
C3 13.3	Interpret the laws of radiation heat transfer and solve the heat conduction problems through numerical methods.
C3 13.4	Analyze forced and free convective heat transfer.
C3 13.5	Analyze heat exchangers using LMTD and NTU methods.

Course Name :	C4 01	Course Year :	2018-2019

Items	2019-20
C4 01.1	Summarize the basic concepts of thermal energy conversion systems.
C4 01.2	Analyze the working of diesel engine power plant, cooling and lubrication systems and hydro electric power plants.
C4 01.3	Interprete solar radiation , solar thermal systems, solar refrigeration and air conditioning, solar photo voltaic systems
C4 01.4	Illustrate the principles of energy conversion from alternate sources including wind and tidal energy.
C4 01.5	Explain the principles of energy conversion from biomass and the basic concepts of Nuclear, OTEC, GTE, Green energy.

Course Name :	C4 10	Course Year :	2018-2019

Items	2019-20
C4 10.1	Formulate the practical problems as a linear program and interpret the optimal solution & perform analysis using OR techniques.
C4 10.2	Formulate, solve and analyze the Transportation and Assignment.

C4 10.3	Understand and solve travelling salesman problems also Formulate practical problems as integer programming, to validate the optimal solution & perform analysis using OR techniques.
C4 10.4	Apply the concepts of network analysis techniques to solve practical problems.
C4 10.5	Analyze the mathematical analysis of competitive problems and identify the statistical description of the behavior of Queues.

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

Institute Marks : 5.00

1 . course name : C202

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202.1	2	2	2	-	-	-	-	-	-	2	-	-
C202.2	2	2	2	-	-	-	-	-	-	-	-	-
C202.3	-	-	-	-	-	-	-	-	-	2	-	-
C202.4	2	2	2	-	-	-	-	-	-	-	-	-
C202.5	2	2	2	-	-	-	-	-	-	-	-	-
Average	**2.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**	**0.00**	**0.00**

2 . course name : C216

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C216.1	2	2	-	-	-	-	-	-	-	-	-	2
C216.2	2	2	-	-	-	-	-	-	-	-	-	2

C216.3	2	2	-	-	-	-	-	-	-	-	-	1
C216.4	2	2	-	-	-	-	-	-	-	-	-	1
C216.5	2	2	-	-	2	-	-	-	-	-	-	1
Average	**2.00**	**2.00**	**0.00**	**0.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**

3 . course name : C301

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C301.1	-	-	-	-	-	-	-	2	-	-	2	3
C301.2	-	-	-	-	-	-	-	2	-	-	2	3
C301.3	2	2	-	-	-	-	-	-	-	-	-	2
C301.4	2	2	-	2	-	-	-	-	-	-	-	2
C301.5	2	2	-	2	-	-	-	-	-	-	-	2
Average	**2.60**	**2.00**	**0.00**	**2.00**	**0.00**	**0.00**	**0.00**	**2.00**	**0.00**	**0.00**	**2.00**	**2.40**

4 . course name : C313

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C313.1	2	2	-	-	-	-	-	-	-	-	-	-
C313.2	2	2	-	-	-	-	-	-	-	-	-	-
C313.3	3	3	1	-	1	-	-	-	-	-	-	-
C313.4	3	3	-	-	-	-	-	-	-	-	-	-
C313.5	3	3	2	1	1	-	-	-	-	-	-	-

Average	**2.00**	**2.80**	**1.50**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5 . course name : C401

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C401.1	-	-	-	-	-	-	2	-	-	-	-	-
C401.2	3	3	-	-	-	2	2	-	-	-	-	-
C401.3	3	3	-	-	-	2	2	2	-	-	-	2
C401.4	2	2	-	-	-	-	2	-	-	-	-	-
C401.5	-	-	-	-	-	2	2	2	-	-	-	-
Average	**2.00**	**2.67**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**2.00**

6 . course name : C410

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C410.1	2	2	2	-	-	-	-	-	-	-	-	-
C410.2	2	2	2	2	-	-	-	-	-	-	-	-
C410.3	2	2	2	2	-	-	-	-	-	-	-	-
C410.4	2	2	2	2	-	-	-	-	-	-	2	-
C410.5	2	2	2	2	-	2	2	-	-	-	-	-
Average	**2.60**	**2.00**	**2.00**	**2.00**	**0.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**2.00**	**0.00**

1 . Course Name : C202

Course	PSO1	PSO2
C202.1	2	-
C202.2	2	-
C202.3	2	-
C202.4	2	-
C202.5	2	-
Average	**2.00**	**0.00**

2 . Course Name : C216

Course	PSO1	PSO2
C216.1	2	2
C216.2	2	2
C216.3	2	2
C216.4	2	2
C216.5	2	2
Average	**2.00**	**2.00**

3 . Course Name : C301

Course	PSO1	PSO2
C301.1	2	-
C301.2	2	2
C301.3	2	-

C301.4	3	3
C301.5	2	2
Average	**2.20**	**2.30**

4 . Course Name : C313

Course	**PSO1**	**PSO2**
C313.1	2	-
C313.2	2	-
C313.3	2	-
C313.4	2	2
C313.5	2	2
Average	**2.00**	**2.00**

5 . Course Name : C401

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

6 . Course Name : C410

Course	PSO1	PSO2
C410.1	2	-
C410.2	2	2
C410.3	2	-
C410.4	2	2
C410.5	2	2
Average	**2.00**	**2.00**

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

Institute Marks : 8.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	3	2.5	2	2.25	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
C102	2.2	2.25	2.5	1.67	1.67	1.67	1	PO8	PO9	PO10	PO11	PO12
C103	2.5	2.75	PO3	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104	3	2	2	2	PO5	PO6	1.33	PO8	PO9	PO10	PO11	3
C105	2.2	2.4	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
C106	1.75	1.75	PO3	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	1
C107	3	2.67	2.34	2.34	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.34
C108	2	2.67	2	1.5	PO5	1	1	PO8	PO9	PO10	PO11	PO12
C109	2.5	2	2.34	PO4	1.75	PO6	PO7	PO8	PO9	PO10	PO11	1.67
C110	2	2.34	2	PO4	1	PO6	1.67	PO8	PO9	PO10	2	1
C111	2	2	PO3	PO4	PO5	PO6	PO7	PO8	2	PO10	PO11	PO12

C112	3	3	3	2	2	PO6	PO7	1.5	2	2	PO11	3
C113	2.2	2.25	2.5	1.67	1.67	1.67	1	PO8	PO9	PO10	PO11	PO12
C114	1.5	2	3	3	PO5	2	2	PO8	PO9	PO10	PO11	PO12
C115	3	2.5	1.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C116	PO1	PO2	PO3	PO4	PO5	2	PO7	2.4	2	2	PO11	2
C201	3	2.67	2	2.67	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202	2	2	2	PO4	PO5	PO6	PO7	PO8	PO9	2	PO11	PO12
C203	2	2	PO3	1.5	PO5	2	2	PO8	PO9	PO10	PO11	1.7
C204	2.17	2.5	1.67	2.5	2	2	1.5	1	PO9	PO10	PO11	PO12
C205	2	2	2	PO4	PO5	2	PO7	PO8	2	PO10	PO11	2
C206	2	2	PO3	PO4	PO5	PO6	PO7	PO8	2	PO10	PO11	PO12
C207	2.5	2.25	2.5	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C208	2.3	2.5	PO3	PO4	PO5	2	2	1.8	PO9	1.7	PO11	1.8
C209	2	3	2	1	1	PO6	PO7	2	2	PO10	PO11	PO12
C210	2	PO2	PO3	PO4	PO5	2	PO7	PO8	2	PO10	PO11	PO12
C211	2	2.5	2.5	2	PO5	PO6	PO7	PO8	PO9	3	PO11	PO12
C212	2	2	2	2	PO5	PO6	PO7	PO8	2	PO10	PO11	2
C213	3	2.5	2	2.3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C214	2	2	2.3	PO4	PO5	PO6	PO7	PO8	2	PO10	PO11	PO12
C215	2	2	PO3	PO4	PO5	PO6	1	PO8	PO9	PO10	PO11	PO12
C216	2	2	PO3	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	1.4
C301	2.7	2	PO3	2	PO5	PO6	PO7	2	PO9	PO10	2	2.4

C302	2.7	2.5	PO3	2	PO5	2	PO7	PO8	PO9	PO10	PO11	PO12
C303	2.6	2	PO3	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C304	2.2	2.6	2.6	PO4	PO5	PO6	PO7	PO8	PO9	PO10	1.34	PO12
C306	2	2	PO3	PO4	2	2	PO7	PO8	PO9	PO10	PO11	2
C307	2	PO2	PO3	PO4	PO5	2	2.6	2.6	PO9	PO10	PO11	3
C309	2	2	1	1	PO5	PO6	PO7	PO8	1	PO10	PO11	PO12
C310	2	2	1	PO4	1	2	1	PO8	1	PO10	PO11	PO12
C311	3	2	2	2.5	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C312	2.4	2	2.3	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C313	2	2.6	1.5	1	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314	2	2.6	2.6	PO4	PO5	PO6	PO7	PO8	PO9	PO10	2.25	PO12
C315	2	2.5	2.5	2.34	2.25	PO6	PO7	PO8	2.2	PO10	PO11	2
C316	3	2	PO3	PO4	PO5	3	3	3	PO9	PO10	PO11	2
C318	2	2	2	PO4	2.5	PO6	PO7	2	PO9	2	PO11	2
C319	2	2	PO3	PO4	PO5	PO6	PO7	PO8	2	PO10	PO11	PO12
C320	3	2	3	PO4	1	1	2	PO8	1	PO10	PO11	2
C401	2	2	PO3	PO4	PO5	2	2	2	PO9	PO10	PO11	2
C402	2	2	PO3	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C403	2	2	2	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C404	2.2	2.4	2	1	PO5	2	2	1.6	1.34	1.5	1.6	1.67
C405	2.5	2.3	2.5	PO4	PO5	PO6	3	PO8	PO9	PO10	PO11	PO12
C406	2.4	2	2.5	PO4	PO5	PO6	2	1	PO9	1	1	PO12

C407	3	2	2.7	2	2	3	3	PO8	PO9	PO10	PO11	3
C408	2.5	2	2	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C409	2	2.3	2	PO4	3	2	2	2	3	PO10	2	2
C410	2.8	2.6	2	PO4	PO5	2	PO7	PO8	PO9	PO10	2	PO12
C411	2.4	2.6	1.8	1.8	PO5	PO6	PO7	PO8	PO9	PO10	2	PO12
C412	2	2	3	2	PO5	PO6	PO7	PO8	2	PO10	PO11	PO12
C413	2	2	3	2	3	2	2	2	3	2	3	2
C414	3	2.5	PO3	2	PO5	2.5	3	PO8	2.5	PO10	PO11	PO12
C415	2.5	3	PO3	2.5	PO5	PO6	2.5	PO8	3	PO10	PO11	2.5

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

Course	PSO1	PSO2
C101	2	1.75
C102	2	1.8
C103	2	1.75
C104	2.4	2.67
C105	2	2
C106	2	1.75
C107	2	1.67
C108	2	2.67
C109	2	2
C110	2	2
C111	1.5	1

C112	2	2
C113	2	1.8
C114	1.5	PSO2
C115	2	1.5
C116	2	PSO2
C201	2	2
C202	2	PSO2
C203	2	1
C204	3	3
C205	2	2
C206	2	PSO2
C207	2.25	2.3
C208	2	2
C209	2	3
C210	2	PSO2
C211	3	PSO2
C212	2	2
C213	2	2
C214	2	2
C215	2	1
C216	2	2
C301	2.3	2.3

C302	2.5	2.7
C303	2	2
C304	2.34	2.5
C306	2	PSO2
C307	PSO1	2
C309	2	1
C310	2	1
C311	2.5	2
C312	2	2
C313	2	2
C314	2.34	2.5
C315	2.2	2
C316	2	PSO2
C318	2	2
C319	2	2
C320	3	2
C401	2	2
C402	2	2
C403	1.5	1.5
C404	2.4	1.8
C405	2.5	2.7
C406	3	2

C407	2.5	3
C408	2	2
C409	2	2
C410	2	2
C411	2	1.5
C412	2.3	2
C413	2	2
C414	3	3
C415	2.5	3

3.2 Attainment of Course Outcomes (50) Total Marks 41.00

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10) Institute Marks : 7.00

ASSESSMENT PROCESS FOR COURSE OUTCOME

- The key aspects in Outcome-Based Education (OBE) are the assessment of course outcomes. At the initial stage of OBE implementation, the Course Outcomes (CO's) for each course are defined based on the Programme Outcome (PO's) and other requirements. At the end of each course, the COs needs to be assessed and evaluated, to check whether it has been attained or not.
- Assessment is one or more processes, carried out by the department, that identify, collect, and prepare data to evaluate the achievement of programme educational objectives and programme Outcomes.
- Attainment is the action or fact of achieving a standard result towards accomplishment of desired goals. Primarily attainment is the standard of academic attainment as observed by test and examination results.
- Attainment of the COs can be measured directly and indirectly.
- Direct attainment basically displays the student's knowledge and skills from their performance. It can be determined from the performance of the students in all the relevant assessment instruments – like internal assessments, assignments, quiz and final university examination. These methods provide a sampling of what students know and/or can do and provide strong evidence of student learning. The direct assesment description is shown in Table 3.1. The rubric of Internal assessment is discussed in section 2.2.2 . Table 3.2, 3.3 and 3.4 shows rubics for Lab internal, seminar and project work. The detail rubics for project work clearly discussed in section 2.2.3.
- Indirect methods such as surveys and interviews ask the stakeholders to reflect on student's learning. They assess opinions or thoughts about the graduate's knowledge or skills. Indirect measures can provide information about graduate's perception of their learning and how this learning is valued by different stakeholders. Table 3.5 shows various Indirect assessment for evaluating COs.

- Course Outcome Attainment is calculated based on student performance in Continuous Internal Evaluation (CIE) and Semester End Examination (SEE), which constitutes direct assessment
- For total direct attainment 50% attainment of CIE and 50% attainment of SEE are considered. The equal proportioning is adopted as the marks allocation for questions and in turn CO's in SEE is not provided by the university.
- Course Exit Survey (CES) is carried out and used for evaluation of course outcome attainment, which constitutes indirect assessment.
- For total attainment 80% direct attainment and 20% indirect attainment in considered. As the direct attainment is a better reflection of actual attainment, a higher proportioning is considered. The estimation of COs is shown in Fig. 3.1.
- Course Outcome Attainment is calculated using the following relationship

$$Course\,Outcome = Percentage\,of\ students\,getting\,more\,than\,target$$

- Course Instructor sets a target for this attainment, prior to the assessments, based on the nature of course and average university results in the particular course.
- Three different levels of attainment is set for each program (each batch), with respect to which the attainment or non attainment is calculated.
- The course outcome attainments are represented as 1, 2, 3 or 0(Zero) depending on the direct and indirect attainments compared with set targets.
- For 2014-18 Batch, 2010 scheme of study, defined levels are as follows
- Level 1 – 47%
- Level 2 – 52%
- Level 3 – 57%
- For 2015-19 Batch, 2015 scheme of study, defined levels are as follows
- Level 1 – 50%
- Level 2 – 55%
- Level 3 – 60%

Table 3.1: Evaluation for Direct Assessment (Scheme 2015-2019)

Sl. No.	Direct Assessment	Description
1	Internal Assessment tests	Department will conduct three internal tests, scheduled in accordance with the university and college calendar of events.
		The faculties will prepare the Question papers and scheme for the respective subject well in advance and evaluated through respective committee members and finally submitted to IA coordinator.
		The faculties will follow scheme and solutions for each test and evaluate the performance of students as per the assessment rubrics. The Internal assessment marks are based on average of best score of two tests conducted.
2	Lab Assessment	Laboratory in-charge faculties will follow the rubrics, which is set by the department for evaluation of laboratory experiments/programs.

		There shall be maximum of 20 Marks IA in each practical's and 50% (*i.e*. minimum of 10 marks of IA is mandatory) in order to obtain eligibility to appear for the university practical examination.
3	Seminars	The Department selects a senior faculty member as a Seminar coordinator.
		Seminar Coordinator has to sit with other faculty to assess the Technical seminar presentations by students.
		He/She would ensure that the students choose advanced concepts in Information Science field.
		One seminar presentation per student in the VIII semester would be conducted as per the schedule mentioned prior in Time Table.
		Seminar coordinators follow rubrics, which is set by the department for evaluation of seminar.
4	Project	Project batches are formed as per the instruction given by project coordinators.
		Synopsis will be submitted to the project coordinators for scrutinizing.
		Project Batches are allotted to the internal guides based on the specialization and competency skills of the faculties.
		Each internal guide will continuously monitor their students on a weekly basis to observe the progress of the work.
		The project guide along with project coordinator conduct 2 project reviews as per the rubrics, which is set by the Department and the submit the Internal Assessment marks to the Head Of Department.
		The department will encourage students to participate in technical Expo and the project guides motivate and guide the students to publish in standard conference/journal forums.
	Semester End Examination	Semester examinations are the metric to assess whether all the course outcomes are attained or not framed by the respective subject faculty.
		Semester Examination is more focused on attainment of course outcomes and uses a descriptive exam.
		Students must score minimum marks out of maximum marks to pass in each course. The minimum and maximum marks for each scheme as discussed in section 2.2 were framed by university.
6	Practical examination marks	External Practical examination is conducted by the panel of examiners deputed by the University BOE.
		Based on the write-up, conduction and viva voce the marks are awarded to the students and submitted to university.
		Students must score minimum marks to pass in the practical examination.
7	Project vivavoce	External Project Viva voce is conducted by the panel of examiners deputed by the University BOE.
		Based on the viva voce the marks are awarded to the students and submitted to university.

Table 3.2: Rubrics used for evaluation to award lab internal marks (Scheme 2015-2019)

Parameters	**Marks**	**High**	**Medium**	**Low**
Attendance + Record	12	Student attended all the lab sessions	Student missed one or two lab sessions	Student missed more than 3 lab sessions
		4-5 Marks	3-4 Marks	1-2 Marks
IA Marks	08	As per Rubrics for continuous evaluation in the lab session.	IA Marks	08

Table 3.3: Seminar Assessment Rubrics

Criterion	Max. Marks[50]	**Marks Distribution**
Content	15	Inadequate [<7 Marks]
		Average [7-10 Marks]
		Admirable [10-13 Marks]
		Outstanding [14-15 Marks]
Presentation, Results (Figures, Graphs, Tables, etc.)	10	Inadequate [<5 Marks]
		Average [5-7 Marks]
		Admirable [8-9 Marks]
		Outstanding [10 Marks]
Knowledge of subject	10	Inadequate [<5 Marks]
		Average [5-7 Marks]
		Admirable [8-9 Marks]
		Outstanding [10 Marks]
Eye contact and body language	5	Inadequate [1 Marks]
		Average [2 Marks]
		Admirable [3-4 Marks]
		Outstanding [5 Marks]
Elocution-ability to speak English language	5	Inadequate [1 Marks]
		Average [2 Marks]
		Admirable [3-4 Marks]
		Outstanding [5 Marks]
Length and Pace	5	Inadequate [1 Marks]
		Average [2 Marks]
		Admirable [3-4 Marks]
		Outstanding [5 Marks]

Table 3.4: Project Assessment Rubrics

Review No	Agenda	Assessment	Review Assessment weightage (Marks)
01	Project Work Phase-I	Rubric-1	**50% (100)**
02	Project Work Phase-II	Rubric-2	**50% (100)**
Total Weightage (Marks)			**100% (200)**

Table 3.5: Indirect assessment methods

Sl. No.	direct Assessment	Description
01	Course Exit Survey	At the end of the each semester exit survey for each course were taken from students based on the respective Cos which are mapped with Pos.
02	Student feedback	Collect the information about outcome based education in teaching and learning process.
03	Alumni feedback	Collect the various information about program Satisfaction and college from the Alumni students.

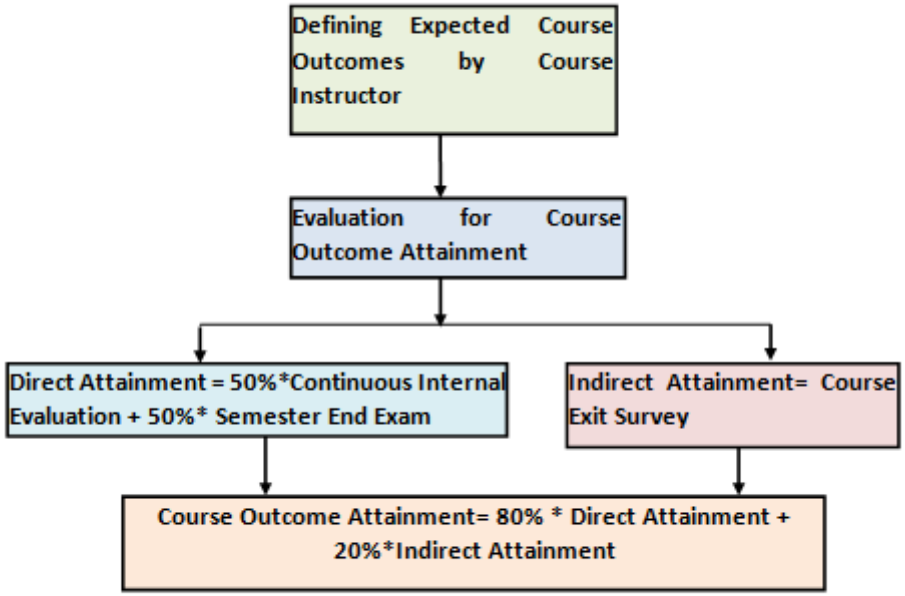


Figure 3.1: Assessment process for Course Outcome.

Steps for CO Attainment
Step 1 : Obtain course outcome.
Step 2 : Mapping of Course Outcome with Program Outcome.
Step 3 : Setting Target for CO assessment.
Step 4 : CO measurement through attainment levels
Step 5 : Obtain CO attainment table through direct and indirect assessment methods.

The Fig 3.2 shows the sample attainment sheet considering IA marks and SEE marks for the attainment of the course Outcomes. Figure 3.3 shows the attaiment caluculation by considering both Direct and Indirect assessment. Figure 3.4 shows sample COs attainment levels.

Continous Internal Evaluation			First Internal Assessment																		Second Internal Assessment																		Third Internal Assessment																		SEE
CO's ⟶			CO311.3	CO3	CO3	0	CO3	CO3	CO3	0	CO3	CO3	CO3	0	CO3	CO3	CO3	0	0		CO3	CO3	CO	0	CO	CO3	0	0	CO301.4	CO301.4	0	0	CO3	CO3	CO301.1	0	0		CO	CO	CO	0	CO	CO	CO	0	CO	CO	CO	0	0	0		
Question Number ⟶			1A	1B	1C	1D	2A	2B	2C	2D	3A	3B	3C	3D	4A	4B	4C	4D	CCA		1A	1B	1C	1D	2A	2B	2C	2D	3A	3B	3C	3D	4A	4B	4C	4D	CCA		1A	1B	1C	1D	2A	2B	2C	2D	3A	3B	3C	3D	4A	4B	4C	4D	CC	
Sl. No.	USN	Name																																																					
1	4PM13ME083	SANTOSH KUMAR SINGH					2	5			3	2	0						1		5	5	4											4	4		2		5	5								4	8		6		43
2	4PM14ME041	MOHAMMED TOUFEEQ AHMED					0	5	0		3	0	2						0						5	6			5	4							0		3	4	3						3	0		3		30
3	4PM15ME051	NANDISHWAR REDDY B					0	0	0		5	0	3						1																					2	2							3	8		3		32
4	4PM15ME052	NAVEEN KUMAR S	0	0	0		0	5	3		5	0	4						4																					4	5	3						8	8		6		44
5	4PM15ME053	NIKHIL M						0	2		3	0	0						7		5	5												4	2		3		2	5	1						7	7		5		46
6	4PM15ME054	NIRANJAN SURESH HEGDE	0	4	0										1	2	3		5		5	4	2						5	5							4		5	5	4						4	4		7		33
7	4PM15ME057	PRADYUMNA SHREEDHARA HEGDE						2	4		5	5	2						0		4	5							4	5							7		4	5	4						8	8		4		39
8	4PM15ME055	RAGHAVENDRA H					2	5	0		0	3	5						5		1	5	4								2			3	5	5	3		5	5	5						7	8		4		52
9	4PM15ME061	RAJAT PANDEY	2					5	3		1	0	3						1			5	4						4							6		2	3							0	0		4		51
10	4PM15ME063	RAVI C C					4	2	0						2	2	0		0						7	6			7	7							1		5	5	5						7	8		4		71
11	4PM15ME064	RAVI KIRAN P					1	5	5						3	2	2		1						6	5							4	2	2		3					4	0	2			7	8		6		38
12	4PM15ME065	RIZWAN H																				5	5			0							4	5	4		3		5			5	0	2			8	8		6		36
13	4PM15ME061	ROSHAN DSOUZA	5	2	2						5	4	2						5			5	5						2	3							7		5	5	3						8	8		3		68
14	4PM15ME068	SACHI GOWDA S					1	1	0		4	0	0						3						5	4			5	5							4		5	5	5				4	4	3				8		59
15	4PM15ME071	SANJAY G	0	2	2						5	5	2						5		5	5	4											4	5	5	2					5	5	4	4	5	5			6		47
16	4PM15ME072	SANJAY P S	0	0	0						4	3	0						5			4													2	3	5		4	5	3						3	8		3		40
17	4PM15ME073	SANJAY S L	0	0							4	4	3						4		3	5	5											5	5	4	4							2	2			7	8		6		51
18	4PM15ME074	SHABARI GIRISH HOSAMATA					2				2	0	0		4	2	2		2						4	4			3					4	4		1		5	5	3						8	8		6		52
19	4PM15ME076	SHASHWATH SHETTY					2	2	1						5	5	4		3						3	4			3	4							1		5	5	3						8	8		4		61
20	4PM15ME078	SHIVAMURTHY B S					0	5	0		5	4	2						1						6	4			4	3							5								0	2	3		7	8		5		42
21	4PM15ME075	SHIVARAJ TOTAGER					3	0	0		5	4	0						5			4			4	4								4	4	4	3		4	4	4						4	8		3		48
22	4PM15ME081	SIDDANTH P JAIN						0	0		5	0	0						3						4	4			5								3		4	5	1						4	8		5		50
23	4PM15ME082	SIDDESHA N H	0	0	0										0	2	2		3						4	4			4	4							1		2	4	4						8	0		6		32
24	4PM15ME083	SUBRAMANYA M G					4	5	0		5	5	3						6						4	4			4	4							3		2	4	3						4	0		6		49
25	4PM15ME084	SUBRAMANYA C					1	5	0		4	5	2						7		3	5	5											3	4	4	5		3	5	3						8	8		6		61

Figure 3.2: sample attainment sheet considering IA marks and SEE marks.

Assessment Parameters	Attainment Calculation											Attainment Calculation											Attainment Calculation											SEE
CO's Mapped	CO3	CO3	0	CO3	CO3	CO3	0	CO3	CO3	CO3	0	0	CO3	CO3	CO	0	CO	CO30	0	0	CO301.4	CO301.4	0	0	CO3	CO3	CO3	0	0	CO	CO	CO	0	CO	CO	CO	0	CO	CO	0	0	0	
Number of Participation	23	23	0	28	30	28	0	11	15	15	0	42	49	65	48	0	41	40	0	0	52	49	0	0	29	52	50	0	100	93	90	73	0	6	10	8	0	9	9	10	0	95	95	0	0	103	103
Maximum Marks Alloted	5	5	0	5	5	5	0	5	5	5	0	0	5	5	5	0	8	7.5	0	0	7.5	7.5	0	0	5	5	5	0	0	5	5	5	0	5	5	5	0	5	5	5	0	8	8	0	0	0	80
Total Marks of Participants	55	18	0	98	75	48	0	25	36	38	0	125	170	230	170	0	##	204	0	0	257.5	177.5	0	0	70	148	166	0	321	##	##	261	0	22	26	17	0	22	29	40	0	##	##	0	0	501	4537
50 % of Alloted Marks	2	2	0	2	2	2	0	2	2	2	0	0	2	2	2	0	3	3	0	0	3	3	0	0	2	2	2	0	0	2	2	2	0	2	2	2	0	2	2	2	0	3	3	0	0	0	40
Number of Students Scoring More than Target	13	5	0	24	18	16	0	7	14	13	0	42	42	51	41	0	41	38	0	0	47	35	0	0	20	39	45	0	100	89	88	66	0	5	8	6	0	7	9	9	0	93	90	0	0	103	67
Pecentage of Students Achieving Target	57	22		86	60	58		64	94	87		##	86	79	86		#	95			91	72			69	75	90		100	96	98	91		84	80	75		78	#	90		98	95			#	66

AVG	SEE	Direct	Indire	Total
81	66	73	77	74
87	66	77	77	77
62	66	64	74	66
77	66	72	77	73
89	66	78	74	77

Figure 3.3: Calculation of attainment sheet considering IA marks and SEE marks.

PES Institute of Technology & Mangement, Shivamogga

DEPARTMENT OF MECHANICAL ENGINEERING

Course Outcome Attainment

Subject	Management & Engineering Economics
Subject Code	15ME51
Semester	5th Sem A & B Section
Academic Yea	2015-16
Number of Students	103

CO's	Direct Attainment %	Indirect Attainment %	Total Attainment %	nt V.R.T Set Levels
CO301.1	73.42	77	**74.14**	*3*
CO301.2	76.67	77	**76.74**	*3*
CO301.3	64	74	**66.00**	*3*
CO301.4	71.63	77	**72.70**	*3*
CO301.5	77.67	74	**76.94**	*3*
CO301.6			**0.00**	*0*
CO301.7			**0.00**	*0*
CO301.8			**0.00**	*0*

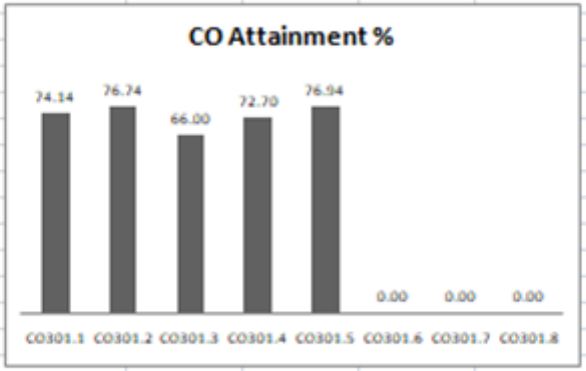


Figure 3.4: Sample of COs of attainment levels.

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

Institute Marks : 34.00

Sl. No.	Year	Subject	Subject Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
1	1st	Mathematics -1	15MAT11	C101	CO101.1	50	**64.20**	***3***
					CO101.2		**50.51**	***1***
					CO101.3		**44.74**	***0***
					CO101.4		**52.26**	***1***
					CO101.5		**64.20**	***3***
2		Physics	15PHY12	C102	CO102.1	50	**76.80**	***3***
					CO102.2		**70.34**	***3***
					CO102.3		**62.94**	***3***
					CO102.4		**54.00**	***1***
					CO102.5		**66.40**	***3***
3		Elements of Civil Engg. & Mechanics	15CIV13	C103	CO103.1	50	**64.20**	***3***
					CO103.2		**63.74**	***3***
					CO103.3		**80.40**	***3***
					CO103.4		**67.90**	***3***
4		Elements of Mechanical Engg.	15EME14	C104	CO104.1	50	**58.60**	***2***
					CO104.2		**60.00**	***2***
					CO104.3		**52.20**	***1***
					CO104.4		**80.54**	***3***
					CO104.5		**71.06**	***3***
5		Basic Electrical Engineering	15ELE15	C105	CO105.1	50	**54.00**	***3***
					CO105.2		**46.90**	***2***
					CO105.3		**38.87**	***0***
					CO105.4		**49.87**	***2***
					CO105.5		**50.46**	***3***
6		Computer Aided Engineering Drawing	15CED14	C106	CO106.1	70	**89.60**	***3***
					CO106.2		**90.40**	***3***
					CO106.3		**88.40**	***3***
					CO106.4		**88.40**	***3***
7		Engineering Maths-II	15MAT21	C107	CO107.1	40	**60.62**	***2***
					CO107.2		**59.67**	***1***
					CO107.3		**65.94**	***3***
8		Engineering Chemistry	15CHE12	C108	CO108.1	45	**76.27**	***3***
					CO108.2		**68.47**	***3***
					CO108.3		**68.40**	***3***
					CO108.4		**60.47**	***2***
					CO108.5		**72.00**	***3***
9		Programming in C & Data Structures	15PCD13	C109	CO109.1	50	**53.60**	***2***
					CO109.2		**52.80**	***2***
					CO109.3		**66.60**	***3***
					CO109.4		**50.80**	***2***

10		Basic Electronics	15ELN15	C110	CO110.1	40	**62.67**	***2***
					CO110.2		**60.16**	***2***
					CO110.3		**63.70**	***2***
					CO110.4		**64.87**	***2***
					CO110.5		**64.87**	***2***
11		Workshop Practice	15WSL16	C111	CO111.1	70	**95.60**	***3***
					CO111.2		**96.40**	***3***
12		Computer Programming Laboratory	15CPL16	C112	CO112.1	70	**66.80**	***3***
					CO112.2		**60.00**	***2***
					CO112.3		**67.60**	***3***
13		Engineering Physics Lab	15PHYL17	C113	CO113.1	70	**82.00**	***3***
					CO113.2		**80.00**	***3***
					CO113.3		**80.00**	***3***
					CO113.4		**80.00**	***3***
					CO113.5		**80.00**	***3***
14		Engineering Chemistry Lab	15CHEL17	C115	CO115.1	70	**93.60**	***3***
					CO115.2		**93.60**	***3***
15		Constitution of India & Professional Ethics and Human Rights (CPH)	15CIP18/28	C116	CO116.1	50	77.40	3
					CO116.2		77.40	3
					CO116.3		77.40	3
					CO116.4		78.00	3
					CO116.5		78.00	3

Sl. No.	**Year**	**Subject**	**Subject Code**	**NBA Code**	**CO Code**	**Target (%)**	**Achieved For set target**	**Attainment**
17		Engineering Mathematics – III	15MAT31	C201	CO201.1	40	**72.60**	***3***
					CO201.2		**71.87**	***3***
					CO201.3		**48.58**	***0***
18		Materials Science	15ME32	C202	CO202.1	40	**59.27**	***2***
					CO202.2		**57.27**	***2***
					CO202.3		**63.67**	***3***
					CO202.4		**53.67**	***1***
					CO202.5		**64.52**	***3***
19		Basic Thermodynamics	15ME33	C203	CO203.1	40	51.752	***1***
					CO203.2		46.928	***0***
					CO203.3		46.872	***0***
					CO203.4		48.988	***0***

					CO203.5		51.776	***1***
20	2nd	Mechanics of Materials	15ME34	C204	CO204.1	40	**37.20**	***0***
					CO204.2		**35.10**	***0***
					CO204.3		**31.80**	***0***
					CO204.4		**35.30**	***0***
					CO204.5		**42.76**	***0***
					CO204.6		**33.60**	***0***
21		Metal Casting and Welding	15ME35A	C205	CO205.1	50	70.116	***3***
					CO205.2		71.768	***3***
					CO205.3		78.2	***3***
					CO205.4		70.204	***3***
					CO205.5		72.388	***3***
22		Machine Tools and Operations	15ME35B	C206	CO206.1	50	63.628	***2***
					CO206.2		71.328	***3***
					CO206.3		68.612	***3***
					CO206.4		69.976	***3***
					CO206.5		73.976	***3***
23		Computer Aided Machine Drawing	15ME36 A	C207	CO207.1	70	**74.40**	***3***
					CO207.2		**74.40**	***3***
					CO207.3		**73.60**	***3***
					CO207.4		**74.00**	***3***
24		Mechanical Measurements and Metrology	15ME36B	C208	CO208.1	40	**61.94**	***3***
					CO208.2		**55.95**	***2***
					CO208.3		**66.55**	***3***
					CO208.4		**51.54**	***1***
25		Materials Testing Lab	15MEL37A	C209	CO209.1	70	**78.00**	***3***
					CO209.2		**70.60**	***3***
					CO209.3		**77.40**	***3***
26		Mechanical Measurements and Metrology Lab	15MEL37B	C210	CO210.1	50	**88.40**	***3***
					CO210.2		**87.80**	***3***
					CO210.3		**87.80**	***3***
					CO210.4		**88.40**	***3***
27		Foundry and Forging Lab	15MEL38A	C211	CO211.1	70	**81.40**	***3***
					CO211.2		**79.00**	***3***
					CO211.3		**82.40**	***3***
28		Machine Shop	15MEL38B	C212	CO212.1	50	**97.20**	***3***
					CO212.2		**96.60**	***3***
					CO212.3		**96.60**	***3***
					CO212.3		**96.60**	***3***
					CO212.3		**96.60**	***3***
29		Engineering Mathematics-IV	15MAT41	C213	CO213.1	40	**61.30**	***3***
					CO213.2		**51.90**	***1***

					CO213.3		**66.00**	***3***
					CO213.4		**72.40**	***3***
30		Kinematics of Machinery	15ME42	C214	CO214.1	40	67.008	***3***
					CO214.2		69.412	***3***
					CO214.3		80.304	***3***
					CO214.4		64.852	***3***
31		Applied Thermodynamics	15ME43	C215	CO215.1	35	58.08	***2***
					CO215.2		55.136	***2***
					CO215.3		67.252	***3***
					CO215.4		55.436	***2***
					CO215.5		66.32	***3***
32		Fluid mechanics	15ME44	C216	CO216.1	40	59.825	***2***
					CO216.2		64.52	***3***
					CO216.3		66.376	***3***
					CO216.4		62.182	***3***
					CO216.5		73.42	***3***

Sl. No.	Year	Subject	Subject Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
33		Management and Engineering Economics	15ME51	C301	CO301.1	50	**74.14**	***3***
					CO301.2		**76.74**	***3***
					CO301.3		**66.00**	***3***
					CO301.4		**72.70**	***3***
					CO301.3		**76.94**	***3***
34		Dynamics of Machinery	15ME52	C302	CO302.1	50	70.752	3
					CO302.2		67.6	3
					CO302.3		68.152	3
					CO302.4		70.988	3
35		Turbo Machines	15ME53	C303	CO303.1	40	54.486	***1***
					CO303.2		55.102	***2***
					CO303.3		57.326	***2***
					CO303.4		53.415	***1***
					CO303.5		54.7	***1***
36		Design of Machine Elements - I	15ME54	C304	CO304.1	45	**68.50**	***3***
					CO304.2		**68.70**	***3***
					CO304.3		**68.80**	***3***
					CO304.4		**71.00**	***3***
					CO304.5		**53.00**	***1***
37		Non Traditional Machining	15ME554	C306	CO305.1	50	**93.00**	***3***

					CO305.2		**86.74**	***3***
					CO305.3		**81.70**	***3***
					CO305.4		**75.90**	***3***
					CO305.5		**74.00**	***3***
38	3rd	Energy and Environment	15ME562	C307	CO306.1	60	**81.54**	***3***
					CO306.2		**82.04**	***3***
					CO306.3		**79.87**	***3***
					CO306.4		**77.40**	***3***
					CO306.5		**81.80**	***3***
39		Fluid Mechanics & Machinery Lab	15MEL57	C309	CO307.1	70	**66.00**	***3***
					CO307.2		**66.00**	***3***
40		Energy Lab	15MEL58	C310	CO308.1	70	**66.60**	***3***
					CO308.2		**66.00**	***3***
41		Finite Element Analysis	15ME61	C311	CO309.1	50	**80.90**	***3***
					CO309.2		**85.60**	***3***
					CO309.3		**79.80**	***3***
					CO309.4		**78.70**	***3***
42		Computer integrated Manufacturing	15ME62	C312	CO310.1	45	**85.54**	***3***
					CO310.2		**81.37**	***3***
					CO310.3		**78.14**	***3***
					CO310.4		**82.56**	***3***
					CO310.5		**75.20**	***3***
43		Heat Transfer	15ME63	C313	CO311.1		62.324	***3***
					CO311.2		74.28	***3***
					CO311.3		74.4	***3***
					CO311.4		71.9	***3***
					CO311.5		81.32	***3***
44		Design of Machine Elements -II	15ME64	C314	CO312.1	45	**66.07**	***3***
					CO312.2		**68.00**	***3***
					CO312.3		**61.35**	***3***
					CO312.4		**69.60**	***3***
					CO312.5		**68.00**	***3***
45		Mechanics of Composite Materials	15ME652	C315	CO313.1	60	**88.77**	***3***
					CO313.2		**72.50**	***3***
					CO313.3		**78.60**	***3***
					CO313.4		**87.00**	***3***
					CO313.5		**93.20**	***3***
46		Automobile Engineering	15ME655	C316	CO314.1	50	69.42	***3***

					CO314.2		66.252	***3***
					CO314.3		71.48	***3***
					CO314.4		71.852	***3***
					CO314.5		70.404	***3***
47		Total Quality Management	15ME664	C318	CO315.1	50	88.788	***3***
					CO315.2		88.84	***3***
					CO315.3		90.636	***3***
					CO315.4		89.472	***3***
					CO315.5		88	***3***
48		Heat Transfer Lab	15MEL67	C319	CO316.1	70	**88.40**	***3***
					CO316.2		**87.60**	***3***
					CO316.3		**87.60**	***3***
					CO316.4		**87.60**	***3***
49		Modelling and Analysis Lab(FEA)	15MEL68	C320	CO317.1	70	**78.80**	***3***
					CO317.2		**77.60**	***3***
					CO317.3		**77.60**	***3***
					CO317.4		**77.60**	***3***

Sl. No.	**Year**	**Subject**	**Subject Code**	**NBA Code**	**CO Code**	**Target (%)**	**Achieved For set target**	**Attainment**
50		Energy Engineering	15ME71	C401	CO401.1	50	**82.44**	***3***
					CO401.2		**79.14**	***3***
					CO401.3		**84.84**	***3***
					CO401.4		**81.00**	***3***
					CO401.5		**86.20**	***3***
51		Fluid Power Systems	15ME72	C402	CO402.1	50	69.228	***3***
					CO402.2		76.6	***3***
					CO402.3		69.784	***3***
					CO402.4		80.54	***3***
					CO402.5		74.836	***3***
52		Control Engineering	15ME73	C403	CO403.1	50	**64.26**	***3***
					CO403.2		**63.65**	***3***
					CO403.3		**57.87**	***2***
					CO403.4		**54.40**	***1***
					CO403.5		**53.60**	***1***
53		Design for Manufacturing	15ME744	C404	C404.1	50	**95.17**	***3***
					C404.2		**93.87**	***3***
					C404.3		**84.07**	***3***
					C404.4		**83.47**	***3***
					C404.5		**96.80**	***3***
53		Tribology	15ME742	C405	C405.1	50	**74.75**	***3***
					C405.2		**79.13**	***3***
					C405.3		**73.00**	***3***

					C405.4		**74.50**	***3***
54	4th	Mechatronics	15ME753	C406	C406.1	50	**74.40**	***3***
					C406.2		**77.40**	***3***
					C406.3		**67.60**	***3***
					C406.4		**77.20**	***3***
					C406.5		**76.50**	***3***
55		Design Lab	15MEL76	C407	C407.1	70	**93.00**	***3***
					C407.2		**92.40**	***3***
					C407.3		**92.40**	***3***
					C407.4		**92.40**	***3***
56		CIM Lab	15MEL77	C408	C407.1	70	**85.40**	***3***
					C407.2		**84.80**	***3***
					C407.3		**84.00**	***3***
					C407.4		**84.00**	***3***
57		Project Phase – I	15MEP78	C409	C409.1	70	**99.40**	***3***
					C409.2		**99.40**	***3***
					C409.3		**99.40**	***3***
58		Operations Research	15ME81	C410	C410.1	50	**74.80**	***3***
					C410.2		**57.00**	***2***
					C410.3		**77.00**	***3***
					C410.4		**67.48**	***3***
					C410.5		**69.40**	***3***
59		Additive Manufacturing	15ME82	C411	C411.1	50	**94.94**	***3***
					C411.2		**93.47**	***3***
					C411.3		**87.00**	***3***
					C411.4		**86.40**	***3***
					C411.5		**93.87**	***3***
60		Experimental Stress Analysis	15ME832	C412	C412.1	50	80.2	***3***
					C412.2		72.704	***3***
					C412.3		69.344	***3***
					C412.4		80.704	***3***
61		Project Phase – II	15ME85	C413	C413.1	70	**98.00**	***3***
					C413.2		**98.80**	***3***
					C413.3		**98.00**	***3***
62		Seminar	15MES86	C414	C414.1	70	**97.40**	***3***
					C414.2		**97.40**	***3***
63		Internship / Professional Practice	15ME84	C415	C415.1	70	**98.80**	***3***
					C415.2		**98.80**	***3***

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50) Total Marks 40.00

3.3.1 Describe the assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10) Institute Marks : 8.00

- Each Course is expected to contribute towards Program Outcomes, which is mapped for its correlation at the outset.
- Course Instructors in consultation with the subject expert in the department and taking reference of the University syllabus, defines the expected course outcomes in relevance with the correlation to the Program Outcomes.
- After defining the Expected Course Outcomes, each course outcome is again mapped with program outcome for its correlation accurately.
- Using this CO – PO Matrix, achievable program outcomes in form of target for the program may be obtained. The attainment caluculation of POs and PSOs of ecah course was done according to Figure 3.5.
- Based on the course outcomes attained and the CO-PO Matrix, program outcome attainment is calculated for each course.

$$PO\ Attainment = \frac{Achievable\ PO}{3} X \frac{\sum (CO\ Mapping\ x\ CO\ Attainment)}{\sum CO - PO\ Mapping}$$

- Achievable PO in terms of target and Achieved PO in terms of attainment are compared for evaluation of results.
- Same process is adopted for Program Specific Outcomes. Program Specific Outcomes have been defined at the Department and is as mentioned in 3.1

$$PSO\ Attainment = \frac{Achievable\ PSO}{3} X \frac{\sum (CO\ Mapping\ x\ CO\ Attainment)}{\sum CO - PSO\ Mapping}$$

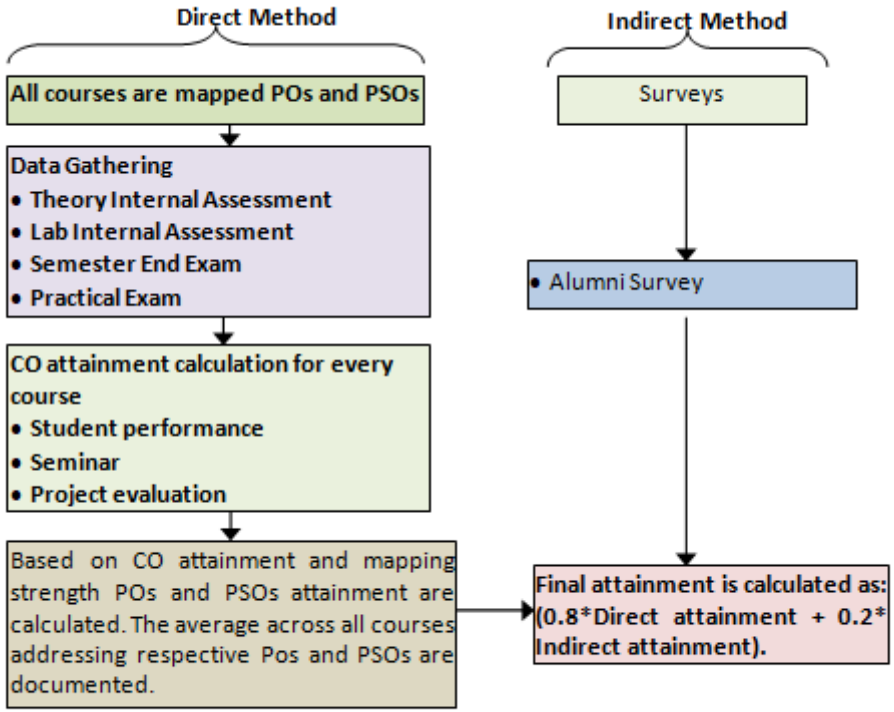


Figure 3.5: Assessment process for Program Outcome and Program Specific Outcome.

Direct Assessment Method

Performance of the students in internal assessments and University exams will lead to the attainment of Course Outcomes. The course end survey also contributes to the Course Outcome attainment. Course Outcomes of a particular subject will be mapped to the relevant PO's in the scale of 3, 2, and 1. Attainment for particular Program Outcome is calculated by taking weighted average of all course outcome attainment addressing that particular PO. Similar calculation will be done for all the POs and for every subject. Table 3.4 shows the list and description of Direct Assessment Methods. The PO attainment for a batch of students will be calculated by taking the sum of all attainments for a particular PO and dividing by the number of courses mapped to the same PO.

Table 3.4: list and description of Direct Assessment Methods.

List and Description of Direct Assessment Methods			
Sl. No.	**Direct Assessment Method**	**Description**	**Frequency**

1	Internal Assessment Test	The internal assessment marks for a theory subject shall be based on best of two internal tests marks obtained out of three. Average of the best two tests shall be the internal assessment marks for the relevant theory subject. Internal assessment is done through descriptive questions.	Thrice in a semester
2	Lab Internal Assessment Test	The internal assessment marks for a laboratory shall be based on laboratory reports (Record), conduction of experiments, viva voce and internal test marks obtained.	Lab Internal Assessment Test
3	Seminar (Internal Assessment)	The internal assessment marks in the case of seminars in the final year shall be based on the evaluation by a committee comprising of head of the department and senior faculty members as per rubrics prepared.	VIII semester
4	Project Viva Voce (Internal Assessment)	The internal assessment marks in the case of project in the final year shall be based on evaluation of one feasibility seminar and six progress seminars by a committee comprising of head of the department, senior faculty members and project guide as per rubrics prepared.	VIII semester
5	Semester Examination - Theory (External Assessment)	Theory examination is focused on attainment of course outcomes through descriptive exams for the respective theory subjects.	End of every semester
6	Semester Examination-Laboratory (External Assessment)	Practical examination focuses on conduction of experiments and viva-voce for attaining their respective course outcomes.	End of every semester
7	Project (External Assessment)	The external assessment marks in the case of project viva voce in the final year shall be based on evaluation of presentation and project report by a committee comprising of internal and external examiner.	VIII semester

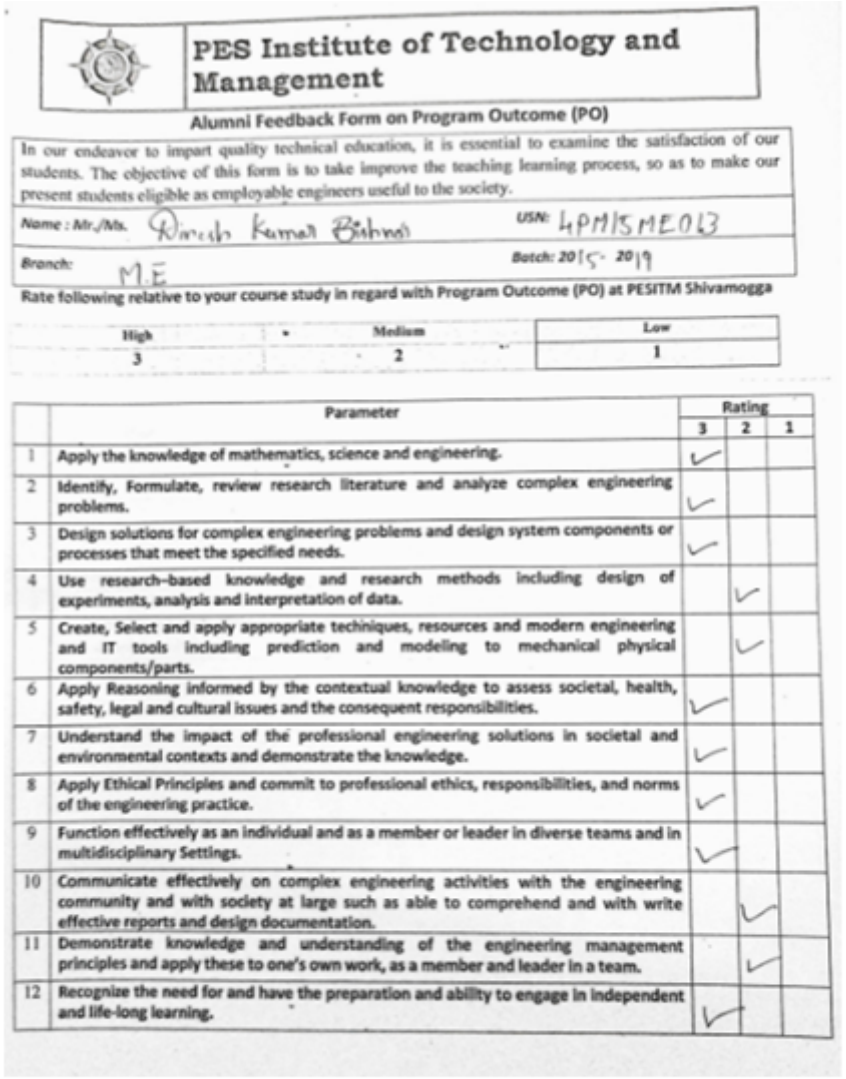
Indirect Method

Table 3.5 shows the list and description of Indirect Assessmnet methods. Department prepares a set of questions relevant to the program outcomes/graduate attributes and also questions relevant to Program outcomes and Program Specific Outcomes. These questions will be asked to get the various information regarding the opinion and observations about the program from the final year students and the alumnus of the department. The

questions will be rated in the range of 3, 2 and 1 and the exit survey attainment will be calculated accordingly. Figure 3.6 (a &b) shows a sample copy of Alumni given feedback to POs and PSOs. Finally, PO attainment of a particular batch will be calculated by giving 80% weightage to the direct attainment and 20% weightage to exit survey. Similar calculation will be done for PSO attainment. The PO and PSO attainment calculation is shown in figure 3.7 and 3.8 for a sample course.

Table 3.5: shows the list and description of Indirect Assessmnet methods.

List and Description of Indirect Assessment Methods			
Sl.No.	**Indirect Assessment Method**	**Description**	**Frequency**
1	Course Exit Survey	Course exit survey assesses opinions or thoughts about the knowledge acquired by the students in respective theory courses.	End of each course
2	Student Feed Back	The program exit survey identifies nine broad learning outcomes related to graduate education and asks graduates to indicate the level of reparation provided by their graduate program.	End of VIII semester
3	Alumni Survey	Alumni Survey gathers alumni view points towards quality of instructions received, with all the areas of their education- from academic experiences to student experiences (Campus life, extra-curricular activities) for continuous improvement.	After graduation



PES Institute of Technology and Management

Alumni Feedback Form on Program Outcome (PO)

In our endeavor to impart quality technical education, it is essential to examine the satisfaction of our students. The objective of this form is to take improve the teaching learning process, so as to make our present students eligible as employable engineers useful to the society.

Name : Mr./Ms. Dinesh Kumar Bishnoi USN: 4PM15ME063

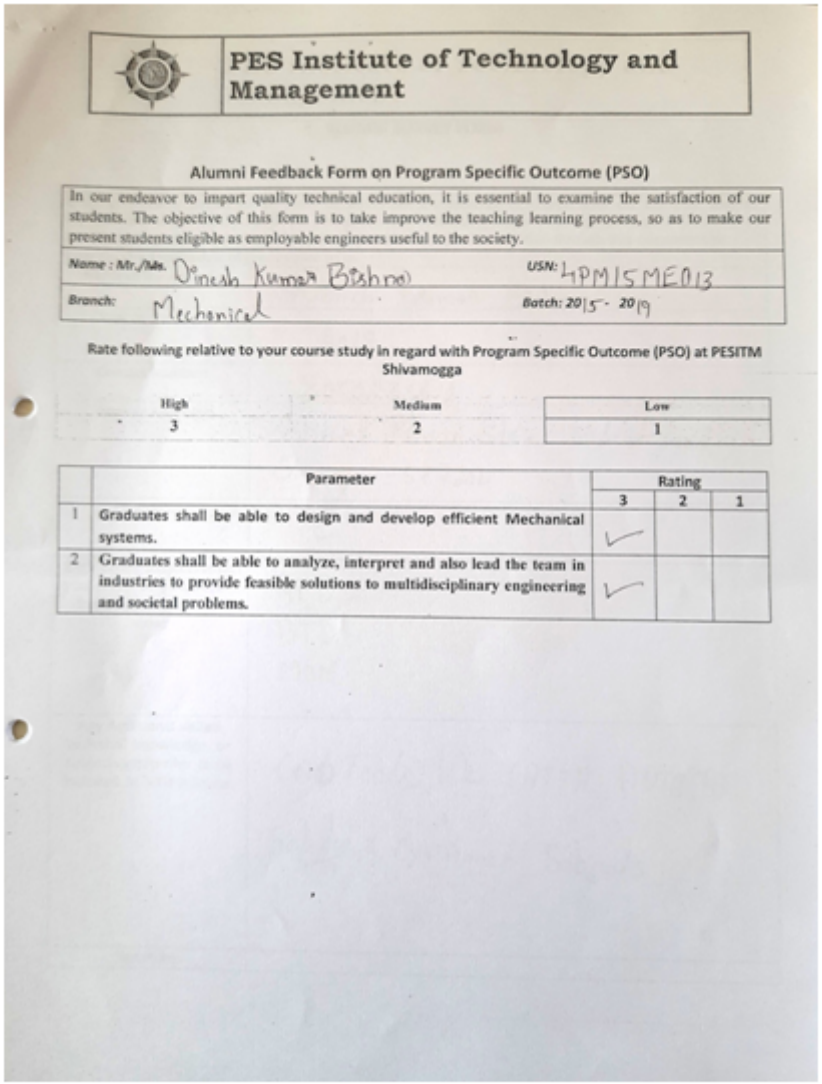
Branch: M.E Batch: 2015-2019

Rate following relative to your course study in regard with Program Outcome (PO) at PESITM Shivamogga

High	Medium	Low
3	2	1

	Parameter	Rating		
		3	2	1
1	Apply the knowledge of mathematics, science and engineering.	✓		
2	Identify, Formulate, review research literature and analyze complex engineering problems.	✓		
3	Design solutions for complex engineering problems and design system components or processes that meet the specified needs.	✓		
4	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data.		✓	
5	Create, Select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to mechanical physical components/parts.		✓	
6	Apply Reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities.	✓		
7	Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge.	✓		
8	Apply Ethical Principles and commit to professional ethics, responsibilities, and norms of the engineering practice.	✓		
9	Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary Settings.	✓		
10	Communicate effectively on complex engineering activities with the engineering community and with society at large such as able to comprehend and with write effective reports and design documentation.		✓	
11	Demonstrate knowledge and understanding of the engineering management principles and apply these to one's own work, as a member and leader in a team.		✓	
12	Recognize the need for and have the preparation and ability to engage in independent and life-long learning.	✓		

Figure 3.6 (a): Alumni Feedback on Program Outcomes.



PES Institute of Technology and Management

Alumni Feedback Form on Program Specific Outcome (PSO)

In our endeavor to impart quality technical education, it is essential to examine the satisfaction of our students. The objective of this form is to take improve the teaching learning process, so as to make our present students eligible as employable engineers useful to the society.

Name : Mr./Ms. Dinesh Kumar Bishnoi USN: 4PM15ME013

Branch: Mechanical Batch: 2015 - 2019

Rate following relative to your course study in regard with Program Specific Outcome (PSO) at PESITM Shivamogga

High	Medium	Low
3	2	1

	Parameter	Rating		
		3	2	1
1	Graduates shall be able to design and develop efficient Mechanical systems.	✓		
2	Graduates shall be able to analyze, interpret and also lead the team in industries to provide feasible solutions to multidisciplinary engineering and societal problems.	✓		

Figure 3.6 (b): Alumni Feedback on Program Specific Outcomes.

PES Institute of Technology & Mangement, Shivamogga

DEPARTMENT OF MECHANICAL ENGINEERING

Program Outcome Attainment

Subject	Management & Engineering Economics
Subject Code	15ME51
Semester	5th Sem A & B Section
Academic Yea	2015-16
Number of Students	103

PO's	Attainment (%)	Attainment w.r.t. Achievable
PO1	63.42	1.91
PO2	47.92	1.44
PO3		
PO4	49.88	1.5
PO5		
PO6		
PO7		
PO8	50.3	1.51
PO9		
PO10		
PO11	50.3	1.51
PO12	58.93	1.77

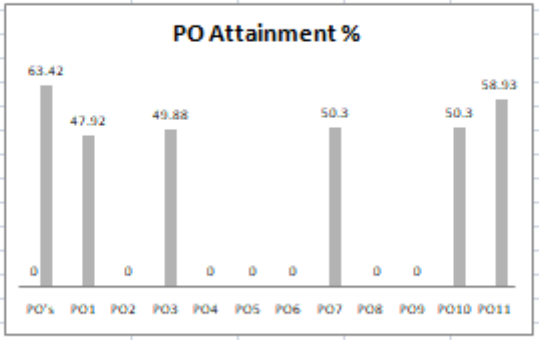


Figure 3.7: POs attainment of sample course.

PES Institute of Technology & Mangement, Shivamogga

DEPARTMENT OF MECHANICAL ENGINEERING

Program Specific Outcome Attainment

Subject	Management & Engineering Economics
Subject Code	15ME51
Semester	5th Sem A & B Section
Academic Yea	2015-16
Number of Students	103

PSO's	Attainment (%)	Attainment w.r.t. Achievable
PSO1	56.16	1.68
PSO2	58.55	1.76
PSO3	NA	NA

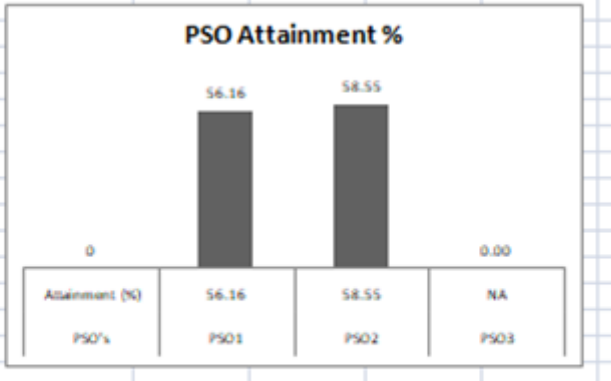


Figure 3.8: PSOs attainment of sample course.

3.3.2 Provide results of evaluation of PO&PSO (40)

Institute Marks : 32.00

PO Attainment

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

C101	0.8	1.35	1.06	1.22	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.49
C102	1.49	1.5	1.61	1.17	1.05	1.1	0.63	PO8	PO9	PO10	PO11	PO12
C103	1.72	1.92	PO3	0.75	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104	1.94	1.19	1.33	1.2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.94
C105	1.1	1.17	0.46	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.78
C106	1.56	1.56	PO3	PO4	1.79	PO6	PO7	PO8	PO9	PO10	PO11	0.9
C107	1.87	1.67	1.45	1.47	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.83
C108	1.39	1.85	1.34	0.97	PO5	0.61	0.69	PO8	PO9	PO10	PO11	PO12
C109	1.42	1.14	1.36	PO4	0.99	PO6	PO7	PO8	PO9	PO10	PO11	0.98
C110	1.26	1.47	1.29	PO4	0.65	PO6	1.08	PO8	PO9	PO10	1.26	0.65
C111	1.92	1.93	PO3	PO4	PO5	PO6	PO7	PO8	1.93	PO10	PO11	PO12
C112	1.95	1.95	1.95	1.28	1.28	PO6	PO7	1.02	1.3	1.3	PO11	1.8
C113	1.77	1.82	2.01	1.35	1.34	1.34	0.81	PO8	PO9	PO10	PO11	PO12
C114	1.23	1.63	2.45	2.45	PO5	1.66	1.66	PO8	PO9	PO10	PO11	PO12
C115	2.81	2.34	1.41	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C116	PO1	PO2	PO3	PO4	PO5	1.56	PO7	1.87	1.56	1.56	PO11	1.56
C201	1.94	1.78	1.37	1.78	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202	1.2	1.23	1.21	PO4	PO5	PO6	PO7	PO8	PO9	1.23	PO11	PO12
C203	0.99	0.99	PO3	0.71	PO5	0.97	1.04	PO8	PO9	PO10	PO11	0.82
C204	0.78	0.89	0.6	0.87	0.74	0.7	0.55	0.36	PO9	PO10	PO11	PO12
C205	1.45	1.49	1.50	PO4	PO5	1.45	PO7	PO8	1.42	PO10	PO11	1.45
C206	1.39	1.39	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C207	1.86	1.67	1.86	PO4	1.49	PO6	PO7	PO8	PO9	PO10	PO11	1.49

C208	1.31	1.56	PO3	PO4	PO5	1.18	1.14	1.02	PO9	1	PO11	1.03
C209	1.51	2.27	1.51	0.76	0.76	PO6	PO7	1.51	1.51	PO10	PO11	PO12
C210	1.77	PO2	PO3	PO4	PO5	1.77	PO7	PO8	1.77	PO10	PO11	PO12
C211	1.62	2.03	2.03	1.62	PO5	PO6	PO7	PO8	PO9	1.9	PO11	PO12
C212	1.94	1.94	1.94	1.94	PO5	PO6	PO7	PO8	1.94	PO10	PO11	1.94
C213	1.89	1.55	1.21	1.42	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C214	1.41	1.41	1.57	PO4	PO5	PO6	PO7	PO8	1.32	PO10	PO11	PO12
C215	1.21	1.21	PO3	PO4	PO5	PO6	0.63	PO8	PO9	PO10	PO11	PO12
C216	1.31	1.31	PO3	PO4	0.74	PO6	PO7	PO8	PO9	PO10	PO11	0.91
C301	1.91	1.44	PO3	1.5	PO5	PO6	PO7	1.51	PO9	PO10	1.51	1.77
C302	1.84	1.73	PO3	1.39	PO5	1.36	PO7	PO8	PO9	PO10	PO11	PO12
C303	1.43	1.1	PO3	1.15	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C304	1.33	1.74	1.71	PO4	PO5	PO6	PO7	PO8	PO9	PO10	0.93	PO12
C306	1.69	1.63	PO3	PO4	1.63	1.63	PO7	PO8	PO9	PO10	PO11	1.86
C307	1.62	PO2	PO3	PO4	PO5	1.62	2.09	2.09	PO9	PO10	PO11	2.4
C309	1.32	1.32	0.66	0.66	PO5	PO6	PO7	PO8	0.66	PO10	PO11	PO12
C310	1.33	1.33	0.66	PO4	0.66	1.32	0.66	PO8	0.66	PO10	PO11	PO12
C311	2.44	1.63	1.63	2.03	1.63	PO6	PO7	PO8	PO9	PO10	PO11	1.63
C312	1.93	1.65	1.67	PO4	1.6	PO6	PO7	PO8	PO9	PO10	PO11	1.46
C313	1.46	1.91	1.19	0.81	0.78	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314	1.34	1.73	1.73	PO4	PO5	PO6	PO7	PO8	PO9	PO10	1.48	PO12
C315	1.69	1.91	1.88	2	1.96	PO6	PO7	PO8	1.86	PO10	PO11	1.78
C316	2.10	1.33	PO3	PO4	PO5	2.12	2.12	2.12	PO9	PO10	PO11	1.41

C318	1.78	1.79	1.77	PO4	2.01	1.8	PO7	1.78	PO9	1.78	PO11	1.78
C319	1.76	1.76	PO3	PO4	PO5	PO6	PO7	PO8	1.76	PO10	PO11	PO12
C320	2.34	1.56	2.34	PO4	0.78	0.78	1.56	PO8	0.78	PO10	PO11	1.56
C401	1.66	1.64	PO3	PO4	PO5	1.67	1.68	1.72	PO9	PO10	PO11	1.66
C402	1.49	1.48	PO3	PO4	1.45	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C403	1.18	1.18	1.09	PO4	1.09	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C404	2.01	2.18	1.82	0.94	PO5	1.82	1.79	1.43	1.25	1.4	1.44	1.55
C405	1.94	1.75	1.94	PO4	PO5	PO6	2.38	PO8	PO9	PO10	PO11	PO12
C406	1.79	1.46	1.86	PO4	PO5	PO6	1.5	1.5	PO9	1.5	1.5	PO12
C407	2.78	1.86	2.48	1.86	1.85	2.79	2.79	PO8	PO9	PO10	PO11	2.79
C408	2.12	1.7	1.7	PO4	1.7	PO6	PO7	PO8	PO9	PO10	PO11	1.7
C409	1.99	2.33	1.99	PO4	2.99	1.99	1.99	1.99	2.99	PO10	1.99	1.99
C410	1.93	1.79	1.3	PO4	PO5	1.39	PO7	PO8	PO9	PO10	1.35	PO12
C411	2.19	2.38	1.61	1.6	PO5	PO6	PO7	PO8	PO9	PO10	1.74	PO12
C412	1.53	1.53	2.29	1.53	PO5	PO6	PO7	PO8	1.53	PO10	PO11	PO12
C413	1.97	1.97	2.94	1.97	1.97	2.94	1.97	1.97	2.95	1.97	2.95	1.97
C414	2.93	2.44	PO3	1.95	PO5	2.44	2.93	PO8	2.44	PO10	PO11	PO12
C415	2.48	2.97	PO3	2.48	PO5	PO6	2.48	PO8	2.97	PO10	PO11	2.48

PO Attainment Level

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO Attainment	1.78	1.73	1.71	1.58	1.54	1.69	1.71	1.69	1.80	1.64	1.74	1.65
Direct Attainment	1.70	1.66	1.60	1.43	1.37	1.58	1.55	1.56	1.72	1.52	1.62	1.53

InDirect Attainment	2.11	2	2.15	2.2	2.24	2.13	2.35	2.22	2.10	2.14	2.21	2.13

PSO Attainment

Course	**PSO1**	**PSO2**
C101	PSO1	PSO2
C102	PSO1	PSO2
C103	PSO1	PSO2
C104	1.56	1.51
C105	PSO1	PSO2
C106	1.78	1.56
C107	PSO1	PSO2
C108	PSO1	PSO2
C109	PSO1	PSO2
C110	PSO1	PSO2
C111	1.44	0.96
C112	PSO1	PSO2
C113	PSO1	PSO2
C114	PSO1	PSO2
C115	PSO1	PSO2
C116	PSO1	PSO2
C201	1.29	1.29
C202	1.19	PSO2
C203	0.99	.47
C204	1.08	1.08

C205	1.45	1.44
C206	1.39	PSO2
C207	1.85	1.73
C208	1.18	1.18
C209	1.51	2.26
C210	1.76	PSO2
C211	2.16	PSO2
C212	1.93	1.94
C213	1.26	1.26
C214	1.41	1.41
C215	1.21	0.60
C216	1.31	1.31
C301	1.68	1.76
C302	1.73	1.83
C303	0.78	1.11
C304	1.62	1.60
C306	1.69	PSO2
C307	PSO1	1.61
C309	1.32	0.66
C310	1.33	0.66
C311	2.02	1.63
C312	1.61	1.50
C313	1.08	1.53

C314	1.54	1.72
C315	1.83	1.66
C316	0.72	PSO2
C318	1.79	1.78
C319	1.76	1.76
C320	2.34	1.56
C401	1.65	1.66
C402	1.48	1.5
C403	1.18	1.19
C404	2.19	1.65
C405	1.94	2.06
C406	2.24	1.49
C407	2.31	2.79
C408	1.69	1.70
C409	1.99	1.99
C410	1.39	1.26
C411	1.81	1.37
C412	1.77	1.50
C413	1.97	1.96
C414	2.92	2.92
C415	2.47	2.96

PSO Attainment Level

Course	**PSO1**	**PSO2**

CO Attainment	1.73	1.70
Direct Attainment	1.63	1.56
InDirect Attainment	2.12	2.24

4 STUDENTS' PERFORMANCE (150) Total Marks 80.46

:

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	**2019-20 (CAY)**	**2018-19 (CAYm1)**	**2017-18(CAYm2)**	**2016-17(CAYm3)**	**2015-16(CAYm4)**	**2014-15 (CAYm5)**	**2013-14 (CAYm6)**
Sanctioned intake of the program(N)	120	120	120	120	120	120	120
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)	28	69	92	109	97	102	115
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	44	27	23	45	45	35
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	28	113	119	132	142	147	150

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2019-20 (CAY)	28	0	0	0	0
2018-19 (CAYm1)	113	31	0	0	0
2017-18 (CAYm2)	119	34	21	0	0
2016-17 (CAYm3)	132	52	38	36	0
2015-16 (LYG)	142	46	28	26	26
2014-15 (LYGm1)	147	24	28	27	27
2013-14 (LYGm2)	150	56	33	29	29

Table 4.3

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2019-20 (CAY)	28	0	0	0	0
2018-19 (CAYm1)	113	48	0	0	0
2017-18 (CAYm2)	119	73	88	0	0
2016-17 (CAYm3)	132	99	105	103	0
2015-16 (LYG)	142	89	98	98	92
2014-15 (LYGm1)	147	76	103	96	95
2013-14 (LYGm2)	150	103	115	108	105

4.1 Enrolment Ratio (20)

Total Marks 12.00

Institute Marks : 12.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2019-20 (CAY)	120	28	23.33
2018-19 (CAYm1)	120	69	57.50
2017-18 (CAYm2)	120	92	76.67

Average [(ER1 + ER2 + ER3) / 3] : 52.50

Assessment : 12.00

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

Total Marks 14.50

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

Institute Marks : 4.50

Item	Latest Year of Graduation, LYG (2015-16)	Latest Year of Graduation minus 1, LYGm1 (2014-15)	Latest Year of Graduation minus 2 LYGm2 (2013-14)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	142.00	147.00	150.00
Y Number of students who have graduated without backlogs in the stipulated period	26.00	27.00	29.00
Success Index [SI = Y / X]	0.18	0.18	0.19

Average SI [(SI1 + SI2 + SI3) / 3] : 0.18

Assessment [25 * Average SI] : 4.50

4.2.2 Sucess rate in stipulated period (15)

Institute Marks : 10.00

Item	Latest Year of Graduation, LYG (2015-16)	Latest Year of Graduation minus 1, LYGm1 (2014-15)	Latest Year of Graduation minus 2 LYGm2 (2013-14)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	142.00	147.00	150.00
Y Number of students who have graduated in the stipulated period	92.00	95.00	105.00
Success Index [SI = Y / X]	0.65	0.65	0.70

Average SI[(SI1 + SI2 + SI3) / 3]: 0.67

Assessment [15 * Average SI] : 10.00

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

4.3 Academic Performance in Third Year (15) Total Marks 9.03

Institute Marks : 9.03

Academic Performance	**CAYm3 (2016-17)**	**LYG (2015-16)**	**LYGm1 (2014-15)**
Mean of CGPA or mean percentage of all successful students(X)	6.48	6.11	6.01
Total number of successful students(Y)	103.00	98.00	96.00
Totalnumber of students appeared in the examination(Z)	105.00	98.00	103.00
API [X*(Y/Z)]:	6.35	6.11	5.60

Average API [(AP1 + AP2 + AP3)/3] : 6.02

Assessment [1.5 * AverageAPI] : 9.03

4.4 Academic Performance in Second Year (15) Total Marks 7.26

Institute Marks : 7.26

Academic Performance	**CAYm2 (2017-18)**	**CAYm3 (2016-17)**	**LYG (2015-16)**
Mean of CGPA or mean percentage of all successful students(X)	6.07	6.17	5.30
Total number of successful students (Y)	88.00	105.00	98.00
Total number of students appeared in the examination (Z)	100.00	122.00	134.00
API [X * (Y/Z)]	5.35	5.31	3.87

Average API [(AP1 + AP2 + AP3)/3] : 4.84

Assessment [1.5 * AverageAPI] : 7.26

4.5 Placement, Higher Studies and Entrepreneurship (40) Total Marks 24.67

Institute Marks : 24.67

Item	LYG (2015-16)	LYGm1 (2014-15)	LYGm2 (2013-14)
Total No of Final Year Students(N)	98.00	96.00	108.00
No of students placed in the companies or government sector(X)	48.00	56.00	64.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	5.00	8.00	3.00
No of students turned entrepreneur in engineering/technology (Z)	0.00	0.00	2.00
x + y + z =	53.00	64.00	69.00
Placement Index [(X+Y+Z)/N] :	0.54	0.67	0.64

Average Placement [(P1 + P2 + P3)/3] : 0.62

Assessment [40 * Average Placement] : 24.67

Program Name :
Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Abhishek S R	4PM15ME001	Infosys	HRD/3T/19-20/13080411 Joining Order, 06-09-2019
2	Akarsh M Beturmath	4PM15ME003	SLK	ID Card (Offer letter), 23-04-2019 U72200KA2000PTCQ27503
3	Madhu C	4PM15ME029	Technorings	TR/2567/DE/2019-20/006748
4	Nagabhushan Venkatesh Gudi	4PM15ME046	TCS	Offer letter, 23-06-2019 TCSL/DT20184519881/Bangalore
5	Sachigowda	4PM15ME068	42 Gears	Offer letter, 23-10-2019
6	Mir Jibraan Hussain	4PM15ME038	BOSCH	Joining letter, 20-06-2019 u29221ka2008ptco45987

7	Shashwath Shetty	4PM15ME076	BOSCH	U29221KA2008PTC05987
8	Madhav M Karpur	4PM15ME028	M.Tech (NIE Mysore)	ID Card
9	Shabari Girish Hosamata	4PM15ME074	Mythri Metallurgy India	MMT/PR/2019-20/077
10	Siddanth P Jain	4PM15ME081	Infosys	Offer letter, 06-09-2019 HRD/3T/19-20/13080392
11	Subramannya M G	4PM15ME083	Testyantra software solutions	U72200KA2007PTC044701
12	Vikhil Akhilesh Olivera	4PM15ME098	Qchem Pvt.Ltd	QCH/SUP/2019-20/0557
13	Akash G.N.	4PM16ME401	JSW	ID CARD
14	Bharma Gowda B.S.	4PM16ME406	INDO-MIM	Appointment Letter, 02-08-2019 IUM/Trg/19
15	Mithun D.C.	4PM16ME418	TMEIC, Tumkur	TME/TE/UG/2019-20/22
16	Shivanand Y.K.	4PM16ME430	Classic Wills (Ahamad Nagar), Maharastra	KLWH/MDC/MH/2018-19/225968
17	Suhel H.M.	4PM16ME432	Jindal, Ballary	L27105HR1979PLC009913
18	Ravi C C	4PM15ME063	Accumate	8EM/ST/2019-20/14784
19	Nikhil M	4PM15ME053	NxTk Solutions Pvt.Ltd	Offer Letter, 06-09-2019
20	Tejas M	4PM15ME090	Call IN IT	1410/HR/CLD/03/2019-20
21	Gowtam Hebber	4PM16ME410	Concept & Packaging Hub	Intent Letter from Company
22	Manojkumar B U	4PM16ME417	JSW	ID Card
23	Santhosh M	4PM16ME427	Amruth Organic Fertilizer, Chitradurga	AOF/CHE/SU/2019-20
24	Naveen Kumar S	4PM15ME052	Testyantra software solutions	U72200KA2007PTC044701
25	Nagareddy	4PM15ME047	PC Diploma	ID Card, 04-09-2019
26	Bharath Gowda G	4PM15ME007	SPMIL,Bidadi	ID:920147
27	Dinesh Kumar Bishnoi	4PM15ME013	PG Diploma	ID Card
28	Vasanth Kumar S.	4PM16ME441	SGB, ITI, (JTO)	TEACHING

29	Hemavathi M.	4PM16ME412	Avail finance Company	U74999KA2016PTC098506
30	Pradyumna Shreedhara Hegde	4PM15ME057	Micro Core Pvt Ltd	TRMN/OL-21/2019
31	Niranjan Suresh Hegde	4PM15ME054	ABC	ABCNOV19AJPVIJ032
32	Shivamurthy B S	4PM15ME078	Qspider (Software Trainee)	S-BTM(Qsp)
33	Rajath Pande	4PM15ME061	Carrer Prime	Offer Letter, 03-12-2019 CP/2018-19/CPPOL/CaRe/0032
34	Subramanya C	4PM15ME084	Eliation	U74999DL2015PTC282336
35	Premkumar M	4PM15ME058	Call IN IT	Offer letter, 08-02-2019
36	Bharmagowda B S	4PM16ME402	Indo- mim	SPM/SS/227/2019-20/0886
37	Roshan Dsouza	4PM15ME067	Uniservice apartment Solutions	Appointment Letter, 19-08-2019 HR/Bangalore/UNI-OL-352
38	Gowtam V	4PM15ME019	SLK	CIN:U72200KA2000PTCQ27516
39	Darshan Karthik A M	4PM15ME011	CAD MAXX (Training)	Offer Letter
40	Ullas J Subedar	4PM15ME092	IAS TRAINING	Dharwad, 16-07-2019
41	Nandeeswar Reddy B	4PM15ME051	MBA (Christ Academy)	ADMISSION ORDER, 25-09-2019
42	Swaroop N	4PM16ME439	CF Moto India	CFM/QC/TN/2019-20/0778
43	Ganesh laxmeswar	4PM15ME015	shakti precision components (india)pvt.ltd.	ID:5676
44	Ramesh U	4PM16ME425	Sansera Engineering Ltd (Aerospace Division) Banglore	Emp No:16167
45	Chandan L	4PM16ME407	KSS Industries	KSS/ME/TE/2019-20/22
46	Manjunath G T	4PM15ME035	shakti precision components (india)pvt.ltd.components (india)pvt.ltd.	ID:05677
47	Dilip Kumar B N	4PM14ME018	Flow and Force Engineers	FF/EST/074/2019-20/042
48	Girish H N	4PM15ME016	EY Global Delivery Services India LLP	AAL-2743

49	Yogendra Prasad V S	4PM16ME444	Actio-in	Offer Letter
50	Chetan S P	4PM16ME408	Eleation	U74999DL2015PTC282336
51	Kiran Kumar S	4PM16ME414	KSS industries	KSS/ME/TE/2019-20/56
52	Madhu Chandra H R	4PM15ME030	Koovers	KO/CAS/Bangalore-19
53	Nandan N V	4PM15ME049	Flow and Force Engineers	FF/EST/074/2019-20/049

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Abhishek C.P.	4PM14ME001	DAYANANDA SAGAR COLLEGE OF ENGINEERING	M. TECH
2	Ajay Kumar M	4PM14ME004	ACE ENGINEERING ACADEMY	IES Coaching, ID Card:0L-05
3	Arun Kumar S.S	4PM14ME007	SRI SAI GURU RAGHAVENDRA BANKING COACHING CENTRE	Coaching ID Card:R18083930
4	Avinash A.S	4PM14ME009	SJS ENTERPRISES PVT. LTD.	SJS/HRM/OFR LET/F29/-R1801
5	Dhanush S.C	4PM14ME015	DXC TECHNOLOGY	Offer letter by Company
6	Goutham M	4PM14ME022	BHARAT ELECTRONICS	APPRENTICE Letter
7	Karthik P	4PM14ME026	KRYPTIC MINDS TECHNOLOGY PVT.LTD	Offer letter by Company
8	Keerthan H.K	4PM14ME027	Nil	EDPL/MCD/ER/LOA/996/19
9	Kishan T.S	4PM14ME030	YUKEN INDIA LIMITED	Ref: 8732091
10	Lohitha M.S	4PM14ME031	TOYOTETSU INDIA PVT. LTD	Offer letter by Company
11	Lokeshwaran P	4PM14ME032	ENVISION FINANCIAL SYSTEMS (I) PVT. LTD.	Offer letter by Company
12	Manjunath B.H	4PM14ME036	ACUMAC MACHINE TOOLS PRIVATE LIMITED	AMT/PD/90/2018
13	Mohammed Sasiqh	4PM14ME042	EAST POINT COLLEGE OF HIGHER EDUCATION	MBA
14	Mohammed Shabaz Hussain	4PM14ME044	RESEARCH DEV. & MFG. CORPORATION	Offer letter by Company

15	Mohammed Shahid	4PM14ME045	BOSCH AUTOMOTIVE ELECTRONICS INDIA PVT. LTD.,	RBAI/HRL
16	Mohammed Shijauddin	4PM14ME046	NEELA .INC	NEELA/2018-19/030
17	Nikhil U Raikar	4PM14ME048	KENNAMETAL INDIA LIMITED	Employee Id: 10006198
18	Pawan N	4PM14ME051	SHANTHALA SPHEROCAST PRIVATE LIMITED	SSPL/HRD/APP/LLW/18-19
19	Prajwal R	4PM14ME053	SMITHS & FOUNDERS (INDIA) LIMITED	S&FIL/DIR/2811-1/2019
20	Pundaleek Basappa Teli	4PM14ME061	TOKAI RIKA MINDA INDIA PVT. LTD.,	TRMN/OL-48/2018-19
21	Rahul Kashyap A.N.	4PM14ME062	C-TECH INNOVATIVE MANUFACTURERS	Offer letter by Company
22	Sachin T.K	4PM14ME067	TOKAI RIKA MINDA INDIA PVT. LTD.,	TRMN/OL-21/2018
23	Sandeep G.M	4PM14ME071	FOIWE INFO GLOBAL SOLUTIONS LLP	S10006/26OCTOBER2018
24	Sanjay Kumar M	4PM14ME074	HIND HIGH VACUUM COMPANY PVT. LTD	HHVTEED:HR/12-12-18
25	Santhoshakumara V.N	4PM14ME077	ADVANTAGE ONE HUMAN RESOURCING PVT. LTD	AOHR/HRD/APPTS
26	Shivaraj K.B	4PM14ME081	REWARD 360	Offer letter by Company
27	Sidlinga Sirigeri	4PM14ME085	BVB COLLEGE OF ENGINEERING, HUBLI	M TECH
28	Sumanth B.H	4PM14ME087	COPES TECH INDIA PVT. LTD.	Offer letter by Company
29	Abhishek R	4PM15ME400	VIJAY TECHNOCRATS PVT. LTD.	VTPL/APP/ADM/18-19
30	Amith N	4PM15ME404	TEAMLEASE SERVICES LIMITED	Offer letter by Company
31	Jagannatha K	4PM15ME411	SRI SAI GURU RAGHAVENDRA BANKING COACHING CENTRE	COACHING
32	Kiran M.B	4PM15ME413	VIJAY TECHNOCRATS PVT. LTD.	VTPL/APP/ADM/18-19
33	Kishor Shantappa Chopade	4PM15ME414	WILLIAMS REFRIGERATION	Offer letter by Company
34	Kotresha K.B	4PM15ME415	LEONARDO	Offer letter by Company
35	Nandish M.R	4PM15ME420	DGS TECHNICAL SERVICES PVT. LTD.	DGSTS/0409/CL/2019

36	Sandesh M	4PM15ME426	MELSTAR INFORMATION TECHNOLOGIES LIMITED-YASH BIRLA GROUP	Offer letter by company
37	Sunil Basavanneppa Ganagi	4PM15ME432	MIKRONIX GAUGES PVT. LTD.	HR/2019/20/CON/07/04
38	Vishal Arer	4PM15ME442	AEROSPACE KNOWLEDGE CENTRE PRIVATE LIMITED	Nil
39	M. SUNIL	4PM14ME033	LEANworx	Appointment letter by company dated 9-July-2018
40	MADHU M.G.	4PM14ME034	Spoorthi Machine Tools Pvt. Ltd	SMTPL/ET/2018-19
41	Manoj Kumar S	4PM14ME039	Careertree Pvt Ltd	CTESAB110
42	MANU M.G.	4PM14ME040	Kennametal India Limited	HR/GAT/Fabraury
43	PRAMUL JAIN S.	4PM14ME057	Teamlease Services Limited	Emloyee N0:176121
44	PRAKASH C.K.	4PM14ME054	Vision IAS Coaching	Id Card:441761
45	SHARANA SIDDESH	4PM14ME078	Microgenesis	Employee ID: 607
46	VIJAY KUMAR S R	4PM14ME096	CSG Solutions India Pvt Ltd	Employee Id: 79
47	VINAYAK ADIGA	4PM14ME100	Manglore Refinery and Petrochemlicals Limited	Employee Id:1010600216
48	Adarsh B L	4PM15ME401	EASi ALLGIS	Employee Id: 1004979
49	BYRESHA R	4PM15ME406	Malnad Prime Machining Technologies Pvt. Ltd	Attendance card of March 2020
50	RAJSHEKARA	4PM15ME422	Motherson Engineering works	Offer letter by company
51	Veeresh K	4PM15ME439	ICONIVO TYRANTS MARKET PVT. LTD	Employee Id:ITM0012356
52	Girish N V	4PM15ME410	Solidus HiTech Product Pvt Ltd	Offer letter by Company, Dated 11th Jan 2020
53	ALTAFHUSEN K. RAICHUR	4PM15ME403	Yashswi Neem Trainee	Employee Id:93041
54	ASHWINI	4PM14ME008	Lawrence & Mayo	Offer letter by company
55	AVINASH S. BHAT	4PM14ME010	Lawrence & Mayo	Offer letter by company

56	K.P. MILAN	4PM14ME023	Autozen Engineering	Offer letter by company
57	MANJUNATHA S.C.	4PM14ME037	Autozen Engineering	Offer letter by company
58	PAWAN KUMAR H.N	4PM14ME050	Autozen Engineering	Offer letter by company
59	PRASHANT KUMAR	4PM14ME059	BeamLaser Engineering India pvt ltd	Offer letter by company
60	RAJESH H.R.	4PM14ME063	BeamLaser Engineering India pvt ltd	Offer letter by company
61	SANTHOSH H.M.	4PM14ME076	Motherson Engineering works	Offer letter by company
62	SHARATH L	4PM14ME079	Motherson Engineering works	Offer letter by company
63	KARTHIK MARAGALALE	4PM14ME024	Acharya Bangalore B School(ABBS)	MBA ID Card: 1901MBA201
64	SANNIDHI S.SHUKLE	4PM14ME075	Vellore Institute of Technology, Chennai Campus	M.Tech:19MCD1007

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Aaquib Moinuddin	4PM13ME001	INFOSYS	HRD/INFOSYSBPM/13317070, 18-JULY-2019
2	Abhishek M T	4PM13ME007	J PAN TUBULAR COMPONENT	JPAN-BANG/HR/03, 30-11-2017
3	Adishesh G	4PM13ME008	KRYSALIS CONSULTANCY PVT. LTD	Offer Letter by Company dated 9/25/2018
4	Akarsh K M	4PM13ME009	ALTEN INDIA (P) LTD.	RECT/NO:AIPL/2018, 18-06-2018
5	Chandan C S	4PM13ME015	M/S UNIVERSAL ENTERPRISES, BANGALORE	EMP ID: P9738, SALARY SLIP OCT-2019
6	Chetan S A	4PM13ME016	TEKNA SYSTEM & AUTOMATIONS	TSA008
7	Deekshith D Shetty	4PM13ME019	TECH MAHINDRA	ASSOCIATE ID:581997
8	Druvakumar M R	4PM13ME020	CADOPT TECHNOLOGIES	43010892-Z5N, 25-07-2018
9	Goutham K Patil	4PM13ME022	EASI ALLEGIS SERVICES INDIA PRIVATE LIMITED	EMPLOYEE ID: 1002711 26-6-2019
10	Guruprasad Shreedhar Hegde	4PM13ME023	INFOSYS	HRD/INFOSYSBPM/13317091 ,31-JULY-19

11	H Sunilkumar	4PM13ME025	EXONICS PRECISION	Offer Letter by Company dated 11/3/2019
12	Hadimane Sukumar	4PM13ME026	AMAZON	Offer Letter by Company dated 10/8/2018
13	Hanumantappa G Chalageri	4PM13ME027	HALF TEA, HEALTHY WOOD PRIVATE LIMITED(ENTERPRENEUR)	ENTREPRENEUR
14	Hemanth Kumar K R	4PM13ME029	SUDHA ENTERPRISES, FOUNDRY	P107 (SALARY SLIP) 6-6-19
15	K.Vinaya Karthik	4PM13ME030	L & T CONSTRUCTION EQUIPMENT	LTCEL/HR/7000025/2019, 13-06-2019
16	Lakshmikanth V	4PM13ME037	HCL TECHNOLOGIES LTD.	OFFER RELEASE DATE: MARCH 22, 2019
17	Madhusoodhana K V	4PM13ME038	SPECTRUM TALENT MANAGEMENT PVT. LTD	E. CODE -BLVG052 30-4-2019
18	Malathesh Gujjar U	4PM13ME039	MALNAD ALLOY CASTING PVT LTD	Offer Letter by Company dated 1/9/2017
19	Manohar Chidanand Gudlamani	4PM13ME041	INDIAN MACHINE TOOL MANUFACTURER ASSOCIATION	Offer Letter by Company 04-08-2019
20	Manoj Ganesh Bhattad	4PM13ME042	ACUMAC MACHINE TOOLS	AMT/PD/14/2017, 16-11-2017
21	Manoranjan S H	4PM13ME043	EXONICS	Offer Letter by Company dated 8/4/2019
22	Md Hameed	4PM13ME044	ALBAJ ENGINEERING CORP. PVT. LTD	AECPL/APPT/2406, 24-06-2018
23	Mohammed Habeebulla Khan	4PM13ME045	MANPOWER	Offer Letter by Company 14-05-2018
24	Mohammed Mustafeez Khan	4PM13ME046	MTECH IN BDT COLLEGE OF ENGG. PRESENTLY WORKING IN AXISCADES	USN-4UB17MMD12, AXIS/19-20/AL/CORP/03242: 05-08-2019
25	Mohammed Nizam M	4PM13ME047	PRIDE INDUSTRIES	Offer Letter by Company dated 5/28/2018
26	Nagaraj R Ballal	4PM13ME050	SUN MANUFACTURING SOLUTIONS.	Offer Letter by Company dated 10/3/2017
27	Naveen Jangali	4PM13ME053	ALTEN INDIA (P) LTD.	Offer Letter by Company 8/21/2018
28	Nikhil A Shetty	4PM13ME054	AHANA SYSTEMS & SOLUTIONS (P) LTD.	AHANA/IMS-HP/OFFER-2019-140-205, 21-03-2019
29	Nitin Naik	4PM13ME056	DIVGI TORQTRANSFER SYSTEMS PVT LTD	Salary Slip Apr-19
30	Pradeep Naik K H	4PM13ME059	DIGILIGO	Offer Letter by Company 5/4/2018

31	Pruthvi P Gowda	4PM13ME065	M/S MYTHRI SECURITY SERVICES INDIA PVT LTD	SMG2/2/CE/1340/2019, 14-08-2019
32	Punith H M	4PM13ME067	PRAGATHI STEEL CASTINGS PVT LTD	Offer Letter by Company 8/1/2019
33	Rajat Satish Nayak	4PM13ME069	TVS MOTOR COMPANY	Offer Letter by Company 7/26/2018
34	Rakesha P	4PM13ME070	QUEST INFORMATICS (P) LTD	Offer Letter by Company FS190103F
35	Ravi H M	4PM13ME072	TEAMLEASE SKILLS UNIVERSITY	TL/617182E9FD7, 20-12-2017
36	Santhosh R H	4PM13ME082	NEU INTEGRALS	Offer Letter by Company 6/1/2019
37	Shamanth M K	4PM13ME085	ASCENT HR	EMP CODE: 82433, 01-10-2018
38	Shashanka Sathish Hegde	4PM13ME087	JYOTI CNC AUTOMATION LIMITED	REF: HR/0917/2378, 20-01-2018
39	Shivaraj H Bagade	4PM13ME089	TECHNOSOFT SOLUTIONS	Offer Letter by Company
40	Sreeraman M S	4PM13ME093	INFOSYS	HRD/3T/18-19/12772288, 05-11-2018
41	Sri Charan Bollempalli	4PM13ME094	CINEMATOGRAPHY L.V.PRASAD FILM AND TV ACADEMY	REG NO: LVPFTA445 AUG 2020
42	Suhas Bhatt C R	4PM13ME096	COGNIZANT	CID: 11786113, 16-04-2018
43	Syed Ajmal Husseni	4PM13ME101	AUTO CLUTCHES	Offer Letter by Company, 06-10-2017
44	Thippeswamy C	4PM13ME103	HUBBALLI-DHARWAD BRTS CO. LTD	ID CARD
45	Veeranna S Vyapari	4PM13ME106	LUMAX	LIL/HR/AL/2018-2019, 07-05-2018
46	Vishal H Goshallanavar	4PM13ME113	MBA KSRDPRU, GADAG.	REG NO: 1801101030, 2018-2020
47	Yadunandan M	4PM13ME115	SGM TACHNOLOGIES	Offer Letter by Company 8/1/2018
48	Zaid Ulla Khan	4PM13ME116	DURA COOL AIR CONDITIONERS	Offer Letter by Company 2/26/2018
49	Guru N J	4PM14ME404	VEERO METALS	Offer Letter by Company dated 11/24/2017
50	Gurumurthi K S	4PM14ME405	FLAT WORLD SOLUTIONS PVT LTD	Offer Letter by Company dated 7/22/2019
51	Hulugeshi Cholappa B	4PM14ME407	FLAT WORLD SOLUTIONS PVT LTD	Offer Letter by Company dated 4/1/2019

52	Latha P C	4PM14ME411	INFOSYS	HRD/3T/18-19/12772272, 21-01-2019
53	Pradeep S Shegunasi	4PM14ME417	SPECTRUM TALENT MANAGEMENT PVT. LTD	EMP CODE:BLVG078,17-09-2018
54	Ranjith C	4PM14ME422	ALTEN INDIA (P) LTD.	RECT/NO:AIPL/2018, 18-06-2018
55	Rekha B S	4PM14ME423	LM WIND POWER	EMP NO: 00046413
56	Sampreethi Shankar	4PM14ME426	JYOTI CNC AUTOMATION LTD	REF: HR/0917/2369, 20-01-2018
57	Sathvik A V	4PM14ME428	VENKATESHA ARMS AND AMMUNITIONS	REG NO: 29EGHPS2844G1ZE, 22-06-2018
58	Shravanakumar G Hiremath	4PM14ME430	JAIL WARDER	APPLICATION NO: 3526388, 24-08-2018
59	Shubham I Goudar	4PM14ME431	MTECH IN PRODUCTION TECHNOLOGY, BEC BAGALKOT	USN: 2BA17MPY05, 2017-2019
60	Pavan G K	4PM13ME057	Ahana Systems and Solutions Pvt.Ltd.	Ref:AHANA/IMS-HP/Offer-2019-140-375
61	Saifansab Walikar	4PM13ME078	Sorez Technologies India Pvt Ltd	Offer Letter by Company 01/09/2017
62	Vidhyabhooshan R	4PM13ME108	K2Infoedge Pvt Ltd	Offer Letter by Company 08/12/2017
63	Prasad.P.Ilager	4PM14ME418	Spectrum Talent Management Pvt. Ltd	Emp Code:BLVG078,17-09-2018
64	Suhas S R	4PM13ME098	Elasto Tech India Pvt Ltd	Offer Letter by Company dated 19/08/2017
65	Nagraja K	4PM14ME414	IThink Technologies Pvt Ltd	Offer Letter by Company dated 02/11/2017
66	Nooralisa	4PM14ME416	Surya Steel Ltd	HRD/Surya Steel /13317091, 1-July-19
67	Kantharaju K	4PM13ME032	Qwerks Solutions Ltd.	Rect/No:AIPL/2018, June 18, 2018
68	Tejaswi Gowda H D	4PM13ME102	Elasto Tech India Pvt. Ltd	Offer Letter by Company
69	Bhavya H	4PM14ME401	Jyoti CNC Automation Ltd.	Ref: HR/1537/4669, 13/08/2018

4.6 Professional Activities (20) Total Marks 13.00

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

Institute Marks : 2.00

Year	Professional Society / Chapter	Activity
2019-20	MechInnova	One day workshop on Automation and Robotics conducted by IMTMA Bengaluru
2019-20	Suchetana (Suchetana%20Activities111.docx) Club	World Biofuel day - talk on Biofuels
2018-19	ISTE and MechInnova	3 Day Hands on Workshop on Robotics
2017-18	ISTE and Suchetana Club	3 days Workshop on Advances in IC Engines

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

Institute Marks : 3.00

Year	Newsletter
2019-20	1. YANTRAMSHA, Volume – 3, Issue – 1 2. YANTRAMSHA- Volume – 3, Issue – 2
2018-19	1. YANTRAMSHA- Volume – 2. Issue – 1 2. YANTRAMSHA- Volume – 2. Issue – 2
2017-18	1. YANTRAMSHA- Volume – 1. Issue – 1

Figure 4.1: Department NEWS Letter

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

Institute Marks : 8.00

1. SPORTS:

SPORTS DETAILS FOR THE ACADEMIC YEAR 2018-2019

Sl. No	USN	NAME	Name of the Event	Venue	Year
1	4PM17ME420	CHANDANA R	THROWBALL	BIET, DAVANGERE	2018
2	4PM17ME420	TEJASWINI S	THROWBALL	BIET, DAVANGERE	2018

3	4PM15ME051	NANDISHWAR REDDY	BASKET BALL	PESITM, SHIVAMOGGA	2018
4	4PM17ME036	GURURAJ J	BASKET BALL	PESITM, SHIVAMOGGA	2018
5	4PM15ME042	MOHAN KUMAR G S	ATHLETICS	SJCIT, CHIKKABALLAPUR	2018
6	4PM16ME032	KARTHIK G WALVAKAR	WRESTLING	SAPTHAGIRI ENGG. COLLEGE, BENGALURU	2018
7	4PM17ME422	VINAYAK NAGENDRA NAIK	KABADDI	BCE, SHRAVANABELAGULA	2019
8	4PM17ME036	GURURAJ J	BASKETBALL	KIT, TIPTUR	2019
9	4PM17ME062	R THANUSH	FOOTBALL	SIT,TUMKUR	2019
10	4PM16ME444	YOGENDRA PRASAD V S	FOOTBALL	SIT,TUMKUR	2019
11	4PM15ME064	RAVI KIRAN P	FOOTBALL	SIT,TUMKUR	2019
12	4PM15ME054	GANESH J KOPPAD	FOOTBALL	SIT,TUMKUR	2019
13	4PM18ME056	SKANDA U BHAT	FOOTBALL	SIT,TUMKUR	2019
14	4PM17ME078	SURAJ H C	FOOTBALL	SIT,TUMKUR	2019
15	4PM18ME022	MOHAMMED FAISAL	FOOTBALL	SIT,TUMKUR	2019
16	4PM17ME078	SURAJ H C	CRICKET	JNNCE, SHIVAMOGGA	2019
17	4PM17ME062	R THANUSH	CRICKET	JNNCE, SHIVAMOGGA	2019
18	4PM16ME032	KARTHIK G WALVEKAR	CRICKET	JNNCE, SHIVAMOGGA	2019
19	4PM16ME036	KUMAR GOURAV S	CRICKET	JNNCE, SHIVAMOGGA	2019
20	4PM15ME042	MOHAN KUMAR G S	CRICKET	JNNCE, SHIVAMOGGA	2019
21	4PM17ME022	C UPENDRA	CRICKET	JNNCE, SHIVAMOGGA	2019

SPORTS DETAILS FOR THE ACADEMIC YEAR 2018

Sl. No	USN	NAME	Name of the Event	Venue	Year
1	4PM15ME042	MOHAN KUMAR G S	ATHLETICS	VTU, BELGAUM	2017

2	4PM16ME036	KUMAR GOURAV S	ATHLETICS	VTU, BELGAUM	2017
3	4PM16ME019	DARSHAN K GIRIRADDER	WRESTLING	PESCE, MANDYA	2017
4	4PM15ME051	NANDISHWAR REDDY	ATHLETICS	VTU, BELGAUM	2017
5	4PM17ME022	C UPENDRA	CRICKET	JNNCE, SHIVAMOGGA	2018
6	4PM17ME062	R THANUSH	CRICKET	JNNCE, SHIVAMOGGA	2018
7	4PM15ME042	MOHAN KUMAR G S	CRICKET	JNNCE, SHIVAMOGGA	2018
8	4PM17ME078	SURAJ H C	CRICKET	JNNCE, SHIVAMOGGA	2018
9	4PM14ME072	SANDEEP H	CRICKET	JNNCE, SHIVAMOGGA	2018
10	4PM16ME032	KARTHIK G WALVAKAR	CRICKET	JNNCE, SHIVAMOGGA	2018
11	4PM14ME010	AVINASH S BHAT	CRICKET	JNNCE, SHIVAMOGGA	2018
12	4PM14ME104	PRATHAP N	KABADDI	KIT, TIPTUR	2018
13	4PM17ME045	MANOJ M J	KHO-KHO	SIT, TUMKUR	2018
14	4PM14ME104	PRATHAP N	KHO-KHO	SIT, TUMKUR	2018
15	4PM17ME051	MUSHRAFF ALI KHAN	KHO-KHO	SIT, TUMKUR	2018

SPORTS DETAILS FOR THE ACADEMIC YEAR 2016-17

Sl. No	USN	NAME	Name of the Event	Venue	Year
1	4PM15ME010	DARSHAN M BHAT	SHUTTLE BADMINTON	RBMEC, BELLARY	2016
2	4PM15ME099	VINAY KUMAR K G	SHUTTLE BADMINTON	RBMEC, BELLARY	2016
3	4PM15ME010	DARSHAN M BHAT	SHUTTLE BADMINTON	AIT, CHICKMAGALURU	2016
4	4PM15ME099	VINAYKUMAR K G	SHUTTLE BADMINTON	AIT, CHICKMAGALURU	2016
5	4PM14ME005	AKSHAY H S	ATHLETIC	DR TITT	2016
6	4PM15ME042	MOHAN KUMAR G S	ATHLETIC	DR TITT	2016
7	4PM14ME027	KEERTHAN H K	ATHLETIC	DR TITT	2016
8	4PM13ME117	PRADEEPKUMAR H N	ATHLETIC	DR TITT	2016

9	4PM13ME102	TEJASWIGOWDA	VOLLEY BALL	CIT, GUBBI	2017
10	4PM13ME050	NAGARAJ R BALLAL	VOLLEY BALL	CIT, GUBBI	2017
11	4PM15ME051	NANDEESHWAR REDDY	VOLLEY BALL	CIT, GUBBI	2017
12	4PM15ME065	RIZWAN H	VOLLEY BALL	CIT, GUBBI	2017
13	4PM16ME113	VINYAS D R	VOLLEY BALL	CIT, GUBBI	2017
14	4PM14ME025	KARTHIK N	KABBADI	MCE, HASSAN	2017
15	4PM14ME040	MANU M G	KABBADI	MCE, HASSAN	2017
16	4PM15ME041	MOHAMMED TALHA	KABBADI	MCE, HASSAN	2017

2. STUDENT PAPER PRESENTATION:

Sl. No.	USN	Name of the student	Paper Title	Presented At	Date
1	4PM15ME038	MIR JIBRAAN HUSSAIN	Power Generation by using Exhaust Gas Heat from an Internal Combustion Engine	PESITM, Shivamogga	May 2019
2	4PM15ME046	NAGABHUSHAN VENKATESH GUDI	Power Generation by using Kinetic Energy of Exhaust Gases from an Internal Combustion Engine	PESITM, Shivamogga	May 2019
3	4PM15ME007	BHARATH GOWDA G	Study on Development of an Automated Open Die Forging Machine	PESITM, Shivamogga	May 2019
4	4PM15ME013	DINESH KUMAR BISHNOI	Hybrid Solar - Electric Drier	PESITM, Shivamogga	May 2019

5	4PM15ME031	MALLESHI L BILIKUDARE	Performance of Smart Cooking System using Thermic Fluid	PESITM, Shivamogga	May 2019
6	4PM15ME090	TEJAS M	Design and Fabrication of Pico Hydro Turbine	PESITM, Shivamogga	May 2019
7	4PM15ME027	LOHITHKUMAR B N	Waste Plastic Pyrolysis Oil Alternative Fuel for an IC Engine	PESITM, Shivamogga	May 2019
8	4PM15ME025	KIRAN T M	Design and Performance of Ball Milling for Powder Metallurgy Composites	PESITM, Shivamogga	May 2019
9	4PM15ME081	SIDDANTH P JAIN	Investigation on Mechanical Behavior of LM4 Alloys Reinforced with Soda Glass	PESITM, Shivamogga	May 2019
10	4PM15ME068	SACHI GOWDA S	Mechanical Characterization of Asbestos Free Polymer based Brake Liners	PESITM, Shivamogga	May 2019
11	4PM16ME413	JANARDHANA H	Machinability Study of Drilling Parameters on Al Alloy	PESITM, Shivamogga	May 2019
12	4PM15ME063	RAVI C. C	Comparison of Performance Parameters of Mild Steel in EDM Process using Copper and Brass Tool	PESITM, Shivamogga	May 2019
13	4PM16ME433	SUNILKUMARA H	Design and Fabrication of Grain Collector	PESITM, Shivamogga	May 2019
14	4PM15ME063	RAVI C C	Optimizing the machining properties of mild steel in edm process using copper tool	PESITM, Shivamogga	May 2018
15	4PM16ME097	SUHAS G BHARADWAJ	Solar convective flows utilization in solar updraft towers	PESITM, Shivamogga	May 2018
16	4PM15ME076	SHASHWATH SHETTY	Zero turn vehicle	PESITM, Shivamogga	May 2018

17	4PM16ME406	BHARMAGOWDAB.S	Manually operated multiple adjustable seed sowing machine	PESITM, Shivamogga	May 2018
18	4PM13ME064	PRETHYUM ROY	Fabrication and performance test and aqua silencer	PESITM, Shivamogga	May 2018
19	4PM14ME042	MOHAMMED SADIQH	Design and fabrication of solar powered battery-operated pesticide sprayer	PESITM, Shivamogga	May 2018
20	4PM14ME061	PUNDALEEK BASAPPA TELI	Performance test on hybrid Nanofluids	PESITM, Shivamogga	May 2018
21	4PM14ME411	LATHA P C	Performance evaluation of CI Engine working on liquid fuel derived from house hold plastic waste	PESITM, Shivamogga	20th May 2017
22	4PM13ME079	SAIPHANIKUMAR P	Performance evaluation of CI Engine working on liquid fuel derived from house hold plastic waste	PESITM, Shivamogga	20th May 2017
23	4PM14ME027	KEERTHAN H.K	Biodiesel production by conventional and microwave assisted transesterification method	NCETERM-2017 GMIT, Davangere	8th& 9th September, 2017

3. STUDENT CERTIFIED COURSES

Sl. No.	USN	Name of the students	Certified Courses	Certified Agency	Date
1	4PM16ME097	SUHAS G BHARADWAJ	Refrigeration and Airconditioning	NPTEL Online Certification, IIT Roorkee	Aug-Sep 2018
2	4PM16ME056	NITHIN J C	Inspection and Quality Control in Manufacturing	NPTEL Online Certification, IIT Roorkee	Feb-Mar 2019
3	4PM16ME077	RAVIKUMAR G	Inspection and Quality Control in Manufacturing	NPTEL Online Certification, IIT Roorkee	Feb-Mar 2019
4	4PM16ME077	RAVIKUMAR G	Smart materials and Intelligent System design	NPTEL Online Certification, IIT Kanpur	Jun-Aug 2019

5	4PM16ME097	SUHAS G BHARADWAJ	Heat Exchangers: Fundamentals and Design analysis	NPTEL Online Certification, IIT Kharagpur	Jul-Oct 2019
6	4PM16ME097	SUHAS G BHARADWAJ	Fluid Machines	NPTEL Online Certification, IIT Kharagpur	Aug-Oct 2019
7	4PM16ME431	SHREYAS BABU C	Patent Drafting for Beginners	NPTEL Online Certification, IIT Madras	Jun-Feb 2019
8	4PM16ME097	SUHAS G BHARADWAJ	Conduction and Convection Heat transfer	NPTEL Online Certification, IIT Kharagpur	Jan-Apr 2019
9	4PM16ME097	SUHAS G BHARADWAJ	I C Engines and Gas turbines	NPTEL Online Certification, IIT Guwahati	Jan-Apr 2019
10	4PM15ME013	DINESH KUMAR BISHNOI	Product design and Development	NPTEL Online Certification, IIT Roorkee	Jan-Apr 2019
11	4PM16ME439	SWATHI P	Principles of Casting technology	NPTEL Online Certification, IIT Roorkee	Aug-Sep 2018
12	4PM15ME093	VARUN A N	Robotics	NPTEL Online Certification, IIT Kharagpur	Aug-Sep 2018
13	4PM15ME067	ROSHAN DSOUZA	Robotics	NPTEL Online Certification, IIT Kharagpur	Aug-Sep 2018
14	4PM15ME038	MIR JIBRAAN HUSSAIN	Principles of Casting technology	NPTEL Online Certification, IIT Roorkee	Aug-Sep 2018
15	4PM15ME019	GOWTHAM V	Design for Quality, Manufacturing and Assembly	NPTEL Online Certification, IIT Madras	Aug-Sep 2018
16	4PM15ME076	SHASHWATH SHETTY	Robotics	NPTEL Online Certification, IIT Kharagpur	Aug-Sep 2018
17	4PM15ME098	VIKHIL AKHILESH OLIVERA	Design for Quality, Manufacturing and Assembly	NPTEL Online Certification, IIT Madras	Aug-Sep 2018

18	4PM15ME013	DINESH KUMAR BISHNOI	Design for Quality, Manufacturing and Assembly	NPTEL Online Certification, IIT Madras	Aug-Sep 2018
19	4PM15ME001	ABHISHEK S R	Design for Quality, Manufacturing and Assembly	NPTEL Online Certification, IIT Madras	Aug-Sep 2018

4. STUDENT PARTICIPATION IN PROJECT EXHIBITIONS

Sl. No.	USN	Name of the students	Project Title	Presented At	Date
1	4PM14ME018	DILIP KUMAR B N	Bio-CNG Production, Bottling and Utilisation of Biogas	KLE DR.M S Sheshgiri College of Engineering and Technology, Belagavi	27/07/2019
2	4PM14ME095	VIJAY T V			
3	4PM15ME009	DARSHAN B M			
4	4PM16ME438	SWAROOP N.			

Sl. No.	USN	Name of the students	Project Title	Presented At	Date
1	4PM14ME031	LOHITHA M S	Experimental performance analysis of conventional gasoline vehicles blended with hydrogen gas	BIT, Davangere	10/08/2018
2	4PM14ME045	MOHAMMED SHAHID			
3	4PM12ME050	SYED SALMAN			
4	4PM14ME034	MADHU M G			

5. STUDENT PROJECTS SPONSORSHIP BY EXTERNAL AGENCIES
Academic year: 2019-2020

Sl. No.	USN	Name of the students	Project Title	Guide	Name of the Sponsor/ Sectors
1	4PM16ME067	Mr. RACHAN B V	DESIGN AND FABRICATION OF HAND OPERATED RICE PLANT CULTIVAOR	Mr. ASHOK R BANAGAR	KSCST
	4PM16ME076	Mr. RAVI KIRAN V			
	4PM16ME075	Mr. RAMESHA K			

	4PM16ME108	Mr. VIKAS H S			
2	4PM16ME051	Mr. NANDISH S	ENERGY HARVESTING BY RAIN WATER USING PIEZOELECTRIC MATERIALS	Mr. VINOD V RAMPUR	KSCST
	4PM16ME053	Ms. NAYANA H			
	4PM17ME413	Mr. NAVEEN KUMAR T C			
	4PM16ME009	Mr. ARJUN K V			
3	4PM16ME016	Ms. CHANDANA R	EFFECT OF ZrO2/TiO2 HYBRID NANO REINFORCEMENT ON MECHANICAL PROPERTIES OF PMMA BASED DENTURE MATERIALS	Dr. Girisha L	KSCST
	4PM16ME039	Mr. MAHADEVAYYA M K			
	4PM16ME040	Mr. MAHESH D R			
	4PM16ME042	Mr. MANOJ M D			
4	4PM16ME043	Mr. MANOJ S	OPTIMIZATION OF EMISSION AND PERFORMANCE TEST ON A CI ENGINE USING THE BIODIESEL EXTRACTED FROM THE TERMINALIA CATAPPA SEEDS	Mr. GANESH U L	KSCST
	4PM16ME044	Mr. MANOJ S			
	4PM16ME004	Mr.AJAY CHANDRAPPA GUTTUR			
	4PM15ME017	Mr. GIRISHA G N			

Academic year: 2018-2019

Sl. No.	USN	Name of the students	Project Title	Guide	Name of the Sponsor/Sectors
1	4PM14ME018	DILIP KUMAR B N	Bio-CNG Production, Bottling and Utilisation of Biogas	Dr. Basavarajappa Y H	**KSCST**
	4PM14ME095	VIJAY T V			
	4PM15ME009	DARSHAN B M			
	4PM16ME438	SWAROOP N.			

Academic year: 2017-2018

Sl. No.	USN	Name of the students	Project Title	Guide	Name of the Sponsor/Sectors
1	4PM14ME031	LOHITHA M S	Experimental performance analysis of conventional gasoline vehicles blended with hydrogen gas	Mr. Rajashrekar M C	**KSCST**
	4PM14ME045	MOHAMMED SHAHID			
	4PM12ME050	SYED SALMAN			
	4PM14ME034	MADHU M G			

6. CO- CURRICULAR ACTIVITIES

Sl. No.	USN	Name of the students	Events	Date	Name of the Program & Organizer	Awards
1	4PM15ME027	LOHITH KUMAR B N	PROJECT EXHIBITION	11th May 2019	5th Industry Institute Conclave on Electronics, Computational and Communication Technologies, PESITM Shivamogga	Second Prize
2	4PM15ME027	LOHITH KUMAR B N	BASEWARS	26,27th April, 2019	MELANZE-2019 Agadi College of Engineering & Technology , Gadag	Second Prize
3	4PM15ME027	LOHITH KUMAR B N	ROBORACE	26th,27th April, 2019	MELANZE-2019 Agadi College of Engineering & Technology , Gadag	Second Prize
4	4PM16ME439	SWATHI P	PROJECT PRESENTATION	25th-27th February, 2019	ANVESHANA Agastya International Foundation	Consolation prize
5	4PM15ME013	DINESH KUMAR BISHNOI	PROJECT PRESENTATION	25th-27th February, 2019	ANVESHANA Agastya International Foundation	Consolation prize
6	4PM16ME008	APEKSHA H N	CAD MODELING	15th -16th March, 2019	TECHNIE' 19 JIT Davangere	Participated
7	4PM16ME008	APEKSHA H N	PAPER PRESENTATION	15th -16th March, 2019	TECHNIE' 19 JIT Davangere	Participated
8	4PM16ME097	SUHAS G BHARADWAJ	PAPER PRESENTATION	15th -16th March, 2019	TECHNIE' 19 JIT Davangere	Participated
9	4PM16ME097	SUHAS G BHARADWAJ	CAD MODELING	15th -16th March, 2019	TECHNIE' 19 JIT Davangere	Participated
10	4PM16ME086	SANATH S	CAD MODELING	15th -16th March, 2019	TECHNIE' 19 JIT Davangere	Participated

11	4PM16ME086	SANATH S	PAPER PRESENTATION	15th -16th March, 2019	TECHNIE' 19 JIT Davangere	Participated
12	4PM16ME056	NITHIN J C	CAD MODELING	15th -16th March, 2019	TECHNIE' 19 JIT Davangere	Participated
13	4PM16ME056	NITHIN J C	PAPER PRESENTATION	15th -16th March, 2019	TECHNIE' 19 JIT Davangere	Participated
14	4PM16ME027	GURUSHREE M S	ROBO RACE	16th March, 2019	TECHNISIUM, 2019 National level StudentsTechnical Symposium, SIT, Tumkur	Participated
15	4PM16ME026	GURURAJ P	ROBO RACE	16th March, 2019	TECHNISIUM, 2019 National level StudentsTechnical Symposium, SIT, Tumkur	Participated
16	4PM16ME074	RAMESH P T	ROBO RACE	16th March, 2019	TECHNISIUM, 2019 National level StudentsTechnical Symposium, SIT, Tumkur	Participated
17	4PM15ME027	LOHITH KUMAR B N	ROBO RACE	16th March, 2019	TECHNISIUM, 2019 National level Students Technical Symposium, SIT, Tumkur	First Prize
18	4PM16ME050	MUSTAFALI JEEVANSAB MULLA	HOBBY PROJECT	23rd March, 2019	Momentum 2019 National level Students Technical Symposium, SIT, Tumkur	Participated
19	4PM16ME056	NITHIN J C	HOBBY PROJECT	23rd March, 2019	Momentum 2019 National level Students Technical Symposium, SIT, Tumkur	Participated
20	4PM16ME439	SWATI P	Science & Engineering Fair	25th to 27th Feb 2019	Anveshana 2019 Science & Engineering Fair Bengalore	Consolation Prize

21	4PM15ME013	DINESH KUMAR BISHNOI	Science & Engineering Fair	25th to 27th Feb 2019	Anveshana 2019 Science & Engineering Fair Bengalore	Consolation Prize
22	4PM16ME027	GURUSHREE	DIRT RACE	28th Feb, 1st& 2nd March, 2019	aakriti' 19 Canara Engineering College, Mangaluru	Participated
23	4PM16ME027	GURUSHREE	DEATH RACE	28th Feb, 1st& 2nd March, 2019	aakriti' 19 Canara Engineering College, Mangaluru	Participated
24	4PM16ME026	GURURAJ P	DIRT RACE	28th Feb, 1st& 2nd March, 2019	aakriti' 19 Canara Engineering College, Mangaluru	Participated
25	4PM16ME026	GURURAJ P	DEATH RACE	28th Feb, 1st& 2ndMarch, 2019	aakriti' 19 Canara Engineering College, Mangaluru	Participated
26	4PM15ME099	VINAY	DIRT RACE	28th Feb, 1st& 2nd March, 2019	aakriti' 19 Canara Engineering College, Mangaluru	Participated
27	4PM15ME099	VINAY	DEATH RACE	28th Feb, 1st& 2nd March, 2019	aakriti' 19 Canara Engineering College, Mangaluru	Participated
28	4PM16ME099	SUMANTH N G	One day State level Modelling competition on Solid Edge	22nd Feb 2019	KLSVDIT, Haliyal	Participated
29	4PM16ME104	VEERAKUMAR R GOURAJ	One day State level Modelling competition on Solid Edge	22nd Feb 2019	KLSVDIT, Haliyal	Participated
30	4PM16ME105	VEERANA GOWDA B C	One day State level Modelling competition on Solid Edge	22nd Feb 2019	KLSVDIT, Haliyal	Participated

31	4PM15ME413	KIRAN M B	PROJECT EXHIBITION CUM COMPETITION	28th June 2018	VTU, Belagavi	Participated
32	4PM15ME401	ADARSH B L	PROJECT EXHIBITION CUM COMPETITION	28th June 2018	VTU, Belagavi	Participated
33	4PM15ME027	LOHITH KUMAR B N	TRAILBLAZER	13th -15th April, 2018	ENIGMA 2018, Malnad College of Engineering, Hassan	First Prize
34	4PM14ME025	KARTHIK N	GROUP SONG INDIAN	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
35	4PM14ME025	SANNIDHI SURESH RAO SHUKLE	GROUP SONG INDIAN	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
36	4PM16ME096	SOURABH SHRISHAIL	FOLK/TRIBLE DANCE	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Second Prize
37	4PM14ME057	PRAMUL JAIN	FOLK/TRIBLE DANCE	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Second Prize
38	4PM16ME032	KARTHIK G WALVEKAR	FOLK/TRIBLE DANCE	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Second Prize
39	4PM16ME402	AKSHAY A SHIRASANGI	FOLK/TRIBLE DANCE	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Second Prize

40	4PM15ME081	SIDDANTH P JAIN	QUIZ	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
41	4PM16ME097	SUHAS G BHARADWAJ	DEBATE	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
42	4PM14ME038	MANOJ KUMAR L MAJUMDAR	ONE ACT PLAY	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
43	4PM14ME025	KARTHIK N	ONE ACT PLAY	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
44	4PM16ME402	AKSHAY A SHIRASANGI	ONE ACT PLAY	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
45	4PM16ME033	KIRAN KASAR	ONE ACT PLAY	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
46	4PM14ME038	MANOJ KUMAR L MAJUMDAR	SKIT	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
47	4PM14ME025	KARTHIK N	SKIT	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated

48	4PM16ME402	AKSHAY A SHIRASANGI	SKIT	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
49	4PM17ME038	KARTHIK KM	CLAY MODELLING	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
50	4PM15ME081	SIDDANTH P JAIN	INSTALLATION	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
51	4PM16ME032	KARTHIK G WALVEKAR	MIME	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
52	4PM16ME402	AKSHAY A SHIRASANGI	MIME	11TH TO 13TH APRIL 2018	KALA SURABHI 18TH VTU INTER COLLEGIATE YOUTH FESTIVAL AITM BALAGAVI	Participated
53	4PM15ME027	LOHITH KUMAR B N	LINE FOLLOWER	27th, 28th, 29th April, 2018	TECHZONE 2018, JNNCE Shivamogga	Second Prize
54	4PM15ME021	IMAD AHAMED I	TRAILBLAZER	13th -15th April, 2018	ENIGMA 2018, Malnad College of Engineering, Hassan	First Prize
55	4PM15ME021	IMAD AHAMED I	LINE FOLLOWER	27th, 28th, 29th April, 2018	TECHZONE 2018, JNNCE Shivamogga	Second Prize
56	4PM16ME097	SUHAS G BHARADWAJ	Speak for India Karnataka Edition Inter Collegiate Debate Competition	17th September 2018	Speak for India Karnataka Edition 2018 Sahyadri College, Shivamogga	Participated

57	4PM16ME097	SUHAS G BHARADWAJ	Speak for India Karnataka Edition Inter Collegiate Debate Competition	22 October 2018	Speak for India Karnataka Edition 2018 Nilgires, College, UDUPI	Participated
58	4PM16ME071	RAHUL SHEETAL UPADYA	GET SET GO	12th November 2018	PLASMA-2018 National Level Technical Symposium JNNCE, Shivamogga	Participated
59	4PM13ME065	PRUTHVI P GOWDA	GROUP SONG INDIAN	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Second Prize
60	4PM13ME087	SHASHANK HEGDE	GROUP SONG INDIAN	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Second Prize
61	4PM13ME065	PRUTHVI P GOWDA	GROUP SONG WESTRAN	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
62	4PM13ME087	SHASHANK HEGDE	GROUP SONG WESTRAN	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
63	4PM13ME059	PRADEEP NAIK K H	GROUP DANCE	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated

64	4PM13ME067	PUNITH H M	QUIZ	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
65	4PM14ME407	HULIGESHI	TRIBAL/FOLK DANCE	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
66	4PM13ME065	PRUTHVI P GOWDA	ONE ACT PLAY	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
67	4PM13ME094	SRI CHARACN	ONE ACT PLAY	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
68	4PM13ME065	PRUTHVI P GOWDA	SKIT	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Third Prize
69	4PM13ME029	HEMANTH	SKIT	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Third Prize

70	4PM13ME065	PRUTHVI P GOWDA	MIMICRY	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
71	4PM14ME407	HULIGESHI	CLAY MODELLING	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
72	4PM12ME035	RAMESH R K	INSTALLATION	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
73	4PM13ME094	SRI CHARACN	MIME	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
74	4PM13ME065	PRUTHVI P GOWDA	MIME	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
75	4PM13ME059	PRADEEP NAIK K H	MIME	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated
76	4PM12ME035	RAMESH R K	COLLAGE	16TH TO 19TH MARCH 2017	YUVAKALANJALI 17TH INTERCOLLEGIATE YOUTH FESTIVAL, Sir. M.VIT, BANGALORE	Participated

77	4PM14ME090	TIPPESWAMY S	AIR FOIL DESIGN Technical Paper Presentation	5th to 7th May 2017	TECHZONE-2017 PRASTUTI-National Level Technical Paper Presentation JNNCE, Shivamogga	Participated
78	4PM14ME093	VIGNESHA Y V	AIR FOIL DESIGN Technical Paper Presentation	5th to 7th May 2017	TECHZONE-2017 PRASTUTI-National Level Technical Paper Presentation JNNCE, Shivamogga	Participated
79	4PM14ME093	VIGNESHA Y V	Technical Paper Presentation	8TH and 9th September 2017	National Conference On Emerging Trends in Engineering Research and Management, GMIT, Davanagere	Participated
80	4PM14ME027	KEERTHAN H K	Paper Presentation	8TH and 9th September 2017	National Conference on Emerging Trends in Engineering Research and Management, GMIT, Davanagere	Participated

5 FACULTY INFORMATION AND CONTRIBUTIONS (200) Total Marks 126.35

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/Assoc. Prof.).	
Dr. Basavarajappa Y H	AFSPB3315G	ME/M. Tech and PhD	09/05/2015	MECHANICAL ENGINEERING SCIENCE	3	6	0	Professor	11/07/2016	
Dr. Sharanaprabhu C M	BUPPS3195G	ME/M. Tech and PhD	05/04/2013	MECHANICAL ENGINEERING SCIENCE	6	5	1	Professor	02/08/2017	
Dr. Girisha L	ALRPG2475K	ME/M. Tech and PhD	16/12/2016	MECHANICAL ENGINEERING SCIENCE	13	2	0	Associate Professor	04/01/2016	
Dr. Manjunath Patel G C	BEJPC2293D	ME/M. Tech and PhD	14/11/2015	MECHANICAL ENGINEERING	15	2	0	Assistant Professor		
Mr. Gowtam J K	AFUPG6815L	M.E/M.Tech	21/04/1997	MAINTENANCE ENGINEERING				Assistant Professor		
Mr. Prasanna Nayak H	AWMPP4787D	M.E/M.Tech	12/03/2008	MACHINE DESIGN	2			Assistant Professor		
Mr. Tharanatha H	AGIPT3378G	M.E/M.Tech	22/11/2014	THERMAL POWER ENGINEERING	1			Assistant Professor		
Mrs. Ramya C R	AIHPR0002J	M.E/M.Tech	21/01/2017	COMPUTER INTEGRATED MANUFACTURING	3			Assistant Professor		

Mr. Vinod V Rampur	BDCPR3931H	M.E/M.Tech	29/11/2011	COMPUTER INTEGRATED MANUFACTURING	9			Assistant Professor		
Mr. Ashok R Banagar	BKDPB3093G	M.E/M.Tech	05/04/2013	DESIGN ENGINEERING	10			Assistant Professor		
Mr. Ganesh U L	BEYPG2165P	M.E/M.Tech	28/01/2012	COMPUTER INTEGRATED MANUFACTURING	6			Assistant Professor		
Mr. Praveena R	COZPP4986D	M.E/M.Tech	29/11/2013	TOOL ENGINEERING	4			Assistant Professor		
Mr. Mujebur Rehaman	AWWPR0043A	M.E/M.Tech	05/04/2013	DESIGN ENGINEERING	5			Assistant Professor		
Mr. Santosh M B	CWSPS5664Q	M.E/M.Tech	30/11/2013	DESIGN ENGINEERING	2			Assistant Professor		
Mr. Ajey C P	BSIPP0956M	M.E/M.Tech	04/12/2015	THERMAL POWER ENGINEERING	2			Assistant Professor		
Mr. Shivananda D C	EDRPS3720R	M.E/M.Tech	04/12/2015	THERMAL POWER ENGINEERING	2			Assistant Professor		
Mr. Abhishek C R	BIHPA0641P	M.E/M.Tech	03/12/2015	THERMAL POWER ENGINEERING	2			Assistant Professor		
Mr. Kiran Kumar K	DQKPK2258D	M.E/M.Tech	09/01/2018	THERMAL POWER ENGINEERING	5			Assistant Professor		
Mr. Harish G V	AKGPH6055E	M.E/M.Tech	21/01/2017	ENGINEERING MANAGEMENT	3			Assistant Professor		
Dr. S. R. Ashok	AAVPA0503H	ME/M. Tech and PhD	15/03/2010	MECHANICAL ENGINEERING				Professor	02/06/2014	

Mr. Rajashekhara M C	BKNPC1262N	M.E/M.Tech	03/12/2015	THERMAL POWER ENGG	2			Assistant Professor	

5.1 Student-Faculty Ratio (20)

Total Marks 10.00

Institute Marks : 10.00

UG

No. of UG Programs in the Department 1

Mechanical Engg.						
Year of Study	**CAY**		**CAYm1**		**CAYm2**	
	(2019-20)		**(2018-19)**		**(2017-18)**	
	Sanction Intake	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**
2nd Year	120	44	120	27	120	23
3rd Year	120	27	120	23	120	45
4th Year	120	23	120	45	120	45
Sub-Total	**360**	**94**	**360**	**95**	**360**	**113**
Total	**454**		**455**		**473**	
Grand Total	454		455		473	

PG

No. of PG Programs in the Department 0

Computer Science and Engineering			
Year of Study	**CAY(2019-20)**	**CAYm1(2018-19)**	**CAYm2 (2017-18)**
	Sanction Intake	**Sanction Intake**	**Sanction Intake**
1st Year	0	0	24
2nd Year	0	24	24
Total	**0**	**24**	**48**

Digital Electronics			
Year of Study	**CAY(2019-20)**	**CAYm1(2018-19)**	**CAYm2 (2017-18)**
	Sanction Intake	**Sanction Intake**	**Sanction Intake**
1st Year	0	0	24
2nd Year	0	24	24
Total	**0**	**24**	**48**

Master of Business administration			
Year of Study	**CAY(2019-20)**	**CAYm1(2018-19)**	**CAYm2 (2017-18)**
	Sanction Intake	**Sanction Intake**	**Sanction Intake**
1st Year	60	60	60
2nd Year	60	60	60
Total	**120**	**120**	**120**

Grand Total	120	168	216

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 0

Description	CAY(2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
Total No. of Students in the Department(S)	454 **Sum total of all (UG+PG) students**	455 **Sum total of all (UG+PG) students**	473 **Sum total of all (UG+PG) students**
No. of Faculty in the Department(F)	19 **F1**	20 **F2**	19 **F3**
Student Faculty Ratio(SFR)	23.89 **SFR1=S1/F1**	22.75 **SFR2=S2/F2**	24.89 **SFR3=S3/F3**
Average SFR	23.84 **SFR=(SFR1+SFR2+SFR3)/3**		
F=Total Number of Faculty Members in the Department (excluding first year faculty)			

Note: 75% should be Regular/full time faculty and the remaining shall be Contractual Faculty/Adjust Faculty/Resource persons from industry as per AICTE norms and standards. The contractual faculty will be considered for assessment only if a faculty is drawing a salary as prescribed by the concerened State Government for the contractual faculty in the respective cadre.

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

	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY(2019-20)	19	0
CAYm1(2018-19)	20	0
CAYm2(2017-18)	19	0

Average SFR for three assessment years : 23.84

Assessment SFR : 10

5.2 Faculty Cadre Proportion (25)

Total Marks 21.00

Institute Marks : 21.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	**Available**	**Required F2**	**Available**	**Required F3**	**Available**
CAY(2019-20)	2.00	2.00	5.00	1.00	15.00	16.00
CAYm1(2018-19)	2.00	2.00	5.00	1.00	15.00	17.00
CAYm2(2017-18)	2.00	3.00	5.00	1.00	15.00	15.00
Average Numbers	2.00	2.33	5.00	1.00	15.00	16.00

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 21.00

5.3 Faculty Qualification (25)

Total Marks 11.35

Institute Marks : 11.35

	X	**Y**	**F**	**FQ = 2.5 x [(10X + 4Y) / F)]**
2019-20(CAY)	4	15	22.00	11.36
2018-19(CAYm1)	4	16	22.00	11.82
2017-18(CAYm2)	4	15	23.00	10.87

Average Assessment : 11.35

5.4 Faculty Retention (25)

Total Marks 25.00

Institute Marks : 25.00

Description	2018-19	2019-20
No of Faculty Retained	18	17
Total No of Faculty	19	19
% of Faculty Retained	95	89

Average : 92.00

Assessment Marks : 25.00

5.5 Innovations by the Faculty in Teaching and Learning (20) Total Marks 10.00

Institute Marks : 10.00

- Students are exposed to latest developments through regular visits to industries, Hands on Training on Automation and Additive Manufacturing to enhance practical knowledge related to the course. Figure 5.1**:** shows students visited various a) Industrial Visit, and undergone b) Hands on Training on Automation and c) Additive Manufacturing
- Demonstration to students with the help of Conventional Machines and Models. Figure 5.2: shows various faculties delivering various lectruring modes with the help of Conventional Machines and Models.
- Simulation based learning for theoretical concepts and use of latest tools-The students are encouraged for simulation based learning for better understanding of the subject.
- NPTEL Courses as an extensive learning and assignments - Students are motivated and supported to take up NPTEL courses. Also faculties are encourage to take NPTEL courses for their knowledge enhancement in teaching and Learning process. Hence, Table 5.1 and Table 5.2 shows List of faculties and students completed the NPTEL courses.
- Group assignments are provided in labs and in classes also to insure healthy competition, team work and new and improved outcomes of the problem.

Figure 5.1: a) Industrial Visit, b) Hands on Training on Automation and c) Additive Manufacturing

Figure 5.2: Delivering Lectrures with the help of Conventional Machines and Models

Table 5.1: List of Faculties Completed NPTEL Courses

Sl No	Faculty Name	Course	Year
1	Mr. Praveena R	Fundamentals of Manufacturing Processes	2018-19
2	Mr. Kiran Kumar K	Introduction to Fluid Mechanics	2019-20
3	Mr. Ashok R Banagar	Manufacturing of Composites	2019-20
4	Mr. Ganesh U L	CNC of Machine Tools and Processes	2019-20
5	Mr. Maltesh Kumar Deshpande	Nanotechnology Science and Applications	2019-20
6	Mr. Shivananda D C	Concepts of Thermodynamics	2019-20

Table 5.2: A) NPTEL - Students [2019-2020]

List of the students who had completed nptel online certification courses				
Sl. No.	Name of the student	Usn	Course name	Sem
1.	Nitin J. C.	4PM16ME056	Inspection and Quality control in Manufacturing	7
2.	Sourabh	4PM16ME096	Refrigeration and Air Conditioning	7
3.	SuhasBharadhwaj	4PM16ME097	Fluid Mechanics	7
4.	SuhasBharadhwaj	4PM16ME097	Heat Exchangers; Fundamentals and Design Analysis	7

Table 5.2: B) NPTEL - Students [2018-19]

List of the students who had completed nptel online certification courses				
Sl. No.	Name of the student	Usn	Course name	Sem
1	Vikhil A. O.	4PM15ME098	Design for quality, manufacturing and assembly	7
2	ShashwathShetty	4PM15ME076	Robotics	7
3	Varun A. N.	4PM15ME093	Robotics	7
4	Subramanya C.	4PM15ME084	Robotics	7
5	Roshan D'Souza	4PM15ME067	Robotics	7
6	Abhishek S. R.	4PM15ME001	Design for quality, manufacturing and assembly	7
7	Gowtham V.	4PM15ME013	Design for quality, manufacturing and assembly	7
8	Dinesh Kumar Bishnoi	4PM15ME019	Design for quality, manufacturing and assembly	7
9	JibranHussain	4PM15ME038	Principles of Casting Techniques	7
10	Swathi	4PM16ME439	Principles of Casting Techniques	7
11	Suhas G. Bharadwaj	4PM16ME097	Refrigeration and Air Conditioning	5
12	Nitin J. C.	4PM16ME056	Inspection and Quality Control in Manufacturing	6
13	Ravikumar G	4pm16ME077	Inspection and quality control in manufacturing.	6
14	Harish Kumar. B. R	4PM15ME020	Finite element analysis 1	6
15	Suhas	4PM15ME086	Inspection and quality control	6
16	Suhas G. Bharadwaj	4PM16ME097	Conduction and Convection Heat Transfer	6
17	Suhas G. Bharadwaj	4PM16ME097	IC Engines and Gas turbines	6
18	Ravikumar G	4PM16ME077	Inspection and quality control in manufacturing.	6
19	Kiran M Rayker	4PM17ME039	Introduction to C language	4
20	Darshan S P	4PM16ME020	Manufacturing process	6

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

Total Marks 15.00

Institute Marks : 15.00

Name of the faculty	Max 5 Per Faculty		
	2018-19 (CAYm1)	2017-18 (CAYm2)	2016-17 (CAYm3)
Dr. Basavarajappa Y H	3.00	3.00	0.00
Dr. C M Sharanaprabhu	3.00	3.00	5.00
Dr. Girisha L	0.00	3.00	5.00
Dr. Manjunath Patel G C	0.00	3.00	0.00
Mr. Gowtam J K	0.00	0.00	5.00
Mr. Prasanna Nayak H	0.00	0.00	5.00

Mr. Tharanatha H	0.00	0.00	5.00
Mrs. Ramya C R	0.00	3.00	5.00
Mr. Vinod V Rampur	0.00	3.00	5.00
Mr. Ashok R Banagar	5.00	3.00	5.00
Mr. Ganesh U L	5.00	3.00	5.00
Mr. Praveena R	0.00	0.00	5.00
Mr. Mujebur Rehaman	3.00	0.00	5.00
Mr. Amruth M	0.00	0.00	5.00
Mr. Santosh M B	0.00	3.00	5.00
Mr. Ajey C P	0.00	0.00	5.00
Mr. Shivananda D C	5.00	0.00	5.00
Mr. Abhishek C R	0.00	0.00	5.00
Mr. Rajashekhar M C	0.00	0.00	5.00
Mr. Koushik P K	0.00	0.00	5.00
Mr. Mahantesh M R	0.00	5.00	5.00
Mr.Malatesh Kumar deshpande	5.00	5.00	5.00
Mr. Kiran Kumar K.	0.00	0.00	5.00

Mr. Harish G.V.	0.00	0.00	5.00
Sum	29.00	37.00	110.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	22.70	22.75	23.65
Assessment [3*(Sum / 0.5RF)]	7.67	9.76	27.91

Average assessment over 3 years: 15.11

5.7 Research and Development (30) Total Marks 14.00

5.7.1 Academic Research (10) Institute Marks : 8.00

Table 5.3: Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc.

Faculty	Designation	Year of Publication				
		CAY 2019-20	CAY-m1 2018-19	CAY-m2 2017-18	CAY-m3 2016-17	Total
Dr. Basavarajappa YH	Professor	2	1			3
Dr. C M Sharanaprabhu	Professor	2	3	1		6
Prof. Gowtam J K	Associate Professor					NIL
Dr. Girisha L	Associate Professor	6	1			7
Dr. Manjunath Patel GC	Assitant Professor	13				13
Mrs. Ramya C R	Assitant Professor	2	1			3
Mr. Ganesh U L	Assitant Professor	3		1	1	4
Mr. Prasanna Nayak H	Assitant Professor	1		1		2
Mr. Praveena R	Assitant Professor	4				4
Mr. Mujebur Rehman	Assitant Professor	2		1	1	4
Mr. Tharanatha H	Assitant Professor	1				1
Mr. Santosh M B	Assitant Professor	1		1		2
Mr. Vinod V Rampur	Assitant Professor	4		1	1	6
Mr. Ashok R Banagar	Assitant Professor	3	1	3	2	9
Mr. Koushik P K	Assitant Professor	2				2
Mr. Amruth M	Assitant Professor	1				1

Mr. Ajey C P	Assitant Professor			1		1
Mr. Shivananda D C	Assitant Professor			1		1
Mr.Abhishek C R	Assitant Professor	2				2
Mr. Rajashekhar M C	Assitant Professor			1		1
Mr. Mahantesh M R	Assitant Professor	1				1
Mr. Malteshkumar Deshpande	Assitant Professor	4				4
Mr. Harish G V	Assitant Professor	2				2
Mr. Kirankumar K	Assitant Professor	3				3

Table 5.4: Publication Category and Numbers.

Publication Type	**CAY 2019-20**	**CAY-m1 2018-19**	**CAY-m2 2017-18**	**CAY-m3 2016-17**	**Total**
Book	1	NIL	NIL	NIL	1
Book Chapters	4	NIL	NIL	NIL	4
SCI Indexed Journals	5	NIL	1	NIL	6
Scopus Indexed Journals	5	3	1	NIL	9
Google Scholar Indexed Journals	24	1	2	3	30
International Conferences	1	3	NIL	NIL	4
National Conferences	NIL	1	2	NIL	3
Total					**57**

Table 5.5: Ph.D. guided /Ph.D. Awarded during the assessment period while working in the institute.

		No. of candidates guided/ guiding	**No. of candidates Awarded Ph.D.**	**Guiding faculty**
1.	PhD guided/ PhD awarded During the assessment period while working in the Institute	6	-	Dr. Basavarajappa Y H
		5	1	Dr. Sharaprabhu C M
		2	-	Dr. Girisha L
		2	-	Dr. Majunath Patel

Table 5.6: List of faculties awarded PhD

Sl. No.	**Name of the faculty**	**Name of the Guide**	**University**	**Year of award of PhD**
1	**Dr Ravi Raj M S**	**Dr. Sharaprabhu C M**	**VTU**	**2018-19**

Table 5.7: List of faculty members Pursuing Ph.D.

SL. NO.	Name of the faculty	Designation	Research center	Enrolment year
1	Mr. Vinod V Rampur	Assistant Professor	PDACE, Kalaburagi	2013
2	Mr. Gowtam J K	Assistant Professor	Oxford college of Engineering, Bangalore	2016
3	Mr. Ashok R Banagar	Assistant Professor	GMIT, Davanagere	2016
4	Mr. Ganesh U L	Assistant Professor	JNNCE, Shivamogga	2017
5	Mr. Mujebur Rehaman	Assistant Professor	PESITM, Shivamogga	2019
5	Mr. Maltesh Kumar Deshpande	Assistant Professor	PESITM, Shivamogga	2019
6	Mr. Harish G V	Assistant Professor	KLEIT, Hubballi	2019
7	Mr. Tharanath H	Assistant Professor	PESITM, Shivamogga	2019
8	Mr. Kiran Kumar	Assistant Professor	UBDTCE, Davanagere	2019

5.7.2 Sponsored Research (5)

Institute Marks : 0.00

2018-19 (CAYm1)

Project Title	**Duration**	**Funding Agency**	**Amount**
Unnat Bharath Abhiyan Centre for Rural Development and Technology, MHRD	1 Year	MHRD	50000.00
Rain water Harvesting System to PESITM Staff Quatres	2 Year	PESITM	162916.00
Vermi Compost-Pit and Biogas digester to PESITM Hostels	2 Year	PESITM	110000.00
			Total Amount(X): 322916.00

2017-18 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2016-17 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

5.7.3 Development Activities (10)

Institute Marks : 6.00

Product Development

Figure 5.3 illustrate, Final Year Project “Development of automated sorting machine for municipal solid waste” was developed by Akash G N, Sanjay G, Ravi C C and Ullas J S under the guidance of Mahanthesh M R, as part of academic curriculum and participated in 5th Edition IEEE-I2CONECCT, a flagship event of IEEE Mangalore Sub-Section on 11-May-2019 organized at PESITM, Shivamogga and Won 1st place in project exhibition and 2nd Place in technical paper presentation. Also won 1st prize in “Startup Stage competition” held at PESITM as a part of PRERANA 2019.

Figure 5.3: Development of automated sorting machine for municipal solid waste

Working Models

As a part of co-curricular activity some of the mini projects were given to students to fabricate different mechanisms which are the part of their syllabus (namely Elliptical Trammel, Quick Return motion mechanism, Geneva Wheel Mechanism, Rat chat and Pawl Mechanism, Crank-crank mechanism etc.).

Following Figure 5.4 demonstrates the working models prepared by the students.

Figure 5.4: Working Models of Elliptical Trammel, Quick Return motion mechanism, Geneva Wheel Mechanism, Rat chat and Pawl Mechanism, Crank-crank mechanism

“Hands on tools on foundry and castings” a technical session for the students. A demonstration on the molten wax pouring into the mould was done by faculty members of mechanical engineering department as in figure 5.5. The details of the casting was also explained to the students during the sessions.

Figure 5.5: Hands on tools on foundry and castings

Charts

- List of Programs in the Lab
- Dos and Donts in the Lab

5.7.4 Consultancy(from Industry) (5)

Institute Marks :

2018-19 (CAYm1)

Project Title	Duration	Funding Agency	Amount

2017-18 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2016-17 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

5.8 Faculty Performance Appraisal and Development System (FPADS) (30) Total Marks 20.00

Institute Marks : 20.00

Faculty Performance Appraisal and Development System (FPADS) is a platform where institution and its stake holders grow horizontally and vertically. It's a kind of motivation and encouragement to the faculty members to contribute towards the growth of the institution by updating themselves in all dimensions. The institution has a unique way of measurement of faculty performance and development system. As soon academic year starts the faculty appraisal format is shared by the HOD to all the teaching and non teaching staff of the department so that faculty members are well aware on the appraisal measurement criteria. Faculty is asked to indicate the predicted percentage of pass results in their handling subjects before they proceed with the teaching and learning process. The same is sent to the Human Resource (HR) department. During the month of September actual process begins where faculty members are asked to submit their self appraisal report to the HOD in a standard form which is common across the institute. At department level HOD will evaluate the report based on the criteria and one to one discussion will happen to maintain

transparency. The same report is submitted to the principal for further processing for needful recommendations. Based on the appraisal and recommendations faculty members shall get salary hike/promotions/appreciations letter etc.

Implementation and effectiveness:

Evaluation of each and every staff members appraisal report is based the following criteria.

1. Qualifications
2. Experience
3. Students feedback
4. VTU exam results
5. Number of research papers published(National/International/Journals)
6. Number of patents filed/obtained
7. Number of projects work/dissertation and Ph.D. guided
8. Number of BE projects guided
9. Number of research projects applied/funded
10. FDPs conducted/attended
11. Details of the International/ National Conferences/ Seminars/ Workshops Conducted/ Attended
12. Pedagogy methods adopted/followed Details
13. Administrative responsibilities
14. Responsibilities on students co-curricular/extra co curricular activities
15. University duties/responsibilities

The process of performance evaluation is as follows:

1. The Faculty fills the self appraisal format and submits with necessary supporting documents to the HOD
2. The HOD evaluates and submits to the establishment section /HR department for further action
3. The establishment section/HR department consolidates and submits it to the Principal
4. The principal in consultation with HOD makes recommendations to the higher authority
5. The recommendations would be advising/encouraging , the faculty to participate in FDPs/workshops/seminars/conferences, submit proposal to funding agencies, enhance knowledge. Figure 5.6 shows the 360 degree process of performance evaluation of each faculties of the department. Figure 5.7 demonstrate a sample copy of 360 degree process of evaluation.

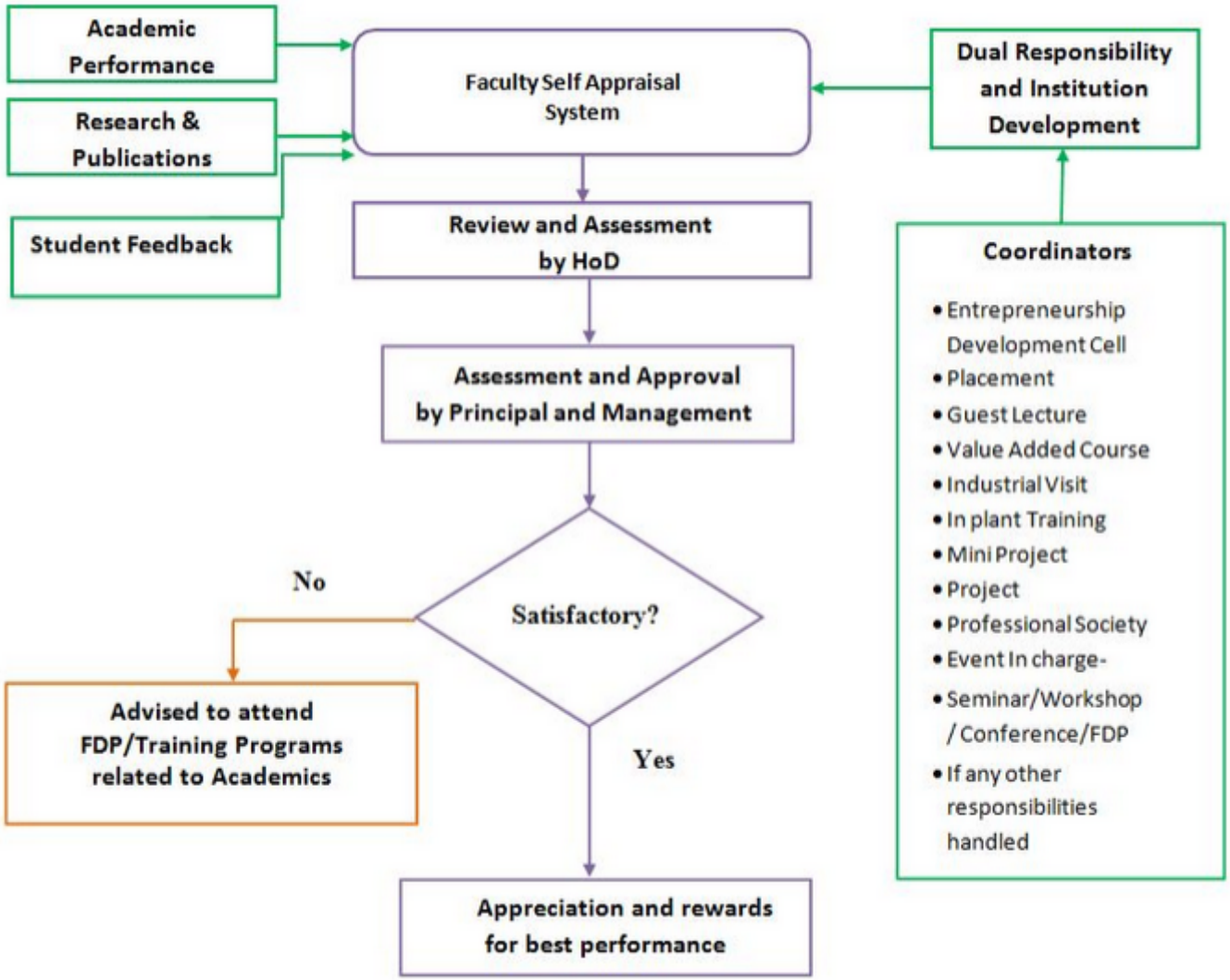


Figure 5.6: 360 degree process of performance evaluation.

PES Institute of Technology and Management

Issue/ Rev. No: 3.0/R0	Date: 15/12/2016	Page: 1 of 6	Form No: R/PP-12/HR-0

Performance Appraisal Form 2018-2019 (01-09-2018 to 31-08-2019)

Name of the Faculty: Dr. Basavarajappa Y.H	Department: Mechanical Engg.	EMP Code: 964
Designation: Professor	Date of Birth: 01.05.1969	Date of Joining: 11.07.2016
Mobile No: 9242851012	PAN No: AFSPB3315G	Aadhar No:807716262102

1. Qualification (Starting from the latest to the earliest)

Degree	Specialisation	University	Year	Class obtained	Remarks
PhD	Mechanical Engineering(IC Engines & Alternative fuels)	VTU	2015		
M.Tech	Energy System Engineering	VTU	2005	FCD	
B.E	Automobile Engineering	Karnataka University Dharwad	1991	FC	

2. Experience (Starting from the latest to the earliest)

Designation	From DD/MM/YY	To DD/MM/YY	Total Years	Institution	Experience Certificate Y/N	Remarks
Professor & Head	20/12/2018	Till date	0.9	PESITM, Shivamogga	Y	Available with HR
Professor	11.07.2016	20/12/2018	2.5	PESITM, Shivamogga	Y	
Professor and Head	14.01.2014	9.07.2016	02	YIT, Moodbidri	Y	
Associate Professor, Head & Dean Academics	02.05.2012	06.01.2014	1.5	VSMIT, Nippani	Y	
Asst. Professor	02.08.2010	29.04.2012	2	TCE, Gadag	Y	
Lecturer (Senior grade & selection Grade)	August 1993	July 2010	17	KLE's Polytechnic, Hubli	Y	
Lecturer	Dec 1991	August 1993	1.5	RPH, Haunsbhavi	Y	

Summary: -

a) Total Teaching experience at Degree level: 27 Years

b) Industrial Experience: Nil

c) Research experience: 04

(Excluding period spent for acquiring a degree)

Additional qualification/training/expertise obtained after joining PES ITM: ISO Audit training

3. Number of Research papers published (Excluding those which has been communicated) for the current year only

a. Journals – International/National Journals: 3/0

b. Conferences – International/National Conferences: 2/1

(Attach a list of publication including the title of the paper, Journal in which it is published, year and month of publication, volume number, pages)

1.Basavarajappa Y H, N.R. Banapurmath , Pradeep G , Vinod R , V.Yaliwal, Performance and emission characteristics of a CNG-Biodiesel dual fuel operation of a single cylinder four stroke CI engine, IOP Conf. Series: Materials Science and Engineering 376 (2018) 012028 doi:10.1088/1757-899X/376/1/012028 (Scopus Indexed)

2. Basavarajappa Y. H, V.V. Yaliwal, Vinod R, Influence of MWCNT Addition on the Performance and Emission Characteristics of A Diesel Engine Operated on Honege Oil Methyl Ester National conference on Material Processing and Characterization (NCMPC 2019) and cited in International Journal of Engineering Research & Technology, vol. 7(7), 2019, pp 1-4.

3. Dr. Basavarajappa Y H, Vinod R, Ravindra, Sayeed Ahmed. Emission Characteristics of Rubber Seed Methyl Ester using a Nano Additive , National conference on Material Processing and Characterization (NCMPC 2019) and cited in International Journal of Engineering Research & Technology, vol. 7(7), 2019, pp 1-3.

4. Dr. Basavarajappa Y H, Vinod R A Review on Oxidation Stability of VOME, , International journal of Mechanical and Production Engineering, Vol 8.ISSN 2249-6890, Oct 2018, PP 203-210. (Scopus indexed)

4. Dr. Basavarajappa Y H, Vinod R, Keerthi B, Karthik S. Experimental investigation on 4-stroke single cylinder P244 Kirloskar CI engine using Fish and waste cooking oil , 3rd International conference on Recent research and emerging trends in Material and Mechanical Engineering held on 12th & 13th July 2019 at Reva University Bengaluru.

4. Number of Patents obtained/filed: International/National: Nil

5. A. Number of project work, dissertation and Ph.D's guided for the current year only: B.E - 04

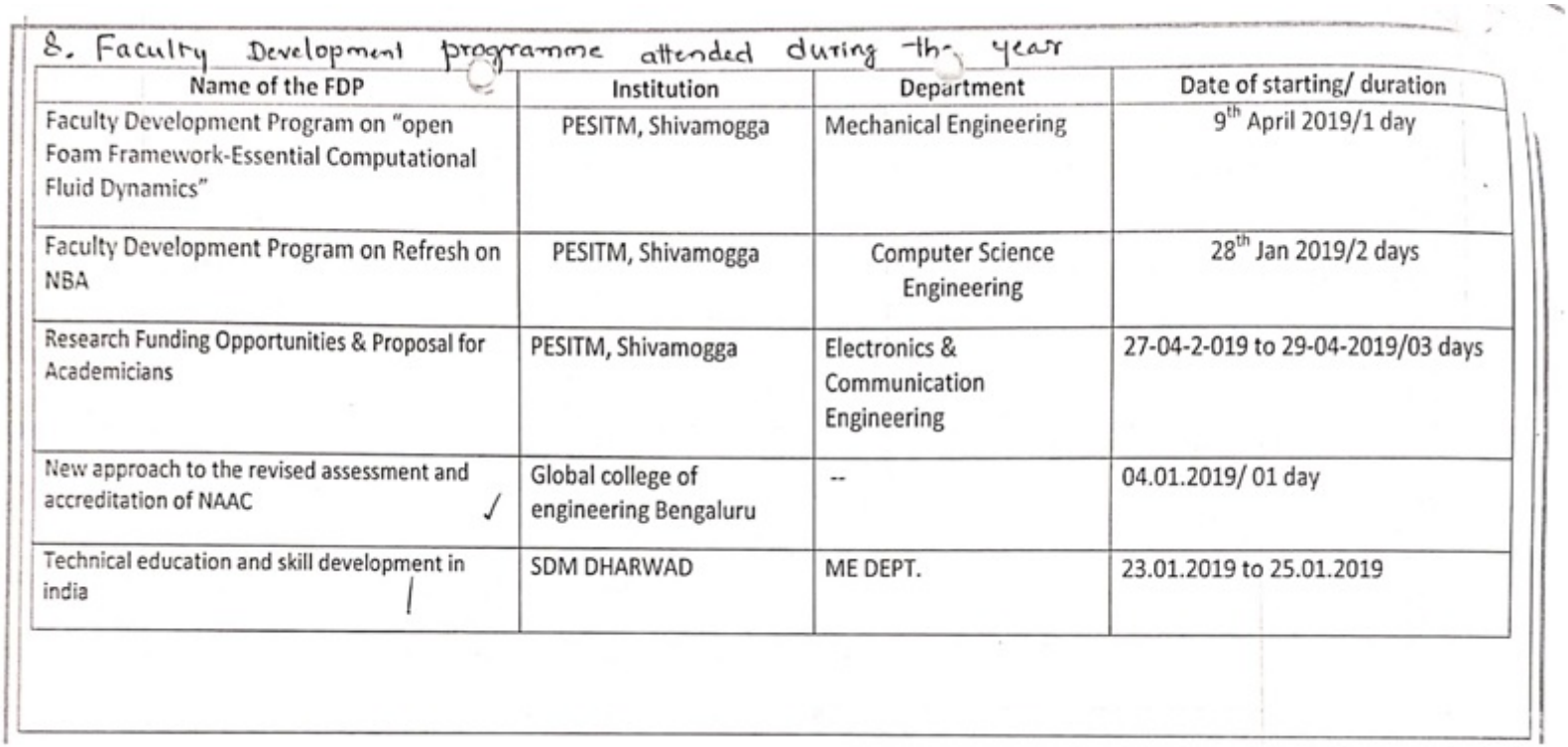
B. Number of B.Tech projects/Number of ME/ M.Tech dissertations/Number of Ph.D Thesis guided: 4/0/0

6. Details of Research projects applied/undertaken during the year.

Title of the project	Name of the Agency	Date of starting & duration of the project	Amount
Bio-CNG production using Kitchen waste	VGST	Applied	16 lakhs (Not sanctioned)
Modernisation of Energy Conversion lab	AICTE	Applied	20 LAKHS (Not sanctioned)
One week FDP proposal on Renewable Energy	VTU	Applied	4 Lakhs (Not sanctioned)

7. Faculty Development programs conducted during the year.

Name of the FDP	Date of starting/ duration	Number of participants
Open foam-essential Computational fluid dynamics	09.04.2019 / 01 day	32



8. Faculty Development programme attended during the year

Name of the FDP	Institution	Department	Date of starting/ duration
Faculty Development Program on "open Foam Framework-Essential Computational Fluid Dynamics"	PESITM, Shivamogga	Mechanical Engineering	9th April 2019/1 day
Faculty Development Program on Refresh on NBA	PESITM, Shivamogga	Computer Science Engineering	28th Jan 2019/2 days
Research Funding Opportunities & Proposal for Academicians	PESITM, Shivamogga	Electronics & Communication Engineering	27-04-2-019 to 29-04-2019/03 days
New approach to the revised assessment and accreditation of NAAC	Global college of engineering Bengaluru	--	04.01.2019/ 01 day
Technical education and skill development in india	SDM DHARWAD	ME DEPT.	23.01.2019 to 25.01.2019

Figure 5.7: demonstrate a sample copy of 360 degree process of evaluation.

9. Details of the International/ National Conferences/ Seminars/ Workshops Conducted/ Attended during the year

International Conference/ Seminars/ Workshops Attended (Indicate whether the participation is as a Delegate/ Chairing a Session/ Keynote Speaker etc.)

NCMPC - 2019

International Conference/ Seminars/ Workshops Conducted

Workshop on Robotics –

National Conference/ Seminars/ Workshops Attended (Indicate whether the participation is as a Delegate/ Chairing a Session/ Keynote Speaker etc.)

Chairing a Session in National conference on recent advances in Mechanical Engineering and technology organized by Yenepoya Institute of Technology, Moodabidri on **29th & 30th** April 2019

Attended Two days KSCST 42nd series Seminar & exhibition held at KLE's Dr.M S Sheshgiri college of Engineering belagavi on 26th & 27th July 2019 and Received **BEST PROJECT OF THE YEAR** award for the project Titled **"BIO-CNG PRODUCTION,BOTTLING AND UTILIZATION FOR CI ENGINE"**

National Conference/ Seminars/ Workshops Conducted: Y

National Conference on Material Processing and Characterization **(NCMPC 2019)**, organized by the department of mechanical engineering, PESITM, Shivamogga on 20th May 2019

10. **Pedagogy Details (use separate sheet if required)**

Teaching Methodology used : Classroom teaching

Teaching Aids used : Chalk and Board, Ppt, Videos, practical experiments shown in Lab

Books referred and read in the subject taught : Basic and Applied Thermodynamics by P.K.Nag
Fundamentals of Classical thermodynamics by Van Wylian
Energy management principles by DE B.K,
Energy Management Handbook by Turner W.C
Environmental studies by C S Rao, New AGE publisher

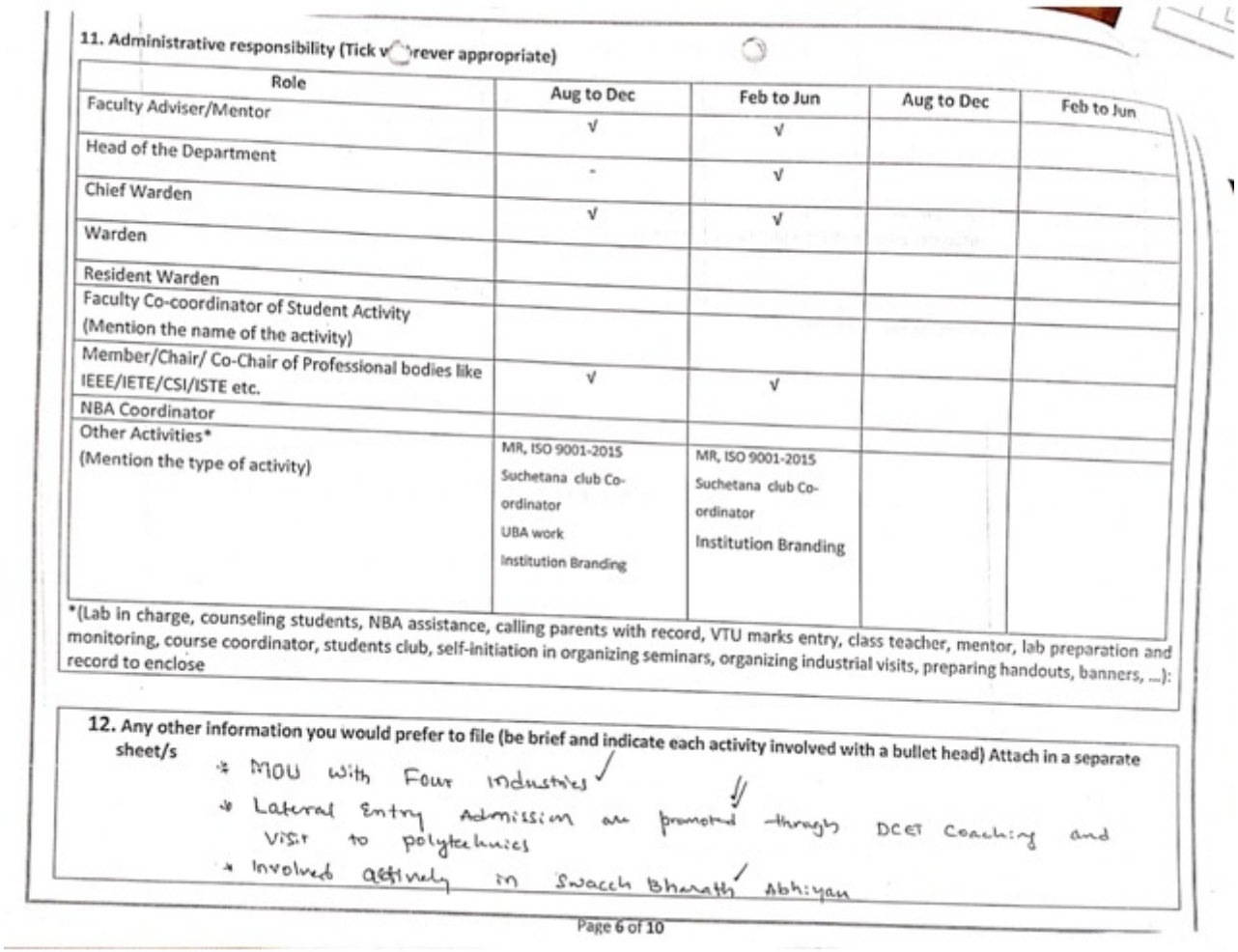
Use of Course plan : YES

Was Course material prepared? YES (ISO Lesson plan), hand written notes given to students

Was any outbound teaching used, If yes give details

Use of ICT in teaching :

Do you disseminate practical & expertise knowledge: YES (Students taken into machine shop and explain each and every machine)



11. Administrative responsibility (Tick wherever appropriate)

Role	Aug to Dec	Feb to Jun	Aug to Dec	Feb to Jun
Faculty Adviser/Mentor	√	√		
Head of the Department	-	√		
Chief Warden	√	√		
Warden				
Resident Warden				
Faculty Co-coordinator of Student Activity (Mention the name of the activity)				
Member/Chair/ Co-Chair of Professional bodies like IEEE/IETE/CSI/ISTE etc.	√	√		
NBA Coordinator				
Other Activities* (Mention the type of activity)	MR, ISO 9001-2015 Suchetana club Co-ordinator UBA work Institution Branding	MR, ISO 9001-2015 Suchetana club Co-ordinator Institution Branding		

*(Lab in charge, counseling students, NBA assistance, calling parents with record, VTU marks entry, class teacher, mentor, lab preparation and monitoring, course coordinator, students club, self-initiation in organizing seminars, organizing industrial visits, preparing handouts, banners, ...): record to enclose

12. Any other information you would prefer to file (be brief and indicate each activity involved with a bullet head) Attach in a separate sheet/s

* MOU with Four Industries
* Lateral Entry Admission are promoted through DCET Coaching and visit to polytechnics
* Involved actively in Swacch Bharath Abhiyan

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

Institute Marks :

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 56.00

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

Total Marks 20.00

Institute Marks : 20.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Material Testing Lab	20	i) Metallographic Microscope with image Analyzer and software 1000x magnification ii) Ultrasonic Flaw Detector 4400 AV model iii) Pin on disc Wear Testing machine iv) Double disc Polishing Machine with DC motor v) Universal Testing Machine with accessories 100 Ton capacity vi) Rockwell Hardness Testing machine - 150kg capacity vii) Brinell Hardness Testing Machine - 3000 kg capacity viii) Torsion Testing Machine – 20 kg-m capacity ix) Vickers Hardness Testing Machine – 50 kg capacity x) Fatigue Testing Machine 200 kg-m capacity	09 Hrs	Mr. Mohammed Mustaq	Instructor	DME
2	Mechanical Measurements and Metrology Lab	20	i) Pressure gauge for 10 kg/cm2 with Pressure Transducer and Digital Pressure Indicator ii) Thermocouple with sensors, digital temperature indicator iii) Load cell of 10 kg and digital indicatorwith 10 kg dead weights iv) Optical Projector with accessories of screen dia. 300 mm v) Autocollimator (Prisms make) of single axis, accuracy of 6 secs with standard accessories vi) Lathe and drill tool dynamometer vii) Mitutoyo portable surface roughness withaccessories viii) Floating carriage diameter measuringmachine with accessories.	09 Hrs	Mr. Seetaram Krishnamurthy	Foremen	DME

3	Foundry and Forging Lab	20	i) LPG forging furnace 22” x 22” in mild steel with blower, gate valve, control panel board with temperature indicator. ii) Swage Block 12” x 12” x 4” (cast iron) iii) Anvil 100 kg iv) Moulding Boxes (12” x 12” x 4”) v) Single piece and Split patterns of different shape vi) Universal Sand Testing machine with attachments vii) Sand siever 1/8 HP, Single phase, cycles 50 Hz and timer 0-15 min viii) Rapid Drier ix) Permeability tester Mould and Core hardness tester	09 Hrs	Mr. Avinash and Mr. Mr. Raghavendra	Instructor	ITI
4	Machine Shop	20	i) Hydraulic hack saw machine with dia 200 mm round cutting and blade size 400 mm ii) bench grinder with dia 250 mm wheel size iii) Lathe Model - S103, straight bed, centre height - 175mm and 1000mm admit between centre with all standard accessories iv) milling machine FN2U table size 1350x310 mm with standard accessories v) Radial drilling machine BR515 box table - 630x630x550 mm with all standard accessories vi) shaping machine 18 inch stroke length with accessories, surface grinding machine 450x20mm with standard accessories	09 Hrs	Mr. Sharath and Mr. Shanmuka	Instructor	ITI and SSLC
5	Fluid Mechanics & Machinery Lab	20	Peloton Wheel Turbine ii) Kaplan Turbine iii) Francis Turbine iv) Centrifugal Pump Test Rig v) Reciprocating Pump vi) Reciprocating Air Compressor vii) Centrifugal Blower viii) Orificemeter,Venturimeter ix) Nozzle meter and Rotameter x) Impact of jet on vanes apparatus.	18 Hrs	Mr. Avinash	Instructor	ITI
6	Energy Lab	20	i) 2 Stroke Petrol Engine Test Rig, ii) V.C.R. Petrol Engine Test Rig, iii) 4 Stroke Diesel Engine Test Rig, iv) 4 Stroke multi cylinder Petrol Engine Test Rig v) Valve Timing Diagram vi) Port opening diagram, vii) ABEL Flash and Fire Point apparatus, viii) Boys gas Calorimeter, ix) Red wood Viscometer, x) Say bolt viscometer,Torsion viscometer	18 Hrs	Mr.Shanmuka and Mr. Bharath	Instructor	SSLC and ITI

7	Heat Transfer Lab	20	i) Composite wall Apparatus ii) Pin-Fin Apparatus iii) Emissivity Measurement Apparatus. iv) Stefan Boltzmann Apparatus. v) Parallel Flow Counter Flow Heat Exchanger. vi) Refrigeration tutor 1/3 HP capacity. vii) Air-Conditioning trainer viii) Transient Heat Conduction Apparatus	18 Hrs	Mr. Mohammed Mustaq and Mr. Bharath	Instructor	DME and ITI
8	Computer Aided Machine Drawing	20	i) Acer Virtron, Desktop, I5, 16 GB RAM, 1 TB Hard disk, 21 inch Monitor, Windows 10 Licensed OS	18 Hrs	Mr.Srikara	Instructor	DME
9	Design Lab	20	i) Whirling of Shaft ii) Porter Governor iii) Polariscope	18 Hrs	Mr. Seetaram Krishnamurthy	Foremen	DME
10	Modelling and Analysis Lab, Cim Lab	20	i) 25 No's Computer – Acer Power Series ii) Acer Desktop, Intel Dual Core, 945 GC Motherboard, 1 GB RAM,160 GB SATA HDD, iii) Key board, Optical Mouse, ATX Cabinet with iv) SMPS, USB Ports, Acer 17'' TFT Monitor.Edge Cam Software	18 Hrs	Mr. Seetaram Krishnamurthy and Mr. Mahadevappa	Instructor	DME
11	Engineering Graphics Lab	60	i) 78 No's Computer – Acer Power Series Acer 0807 AW 170T188LE Desktop Intel Dual Core E 2180@2.0 GHz 945 GC Motherboard, / 10/100 LAN Card 1 GB DDR2 RAM,160 GB SATA HDD, Key board, Optical Mouse, ATX Cabinet with SMPS,2 USB Ports in Front and 4 ports at the Back, Acer 17'' TFT Monitor ii) Projector – SHARP XR-32X with wall mountable screen iii) Printer - Canon LBP 3300 iv) Solid Edge Software	16 Hrs	Mr.Srikara	Instructor	DME

6.2 Additional facilities created for improving the quality of learning experience in laboratories (25) Total Marks 18.00

Institute Marks : 18.00

Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	60 Ton UTM Machine	Installed in Material testing Lab	To provide practical exposure to students Related to Project work	Through out The Semester	Student learning process	PO1, PO9/PSO1
2	Open Foam software lab	Installed in R & D lab	To carry out the Computation Fluid Dynamic Analysis	3rd& 4th year student	Student learning process, solve and analyse the complex problem	PO1, PO2, PO3, PO5/PSO1
3	Portable mini Ball milling Machine (60W, 12V, Variable speed of 75,100,125 rpm)	Installed in project Lab	For preparing specimen through Powder Metallurgy route	Final year student for project	For R & D activities	PO1, PO9/PSO1
4	Research and Development lab and Project lab	Mini and Major project models- guided by our faculty members in various fields of engineering.	Real time application To create innovative ideas To build the creative skills Motivates student to come up with projects/products.	Throughout the semester	Prototype models are developed, on automobile, agriculture field, biodiesel Publishing Quality Technical papers.	PO1, PO2/PSO1
5	Video's From NPTEL, VTU Edusat	Displayed in the classroom through Projector	Understanding the Video oriented Teaching and learning.	Per semester 15 hrs	Better Understanding the subject. In depth knowledge beyond Lab.	PO1, PO5, PO12/ PSO1
6	ABAQUS Software	Installed in R & D Lab	Research purpose	UG & Research Scholars	For R & D activities	PO1, PO3, PO4, PO5, PO9/PSO1
7	MAT Lab	Installed in R & D Lab	Research purpose	UG & Research Scholars	For R & D activities	PO1, PO3, PO4, PO5, PO9/PSO1

6.3 Laboratories: Maintenance and overall ambiance (10) Total Marks 7.00

Institute Marks : 7.00

1. Maintenance:

- Do’s and Don’ts and Safety measures rules are displayed in each laboratory.
- Well Technical Staff are available for maintenance of instruments and software.
- Department having four 10 KVA UPS, 240 VDC along with Batteries is used in case of power failure in the PC system Labs.
- Servicing of each laboratory is doing frequently.
- Calibration of each laboratory is done frequently.
- Department having LAN internet of 64Mbps is maintained for students (Central Library) and Faculty usage.
- All necessary PC system regular software like browser, lab software, is installed and maintained in Software labs.
- Canon 2006 Zerox Machine and EPSON Ehpw 56 wifi Projector.

2. Ambiance:

- Department has Full furnished State of Art laboratories with well-equippedequipment which shall cater to all UG courses as per curriculum requirements.
- Conditions of chairs/benches are in good condition.
- Department has experienced faculty to educate them in all the fields of engineering.
- All the labs are conducted and evaluated every week.
- Labs are equipped with sufficient equipment and licensed software to conduct the experiment and to run software labs.
- Laboratory manual are distributed to students.
- 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.
- Cup-boards are available in each software lab for students to place their belongings.
- Each Lab is equipped with white/black boardand such other amenities.
- Research laboratory/dept library is available for all faculties and students to carry research work and projects.
- Exclusively, a project lab has been provided for the students to carry out their mini and major project work

6.4 Project laboratories (5) Total Marks 3.00

Institute Marks : 3.00

Table 6.1: Facilities and Utilization

Sl. No.	Name of the Facilities	Utilization
1	R & D Lab	UG students, Research Scholars and Faculty members utilize the R & D Lab for their projects and research activities
2	Project Lab	UG students, Research Scholars and Faculty members utilize the R & D Lab for their mini projects, projects, and research activities
3	Solid Edge Version ST4	UG students, Research Scholars and Faculty members utilize the R & D Lab for their mini projects, projects, and research activities
4	Edge cam version 2011	UG students, Research Scholars and Faculty members utilize the R & D Lab for their mini projects, projects, and research activities
5	Modelling and analysis Lab (ANSYS version 14.0)	UG students, Research Scholars and Faculty members utilize the R & D Lab for their projects, and research activities
6	Material Testing lab	UG students, Research Scholars and Faculty members utilize the R & D Lab for their projects, and research activities

6.5 Safety measures in laboratories (10)

Total Marks 8.00

Institute Marks : 8.00

Sr. No	Laboratory Name	Safety Measures

1	Material Testing Lab	• Specific Safety Rules like Do’s and Don’ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Students are supposed to wear Lab uniform. • Well trained technical supporting staff monitor the labs at all times. • Damaged equipment is identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Loose clothing and jewels etc. are prohibited.
2	Mechanical Measurements and Metrology Lab	• Specific Safety Rules like Do’s and Don’ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Students are supposed to wear Lab uniform. • Well trained technical supporting staff monitor the labs at all times. • Damaged equipment is identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available.
3	Foundry and Forging Lab	• First aid box and fire extinguishers are kept in each laboratory. • Students are supposed to wear Lab uniform. • Well trained technical supporting staff monitor the labs at all times. • Damaged equipment is identified and serviced at the earliest. • Periodical servicing of the lab equipment is regularly done • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Loose clothing and jewels etc. are prohibited • Long hair must be completely covered

4	Machine Shop	• Specific Safety Rules like Do’s and Don’ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Students are supposed to wear Lab uniform. • Well trained technical supporting staff monitor the labs at all times. • Damaged equipment is identified and serviced at the earliest. • Periodical servicing of the lab equipment is regularly done • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Hand gloves, Safety shoes, Welding goggles, should be used in the lab • Loose clothing and jewels etc. are prohibited • Long hair must be completely covered
5	Fluid Mechanics & Machines Lab	• Specific Safety Rules like Do’s and Don’ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Students are supposed to wear Lab uniform. • Well trained technical supporting staff monitor the labs at all times. • Damaged equipment is identified and serviced at the earliest. • Periodical servicing of the lab equipment is regularly done • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Safety shoes should be used in the lab • Loose clothing and jewels etc. are prohibited
6	Energy Conversion Engineering Lab	• Specific Safety Rules like Do’s and Don’ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Students are supposed to wear Lab uniform. • Well trained technical supporting staff monitor the labs at all times. • Damaged equipment is identified and serviced at the earliest. • Periodical servicing of the lab equipment is regularly done • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Safety shoes should be used in the lab • Loose clothing and jewels etc. are prohibited

7	Heat & Mass Transfer Lab	• Specific Safety Rules like Do’s and Don’ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Students are supposed to wear Lab uniform. • Well trained technical supporting staff monitor the labs at all times. • Damaged equipment is identified and serviced at the earliest. • Periodical servicingof the lab equipment is regularly done • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Safety shoesshould be used in the lab • Loose clothing and jewels etc. are prohibited.
8	Computer Aided Machine Drawing	• Specific Safety Rules like Do’s and Don’ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Well trained technical supporting staff monitor the labs at all times. • Damaged computer is identified and serviced at the earliest. • All the computers are periodically maintained • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Fully and rightly loaded PC Systems with needed software are readily available for student’s usage.
9	Design Lab	• Specific Safety Rules like Do’s and Don’ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Students are supposed to wear Lab uniform. • Well trained technical supporting staff monitor the labs at all times. • Damaged equipment is identified and serviced at the earliest. • Periodical servicing of the lab equipment is regularly done • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Safety shoes should be used in the lab • Loose clothing and jewels etc. are prohibited

10	Modelling and Analysis Lab(FEA), CIM and Automation Lab	• Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Students are supposed to wear Lab uniform. • Well trained technical supporting staff monitor the labs at all times. • Damaged computer is identified and serviced at the earliest. • All the computers are periodically maintained • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Fully and rightly loaded PC Systems with needed software are readily available for student's usage.
11	Engineering Graphics Lab	• Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • First aid box and fire extinguishers are kept in each laboratory. • Well trained technical supporting staff monitor the labs at all times. • Damaged computer is identified and serviced at the earliest. • All the computers are periodically maintained • A clean and organized laboratory are maintained • The use of cell phones is prohibited. • Appropriate storage areas are available. • Fully and rightly loaded PC Systems with needed software are readily available for student's usage.

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 36.00

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

Total Marks 20.00

Institute Marks : 20.00

POs Attainment Levels and Actions for Improvement- (2018-19)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.31	1.78	Not Attained Pre-university level mathematical skills observed from the students is not up to the mark.

Action 1: Pre requirement classes for mathematics subjects are conducted learning fundamental concepts. Action 2: Mini projects are encouraged to students by the faculty members for solving the real time engineering problems.			
PO 2 : Problem Analysis			
PO 2	2.25	1.73	Not Attained Students find it difficult in applying analytical solutions for engineering problems.
Action 1: Beyond the syllabus action undertaken by the department (Seminars, workshops) Action 2: Technical seminar related to latest engineering topics is conducted.			
PO 3 : Design/development of Solutions			
PO 3	2.17	1.71	Not Attained Students are not able to solve complex engineering problems with consideration of safety, societal & environmental for public health.
Action 1: Waste Management surveys are undertaken by interested students under faculty supervision. Action 2: Students are motivated to include all standard parameters and constraints according to national and international safety norms and to address environmental concerns.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.92	1.50	Not Attained It is found that students are focusing less on analysis of data and presentation of results in laboratory classes.
Action 1: Students will be asked to write on data interpretations and conclusions in the laboratory reports, with reference to the theoretical concepts learnt.			
PO 5 : Modern Tool Usage			
PO 5	1.83	1.54	Not Attained The Tools are adapted in labs as per the University guidelines
Action 1: Hands on session, technical workshops are conducted every semester for usage of modern tools as per the industrial requirements. Action 2: Students are motivated (encouraged) to use modern software or tools in their projects namely CATIA, HYPERMESH & ANSYS for creating Manual drawings, Design and Pre & Post Analysis			
PO 6 : The Engineer and Society			
PO 6	1.99	1.69	Not Attained Students are not able to apply reasoning to safety, legal and cultural issues.

Action 1: Industrial visits are organized to the students to know more about engineering practices. Action 2: Institution conducts cultural events every year and encourages students to participate in intercollegiate events. Action 3: Events are conducted for students to create awareness regarding society, health, safety issues.			
PO 7 : Environment and Sustainability			
PO 7	1.97	1.71	Not Attained Ability to overlook the impact on environment & global awareness was not satisfactory.
Action 1: Community developmental activities like blood donation camps, Waste management programs contribute to community and national development and also create awareness about ecology and environment through NSS, such as cleaning the surrounding, awareness campaign on cleanliness, plantation, etc., Action 2: NSS program gives value in: Leadership qualities, Health and hygiene, National Integration, Social service, environmental protection etc			
PO 8 : Ethics			
PO 8	1.92	1.69	Not Attained Student lack skills in applying ethical principles and responsibilities towards engineering practices.
Action 1: Technical talk can be planned for students to understand the responsibilities.			
PO 9 : Individual and Team Work			
PO 9	2.37	1.80	Not Attained Lack of multidisciplinary activities.
Action 1: To improve the team work the mini projects are arranged in the department beyond the curriculum. Action 2: Final year project seminars are delivered by individual students. Action 3: National conference is conducted.			
PO 10 : Communication			
PO 10	1.91	1.64	Not Attained Ability to present and convey the latest engineering trends.
Action 1: Students are continuously encouraged to present papers in intercollegiate events like technical sessions, paper presentations. Action 2: Motivating them to publish their contents in department newsletter to increase their communication skills and writing skills.			
PO 11 : Project Management and Finance			
PO 11	1.92	1.74	Not Attained Fear of losing the investment put in to the business seems to be the main reason in developing start-up ideas.

Action 1: Sessions on entrepreneurship is conducted and a business model presentation is presented so as to increase the confidence and motivate business ideas in them.			
PO 12 : Life-long Learning			
PO 12	1.98	1.65	Not Attained Student lack in self-learning and studying subjects beyond curriculum imparts a major concern
Action 1: Students are encouraged to learn latest technologies like Internet of Things(IoT), and sustainable renewable energy sources.			

PSOs Attainment Levels and Actions for Improvement- (2018-19)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Graduates shall be able to design and develop efficient Mechanical systems.			
PSO 1	2.14	1.73	Not Attained Analyzing design problems found to be more complex Unable to modeled and develop various mechanical systems.
Action 1: Students are informed to learn more basic design concepts. Action2: Students are motivated to learn design software or tools such as: CATIA, HYPERMESH & ANSYS for Analyzing mechanical systems.			
PSO 2 : Graduates shall be able to analyze, interpret and also lead the team in industries to provide feasible solutions to multidisciplinary engineering and societal problems.			
PSO 2	2.02	1.70	Not Attained Difficult in Analyzing multidisciplinary engineering and societal problems Lack of maintaining and managing intra and inter relationship between other technical disciplines to become team leader
Action1: Students are educated more on problems related to multidisciplinary and societal field Action2: Students are encouraged to improve management skills to become team leader.			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10) Total Marks 9.00

Institute Marks : 9.00

ACADEMIC AUDITING

The process of Academic Auditing intends to monitor and enhance the quality of technical education through proper guidelines for both teaching faculty and students, so as to ensure qualified engineers/researchers passing out from engineering Institution. The academic audits are conducted in accordance with ISO 9001:2008 reference standard, so as to examine the teaching learning process. Audits are conducted for the Faculties, Laboratories and Departmental activities.

OBJECTIVES OF ACADEMIC AUDITING:

The objectives of the academic audit are as follows,

1. To ensure academic accountability.
2. To define quality of each component of the functionalities and to ensure quality of technical education throughout the system.
3. To safeguard the functionalities of technical education.
4. To define the effectiveness of teaching – learning process and to devise methodology to confirm maximum output from faculty members as well as students.

The following documents are made available to the auditor as and when required.

1. Calendar of events, Class Time Table & Faculty Time Table
2. Students Batch List (for practical courses, projects)
3. Course File of all the courses including practical labs
4. Equipment Log register used in Laboratories
5. Consolidated Attendance statement of students
6. Consolidated statement of marks of internal tests
7. Co-curricular Activities: Seminar/Conference/workshop/Guest Lecture conducted and attended, Industrial Visits etc
8. Project (Mini project/Design project/Final semester project) progress review reports
9. File of internal evaluation marks
10. File of Remedial classes
11. Result Analysis
12. Counseling and mentoring records
13. Faculty Achievements: Paper publications, Monograph patents, Books etc.,

Action taken by the faculty members:

- The suggestions and recommendations by the audit committee are incorporated by the faculty members to fulfill the identified gaps (if any) in terms of quality deliverables.
- Faculty members schedule the lecture plan so as to complete the syllabus on time, in accordance to the students pace of learning. Extra lectures are conducted as per the student requirements for few technological advancements.
- After the internal assessment, the results are analyzed by concerned faculty and necessary corrective measures are taken.
- For the weak students the remedial classes are conducted by concerned faculty members.
- To enhance the teaching learning process, technical skills and communication the faculty members attend FDP for overall development.
- By the department technical talk, seminars, expert lectures, industrial visits etc. are being arranged at least once in a semester.

Table 7.1: List of tInternal Audit

Year	Auditors
2019-2020	Dr. Prasanna Kumar H R HOD Dept. of ISE. & Mrs. Yagnodbhavi, Asst. Professor, Dept. of CE
2018-2019	Dr. Prasanna Kumar H R HOD Dept. of ISE. & Mr. Gurudev Herimath, Asst. Professor, Dept. of CSE
2017-2018	Mr. Sunil Kumar H R Asst. Professor Dept. of CSE & Dr. Pramod Gopal Pai HOD Dept. of Physics.
2016-2017	Mr. Kumudesh K C Asst. Professor Dept. of EEE & Mr. Chandrashekar Librarian

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

Total Marks 5.00

Institute Marks : 5.00

Table 7.2: Placement, Higher Studies and Entrepreneurship Details of Assessement Year 2017-18, 2018-19, 2019-20.

Item	2018-19	2017-18	2016-17
Total No. of Final Year Students (N)	98	96	108
No of students placed in the companies or government sector(X)	48	56	64
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	05	08	03
No of students turned entrepreneur in engineering/technology (Z)	0	0	2
x + y + z =	53	64	69
Placement Index [(X+Y+Z)/N]	0.54	0.67	0.64
Average placement= (P1 + P2 + P3)/3	0.62		

Table 7.3: List of Students Placement Mechanical Engineering 2013-17 batch

Sl.No	NAME	USN	COMPANY	Appointment letter reference no. with date
1.	Aaquib Moinuddin	4PM13ME001	Infosys	HRD/InfosysBPM/13317070, 18-JULY-2019

2.	Abhishek M T	4PM13ME007	J PAN Tubular Component	JPAN-BANG/HR/03, 30-11-2017
3.	Adishesh G	4PM13ME008	KRYSALIS Consultancy pvt. Ltd	Offer Letter by Company dated 9/25/2018
4.	Akarsh K M	4PM13ME009	Alten India (P) Ltd.	Rect/No:AIPL/2018, 18-06-2018
5.	Chandan C S	4PM13ME015	M/S UNIVERSAL ENTERPRISES, BANGALORE	EMP ID: P9738, SALARY SLIP OCT-2019
6.	Chetan S A	4PM13ME016	TEKNA SYSTEM & AUTOMATIONS	ID Card: TSA008
7.	Deekshith D Shetty	4PM13ME019	Tech Mahindra	Associate ID:581997
8.	Druvakumar M R	4PM13ME020	CADOpt Technologies	43010892-Z5N, 25-07-2018
9.	Goutham K Patil	4PM13ME022	EASI Allegis Services India Private Limited	Employee ID: 1002711 26-6-2019
10.	Guruprasad Shreedhar Hegde	4PM13ME023	Infosys	HRD/InfosysBPM/13317091 ,31-July-19
11.	H Sunilkumar	4PM13ME025	EXONICS PRECISION	Offer Letter by Company dated 11/3/2019
12.	Hadimane Sukumar	4PM13ME026	AMAZON	Offer Letter by Company dated 10/8/2018
13.	Hemanth Kumar K R	4PM13ME029	Sudha Enterprises, Foundry	P107 (Salary Slip) 6-6-19
14.	K.Vinaya Karthik	4PM13ME030	L & T CONSTRUCTION EQUIPMENT	LTCEL/HR/7000025/2019, 13-06-2019
15.	Lakshmikanth V	4PM13ME037	HCL Technologies Ltd.	Offer Release Date: March 22, 2019
16.	Madhusoodhana K V	4PM13ME038	Spectrum Talent Management Pvt. Ltd	E. Code -BLVG052 30-4-2019
17.	Malathesh Gujjar U	4PM13ME039	Malnad Alloy Casting Pvt Ltd	Offer Letter by Company dated 1/9/2017
18.	Manohar Chidanand Gudlamani	4PM13ME041	Indian Machine Tool Manufacturer Association	Offer Letter by Company dated 8/4/2019
19.	Manoj Ganesh Bhattad	4PM13ME042	ACUMAC MACHINE TOOLS	AMT/PD/14/2017, 16-11-2017
20.	Manoranjan S H	4PM13ME043	EXONICS	Offer Letter by Company dated ,3/10/2018
21.	Md Hameed	4PM13ME044	ALBAJ ENGINEERING CORP. Pvt. Ltd	Offer Letter by Company dated, 24/06/2018
22.	Mohammed Habeebulla Khan	4PM13ME045	MANPOWER	Offer Letter by Company dated 5/14/2018

23.	Mohammed Mustafeez Khan	4PM13ME046	AXISCADES	AXIS/19-20/AL/CORP/03242: 05-08-2019
24.	Mohammed Nizam M	4PM13ME047	PRIDE INDUSTRIES	Offer Letter by Company dated 5/28/2018
25.	Nagaraj R Ballal	4PM13ME050	SUN MANUFACTURING SOLUTIONS.	Offer Letter by Company dated 10/3/2017
26.	Naveen P Jangali	4PM13ME053	Alten India (P) Ltd.	Offer Letter by Company 8/21/2018
27.	Nikhil A Shetty	4PM13ME054	AHANA SYSTEMS & SOLUTIONS (P) Ltd.	AHANA/IMS-HP/Offer-2019-140-205, 21-03-2019
28.	Nitin Naik	4PM13ME056	DIVGI TORQTRANSFER SYSTEMS PVT LTD	Salary Slip Apr-19
29.	Pavan G K	4PM13ME057	Ahana Systems and Solutions Pvt.Ltd.	Ref:AHANA/IMS-HP/Offer-2019-140-375
30.	Pradeep Naik K H	4PM13ME059	DIGILIGO	Offer Letter by Company 5/4/2018
31.	Pruthvi P Gowda	4PM13ME065	M/S MYTHRI SECURITY SERVICES INDIA PVT LTD	SMG2/2/CE/1340/2019, 14-08-2019
32.	Punith H M	4PM13ME067	PRAGATHI STEEL CASTINGS PVT LTD	Offer Letter by Company 8/1/2019
33.	Rajat Satish Nayak	4PM13ME069	TVS MOTOR COMPANY	Offer Letter by Company 7/26/2018
34.	Rakesha P	4PM13ME070	QUEST INFORMATICS (P) LTD	Offer Letter by Company FS190103F
35.	Ravi H M	4PM13ME072	TEAMLEASE SKILLS UNIVERSITY	TL/617182E9FD7, 20-12-2017
36.	Saifansab Walikar	4PM13ME078	Sorez Technologies India Pvt Ltd	Offer Letter by Company 01/09/2017
37.	Santhosh R H	4PM13ME082	NEU INTEGRALS	Offer Letter by Company 6/1/2019
38.	Shamanth M K	4PM13ME085	ASCENT HR	EMP CODE: 82433, 01-10-2018
39.	Shashanka Sathish Hegde	4PM13ME087	JYOTI CNC AUTOMATION LIMITED	REF: HR/0917/2378, 20-01-2018
40.	Sreeraman M S	4PM13ME093	INFOSYS	HRD/3T/18-19/12772288, 05-11-2018
41.	Suhas Bhatt C R	4PM13ME096	COGNIZANT	CID: 11786113, 16-04-2018
42.	Syed Ajmal Husseni	4PM13ME101	AUTO CLUTCHES	Offer Letter by Company 10/6/2017
43.	Thippeswamy C	4PM13ME103	HUBBALLI-DHARWAD BRTS CO. LTD	ID CARD
44.	Veeranna S Vyapari	4PM13ME106	LUMAX	LIL/HR/AL/2018-2019, 07-05-2018

45.	Vidhyabhooshan R	4PM13ME108	K2Infoedge Pvt Ltd	Offer Letter by Company 08/12/2017
46.	Vishal H Goshallanavar	4PM13ME113	MBA KSRDPRU, GADAG.	REG no: 1801101030, 2018-2020
47.	Yadunandan M	4PM13ME115	SGM TACHNOLOGIES	Offer Letter by Company 8/1/2018
48.	Zaid Ulla Khan	4PM13ME116	DURA COOL AIR CONDITIONERS	Offer Letter by Company 2/26/2018
49.	Guru N J	4PM14ME404	VEERO METALS	Offer Letter by Company dated 11/24/2017
50.	Gurumurthi K S	4PM14ME405	FLAT WORLD SOLUTIONS PVT LTD	Offer Letter by Company dated 7/22/2019
51.	Hulugeshi Cholappa B	4PM14ME407	FLAT WORLD SOLUTIONS PVT LTD	Offer Letter by Company dated 4/1/2019
52.	Latha P C	4PM14ME411	Infosys	HRD/3T/18-19/12772272, 21-01-2019
53.	Prasad.P.Ilager	4PM14ME418	Spectrum Talent Management Pvt. Ltd	Emp Code:BLVG078,17-09-2018
54.	Ranjith C	4PM14ME422	Alten India (P) Ltd.	Rect/No:AIPL/2018, 18-06-2018
55.	Rekha B S	4PM14ME423	LM WIND POWER	EMP no: 00046413
56.	Sampreethi Shankar	4PM14ME426	JYOTI CNC AUTOMATION LTD	Ref: HR/0917/2369, 20-01-2018
57.	Shravanakumar G Hiremath	4PM14ME430	JAIL WARDER	APPLICATION NO: 3526388, 24-08-2018
58.	Suhas S R	4PM13ME098	Elasto Tech India Pvt Ltd	Offer Letter by Company dated 19/08/2017
59.	Nagraja K	4PM14ME414	IThink Technologies Pvt Ltd	Offer Letter by Company dated 02/11/2017
60.	Nooralisa	4PM14ME416	Surya Steel Ltd	HRD/Surya Steel /13317091, 1-July-19
61.	Kantharaju K	4PM13ME032	Qwerks Solutions Ltd.	Rect/No:AIPL/2018, June 18, 2018
62.	Tejaswi Gowda H D	4PM13ME102	Elasto Tech India Pvt. Ltd	Offer Letter by Company
63.	Bhavya H	4PM14ME401	Jyoti CNC Automation Ltd.	Ref: HR/1537/4669, 13/08/2018

Table 7.4: List of Students registered for Higher Studies Mechanical Engineering 2013-17 batch

Sl.No	Name	USN	College	Enrollment Number
1.	Mohammed Mustafeez Khan	4PM13ME046	M. Tech in UBDT College of Engg. Davangere	USN: 4UB17MMD12
2.	Sunil Karabasappa Bharadi	4PM14ME089	Acharya Banglore B-School	Id No:1901MBA212
3.	Sri. Charan Bollempalli	4PM13ME094	Cinematography L.V. Prasad Film and TV Academy	Reg. No: LVPFTA445 Academic Year: Aug 2020
4.	Shubham I Goudar	4PM14ME431	M. Tech in Production Technology, BEC Bagalkot	USN: 2BA17MPY05, Academic Year: 2017-2019

Table 7.5: List of Students Entrepreneur Mechanical Engineering 2013-17 batch

Sl. No.	Name	USN	Name of The Company	Location
1	Hanumantappa G Chalageri	4PM13ME027	Half Tea, Healthy Wood Private Limited U15400KA2020PTC131678, 16-01-2020	Bangalore.
2	Sathvik A V	4PM14ME428	Venkatesha Arms And Ammunitions-REG no: 29EGHPS2844G1ZE, 22-06-2018	Chikmangaluru.

Recruitment of 2014-2018 Batch.

Table 7.6: List of Students Placement Mechanical Engineering 2014-18 batch

Sl. No.	Name of the student placed	Enrollment No.	Name of the Employer	Appointment letter reference no. with date
1	Ajay Kumar M.	4PM14ME004	ACE Engineering Academy	IES Coaching, ID Card:0L-05
2	Arun Kumar S.S.	4PM14ME007	Sri Sai Guru Raghavendra Banking Coaching Centre	Coaching ID Card:R18083930
3	Avinash A.S.	4PM14ME009	SJS Enterprises Pvt. Ltd.	SJS/HRM/OFR LET/F29/-R1801
4	Dhanush S.C.	4PM14ME015	DXC Technology	Offer letter by Company
5	Goutham M.	4PM14ME022	BHARAT ELECTRONICS	APPRENTICE Letter

6	Karthik P.	4PM14ME026	Kryptic Minds Technology Pvt. Ltd	Offer letter by Company
7	Keerthan H.K.	4PM14ME027	Essae Digitronics Pvt. Ltd	EDPL/MCD/ER/LOA/996/19
8	Kishan T.S.	4PM14ME030	YUKEN INDIA LIMITED	Ref: 8732091
9	Lohitha M.S.	4PM14ME031	Toyotetsu India Pvt. Ltd.	Offer letter by Company
10	Lokeshwaran P.	4PM14ME032	Envision Financial Systems (I) Pvt. Ltd.	Offer letter by Company
11	M. SUNIL	4PM14ME033	LEANworx	Appointment letter by company dated 9-July-2018
12	MADHU M.G.	4PM14ME034	Spoorthi Machine Tools Pvt. Ltd	SMTPL/ET/2018-19
13	Manjunath B.H.	4PM14ME036	Acumac Machine Tools Private Limited	AMT/PD/90/2018
14	Manoj Kumar S	4PM14ME039	Careertree Pvt Ltd	CTESAB110
15	MANU M.G.	4PM14ME040	Kennametal India Limited	HR/GAT/Fabraury
16	Mohammed Shabaz Hussain	4PM14ME044	Research Dev. & Mfg. Corporation	Offer letter by Company
17	Mohammed Shahid	4PM14ME045	Bosch Automotive Electronics India Pvt. Ltd.,	RBAI/HRL
18	Mohammed Shijauddin	4PM14ME046	NEELA .INC	NEELA/2018-19/030
19	Nikhil U Raikar	4PM14ME048	Kennametal India Limited	HR/GAT/September Employee Id: 10006198
20	Pawan N.	4PM14ME051	SHANTHALA Spherocast Private Limited	SSPL/HRD/APP/LLW/18-19
21	Prajwal R.	4PM14ME053	Smiths & Founders (India) Limited	S&FIL/DIR/2811-1/2019
22	PRAMUL JAIN S.	4PM14ME057	Teamlease Services Limited	Emloyee N0:176121
23	PRAKASH C.K.	4PM14ME054	Vision IAS Coaching	Id Card:441761
24	Pundaleek Basappa Teli	4PM14ME061	TOKAI RIKA MINDA INDIA Pvt. Ltd.,	TRMN/OL-48/2018-19
25	Rahul Kashyap A.N.	4PM14ME062	C-Tech Innovative Manufacturers	Offer letter by Company

26	Sachin T.K.	4PM14ME067	TOKAI RIKA MINDA INDIA Pvt. Ltd.,	TRMN/OL-21/2018
27	Sandeep G.M.	4PM14ME071	Foiwe Info Global Solutions LLP	S10006/26OCTOBER2018
28	Sanjay Kumar M.	4PM14ME074	Hind High Vacuum Company Pvt. Ltd	HHVTEED:HR/12-12-18
29	Santhoshakumara V.N.	4PM14ME077	Advantage One Human Resourcing Pvt. Ltd.	AOHR/HRD/APPTS
30	SHARANA SIDDESH	4PM14ME078	Microgenesis	Employee ID: 607
31	Shivaraj K.B.	4PM14ME081	REWARD 360	Offer letter by Company
32	Sumanth B.H.	4PM14ME087	COPES Tech India Pvt. Ltd.	Offer letter by Company
33	VIJAY KUMAR S R	4PM14ME096	CSG Solutions India Pvt Ltd	Employee Id: 79
34	VINAYAK ADIGA	4PM14ME100	Manglore Refinery and Petrochemlicals Limited	Employee Id:1010600216
35	Abhishek R.	4PM15ME400	VIJAY TECHNOCRATS PVT. LTD.	VTPL/APP/ADM/18-19
36	Adarsh B L	4PM15ME401	EASi ALLGIS	Employee Id: 1004979
37	Amith N.	4PM15ME404	Teamlease Services Limited	Offer letter by Company
38	BYRESHA R.	4PM15ME406	Malnad Prime Machining Technologies Pvt. Ltd	Attendance card of March 2020
39	Jagannatha K.	4PM15ME411	Sri Sai Guru Raghavendra Banking Coaching Centre	Coaching, ID Card:R18105060
40	Kiran M.B.	4PM15ME413	VIJAY TECHNOCRATS PVT. LTD.	VTPL/APP/ADM/18-19
41	Kishor Shantappa Chopade	4PM15ME414	Williams Refrigeration	Offer letter by Company
42	Kotresha K.B.	4PM15ME415	LEONARDO	Offer letter by Company
43	Nandish M.R.	4PM15ME420	DGS Technical Services Pvt. Ltd.	DGSTS/0409/CL/2019
44	RAJSHEKARA	4PM15ME422	Motherson Engineering works	Offer letter by company

45	Sandesh M.	4PM15ME426	Melstar Information Technologies Limited-Yash Birla Group	Offer letter by Company
46	Sunil Basavanneppa Ganagi	4PM15ME432	MIKRONIX GAUGES Pvt. Ltd.	HR/2019/20/CON/07/04
47	Veeresh K	4PM15ME439	ICONIVO TYRANTS MARKET PVT. LTD	Employee Id:ITM0012356
48	Vishal Arer	4PM15ME442	Aerospace Knowledge Centre Private Limited	Offer letter by Company
49	Girish N V	4PM15ME410	Solidus HiTech Product Pvt Ltd	Offer letter by Company, Dated 11th Jan 2020
50	ALTAFHUSEN K. RAICHUR	4PM15ME403	Yashswi Neem Trainee	Employee Id:93041
51	ASHWINI	4PM14ME008	Lawrence & Mayo	Offer letter by company
52	AVINASH S. BHAT	4PM14ME010	Lawrence & Mayo	Offer letter by company
53	K.P. MILAN	4PM14ME023	Autozen Engineering	Offer letter by company
54	MANJUNATHA S.C.	4PM14ME037	Autozen Engineering	Offer letter by company
55	PAWAN KUMAR H.N	4PM14ME050	Autozen Engineering	Offer letter by company
56	PRASHANT KUMAR	4PM14ME059	BeamLaser Engineering India pvt ltd	Offer letter by company
57	RAJESH H.R.	4PM14ME063	BeamLaser Engineering India pvt ltd	Offer letter by company
58	SANTHOSH H.M.	4PM14ME076	Motherson Engineering works	Offer letter by company
59	SHARATH L	4PM14ME079	Motherson Engineering works	Offer letter by company

Table 7.7: List of Students registered for Higher Studies Mechanical Engineering (2014-18 batch)

Sl.No	Name	USN	College	Enrollment Number
1	Abhishek C.P.	4PM14ME001	Dayananda Sagar College of Engineering	M Tech
2	Sidlinga Sirigeri	4PM14ME085	BVB College of Engineering	M Tech

3	Mohammed Sadiqh	4PM14ME042	East Point College of Higher Education	MBA
4	KARTHIK MARAGALALE	4PM14ME024	Acharya Bangalore B School(ABBS)	MBA ID Card: 1901MBA201
5	SANNIDHI S.SHUKLE	4PM14ME075	Vellore Institute of Technology, Chennai Campus	M.Tech:19MCD1007

Table 7.8: List of Students PlacementMechanical Engineering 2015-19 batch

Sl.No	NAME	USN	COMPANY	Appointment letter reference no. with date
1.	Abhishek S R	4PM15ME001	Infosys	HRD/3T/19-20/13080411
2.	Akarsh M Beturmath	4PM15ME003	SLK	U72200KA2000PTCQ27503
3.	Madhu C	4PM15ME029	Technorings	TR/2567/DE/2019-20/006748
4.	Nagabhushan Venkatesh Gudi	4PM15ME046	TCS	TCSL/DT20184519881/Bangalore
5.	Sachigowda	4PM15ME068	42 Gears	U72200KA2010PTC056249
6.	Mir Jibraan Hussain	4PM15ME038	BOASH	U29221KA2008PTC045987
7.	Shashwath Shetty	4PM15ME076	BOASH	U29221KA2008PTC045987
8.	Shabari Girish Hosamata	4PM15ME074	Mythri Metallurgy India	MMT/PR/2019-20/077
9.	Siddanth P Jain	4PM15ME081	Infosys	HRD/3T/19-20/13080392
10.	Subramannya M G	4PM15ME083	Testyantra software solutions	Appointment Letter from U72200KA2007PTC044701
11.	Vikhil Akhilesh Olivera	4PM15ME098	Qchem Pvt.Ltd	QCH/SUP/2019-20/0557
12.	Akash G.N.	4PM16ME401	JSW	ID Card
13.	Bharma Gowda B.S.	4PM16ME406	INDO-MIM	IUM/Trg/19
14.	Mithun D.C.	4PM16ME418	TMEIC, Tumkur	TME/TE/UG/2019-20/22
15.	Shivanand Y.K.	4PM16ME430	Klassic Wills (Ahamad Nagar), Maharastra	KLWH/MDC/MH/2018-19/225968

16.	Suhel H.M.	4PM16ME432	Jindal, Ballary	Offer Letter L27105HR1979PLC009913 (https://www.zaubacorp.com/company/JINDAL-STEEL-AND-POWER-LIMITED/L27105HR1979PLC009913)
17.	Ravi C C	4PM15ME063	Accumate	ATM/ST/2019-20/14784
18.	Nikhil M	4PM15ME053	NxTk Solutions Pvt.Ltd	Offer letter by Company
19.	Tejas M	4PM15ME090	BEL, Bangalore	1410/HR/CLD/03/2019-20
20.	Gowtam Hebber	4PM15ME019	Concept & Packaging Hub	Intent Letter from Company
21.	Manojkumar B U	4PM16ME417	JSW	ID Card
22.	Ramesh U.	4PM16ME425	Sansera Engineering Ltd (Aerospace Division) Banglore	Emp No:16167
23.	Santhosh M	4PM16ME427	Amruth Organic Fertilizer, Chitradurga	AOF/CHE/SU/2019-20
24.	Naveen Kumar S	4PM15ME052	Testyantra software solutions	Appointment Letter from U72200KA2007PTC044701
25.	Bharath Gowda G	4PM15ME007	SPMIL,Bidadi	ID: 920147
26.	Vasanth Kumar S.	4PM16ME441	SGB, ITI, College	Teaching
27.	Hemavathi M.	4PM16ME412	Avail finance Company	U74999KA2016PTC098506
28.	Pradyumna Shreedhara Hegde	4PM15ME057	TRMN	TRMN/OL-21/2019
29.	Niranjan Suresh Hegde	4PM15ME054	ABC	ABCNOV19AJPVIJ032
30.	Shivamurthy B S	4PM15ME078	Qspider (Software Trainee)	S-BTM (Qsp)
31.	Rajath Pande	4PM15ME061	Carrer Prime	CP/2018-19/CPPOL/CaRe/0032
32.	Subramanya C	4PM15ME084	Eliation	Offer Letter U74999DL2015PTC282336 (https://www.zaubacorp.com/company/ELATION-EDTECH-PRIVATE-LIMITED/U74999DL2015PTC282336)
33.	Premkumar M	4PM15ME058	Call In IT	Offer Letter
34.	Bharmagowda B S	4PM16ME406	Indo- mim	SPM/SS/227/2019-20/0886

35.	Roshan Dsouza	4PM15ME067	Uniservice apartment Solutions	HR/Bangalore/UNI-OL-352
36.	Gowtam V	4PM15ME019	SLK	CIN: U72200KA2000PTCQ27516
37.	Darshan Karthik A M	4PM15ME011	CAD MAXX (Training)	
38.	Chandan L	4PM16ME407	KSS Industries	KSS/ME/TE/2019-20/22
39.	Swaroop N	4PM16ME439	CF Moto India	CFM/QC/TN/2019-20/0778
40.	ganesh laxmeswar	4PM15ME015	shakti precision components (india)pvt.ltd.	ID:5676
41.	Manjunath G T	4PM15ME035	shakti precision components (india)pvt.ltd.components (india)pvt.ltd.	ID:05677
42.	Dilip Kumar B N	4PM14ME018	Flow and Force Engineers	FF/EST/074/2019-20/042
43.	Girish H N	4PM15ME016	EY Global Delivery Services India LLP	AAL-2743
44.	Yogendra Prasad V S	4PM16ME444	Actio-in	Offer Letter
45.	Chetan S P	4PM16ME408	Eleation	Offer Letter U74999DL2015PTC282336 (https://www.zaubacorp.com/company/ELATION-EDTECH-PRIVATE-LIMITED/U74999DL2015PTC282336)
46.	Kiran Kumar S	4PM16ME414	KSS industries	KSS/ME/TE/2019-20/56
47.	Madhu Chandra H R	4PM15ME030	Koovers	KO/CAS/Bangalore-19
48.	Nandan N V	4PM15ME049	Flow and Force Engineers	FF/EST/074/2019-20/049

Table 7.9: List of Students registered for Higher Studies Mechanical Engineering 2014-18 batch

Sl.No	USN	Name	College	Enrollment Number
1.	Dinesh Kumar Bishnoi	4PM15ME013	PG Diploma	ID Card
2.	Madhav M Karpur	4PM15ME028	M.Tech (NIE Mysore)	ID card
3.	Nagareddy	4PM15ME047	PC Diploma	ID Card

4.	NANDEESWAR REDDY B	4PM15ME051	MBA (Christ Academy)	ADMISSION ORDER
5.	ULLAS J SUBEDAR	4PM15ME092	IAS TRAINING	ID Card

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

Total Marks 2.00

Institute Marks : 2.00

Item		**2019-20**	**2018-19**	**2017-18**
National Level Entrance Examination	No of students admitted	0	0	0
NEE	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
State/ University/ Level Entrance Examination/ Others	No of students admitted	28	68	89
KCET	Opening Score/Rank	59393	43787	24715
	Closing Score/Rank	138886	213019	167362
Name of the Entrance Examination for Lateral Entry or lateral entry details	No of students admitted	44	27	23
DCET	Opening Score/Rank	4401	6402	2778
	Closing Score/Rank	15805	18910	16347
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)				

8 FIRST YEAR ACADEMICS (50) Total Marks 35.66

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

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

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nat Ass (Re Cor
							CAY	CAYm1	CAYm2		
Dr. Aveesh S.	ALUPT7731J	M.Sc. and PhD	14/03/2010	Differential Geometry	Associate Professor	17/07/2016	22	22	22	Yes	Reg
Dr. Chandru K	AZGPC8846B	M.Sc. and PhD	15/02/2019	Differential Geometry	Assistant Professor	29/01/2018	22	22	22	Yes	Reg
Mr. Umeshaiah	ABLPU8326K	M.Phil	23/02/2008	Mathematics	Assistant Professor	04/09/2008	22	22	22	Yes	Reg
Mrs. Veda L K	AIQPV0071N	M.Sc	17/03/2004	Mathematics	Assistant Professor	16/02/2009	22	22	22	Yes	Reg
Mrs. Swathi V	FZEPS8237P	M.Sc	24/03/2016	Mathematics	Assistant Professor	16/07/2015	22	22	22	Yes	Reg
Mr. Shreyas M.	FPPPS6592G	M.Sc	07/08/2019	Mathematics	Assistant Professor	29/07/2019	22	0	0	Yes	Reg
Dr. Shivakumar	AECPK7375N	M.Sc. and PhD	02/05/2000	Chemistry	Professor	01/08/2007	22	22	22	Yes	Reg
Dr. Praveen ku	BHQPP3039N	M.Sc. and PhD	13/08/2013	Chemistry	Assistant Professor	27/01/2014	22	22	22	Yes	Reg
Ms. Roopa C. I	DDRPR9742F	M.Sc	02/12/2017	Industrial chemistry	Assistant Professor	07/08/2017	22	22	22	Yes	Reg

Dr. Pramod G	AXZPP7633A	M.Sc. and PhD	09/01/2017	Aerosol Physics	Associate Professor	01/02/2010	22	22	22	Yes	Reg
Ms. Ramya K	DVRPK0646F	M.Sc	19/03/2014	Solid State Physics	Assistant Professor	19/08/2013	22	22	22	Yes	Reg
Mrs. Rashmi H	CFFPR5329D	M.Sc	19/03/2011	Solid state physics	Assistant Professor	31/07/2017	22	22	22	Yes	Reg
Mrs. Deeksha I	BILPK2238J	MA	12/03/2013	English Literature	Assistant Professor	16/07/2018	22	0	0	Yes	Reg
Dr. Archana M	BDMPA5992B	M.Sc. and PhD	15/02/2019	Fluid Mechanics	Assistant Professor	25/07/2018	0	22	0	No	Reg
Mrs. Vasavi G.	AZCPV9665P	M.Sc	24/03/2016	Mathematics	Assistant Professor	16/07/2015	0	0	22	No	Reg
Abhipsa A Y	AKHPY7506L	M.Sc	24/03/2016	Chemistry	Assistant Professor	29/01/2018	0	0	22	No	Reg
Shruthi G S	GXGPS1448D	M.Sc	18/06/2015	Chemistry	Assistant Professor	18/07/2016	0	0	22	No	Reg
Narendra Babu	AWCPN1195P	M.Sc	12/03/2018	Solid state physics	Assistant Professor	22/08/2017	0	0	22	No	Reg
Mr. Chethan B	AOTPC5115P	M.E/M.Tech	03/05/2014	VLSI Embedded System	Assistant Professor	21/07/2014	22	22	22	Yes	Reg
Mrs. Shymala S	AMJPC3468P	M.E/M.Tech	04/05/2014	VLSI Embedded System	Assistant Professor	21/07/2014	22	22	22	Yes	Reg
Mrs. Yajnodbha	ALQPY8597B	M.E/M.Tech	19/10/2013	Transportation Engineering	Assistant Professor	06/09/2010	22	22	22	Yes	Reg
Mrs. Pooja Y. E	CPGPP0160K	M.E/M.Tech	23/07/2015	Earthquake Engineering	Assistant Professor	06/02/2017	22	22	0	Yes	Reg

Mrs Neetha H I	ASBPN6858L	M.E/M.Tech	05/04/2013	Energy System	Assistant Professor	25/07/2012	22	22	22	Yes	Reg
Mr. Shanthveer	GAYPS9826J	M.E/M.Tech	08/09/2018	Electrical and Electronics Engineering	Assistant Professor	23/07/2018	22	22	22	Yes	Reg
Ms. Nayana K	AMXPN1818Q	M.E/M.Tech	08/04/2012	Information Communication Tachnology	Assistant Professor	24/01/2011	22	22	22	Yes	Reg
Ms. Ashwini S	AVRPA8448E	M.E/M.Tech	03/05/2014	Computer Science Engineering	Assistant Professor	21/07/2016	22	22	22	Yes	Reg
Mr. Kailash Ru	BOLPK0162B	M.E/M.Tech	23/05/2015	Computer Science Engineering	Assistant Professor	21/07/2014	22	22	22	No	Reg
Mr. Malteshkur	BSXPD3158G	M.E/M.Tech	21/01/2017	Mechanical Engineering	Assistant Professor	18/07/2016	22	22	22	Yes	Reg
Mr. Koushik P.	CXMPP8138D	M.E/M.Tech	03/12/2015	Mechanical Engineering	Assistant Professor	16/07/2015	22	22	22	Yes	Reg
Mr. Mahanthes	BTGPM0265H	M.E/M.Tech	05/05/2016	Mechanical Engineering	Assistant Professor	18/07/2016	22	22	22	Yes	Reg
Mr. Amruth P.	BBOPA3504R	M.E/M.Tech	05/05/2016	Mechanical Engineering	Assistant Professor	16/07/2015	22	22	22	Yes	Reg
Mr. Nandan N.	AGBPN8960H	M.E/M.Tech	06/06/2009	Environmental Engineering	Assistant Professor	17/09/2007	0	0	22	Yes	Reg
Mr Vishwas S	AKHPV5924B	M.E/M.Tech	05/04/2013	Electrical and Electronics Engineering	Assistant Professor	27/07/2012	0	22	22	No	Reg
Dr. Sendhil G	BSMPS7164N	M.A and Ph.D	15/02/2012	VOLLEYBALL	Assistant Professor	04/09/2008	16	16	16	Yes	Reg

chandrashekha	AIOPC5400E	M.Phil	01/02/2008	electronic resources	Assistant Professor	01/08/2007	16	16	16	Yes	Reg

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment= (5*20)/FYSFR(Limited to Max.5)
2017-18(CAYm2)	120	7	17	5
2018-19(CAYm1)	120	6	20	5
2019-20(CAY)	120	6	20	5
Average	120	6	19	5

8.2 Qualification of Faculty Teaching First Year Common Courses (5) Total Marks 5.00

Institute Marks : 5.00

Year	x (Number Of Regular Faculty with Ph.D)	y (Number Of Regular Faculty with Post graduate Qualification)	RF (Number Of Faculty Members required as per SFR of 20:1	Assessment Of Faculty Qualification [(5x + 3y) / RF]
2017-18	5	24	6	16.00
2018-19	5	23	6	15.00
2019-20	6	22	6	16.00

Average Assessment: 15.67

8.3 First Year Academic Performance (10) Total Marks 4.66

Institute Marks : 4.66

Academic Performance	2019-20	2018-19	2017-18
Mean of CGPA or mean percentage of all successful students(X)	5.68	5.73	6.04
Total Number of successful students(Y)	48.00	73.00	99.00
Total Number of students appeared in the examination(Z)	69.00	92.00	109.00
API [X*(Y/Z)]	3.95	4.55	5.49

Average API[(AP1+AP2+AP3)/3] : 4.66

Assessment [1.5 * Average API] : 4.66

8.4 Attainment of Course Outcomes of first year courses (10) Total Marks 8.00

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5) Institute Marks : 5.00

CAY (2019-20) & CAYm1 (2018-19)

- Three Internal tests for maximum marks of 30 are conducted and average of three internals is considered.
- 10 marks shall be awarded based on the evaluation of CCE component (i.e., Assignment, Class presentation, Mini Project, Case Study etc.)
- Maximum total internal marks for each course are 40. The student has to get a minimum of 16 marks to appear for the exam in the corresponding course.
- Semester end examination maximum marks is 60 is considered for external exam performance.
- The marks scored by the students in internal assessment are categorized based on CO's.
- 60% of university exam marks is considered as [N1] and 40% of internal assessment marks is considered as [N2] for every CO. The direct attainment of the course is given by [N1+N2] for every CO.
- For the laboratory, Continuous Internal Assessment is performed based on conduction of experiment, observations, viva and practical record for 24 marks. One semester end practical test is conducted for maximum of 16 marks. The total CIE marks for the laboratory course is 40. The student has to score a minimum of 20 marks to appear for the exam.
- Semester end examination maximum marks are 60 for the laboratory.
- The direct attainment is calculated by considering 50% weightage of SEE & 50% weightage of CIE.

CAYm2 (2017-18)

- Three Internal tests for maximum marks of 30 are conducted and average of best two internals is considered.
- 10 marks shall be awarded based on the evaluation of CCE component (i.e., Assignment, Class presentation, Mini Project, Case Study etc.)
- Semester end examination maximum marks is 60 is considered for external exam performance.
- The marks scored by the students in internal assessment are categorized based on CO's.

- 60% of university exam marks is considered as [N1] and 40% of internal assessment marks is considered as [N2] for every CO. The direct attainment of the course is given by [N1+N2] for every CO.
- For the laboratory, Continuous Internal Assessment is performed based on conduction of experiment, observations, viva and practical record for 24 marks. One semester end practical test is conducted for maximum of 16 marks. The total CIE marks for the laboratory course is 40. The student has to score a minimum of 20 marks to appear for the exam.
- Semester end examination maximum marks are 60 for the laboratory.
- The direct attainment can be calculated by considering 60% weightage of SEE & 40% weightage of CIE.

Procedure to measure the attainment level for the courses

The attainment of a particular CO in a course is calculated using the equation

$$\%\ Course\ attainment = \frac{x}{y}\ X\ 100$$

Where,

x = total marks scored by students in the particular CO scoring more than the set target

Y = number of participants (who attempted that CO)

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

Institute Marks : 3.00

8.4.2 Attainment of Course Outcomes of all first year courses CAYm1 (2018-19)

Table 8.4.1: Course Outcomes of First Year Subjects

Course Name and Code: Calculus & Linear Algebra [18MAT11]	
Semester : 1	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO101.1	***Apply*** the Knowledge of calculus to ***solve*** the problems related to curvature and ***evaluate*** partial derivatives to ***estimate*** maxima and minima of multivariable functions.
CO101.2	***Define*** the concept of multiple Integrals to ***Evaluate*** area, volume and to ***solve*** problems on improper integrals.
CO101.3	***Solve*** first order ordinary linear/Non linear differential equation and able to ***apply*** in different engineering applications.
CO101.4	***Use*** matrices techniques for ***solving*** system of simultaneous linear equations, Eigen values and Eigen vectors of the matrix.

Course Name and Code: ENGINEERING PHYSICS [18PHY12/22]	
Semester : 1/2	**Academic Year :2018-19**
After studying this course, a student will be able to	

CO102.1	Understand various types of oscillations and their implications, the role of Shock waves in various fields
CO102.2	Study and recognize the elastic properties of materials for engineering applications
CO102.3	Realize the interrelation between time varying electric field and magnetic field, the transverse nature of the EM waves and their role in optical fiber communication.
CO102.4	Learn the basics of quantum physics. Apprehend theoretical background of laser, construction and working of different types of laser and its applications in different fields
CO102.5	Understand various electrical and thermal properties of materials like conductors, semiconductors and dielectrics using different theoretical models.

Course Name and Code: Basic Electrical Engineering [18ELE13]	
Semester : 1 :2018-19	**Academic Year**
After studying this course, a student will be able to	
CO103.1	Understand the significance of Ohms law and their different applications
CO103.2	Understand the concepts of generation of single and three phase voltages
CO103.3	Analyze the importance of transformers and electrical wiring in engineering field
CO103.4	Understand the concepts of Direct current and different types of generator, motors and their industrial applications
CO103.5	Analyze the working of AC Generator with their working principal and its importance in power plant

Course Name and Code: Elements of Civil Engineering & Mechanics [18CIV14/24]	
Semester : 1/2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO104.1	Mention the applications of various fields of Civil Engineering and compute the resultant of given force system subjected to various load.
CO104.2	Comprehend the action of forces, moments and other loads on systems of rigid bodies and Compute the reactive forces and effects that develop as a result of the external loads.
CO104.3	Locate the centroid and compute the moment of inertia of regular and built-up sections.
CO104.4	Express the relationship between the motion of bodies and analyze the bodies in motion.

Course Name and Code: Engineering Graphics [18EGDL15/25]	
Semester : 1/2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO105.1	Identify the importance of computer aided sketching and orthographic projection of Points and lines.
CO105.2	Produce the sketch for projection of plane surfaces.
CO105.3	Use the knowledge of sketching to represent projection of solid surfaces.
CO105.4	Understand the importance of Lateral surfaces and able to sketch Development of given isometric drawings of simple objects.

Course Name and Code: ENGINEERING PHYSICS LABORATORY [18PHYL16/26]

Semester : 1/2	Academic Year :2018-19
After studying this course, a student will be able to	
CO106.1	Apprehend the concepts of interference of light, diffraction of light using laser light
CO106.2	Apprehend the concepts of radiation, resistance, Fermi energy and understand the principles of operation of dielectic material, optical fibres, Photodiode and Transistor using simple circuits
CO106.3	Determine elastic moduli and moment of inertia of given materials with the help of suggested procedures
CO106.4	Recognize the resonance concept and its practical applications
CO106.5	Understand the importance of measurement procedures, honest recording and representing the data and reproduction of final results

Course Name and Code: Basic Electrical Engineering Laboratory [18ELEL17/27]	
Semester :1	Academic Year :2018-19
After studying this course, a student will be able to	
CO107.1	Select a suitable measuring instrument for measuring electrical quantities for a given application
CO107.2	Design the circuit and analyze different types of connections in single and three phase electrical system.

Course Name and Code: Technical English-I [18EGH18]	
Semester : 1	Academic Year :2018-19
After studying this course, a student will be able to	
CO108.1	Use grammatical English and essentials of language skills and identify the nuances of phonetics, intonations and flaw less pronunciation.
CO108.2	Implement English vocabulary at command and language proficiency.
CO108.3	Identify common errors in spoken and written communication.
CO108.4	Understand and improve the non verbal communication and kinesics.
CO108.5	Perform well in campus recruitment, engineering and all other general competitive examination.
Course Name and Code: Advanced Calculus & Numerical Methods[18MAT21]	
Semester : 2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO109.1	***Develop*** the applications of multivariate calculus to understand the solenoidal and irrotational vectors and also exhibit the interdependence of line, surface and volume integrals.

CO109.2	***Demonstrate*** various physical models through higher order differential equations and ***solve*** such linear ordinary differential equations.
CO109.3	***Construct*** a variety of partial differential equations and solution by exact methods/method of separation of variables.
CO109.4	***Explain*** the applications of infinite series and obtain series solutions of ordinary differential equations. ***Apply*** numerical methods in the modeling of engineering problems.

Course Name and Code: ENGINEERING CHEMISTRY [18CHE12/22]	
Semester : 1/2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO110.1	To Understand free energy in equilibria and electrochermical energy systems
CO110.2	Comprehend the causes and effects of corrosion of metals and control of corrosion.
CO110.3	Explain production and consumption of energy for industrialization and consumption of solar energy for different useful forms of energy
CO110.4	Analyze the environmental pollution, waste management and water chemistry
CO110.5	Identify the different techniques of instrumental methods of analysis of given solution, Foundamental principles of nano materials.

Course Name and Code: C Programming for Problem solving [18CPS13]	
Semester : 1/2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO111.1	Comprehend basics of computer hardware, software and overview of C.
CO111.2	Apply conditional and looping constructs to write C program.
CO111.3	Illustrate Arrays, data types, expressions, control statements, functions, file and I/O operations
CO111.4	Design iterative and recursive functions for computational problems. Illustrate usage of C library.
C0111.5	Use Structures, Pointers and Preprocessor directives in problem solving.
Course Name and Code: Basic Electronics [18ELN14]	
Semester : 1/2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO112.1	Describe the operation of diodes, BJT, FET and operational amplifiers
CO112.2	Design and explain constructions of rectifiers, regulators, amplifiers and oscillators
CO112.3	Describe the general operating principles of scr and its application
CO112.4	Explain the working and design of fixed IC voltage regulator using 7805 and a stable oscillator using timer IC555.
CO112.5	Different number conversions and construct simple combinational and sequential logic circuits using Flip Flops.

Course Name and Code: Elements of Mechanical Engineering & Mechanics [18ME15/25]	
Semester : 1/2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO113.1	Identify different sources of energy and their conversion process.
CO113.2	Explain the working principle of hydraulic turbines, pumps,
CO113.3	Describe the working of I C engines and refrigeration systems.
CO113.4	Understand the properties of common engineering materials and their applications in engineering industry. Recognize various metal joining processes and power transmission elements.
CO113.5	Discuss the working of conventional machine tools, machining processes, tools and accessories. Describe the advanced manufacturing systems.

Course Name and Code: ENGINEERING CHEMISTRY LABORATORY [18CHEL16/26]	
Semester : 1/2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO114.1	Handling different types of instruments for analysis of materials using small quantities of materials involved for quick and accurate results.
CO114.2	Carrying out different types of titrations for estimation of concerned in materials using comparatively more quantities of materials involved for good results.

Course Name and Code: C Programming Laboratory [18CPL17]	
Semester : 1/2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO115.1	Explain the various commands used during the execution of the program.
CO115.2	Utilize the process of debugging and execution.
CO115.3	Develop and illustrate simple C programs.
C0115.4	Construct flowchart and algorithm for the given problems.

Course Name and Code: Technical English-II [18EGH28]	
Semester : 2	**Academic Year :2018-19**
After studying this course, a student will be able to	
CO116.1	Identify common errors in spoken and written communication.
CO116.2	Get familiarized with English vocabulary and language proficiency.
CO116.3	Improve nature and style of sensible writing and acquire employment and workplace communication skills.
CO116.4	Improve their Technical Communication Skills through Technical Reading and Writing practices.

CO116.5	Perform well in campus recruitment, engineering and all other general competitive examination.

Table 8.4.2: Course Outcomes of First Year Subjects

Sl. No.	Subject	Subject Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
1	Calculus & Linear Algebra	18MAT11	C101	CO101.1	50	*68.33*	3
				CO101.2		*71.28*	3
				CO101.3		*71.94*	3
				CO101.4		*67.02*	3
2	Engineering Physics	18PHY12/22	C102	CO102.1	45	*53.00*	0
				CO102.2		*55.75*	1
				CO102.3		*57.70*	1
				CO102.4		*54.60*	0
				CO102.5		*53.58*	0
3	Basic Electrical Engineering	18ELE13/23	C103	CO103.1	50	*68.47*	3
				CO103.2		*63.67*	2
				CO103.3		*76.83*	3
				CO103.4		*74.57*	3
				CO103.5		*69.27*	3
4	Elements of Civil Engineering & Mechanics	18CIV14/24	C104	CO104.1	55	*51.82*	0
				CO104.2		*52.52*	0
				CO104.3		*55.21*	1
				CO104.4		*54.51*	0
5	Engineering Graphics	18EGDL15/25	C105	CO105.1	50	*73.45*	3
				CO105.2		*73.45*	3
				CO105.3		*73.45*	3
				CO105.4		*73.45*	3
6	Engineering Physics Lab	18PHYL16/26	C106	CO106.1	55	*61.75*	2
				CO106.2		*61.75*	2
				CO106.3		*61.75*	2
				CO106.4		*61.75*	2
				CO106.5		*61.75*	2
7	Basic Electrical Engineering Lab	18ELEL17/27	C107	CO107.1	55	*73.49*	3
				CO107.2		*73.49*	3
8	Technical English 1	18EGH18	C108	CO108.1	50	*88.96*	3
				CO108.2		*88.96*	3
				CO108.3		*88.96*	3
				CO108.4		*88.96*	3
				CO108.5		*88.96*	3
9	Advanced Calculus &	18MAT21	C109	CO109.1	50	*69.02*	3

	Numerical Methods			CO109.2		*69.55*	3
				CO109.3		*66.51*	3
				CO109.4		*69.77*	3
10	Engineering Chemistry	18CHE12/22	C110	CO110.1	55	*67.81*	3
				CO110.2		*58.78*	1
				CO110.3		*70.14*	3
				CO110.4		*69.75*	3
				CO110.5		*70.43*	3
11	C Programming for problem solving	18CPS13/23	C111	CO111.1	50	*49.32*	0
				CO111.2		*46.78*	0
				CO111.3		*49.55*	0
				CO111.4		*49.81*	0
				C0111.5		*52.92*	0
12	Basic Electronics	18ELN14/24	C112	CO112.1	50	*49.10*	0
				CO112.2		*51.50*	0
				CO112.3		*45.05*	0
				CO112.4		*45.90*	0
				CO112.5		*49.00*	0
13	Elements of Mechanical Engineering	18EME15/25	C113	CO113.1	55	*63.22*	2
				CO113.2		*63.04*	2
				CO113.3		*67.95*	3
				CO113.4		*62.17*	2
				CO113.5		*65.56*	3
14	Engineering Chemistry Lab	18CHEL16/26	C114	CO114.1	55	*74.22*	3
				CO114.2		*74.22*	3
15	C Programming Lab	18CPL17/27	C115	CO115.1	50	*91.42*	3
				CO115.2		*91.42*	3
				CO115.3		*91.42*	3
				C0115.4		*91.42*	3
16	Technical English 2	18EGH28	C116	CO116.1	50	*72.31*	3
				CO116.2		*72.31*	3
				CO116.3		*72.31*	3
				CO116.4		*72.31*	3
				CO116.5		*72.31*	3

8.5 Attainment of Program Outcomes from first year courses (20) Total Marks 13.00

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15) Institute Marks : 10.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	1.4	1.22	1.04	1.04	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.7
C102	1	1.11	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C103	1.4	1.69	1.6	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104	1.34	1.15	.54	.53	PO5	PO6	PO7	.32	PO9	PO10	PO11	PO12
C105	.75	.75	PO3	PO4	.98	PO6	PO7	PO8	PO9	PO10	PO11	.25
C106	.67	.83	PO3	PO4	.83	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C107	.98	.98	.25	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	.25
C108	PO1	PO2	PO3	PO4	PO5	1.19	PO7	PO8	.3	2.01	.8	1.44
C109	1.38	1.38	1.04	1.04	PO5	PO6	PO7	PO8	PO9	PO10	PO11	.69
C110	.9	1.85	.93	.53	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111	1.30	.80	.90	.99	PO5	PO6	PO7	PO8	PO9	PO10	PO11	.81
C112	1.04	1.09	1.11	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C113	1.93	1.86	1.88	1.79	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.91
C114	2.23	1.55	.56	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C115	1.83	1.37	2.29	PO4	1.83	PO6	PO7	PO8	.91	.91	PO11	.91
C116	PO1	PO2	PO3	PO4	PO5	0.42	PO7	0.97	0.55	1.89	0.65	0.97

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	1.30	1.26	1.10	0.99	1.21	0.80	0	0.64	0.59	1.60	0.72	0.88
CO Attainment	1.30	1.26	1.10	0.99	1.21	0.80	0	0.64	0.59	1.60	0.72	0.88

PSOs Attainment:

Course	PSO1	PSO2
C105	1.75	1.78
C113	1.85	1.68

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	1.80	1.73
CO Attainment	1.80	1.73

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

Institute Marks : 3.00

POs Attainment Levels and Actions for Improvement- (2018-19)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.27	1.30	SET Target 55% Target Attained (57.11%)
NA			
PO 2 : Problem Analysis			
PO 2	1.98	1.26	SET Target 55%. Target Attained (63.64%)
NA			

PO 3 : Design/development of Solutions

PO 3	1.75	1.10	SET Target 55% Target Attained (63.06%)
NA			

PO 4 : Conduct Investigations of Complex Problems

PO 4	1.71	0.99	SET Target 55% Target Attained (57.70%)
NA			

PO 5 : Modern Tool Usage

PO 5	2.00	1.21	SET Target 55% Target Attained (60.67%)
NA			

PO 6 : The Engineer and Society

PO 6	1.6	0.80	SET Target 55% Not Attained (50%)
Action 1: NSS Activities for social responsibility			

PO 7 : Environment and Sustainability

PO 7	NA	NA	First year courses do not contribute towards PO7
NA			

PO 8 : Ethics

PO 8	1.5	0.64	SET Target 55% Not Attained (42.66%)
Action1:Interactions with working professionals with students to increase awareness of responsibilities of engineers.			

PO 9 : Individual and Team Work

PO 9	1.14	0.59	SET Target 55% Not Attained (51.46%)
Action1: Carrier Development program by Genesis, Carrier prime with special attention to group discussion, leadership skills and team work			

PO 10 : Communication

PO 10	2.21	1.60	SET Target 55% Target Attained (72.55%)
NA			

PO 11 : Project Management and Finance

PO 11	1.67	0.72	SET Target 55% Not Attained (43.11%)
Action 1: Skill development with respect to real world problems and logical reasoning through training			

PO 12 : Life-long Learning

PO 12	1.69	0.88	SET Target 55% Not Attained (52.14%)
Action 1: It is planned to have additional classes for these courses for practicing problems, to improve attainments.			

PSOs Attainment Levels and Actions for Improvement- (2018-19)

PSOs	Target Level	Attainment Level	Observations

PSO 1 : Graduates shall be able to design and develop efficient Mechanical systems.

PSO 1	1.8	1.62	Set Target 55% Not Attained Analyzing design found to be more complex
Action1: Students are informed to learn more basic science and engineering concepts. Action2: Students are motivated to learn basic engineering drawing software.			

PSO 2 : Graduates shall be able to analyze, interpret and also lead the team in industries to provide feasible solutions to multidisciplinary engineering and societal problems.

PSO 2	1.73	1.56	Set Target 55% Not Attained Difficult in analyzing multidisciplinary engineering and societal problems.
Action1: Students are educated more problems on problem related to multidisciplinary societal fields. Action1: Students are inform to learn software program to get knowledge related to multidisciplinary industries.			

9 STUDENT SUPPORT SYSTEMS (50) Total Marks 33.00

9.1 Mentoring system to help at individual level (5) Total Marks 3.00

Institute Marks : 3.00

Type of mentoring: Professional guidance/career advancement/course work specific/laboratory Specific/all - round development. Number of faculty mentors: Number of students per mentor: Frequency of meeting:
(The department may report the details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system)
The details of the mentoring system that has been developed in the department for the students for various purposes and their efficacy are given below.
Details of mentoring system

- The purpose of mentoring system is to monitor the student with regard to their academic and professional well-being.
- Every student is assigned to a faculty member who continues to be the mentor for that student till the completion of his/her course.
- Mentors identify the shortcomings with respect to punctuality, attendance, academic performance etc.,
- Mentors also identify the core competencies of the students and guide them to make better professionals.
- Students are counseled twice in a semester, preferably after 1st& 2nd internal assessments. Marks scored, attendance percentage with respect to every subject is analyzed and remarks are listed in the mentor files. Problems (if any) are suitably addressed. Students are monitored to incorporate the suggestions for further improvements.
- Parent Teacher meetings are conducted as and when required.
- An independent login is provided to every student in GEMS Software for sharing the pertinent information like attendance, academic performance, feedback etc.,
- All faculties encourage the students to participate in co-curricular, extra-curricular and other professional activities, which motivates them and stimulate their growth to become all-round young professionals.

Table 9.1.1: The number of faculty mentors for the last three academic years

Academic Year	No. of Mentor
2019-20	22
2018-19	24
2017-18	23
2016-17	22

Number of students per mentor: On an average 20 students per mentor.
Frequency of meeting: Twice in a semester
Table 9.1.2: Description of Mentoring System

Sl. No.	Type of mentoring system	Functions

1.	Professional guidance	• Motivate them to expand their domain knowledge base through participating in technical competitions. • Stimulate students to exhibit innovation in projects. • Encourage students to present their ideas through paper presentations in conferences.
2.	Career advancement	• Encourage students to do certification courses which add value in addition to their qualifications related to career. • Provide career guidance and workshops apart from soft skill training provided by the Training & Placement Cell. • Encouraging students to have online courses such as NPTEL conducted by IITB.
3.	Course work specific	• Identify academically slow learning students and council them in the presence of HOD to ensure that they improve their attendance. • Identify academically weaker students and provide them with additional reading materials, model questions along with solutions and remedial classes.
4.	Laboratory specific	• Encourage the students to perform the experiments beyond the curriculum. • Supporting the students to have repetition of the experiments. • Students are advised to utilize the lab to carry out mini projects/projects etc.,
5.	All-round development	• To encourage the student to learn team work, leadership and motivate them to participate in sports and cultural activities. • To create ethical and moral awareness. • Support the students to strengthen their interpersonal relationships, improve their academic progress, involvement in sports, extra-curricular activities, career advancement courses and soft skill improvements. • Encourage and motivate the students to participate in social and environmental causes, National Service Scheme (NSS) and Blood donation camps etc.,

Efficacy of mentoring / counseling system

In general, it is observed that the mentoring system adopted by the institution is proven to be effective with respect to the following points:

- Improvement in students' attendance
- Improvement in students' academic performance/technical skills.
- Improvement in quality of projects.
- Improvement in personality development of individual student.
- Enhances the scope for career advancement of each student.
- Proficiency in addressing the societal issues.

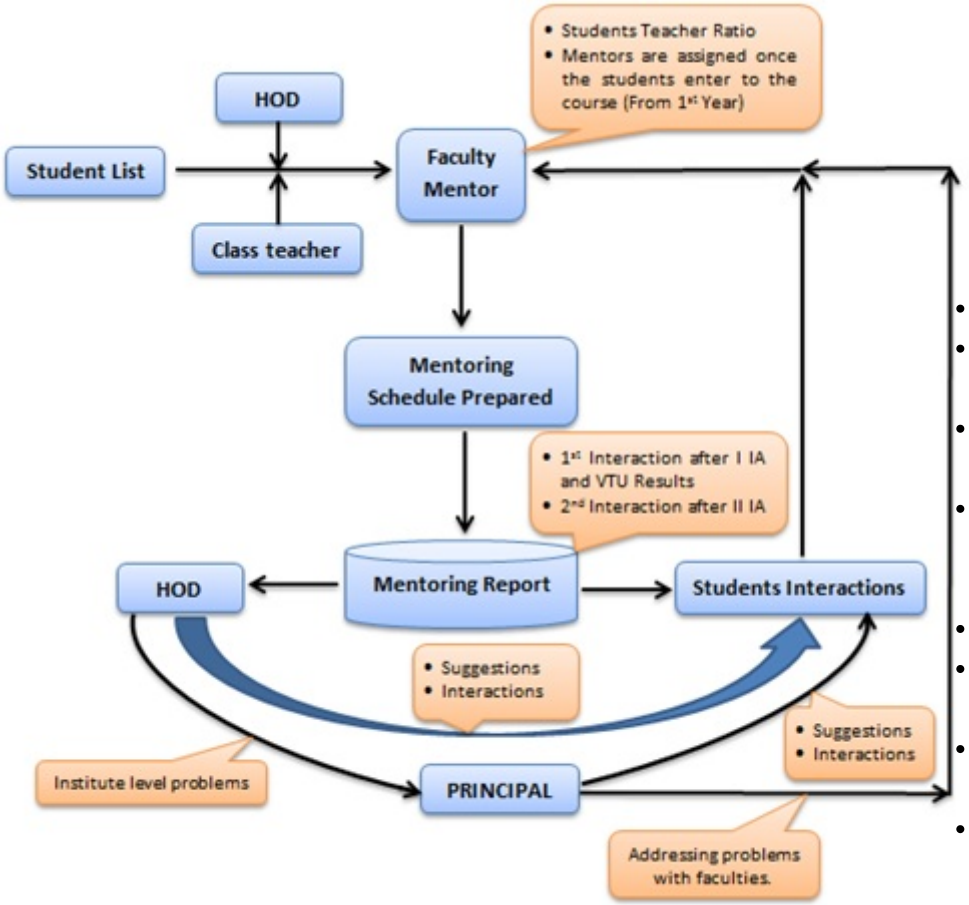


Figure: 9.1.1. Process of Student Mentoring System

Mentor's Responsibilities:

- Take interest in developing student's career and well-being.
- Mentors keep track of their students' progress and achievements, setting milestones and acknowledging accomplishments.
- Monitor student's readiness for Personal Interview (including Resume, Dressing sense etc.)
- Evaluate Student Progress and Performance in Tests. Keep record of his/her attendance in the preparatory classes and keep the department HOD informed.
- Encourage students for attending all the sessions for sure success.
- Informing students about the profile of companies coming for recruitment as per information obtained from placement department.
- Engage the Student beyond the Classroom especially for communication practices and emphasize the importance of communication for sure success.
- Keep the department / panel members informed, if any student is not taking his/her sessions seriously.
- Guide student for practical training and project presentation.
- Guide students for technical interview.
- Guide and Evaluate student for GD for companies requiring GD.
- Guide students for General Knowledge about Industries in their domain.
- Provide Ethical Guidance

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

Total Marks 6.00

Institute Marks : 6.00

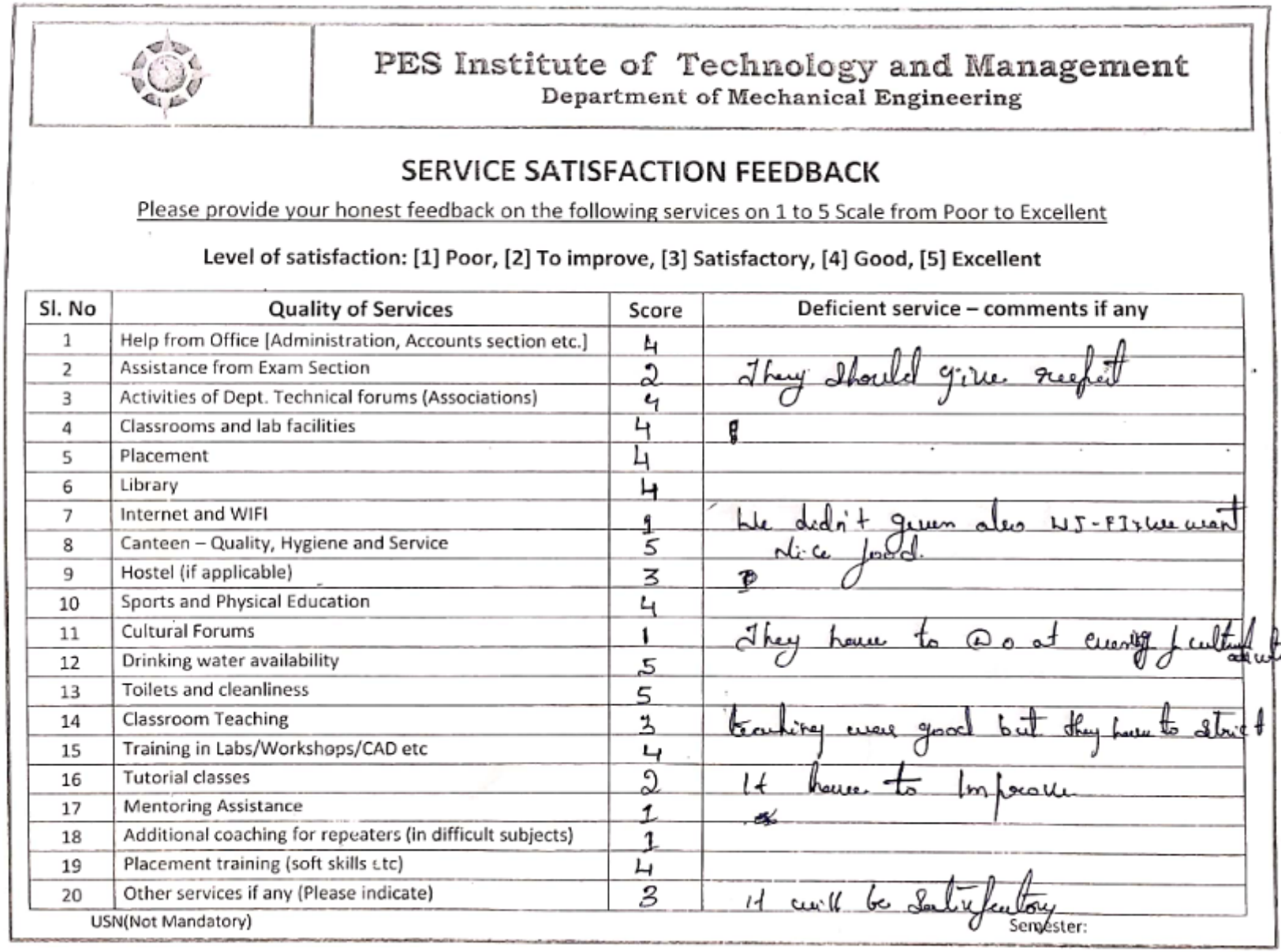
Feedback collected for all courses: YES
Specify the feedback collection process: Through online (GEMS Software) – It has a well-defined format covering all the aspects related to teaching-learning.
Average Percentage of students who participate: more than 90%

Specify the feedback analysis process: Through Questionnaires (As mentioned in the below table)

Table 9.2.1 (A): Questionnaires on Feedback system

Sl. No.	Description
1.	Has the teacher covered entire syllabus as prescribed by the university/college/board?
2.	Has the teacher covered relevant topics beyond syllabus?
3.	Effectiveness of teaching in terms of technical content/ Course content?
4.	Effectiveness of teaching in terms of Communication Skills?
5.	Effectiveness of teaching in terms of use of technical aids?
6.	Pace on which contents were covered?
7.	Motivation and inspiration for students to learn?
8.	Support for the development of student skills Practical demonstration/ Hands on Training?
9.	Clarity of Expectation of students?
10.	Willingness to offer help and advice students?
11.	Feedback provided on student Progress?
12.	Subject Knowledge
13.	Level of Preparation
14.	Communication skills
15.	Presentation skills
16.	Clarifications to student queries/ doubts
17.	Classroom control

Table 9.2.1 (B): Questionnaires on Feedback system



PES Institute of Technology and Management
Department of Mechanical Engineering

SERVICE SATISFACTION FEEDBACK

Please provide your honest feedback on the following services on 1 to 5 Scale from Poor to Excellent

Level of satisfaction: [1] Poor, [2] To improve, [3] Satisfactory, [4] Good, [5] Excellent

Sl. No	Quality of Services	Score	Deficient service – comments if any
1	Help from Office [Administration, Accounts section etc.]	4	
2	Assistance from Exam Section	2	They should give result
3	Activities of Dept. Technical forums (Associations)	4	
4	Classrooms and lab facilities	4	
5	Placement	4	
6	Library	4	
7	Internet and WIFI	1	We didn't given also WI-FI we want
8	Canteen – Quality, Hygiene and Service	5	Nice food.
9	Hostel (if applicable)	3	
10	Sports and Physical Education	4	
11	Cultural Forums	1	They have to do at every [illegible]
12	Drinking water availability	5	
13	Toilets and cleanliness	5	
14	Classroom Teaching	3	teaching were good but they have to strict
15	Training in Labs/Workshops/CAD etc	4	
16	Tutorial classes	2	It have to Improve
17	Mentoring Assistance	1	
18	Additional coaching for repeaters (in difficult subjects)	1	
19	Placement training (soft skills etc)	4	
20	Other services if any (Please indicate)	3	It will be Satisfactory

USN(Not Mandatory) Semester:

The feedback system is confidential and collected twice a year through GEMS online portal. Students will login to the feedback portal in the college premises during working hours and provide feedback and is evaluated on a scale of 1 to 5.

The minimum feedback for a faculty member is **4 out of 5** rating system. Necessary corrective actions are initiated for the faculty having Faculty Performance Index (FPI) less than the college standards.

Methodology followed for feedback analysis and its effectiveness methodology of feedback analysis

1. Feedback collection process
2. Feedback assessment process

1. Feedback collection process

Feedback mechanism is well-organized system, defined specific to the college and is uniform for all the departments.

Table 9.2.2: Feedback collection process

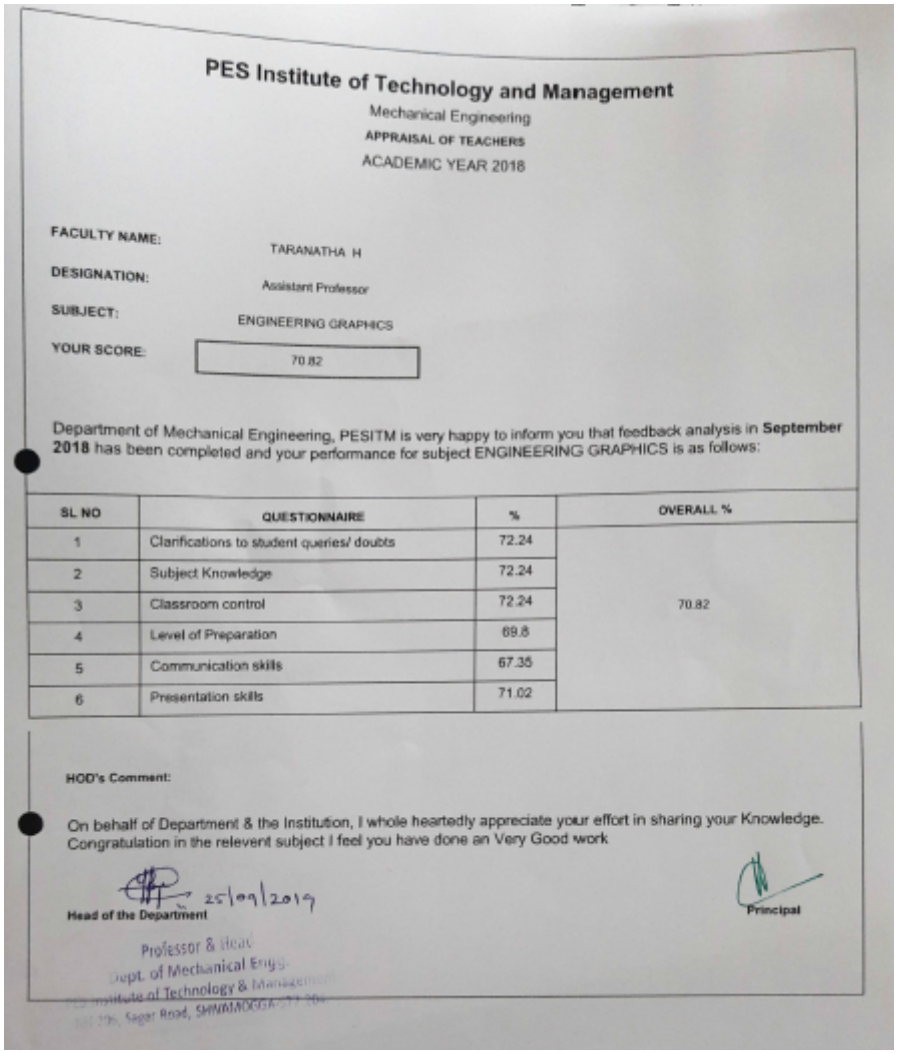
Items	Descriptions
Feedback Collection Process	YES, Computerized using GEMS Software
Feedback receiver	HOD
Frequency of feedback collection	Once in a semester (usually mid of the each semester)
Metrics used for calculation	5 - Excellent 4 - Very good 3 - Good 2 - Satisfactory 1 – Not Satisfactory
Purpose of comment	For improving the quality of teaching-learning

2. Feedback assessment process

The feedback collected from students is analyzed by Department Advisory Board (DAB). Performance of each individual faculty is assessed and corrective measures are listed (if any). Feedback will be shared to individual faculty with necessary advice on the factors to be improved. All the courses mentioned in the feedback form are analyzed as follows:

Table 9.2.3: Feedback Assessment Process

Steps	Description
Step-1	Collection of feedback forms for all the courses from the students based on parameters specified in questionnaire.
Step-2	Estimation of average for all the parameters and calculation of cumulative, which is called as the Faculty Performance Index (FPI).
Step-3	After the recommendations of DAB, FPI will be finalized. The minimum required value is 75%.
Step-4	If the FPI exceeds 75%, it will be considered as good. If it is less, the faculty Performance is considered as “needs to be improved”.
Step-5	If faculty receives needs to be improved performance, they are counseled and allowed them to improve their performance.



PES Institute of Technology and Management

Mechanical Engineering

APPRAISAL OF TEACHERS

ACADEMIC YEAR 2018

FACULTY NAME: TARANATHA H

DESIGNATION: Assistant Professor

SUBJECT: ENGINEERING GRAPHICS

YOUR SCORE: 70.82

Department of Mechanical Engineering, PESITM is very happy to inform you that feedback analysis in **September 2018** has been completed and your performance for subject ENGINEERING GRAPHICS is as follows:

SL NO	QUESTIONNAIRE	%	OVERALL %
1	Clarifications to student queries/ doubts	72.24	
2	Subject Knowledge	72.24	
3	Classroom control	72.24	70.82
4	Level of Preparation	69.8	
5	Communication skills	67.35	
6	Presentation skills	71.02	

HOD's Comment:

On behalf of Department & the Institution, I whole heartedly appreciate your effort in sharing your Knowledge. Congratulation in the relevent subject I feel you have done an Very Good work

25/09/2019

Head of the Department

Principal

Professor & Head
Dept. of Mechanical Engg.
Institute of Technology & Management

Figure 9.2.1: Sample of faculty feed back form

Effectiveness

The improvement of the faculty performance with respect to parameters is reflected in the subsequent feedback.

Record of corrective measures taken

The following necessary corrective actions are initiated for faculty members having FPI less than the college standards:

- Necessary advice by the Head of the department.
- Deputing faculty to the Faculty Development Program (FDP).

Advise the faculty through counselors / Subject Experts.

9.3 Feedback on facilities (5)

Total Marks 3.00

Institute Marks : 3.00

Feedback on facilities is taken through a well-defined feedback form. Assessment is based on student feedback collection, analysis and corrective action taken.

Feedback on facilities

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

- Feedback is collected from the students on the facilities available in the college such as class room infrastructure, library, labs, canteen, playground, internet facility etc.,
- The feedback is analyzed and the necessary corrective measures are taken.

1. Feedback collection process

Table 9.3.1: Details of feedback collection process

Items	Description
Feedback collected about all facilities providedby the college	YES
Feedback collection process	Manual
Frequency of feedback collection	Once in an Academic Year
Metrics used for calculation	5-Excellent 4–Good 3–Satisfactory 2–To improve 1–Poor
Purpose of comments	For improving quality of facilities

2. Feedback analysis

The feedback given by the students is consolidated and analyzed. The Principal discusses about the consolidated report with the Management Committee and come out with necessary actions.

Table 9.3.2: Feedback analysis report for three academic years

Sl. No.	Feedback Question
1.	Help from office [Administration, Accounts section]
2.	Assistance from exam section
3.	Activities of Dept. Technical forums (Associations)
4.	Class rooms and lab facilities
5.	Placements
6.	Library
7.	Internet and WIFI

8.	Canteen – Quality, Hygiene and Service
9.	Hostel (If applicable)
10.	Sports and Physical Education
11.	Cultural forums
12.	Drinking water availability
13.	Toilets and cleanliness
14.	Class room teaching
15.	Training in Labs/ Workshops / CAD etc.
16.	Tutorial classes
17.	Mentoring Assistance
18.	Additional coaching for repeaters (in difficult subjects)
19.	Placement training (soft skills etc.)
20.	Other services if any (Please indicate)

3. Corrective measures

Table 9.3.3. Corrective Measures

Academic Year	**Attributes with less than 70% feedback**	**Corrective actions taken**
2019-20	Wifi facility	**Analysis/observation:** The percentage of feedback is increased by 75%. **Action proposed / taken:** Decision was taken and adopters have been installed in the campus.
	Canteen facility	**Analysis/observation:** The percentage of feedback is less due to huge crowd. **Action proposed / taken:** The feedback information is communicated with the higher authorities for further improvement. And some alterations were made in the time table of each years
2018-19	Toilet facility and maintenance	**Analysis/observation:** The percentage of feedback is increased by 15%. **Action proposed / taken:**Decision was taken to increase the frequency of maintenance from 1 to 2 times daily.
	Hostel facility	**Analysis/observation:** This could be due to change in service provider during January 2018 (mid of the academic year). **Action proposed / taken:** Decided to continue with same service provider during 2018-19. Further, the feedback information is communicated to service provider for further improvement.

2017-18	Toilet facility and maintenance	**Analysis/observation:** The percentage of feedback is less than 70%. **Action proposed / taken:** The feedback information is communicated to service provider for improvement during 2017-18.
	Facilities in Canteen	**Analysis/observation:** The percentage of feedback is less due to unavailability of variety of food in canteen. **Action proposed / taken:** The feedback information is communicated with the higher authorities for further improvement.
	Hostel facility	**Analysis/observation:** The percentage of feedback is less than 70%. **Action proposed/taken:** The feedback information is Communicated to chief wardens of Hostel.
2016-17	Bus facility	**Analysis/observation:** The percentage of feedback is less than 75%. **Action proposed/taken:** The feedback information is Communicated to Transportation in-charge and frequency of bus movements has been made to improve.
	Hostel facility	**Analysis/observation:** This could be due to change in service provider during January 2016 (mid of the academic year). **Action proposed / taken:** Decided to continue with same service provider during 2016-17. Further, the feedback information is communicated to service provider for further improvement.

9.4 Self-Learning (5)

Total Marks 4.00

Institute Marks : 4.00

Self–Learning

Self-Learning is an individualized method of learning, collecting information, processing and retaining it without the need of another individual to teach it.

Scope of Self – Learning

- Library
- Digital Library
- Industrial visits
- Assignments
- e-learning: e-resources by VTU and Swayam by MHRD

Table 9.4.1. Self – Learning facilities

Sl. No.	Self-learning process	Description
1.	Library	The college/ department library is enriched with vast collection of books, journals, periodicals, research articles. The library is equipped with 18 systems with internet facility.
2.	Digital Library	Faculty and students have access to the following content: • E-BOOKs • McGraw Hill Education (Engineering Express) • Taylor and Francis (E-Books & Journals) • Knimbus (1.Digital Library Platform 2.Remote Access Solution 3.Mobile App) • Springer nature (E-Books & Journals) • ELSEVIER – SCIENCEDIRECT (Computer Science & Engineering) • New Age International • SHODHGANGA (A reservoir of Indian Theses) • UN University Full-Text Publications • NISCAIR Research Journals • Open Access Publishing in European Networks - OAPEN (About 1000 titles) • Indian Academy of Sciences(13 Journals)
3.	Professional bodies/other association activities	A professional association is one of the most important actions a student career. All career options related to professional association, valuable information and resources for their enhancement. College is a registered member of following professional ISTE, CSI & IEEE.

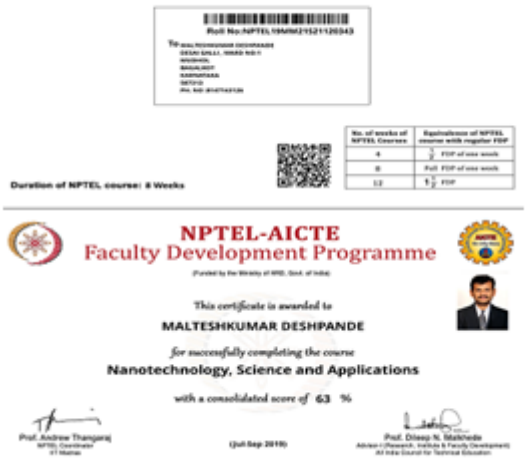
Facilities, materials for learning beyond the syllabus

4.	Industrial visit	• Industrial visit is a part of college curriculum during which students visit companies and get insight regarding the internal working environment of a company. • It helps students to gain first-hand information regarding functioning of the industry. • Provides an opportunity to plan, organize and engage in active learning experiences both inside and outside class room. • Provides an awareness and importance of industry in the real working world. • Assist them for future placement. • Helps to enhance their interpersonal and communication skills, it also enriches the knowledge about industrial practices.
5.	Seminars & workshops	• A seminar is a group meeting led by an expert that focuses on specific topic or disciplines such as emerging technologies and job opportunities. • Attending seminar will have numerous benefits to a student for improving communication skills and gaining domain knowledge. • Seminars are conducted frequently at the department level and the seminars offer students to interact with industry experts, research persons, entrepreneurs and small business partners. • Workshops allow a student to further develop marketable business skills in a focused interactive environment.
6.	Assignments	• It enables students to go through the topics in a more elaborate manner in order to explore the academic topic, which lead to an overall better learning experience. • Assignments help the students to understand the subject in a more detailed pattern. • Faculty gives assignments on regular basis and they are graded.

Table 9.4.2. Self – Learning facilities beyond the syllabus

Sl. No.	Self-learning process	Description
1.	Online certification courses	Online certification courses are conducted by IITB spoken tutorial (AV) and certificates are issued to the students.

2.	Research Publications	• Expands the knowledge of students in various fields and increases visibility, credibility and competitiveness of students. • Helps in presenting papers in conferences.
3.	MOOC(Massive Open Online Course)	Objectives of MOOC: • It creates the opportunity for sharing ideas & knowledge and also helps improving lifelong learning skills by providing easy access to global resources. • It improves cross-cultural relation-ships which lead to collaboration between institution educators and learners locally and internationally. • Enhances active learning. • Contextualized content can be shared by all. • VTU e-resources (EDUSAT) • SWAYAM • NPTEL online resources.



Utilization and its effectiveness

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

- The overall aim of this review is to evaluate the effectiveness of self-directed learning on the professional development of students.
- Students are motivated to improve their initiation in reaching their goals.

- Students are able to scan through the reading material available to them.
- Many of the needs of students are best met by learning process. The students are encouraged to learn by themselves for their present and future needs.
- Students are able to do better in competitive examinations and get placed in suitable companies.

Table 9.4.3. Details of Self – Learning

Academic Year	No. of students who have presented papers in the conferences	No. of students who have published papers in journals	No. of students who have participated/completed on-line certification courses	No. of students Participated in project exhibition
2019-20	01	--	04	04
2018-19	16	13	07	06
2017-18	10	00	12	04
2016-17	--	--	--	--

9.5 Career Guidance, Training, Placement (10) Total Marks 7.00

Institute Marks : 7.00

The Department of Training and Placement provides job opportunities to the graduating students through campus placement. The process normally begins at the end of the sixth semester and continues till eight semesters and beyond. Students are recruited in reputed companies and offered high salary package.
Availability of career guidance facility
Placement cell is a crucial interface between industry and academia by providing a platform for the companies to hire the right talent and at the same time providing the students a kick start to their dream career.
The placement cell is headed by Mr. Pramod Prbhudev P L, who has extensive experience in both industries. It is the nodal point of contact for both companies seeking to establish a fruitful relationship with our college and for conducting training sessions.
The Cell handles all aspects of placements, right from contacting companies to managing all logistics of arranging pre-placement talks, online tests, group discussions and conducting final interviews.
Placement cell also organizes career guidance workshops like career opportunities in IT sector, civil services, defines services etc. Students are also motivated and to pursue higher studies as well.

Table 9.5.1 Management of placement and training cell for Mechanical Department

Sl.No.	Name	Designation	Department
1	Mr. PramodPrbhudev P L	Head CDC	Career Development Cell

2	Mrs. **Aruna A**	Manager	Career Development Cell
3	Mr. Sudhakar	CDC	Career Development Cell
4	Mr. Vinod V Rampur	Placement Co-ordinator	Mechanical Engineering
5	Mr. Rajashekhara M C	Placement Co-ordinator	Mechanical Engineering
6	Mr. Amruth M	Placement Co-ordinator	Mechanical Engineering

Facilities of Placement cell
The Career Guidance Cell (CDC) has Board Room, HR Cabins, Waiting Hall, Aptitude material etc.,

Placement cell activities

- Placement cell will orient students on core company opportunities and preparations.
- Required for placements (Arrangement for Personality development program, Communication skills, Group discussion practice, Mock interview session, Industry Internship programs).
- Invite companies for placements and internships.
- Placements for all the students are planned at regular intervals.
- Industry collaboration activities are formalized with companies.
- Mock interviews are conducted for the students often to analyse their strength and weakness (Online test, Technical & HR interviews) through Bizotic software.
- The cell provides complete support to the visiting companies at every stage of placement process.
- The placement cell provides soft skills and aptitude development sessions for all the students.

Counseling for higher studies
PESITM has been witnessing its alumni pursuing higher studies from renowned universities which require the students to qualify and meet certain criteria. Guidance and motivation are provided for the students by respective student mentors and counseling experts.
PESITM provides resources to students to prepare for the entrance exams conducted for higher studies. PESITM encourages the students on career prospectus which enable and regularly organizes career guidance programs from different organizations, to guide the students in the admission procedure for higher studies to choose the right carrier option.

Pre-placement training
Placement training is organized from semester one onwards to make students industry ready. The training comprises of aptitude and domain specific. PESITM provides placement for all eligible students. Students appearing for campus recruitment are put through a very rigorous training programme. Students are trained in Aptitude, Soft skills and domain- specific training which is supplemented by training by senior technical / HR personnel of leading IT Companies. As a result of this intensive training, our students are highly appreciated on the job performance by all major recruiters and these companies come back to PESITM for recruitment.

Figure 9.5.1: Training Overview at PESITM Placement Cell

Table 9.5.2 Preplacement activities

Assessment Year	Date	Duration	Topic	Company
2018-19	16/08/2018 To 27/08/2018	08	Basics of Aptitude SWOT Analysis Time Management + Team Building Communication Skills Written Communication Human Values Goal Setting & Decision Making Initiative & Leadership Qualities	Genesis Career Prime
2017-18	06.03.2017 To 08.03.2017	04	Soft skills, Communication Skills, Written Communication, Resume Writing	Ethnus
	30.03.2017 To 01.04.2017	02	Mechanical - Technical	Ethnus

Placement Process and Support

The training division of the placement cell through its custom-made modules not just prepares the students for the corporate world but also to life at large. The cell organizes training personality development, soft skills, quantitative aptitude, company-specific modules, a crash course of technical topics and other

2016-17	12/09/2016 To 23/09/2016	11	Self-Development & Presentation Skills, Soft skills, C/C++ Programming, Mechanical - Technical Verbal & Soft skills Reasoning / Aptitude	Career Prime	placement related training every year to all students across all semesters with the help of Bizotic. To strengthen the industry-academia interaction, a number of technical talks, seminars, are also organized by inviting industry experts on topics like Robotics, Artificial Intelligence, Machine Learning, Cyber Security, Data Analytics, life in a corporate world etc.,

Recruitment Process

1. Prepare the students database based on their merit.
2. Invite companies to visit PESITM for recruitment.
3. If the company accepts, collect the relevant data like the minimum cut-off percentage, branches in demand, selection procedures etc.,
4. Inform the students of the requirement.
5. Prepare the data base of eligible candidates.
6. Finalize the schedule for the sent in concurrence with the industry & conduct the process.
7. Prepare the list of selected candidates.
8. Get the appointment letters / selection letters (e-mail) from the company.
9. Distribute the appointment letters / intimate the students regarding selection.
10. Get the date of joining from the company and inform the students.

Table 9.5.3: Placement details for CAYm1: 2018 – 19

Sl. No	Company	Total number of students placed
1	SLK Software’s	4
2	CAREER PRIME	1
3	CALL IN IT	3
4	INFOSYS	3
5	ELEATION	3
6	EXTRAMARKS	3
7	BOSCH	1
8	QSPIDERS	2
9	TECH FORTUNE	2
10	EQUILIZE RCM	1

Table 9.5.4: Placement details for CAYm2: 2017 – 18

Sl. No	Company	Total number of students placed
1	SLK Software's	1
2	CALL IN IT	6
3	BOSCH	6
4	QSPIDERS	3
5	SAVHN TECH	9
6	UTTARA	1
7	VEE TECH	8
8	JUST DAIL	6

Table 9.5.5: Placement details for CAYm2: 2016 – 17

Sl. No	Company	Total number of students placed
1	TECH MAHINDRA	2
2	INFOSYS	1
3	MEC CONCEPTS	2
4	VEE TECH	5
5	ALPHA-9	15
6	RIIT	2

9.6 Entrepreneurship Cell (5)

Total Marks 3.00

Institute Marks : 3.00

Entrepreneurship Cell

Entrepreneurship and Development cell has been established at PESITM and various events have organized to know the importance of being an entrepreneur and ways to get financial assistance to become an entrepreneur and at present Entrepreneurship Awareness programme was held on 1st February 2019 to create awareness to the faculty and students.

9.6.1: Student activity conducted under EDC Cell

9.6.2 Student activity conducted under EDC Cell

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

Total Marks 7.00

Institute Marks : 7.00

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

Sports

Physical Education Department aims to prepare the students to maintain a physical and mental wellbeing to face the challenges of life.
Theobjectiveofthedepartmentis:

- To encourage sportsmanship and to promote friendly relations among the students.
- To development of human and ethical values through sports among students.
- To organize tournaments in different sports/games every year.
- To train students to participate in inter college, inter university, state, national and internationallevel sports.

At the beginning of every academic year, principal conducts a meeting with committee members forplanning and conducting sports and games event. Based on the discussions, calendar of sports eventsis framed and circulated among the departments to reach all the students.

Members of sports committee

Table 9.7.1. Members of Sports Committee

Sl. No.	Name of the Faculty	Designation	Department
1.	Dr. Sendil Krishna	Physical EducationDirector	Physical Education
2.	Prof. Ganesh U. L.	Member	Mechanical Engineering
3.	Prof. Sunil M. E.	Member	Computer Science and Engineering
4.	Prof. ShashankS. B.	Member	Electronics and Communication Engineering.
5.	Prof. ArjunU.	Member	Information Science and Engineering
6.	Prof. Sanjay	Member	Civil Engineering
7.	Prof. ShanthVeeresh	Member	Electrical and Electronics Engineering
8.	Dr. Chandrashekhar	Member	Basic Science (Mathematics)

Facility

Table 9.7.2. Facility of Sports

Sl. No.	Event	Venue	Category	No. of courts available
Outdoor Facility				
1.	Throw Ball	PESITM Ground	Men/Women	01, Mud Court
2.	Kabaddi	PESITM Ground	Men/Women	01, Mud Court
3.	Volley Ball	PESITM Ground	Men/Women	01, Mud Court
4.	Cricket	PESITM Ground	Men/Women	01 Ground
5.	Kho-Kho	PESITM Ground	Men/Women	01, Mud Court
6.	Net-ball	PESITM Ground	Men/Women	01, Mud Court
7.	Tennis	PESITM Ground	Men/Women	01, Mud Court 01, Synthetic Court
8.	Basket Ball	PESITM Ground	Men/Women	01, Synthetic Court
9.	Track field	PESITM Ground	Men/Women	1 (400 meterstrack)
Indoor Facility				
7.	Table Tennis	Indoor Court, PESITM	Men/Women	2 Tables
8.	Yoga	Indoor Court, PESITM	Men/Women	---

9.	Chess	Indoor Court, PESITM	Men/Women	---
10.	Carom	Indoor Court, PESITM	Men/Women	---

Gymnasium

Figure 9.7.1 Gym Facility available at PESITM

NSS Activities

- The aim of NSS is to promote national consciousness and a sense of social responsibility, discipline and dignity of labour and to help students to develop their personality. Two types of programme i.e. Regular activities & 10 days special camp. These activities are supported by the Principal & NSS Officer with co-ordination.
- NSS special camps are arranged during August –September every year. More than hundred boys and girls participate in the camps. Government primary and High school and slum area were selected for community service and educational programmes.
- Besides the annual camp, regular works in the college campus are also undertaken. Students who attend the camp are given certificate and are eligible for grace marks for seeking admission to higher courses.
- Activities undertaken by the NSS have included environment enrichment and conservation, health, family welfare and nutrition programmes, projects aimed at creating an awareness for improvement of the status of women, women's development and gender justice, work in hospitals, production oriented work, non-formal education, healthy life-style education, AIDS awareness programmes, total authorities in rehabilitation work during natural calamities and emergencies.
- There are around 250 students volunteers in NSS unit of PESITM.

2018-19

NSS Activity - Blood Donation Camp

Figure 9.7.2: Blood Donation camp held at PESITM

NSS Activity – Swaccha Bharath Abhiyan

Program on "Demonstration on vermicompost, recycling the waste" conducted as a part of "Swachchta Pakhwada" initiative on 21.07.2018

Figure 9.7.3: NSS Activities held on the occassion of SWACCHA BHARATH ABHIYAN

2017-18

Figure 9.7.4: NSS Activity within the PESITM Premises

2016-17

Blood Donation Camp

Figure 9.7.5: Blood donation camp arrenged in PESITM

Extra-Curricular (Cultural) Activities

2017-2018

College Fest "PRERANA"

Group photo of "Treasure Hunt" winners - 2018

Group photo of Men's Volleyball runner up team - 2018

Group photo of Women's Volleyball Winners team - 2018

ACTIVITIES in PRERANA Fest

Figure 9.7.6: Activities held during PRERANA College Fest (2017-18)

Extra-Curricular Activities

Figure 9.7.7: Students participation in interstate wristelling at Jamakhandi

2018-19

Karthik G.Walvekar (4PM16ME032) of V Sem (A Sec) had participated and won Gold medal and 15,000/- cash prize in inter state wrestling tournament held at Jamakhandi.

Figure 9.7.9: Celebration of College fest PRERANA (2016-17)

Figure 9.7.8: Students attended district level Quiz competition held at SAI PU College, Shivamogga

2016-17

Table 9.7.3. Achievements of Students in Sports (International Level) for the academic year 2016-2017

Sl. No.	NAME	USN	Name of the Event	Venue	Year
01	Manu M G	4PM14ME040	Kabaddi	KIT, Tiptur	2016

02	Karthik N	4PM14ME025	Kabaddi	KIT, Tiptur	2016
03	Akshay K	4PM14ME006	Kabaddi	KIT, Tiptur	2016
04	Vinayak S U	4PM15ME441	Kabaddi	KIT, Tiptur	2016
05	Keerthan H K	4PM14ME027	Kabaddi	KIT, Tiptur	2016
06	Manojkumar L M	4PM14ME038	Kabaddi	KIT, Tiptur	2016
07	Pradeepkumar	4PM13ME117	Kabaddi	KIT, Tiptur	2016
08	Nikhil A Shetty	4PM13ME054	Athletic	Sir. M.V.I.T, Bengaluru	2016
09	Mohan Kumar G S	4PM15ME042	Athletic	Sir. M.V.I.T, Bengaluru	2016
10	Rakshit Mishra	4PM14ME064	Athletic	Sir. M.V.I.T, Bengaluru	2016
11	Rohit S L	4PM12ME036	Foot ball	SIT, Tumkur	2016
12	Kamal Kishor	4PM13ME031	Foot ball	SIT, Tumkur	2016
13	Srigandha K	4PM13ME095	Foot ball	SIT, Tumkur	2016
14	Deekshit D Shetty	4PM13ME019	Foot ball	SIT, Tumkur	2016
15	Mohammed Talha	4PM15ME041	Foot ball	SIT, Tumkur	2016
16	Eldred Paul	4PM13ME021	Foot ball	SIT, Tumkur	2016
17	TejaswiGowda	4PM13ME102	Volley ball	JNNCE, Shivamogga	2016
18	Nagaraj R Ballal	4PM13ME050	Volley ball	JNNCE, Shivamogga	2016
19	Srigandha K	4PM13ME095	Volley ball	JNNCE, Shivamogga	2016
20	Nandeeshwar Reddy	4PM15ME051	Volley ball	JNNCE, Shivamogga	2016
21	Rizwan H	4PM15ME065	Volley ball	JNNCE, Shivamogga	2016
22	Puneeth H M	4PM13ME067	Volley ball	JNNCE, Shivamogga	2016
23	Mohammed Talha	4PM15ME041	Volley ball	JNNCE, Shivamogga	2016
24	Darshan M Bhat	4PM15ME010	Shuttle Badminton	AIT, Chickmagaluru	2016
25	Vinaykumar K G	4PM15ME099	Shuttle Badminton	AIT, Chickmagaluru	2016
26	Puneeth H M	4PM13ME067	Shuttle Badminton	AIT, Chickmagaluru	2016

27	K B Winston	4PM12ME021	Shuttle Badminton	AIT, Chickmagaluru	2016

Table 9.7.4. Achievements of Students in Sports (International Level) for the academic year 2017-2018

Sl. No.	NAME	USN	Name of the Event	Venue	Year	Remarks
1	SuhasBharadhwaj	4PM16ME097	Best Manager	PESITM, Shivamogga	2018	---
2	SuhasBharadhwaj	4PM16ME097	Debate	PESITM, Shivamogga	2018	---
3	SuhasBharadhwaj	4PM16ME097	Debate	PESITM, Shivamogga	2018	---
4	SuhasBharadhwaj	4PM16ME097	Best Manager	PESITM, Shivamogga	2018	---
5	SuhasBharadhwaj	4PM16ME097	KALASURABHI – 2018	AITM, Belagavi (11 – 13 April 2018)	2018	---
6	SuhasBharadhwaj	4PM16ME097	Paper Presentation	PESITM, Shivamogga 26.05.2018	2018	---
7	Lohitkumar B. N.	4PM15ME027	ENIGMA (TRAILBLAZER)	13-15.04.2018	2018	Secured 1st Place
8	ImadAhemad	4PM15ME021	ENIGMA (TRAILBLAZER)	13-15.04.2018	2018	Secured 1st Place
9	Lohitkumar B. N.	4PM15ME027	TECHZONE-2018 (Line Follower)	JNNCE	27-29 April 2018	2nd Place
10	ImadAhemad	4PM15ME021	TECHZONE-2018 (Line Follower)	JNNCE	27-29 April 2018	2nd Place
11	ShreyasBabu	4PM16ME431	District level quiz competition	Sri Adichunchanagiri Independent PU College, Shivamogga	07/10/2018	Secured 4th Place

12	Premkumar M	4PM15ME058	District level quiz competition	Sri Adichunchanagiri Independent PU College, Shivamogga	07/10/2018	Secured 4th Place

Table 9.7.5. Achievements of Students in Sports (International Level) for the academic year 2018-2019

Sl. No.	Name of the Student	USN	Event Name	Name of the Activity	Venue	Remarks
1	Rahul S Upadye	4PM16ME071	GET SET GO!	PLASMA – 2018	JNNCE, Shivamogga (12th Nov. 2018)	---
2	SuhasBharadhwaj	4PM16ME097	Speak for India	Speak for India – Karnataka Edition	Sahyadri College, Shivamogga (17th September 2018)	---
3	SuhasBharadhwaj	4PM16ME097	Speak for India (Zonal Level)	Speak for India – Karnataka Edition	Milagres College, Udupi (22nd Oct 2018)	---
4	Sanath S.	4PM16ME086	CAD Modeling	TECHNIE'19	JIT, Davanagere (15th -16th March 2019)	---
5	Sanath S.	4PM16ME086	Paper Presentation	TECHNIE'19	JIT, Davanagere (15th -16th March 2019)	---
6	Nitin J. C.	4PM16ME056	CAD Modeling	TECHNIE'19	JIT, Davanagere (15th -16th March 2019)	---
7	Apeksha H. N.	4PM16ME008	Paper Presentation	TECHNIE'19	JIT, Davanagere (15th -16th March 2019)	---
8	SuhasBharadhwaj	4PM16ME097	Paper Presentation	TECHNIE'19	JIT, Davanagere (15th -16th March 2019)	---

9	SuhasBharadhwaj	4PM16ME097	CAD Modeling	TECHNIE'19	JIT, Davanagere (15^{th} -16^{th} March 2019)	---
10	Apeksha H. N.	4PM16ME008	Paper Presentation	TECHNIE'19	JIT, Davanagere (15^{th} -16^{th} March 2019)	---
11	Nitin J. C.	4PM16ME056	Paper Presentation	TECHNIE'19	JIT, Davanagere (15^{th} -16^{th} March 2019)	---
12	Apeksha H. N.	4PM16ME008	WeCon – Women Entrepreneurship Conclave – 2018	National Women Entrepreneurship Conclave in Waste Management – WeCon – 2018	Jain University, Bangalore (29-30 August 2018)	---
13	Chandana R.	4PM16ME016	WeCon – Women Entrepreneurship Conclave – 2018	National Women Entrepreneurship Conclave in Waste Management – WeCon – 2018	Jain University, Bangalore (29-30 August 2018)	---
14	Shreedevi B. J.	4PM17ME074	WeCon – Women Entrepreneurship Conclave – 2018	National Women Entrepreneurship Conclave in Waste Management – WeCon – 2018	Jain University, Bangalore (29-30 August 2018)	---
15	ShreyasBabu	4PM16ME431	Quiz Competition	64^{th}VanyaJeeviSaptaha	Adichunchanagiri PU College (07-10-2018)	---
16	Swathi P.	4PM16ME439	Paper Presentation	PLASMA – 2018	JNNCE (12^{th} November 2018)	---
17	Hemavathi M.	4PM16ME412	Paper Presentation	PLASMA – 2018	JNNCE (12^{th} November 2018)	---
18	Vasanthkumar S.	4PM16ME441	Paper Presentation	PLASMA – 2018	JNNCE (12^{th} November 2018)	---
19	Krishna Naik S. D.	4PM16ME415	Paper Presentation	PLASMA – 2018	JNNCE (12^{th} November 2018)	---
20	Veeranagouda B. C.	4PM16ME105	Workshop	One Day state level Modeling Competition on solid edge	KLS VDRIT, Haliyal (22^{nd} February 2019)	---
21	Sumanth N. G.	4PM16ME099	Workshop	One Day state level Modeling Competition on solid edge	KLS VDRIT, Haliyal (22^{nd} February 2019)	---

22	VeerkumarGouraj	4PM16ME104	Workshop	One Day state level Modeling Competition on solid edge	KLS VDRIT, Haliyal (22nd February 2019)	---
23	Swathi P.	4PM16ME439	Project Exhibition	Anveshana – 2019 (Science & Engineering Fair)	Bengaluru (25th to 27th Feb. 2019)	---
24	Dinesh Bishnoi	4PM15ME019	Project Exhibition	Anveshana – 2019 (Science & Engineering Fair)	Bengaluru (25th to 27th Feb. 2019)	---
25	Gurushree	4PM16ME027	Death Race	AAKRITI – 2019	CEC, Bantwala, Mangalore (28th Feb. 1st& 2nd Mar 2019)	---
26	Vinay	4PM16ME110	Death Race	AAKRITI – 2019	CEC, Bantwala, Mangalore (28th Feb. 1st& 2nd Mar 2019)	---
27	Gururaj P.	4PM16ME026	Death Race	AAKRITI – 2019	CEC, Bantwala, Mangalore (28th Feb. 1st& 2nd Mar 2019)	---
28	Rahul Upadhye	4PM16ME071	Death Race	AAKRITI – 2019	CEC, Bantwala, Mangalore (28th Feb. 1st& 2nd Mar 2019)	---
29	Vinay	4PM16ME110	Dirt Race	AAKRITI – 2019	CEC, Bantwala, Mangalore (28th Feb. 1st& 2nd Mar 2019)	---
30	Gururaj P.	4PM16ME026	Dirt Race	AAKRITI – 2019	CEC, Bantwala, Mangalore (28th Feb. 1st& 2nd Mar 2019)	---
31	Rahul Upadhye	4PM16ME071	Dirt Race	AAKRITI – 2019	CEC, Bantwala, Mangalore (28th Feb. 1st& 2nd Mar 2019)	---
32	Gurushree	4PM16ME027	Dirt Race	AAKRITI – 2019	CEC, Bantwala, Mangalore (28th Feb. 1st& 2nd Mar 2019)	---
33	Gurushree M. S.	4PM16ME027	Roborace	TECHNISIUM 2019	SIT, Tumakuru (16th March 2019)	---

34	Gururaj P.	4PM16ME026	Roborace	TECHNISIUM 2019	SIT, Tumakuru (16th March 2019)	---
35	Rahul Upadhye	4PM16ME071	Roborace	TECHNISIUM 2019	SIT, Tumakuru (16th March 2019)	---
36	Ramesh P. T.	4PM16ME074	Roborace	TECHNISIUM 2019	SIT, Tumakuru (16th March 2019)	---
37	Dinesh Kumar Bishnoi	4PM15ME019	Roborace	TECHNISIUM 2019	SIT, Tumakuru (16th March 2019)	Secured 1st Place
38	Lohith Kumar B. N.	4PM15ME027	Roborace	TECHNISIUM 2019	SIT, Tumakuru (16th March 2019).	Secured 1st Place
39	Mustafali J Mulla	4PM16ME050	Hobby Project	MOMENTUM – 2019	SIT, Tumakuru (23rd March 2019)	---
40	Nitin J. C.	4PM16ME056	Hobby Project	MOMENTUM – 2019	SIT, Tumakuru (23rd March 2019)	---
41	Lohitkumar B. N.	4PM15ME027	Roborace	MELANZE-19	SKSVACET, Lakshmeshwar, Gadag (26th, 27th April 2019)	---
42	Lohitkumar B. N.	4PM15ME027	Basewars	MELANZE-19	SKSVACET, Lakshmeshwar, Gadag (26th, 27th April 2019)	---
43	Ravi C. C.	4PM15ME063	Start Up Stage	PRERANA-2019	PESITM	---
44	Akash G. N.	4PM16ME401	Start Up Stage	PRERANA-2019	PESITM	---
45	Jeevana N. G.	4PM16ME030	2 days' workshop on Machine Learning	Current Engineering Trends (CET) 2019	PESITM (30th and 31st March 2019)	---
46	KiranKasar	4PM16ME033	2 days' workshop on Machine Learning	Current Engineering Trends (CET) 2019	PESITM (30th and 31st March 2019)	---
47	KiranKasar	4PM16ME033	Junior Software Developer (QP No: SSC/Q0508)	Skill India Program	Online Certification course	---

48	KiranKasar	4PM16ME033	2 days training	3D Printing and Reverse Engineering	KLS GIT, Belagavi (6-7 May 2019)	---
50	Nitin j. C	4PM16ME056	Maze Runner	TECHZONE – 2019	JNNCE, Shivamogga (26, 27 & 28th April 2019)	---
51	Nitin j. C	4PM16ME056	Workshop (Certificate no.: RLKNSIOT021) (Batch No.: RLKNS01)	ROBOTICS (Rove Labs in collaboration with MED, PESITM)	PESITM (1-4 April 2019)	---
52	Nitin J. C.	4PM16ME056	2 days training	3D Printing and Reverse Engineering	KLS GIT, Belagavi (6-7 May 2019)	---

Co-curricular Activities

Table 9.7.6: Students list who presented / published papers in journals/conferences
CAY (01st August 2019-31st July 2020)

Sl. No.	Title of the paper	Authors	Publication details	Remarks
1.	**Higher Education Analysis in India: Issues, Challenges and Pathways**	**Suhas G. Bharadhwaj** Vinod V. Rampur Ganesh U. L. Ashok R. Banagar MalteshDeshpande	Presented in "National Conference on Higher Education in India: Challenges and Opportunities-2019"	Held at PESITM on 15th November 2019
2.	**Present scenario of Mechanical Engineers and its Future challenges: Academic perspective**	**KarthikWalvekar** Dr. Girisha L. Ajey C. P. Shivananda D. C. MalteshkumarDeshpande	Presented in "National Conference on Higher Education in India: Challenges and Opportunities-2019"	Held at PESITM on 15th November 2019

Table 9.7.7.: CAY-1 (01st August 2018 to 31st July 2019)

Sl. No.	Title of the paper	Authors	Publication details	Remarks
1	**Experimental Performance analysis of conventional gasoline vehicle blended with hydrogen gas**	**Ms. Swathi P.**	Presented in National level Technical Symposium "PLASMA-2018"	Held at JNNCE, Shivamogga on 20th November 2018

2	**Polymer composites reinforced by Nanoparticles as scaffolds for tissue engineering**	**Ms. Apeksah H. N.** **&** **Mr. SuhasBharadhwaj**	Presented paper in National Level Technical Fest	Held at JIT Davanagere on 15th – 16th March 2019
3	**A review of recent research on multifunctional composite materials and structures with their applications**	**Mr. Nitin J. C.** **&** **Mr. Sanath S.**	Presented paper in National Level Technical Fest	Held at JIT Davanagere on 15th – 16th March 2019
4	**Waste Plastic Pyrolysis Oil alternative Fuel for an IC Engine**	**Mr. ImadAhamed I** **Mr. Lohithkumar B N** Prof. Abhishek C R, Prof. Praveena R, Prof. Amruth M,	IJERTCONV7IS07018	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
5	**Design and performance of ball milling for powder metallurgy composites**	**Mr. Kiran T M** **Mr. Manjunath H K** Prof. MalteshkumarDeshpande Dr. Girisha L	IJERTCONV7IS07019	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
6	**Investigation on Mechanical Behavior of LM4 alloys reinforced with soda glass**	**Mr. Siddanth P Jain** Prof. Koushik P K Prof. Mahanthesh M. R. Prof. Ramya C R	IJERTCONV7IS07020	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
7	**Mechanical Characterization of Asbestos Free Polymer Based Brake Liners**	**Mr. SachiGowda S.** **Mr. Ashish K. S.** Prof. Malteshkumar D Prof. Harish G. V. Dr. Girisha L	IJERTCONV7IS07021	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
8	**Machinability Study of Drilling Parameters on Al Alloy**	**Mr. Janardhana H.** Prof. Ashok R. Banagar Prof. Ganesh U. L. Prof. Vinod V Rampur	IJERTCONV7IS07022	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)

9	**Comparison of performance parameters of Mild Steel in EDM process using Copper and Brass Tool**	**Mr. Ravi C. C.** Prof. Harish G. V. Prof. Koushik P K Prof. Ramya C R Dr. Girisha L	IJERTCONV7IS07023	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
10	**Power Generation by using Exhaust Gas Heat from an Internal Combustion Engine**	**Mr. Mir JibraanHussain** **Mr. NabeelurRahaman** Prof. Kiran Kumar K	IJERTCONV7IS07024	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
11	**Power Generation by using Kinetic Energy of Exhaust Gases from an Internal Combustion Engine**	**Mr. Nagabhushan V. Gudi** **Mr. Madhu C** Prof. Kiran Kumar K	IJERTCONV7IS07025	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
12	**Study on development of an automated open die forging machine**	**Mr. BharathGowda G** Prof. Praveena R, Prof. MujeburRehaman, Prof. Abhishek C R,	IJERTCONV7IS07027	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
13	**Hybrid Solar-Electric Drier**	**Mr. Abhishek S R,** **Mr. Gowtham V,** **Ms. Swathi P,** **Mr. Dinesh Kumar Bishnoi,** Dr. Manjunath Patel G. C.	IJERTCONV7IS07032	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
14	**Performance of smart cooking system using thermic fluid**	**Mr. Malleshi L Bilikudare** **Mr. KuppinakeriJnanesha** **Mr. Keerthi T H** **Mr. K. Vishal** Prof. Ajey C P	IJERTCONV7IS07033	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)
15	**Design and Fabrication of Grain Collector**	**Mr. Sunilkumara H** Prof. Santosh M B	IJERTCONV7IS07035	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)

16	**Design and Fabrication of Pico Hydro Turbine**	**Mr. RajatPandey** **Mr. Santosh Kumar Singh** **Mr. Tejas M** **Mr. Vibhuti Narayan Acharya** Prof. Prasanna Nayak H	IJERTCONV7IS07037	NCMPC-2019 proceedings Paper ID – MPC – 19 (Conference held at 20th May 2019)

Table 9.7.8: CAY-2 (01st August 2017 to 31st July 2018)

Sl. No.	Title of the paper	Authors	Publication details	Remarks
1.	**---**	**Mr. Keerthan H. K.**	NCETERM - 2017	14th state level ISTE - NCETERM
2.	Improving Productivity of Assembly Line by Optimizing Flow Line and Line Balancing	**Mr. M. Sunil** Prof. Harish G. V. Prof. Koushik P. K. Prof. Vinod V. Rampur	Proceedings of NCARSEM – 18	National Conference on Advanced Research in Science, Engineering and Management, Held at PESITM on 26th May 2018
3.	Manually operated multiple adjustable seed sowing machine	**Mr. Bharmagowda B. S.** Prof. MalteshkumarDeshpande Prof. Ajey C. P. Prof. Vinod V. Rampur	Proceedings of NCARSEM – 18	National Conference on Advanced Research in Science, Engineering and Management, Held at PESITM on 26th May 2018
4.	The comparative study of Biogas production using kitchen waste and cow dung	**Mr. Suhas R.** Prof. Ravi H. C. Prof. Santhosh Hulloli Dr. Basavarajapp Y. H.	Proceedings of NCARSEM – 18	National Conference on Advanced Research in Science, Engineering and Management, Held at PESITM on 26th May 2018
5.	Design and development of forklift for material handling in warehouses	**Mr. VinayHegde** **Mr. Vinayak R Hegde** Prof. MalteshkumarDeshpande Prof. Vinod V. Rampur	Proceedings of NCARSEM – 18	National Conference on Advanced Research in Science, Engineering and Management, Held at PESITM on 26th May 2018
6.	Optimizing the Machining Parameters of Mild steel in EDM Process Using Copper Tool	**Mr. Sanjay G.** **Mr. Ravi C. C.** Prof. Ramya C. R. Prof. Santhosh M. B. Dr. Girisha L.	Proceedings of NCARSEM – 18	National Conference on Advanced Research in Science, Engineering and Management, Held at PESITM on 26th May 2018

7.	Performance Test on Hybrid Nano Fluids	**Mr. Rahul Kashyap A. N.** **Mr. Pundaleek B. Teli** **Mr. Pramodh M. H.** **Mr. Sharavan H. S.**	Proceedings of NCARSEM – 18	National Conference on Advanced Research in Science, Engineering and Management, Held at PESITM on 26th May 2018
8.	Fabrication and Performance Test on Aqua Silencer	**Mr. Prethyun Roy** **Mr. NitishPrajwal** **Mr. Sabareeshkumar S.** Prof. Harish G. V.	Proceedings of NCARSEM – 18	National Conference on Advanced Research in Science, Engineering and Management, Held at PESITM on 26th May 2018
9.	Solar convective Flows utilization in Solar updraft Towers using reflector material as Collectors	**Mr. SuhasBharadhwaj** Prof. Rajashekhar M. C. Prof. Shivananda D. C. Prof. Mahantesh M. R.	Proceedings of NCARSEM – 18	National Conference on Advanced Research in Science, Engineering and Management, Held at PESITM on 26th May 2018
10.	Design and Fabrication of Solar Powered Battery Operated Pesticide Sprayer	**Mr. Mohammed Sadiq** **Mr. Abdul Kareem Khan** **Mr. Md. ShahbazHussain** **Mr. Mohammed Shijauddin** Prof. Prasanna Nayak H.	Proceedings of NCARSEM – 18	National Conference on Advanced Research in Science, Engineering and Management, Held at PESITM on 26th May 2018

2019-20

Table 9.7.9: Co-curricular Activities held in the mechanical department

Sl. No.	Name of the Activity	Faculty Coordinated	Students participated	Remarks	Venue (with Date)
1	KSCST Project Exhibition (42nd Series 2018-19)	Dr. Basavarajappa Y. H.	Swaroop N., Dilip Kumar B. N., Vijay T. V., Darshan B. M.	This project has got BEST PROJECT award in this Exhibition	KLE's Dr. MSSCET, Belagavi (26-27 July 2019)
2	Awareness talk on waste segregation and zero waste management	Dr. Basavarajappa Y. H and Mr. Mahantesh M. R.	Non-teaching Staff of PESPT, JSS academy, and various students of respective groups	Event was organized by MED of PESITM association with NSS Unit of PESITM	Diploma Block (Machine shop) 31.07.2019
3	MOU with IMTMA	Dr. Basavarajappa Y. H, HOD, MED	-----		Principal Cabin (29.08.2019)

4	Technical Talk by Mr. DigvijayPandey of IMTMA on “Robotics and Automation in Manufacturing sector”	Technical Talk Committee Members	All 7th and 5th Sem mechanical engineering students			Main Seminar Hall (29.08.2019)
5	District level of “SPEAK FOR INDIA” – Karnataka Edition	-----	SuhasBharadhwaj	4PM16ME097		Sahyadri Commerce College, Shivamogga (28.08.2019)
			ShreyasBabu	4PM16ME431		
6	“Mini - Anveshana” – Project Exhibition	Dr. Manjunath Patel G. C.	SuhasBharadhwaj	4PM16ME097	Development of Automatic Sorting Machine for Municipal solid waste	Agastya Foundation Mega Science Fair, Ayanur
			Sumanth N. G.	4PM16ME099		
			Vinayak R. B.	4PM16ME112		
			J Gururaj	4PM17ME032		
			Akanksh J. Hegde	4PM17ME006	Multi-Purpose Dryer for Agriculture crops	
			Syed Sadath H.	4PM18ME425		
			Pramodh P. B.	4PM17ME057		
			Suraj S. Nadig	4PM17ME079		
			Brilson M. Cutinha	4PM17ME021		
			S. Revanth	4PM16ME079	Automatic mini Hammering system	
			Sagar N.	4PM16ME084		
			Sachin B. K.	4PM16ME081		
			Shivakumar G.	4PM16ME093		
7	Alumni Interaction	Mr. Ashok R. Banagar Mr. Vinod V. Rampur Mr. Ganesh U. L Mr. Rajashekhar M. C.	7th Sem Students of MED	Interaction by Mr. Pruthviraj S. C. Mr. Rahul Kashyap		Departmental Seminar Hall (09.10.2019)
8	Demo on Motors and Microprocessors	Mr. Ganesh U. L., Mr. Ashok R. Banagar Mr. Pramod V. Rampur Mr. Kirankumar K. R.	7th A and B Section Students	Part of curriculum to fill the gap in the syllabus		
9	Industrial Visit	Dr. Manjunath Patel G. C. Mr. Abhishek C. R. Mr. Amruth M.	3rd Sem A and B section students	-----		Bhoomika Alloys Castings Private Limited, Shivamogga

Table9.7.10: List of the students who have completed nptel online certification courses

Sl. No.	Name of the student	Usn	Course name	Sem
1.	Nitin J. C.	4PM16ME056	Inspection and Quality control in Manufacturing	7th A
2.	Ravikumar G.	4PM16ME077	Inspection and Quality control in Manufacturing	7th B
3.	Ravikumar G.	4PM16ME077	Smart Materials and System Design	7th B
4.	Sourabh	4PM16ME096	Refrigeration and Air Conditioning	7th B
5.	SuhasBharadhwaj	4PM16ME097	Fluid Mechanics	7th B
6.	SuhasBharadhwaj	4PM16ME097	Heat Exchangers; Fundamentals and Design Analysis	7th B

Figure 9.7.10: Certificates of Online Exams

2018-19

Figure 9.7.11: National conference on “Material Processing and Characterization” – 2019 (NCMPC -19) was organized by Department of Mechanical Engineering, PESITM on 20th May 2019. Dr. S Basavarajappa, Registrar, IIIT (Dharwad) was the Chief Guest for the function.

Figure 9.7.12: An industrial visit was arranged to 6thsem students of mechanical engineering to Varahi Underground Power project and Mani Dam at Hosangadi on 16 – 02 – 2019. Around 120 students have taken advantage of this visit.

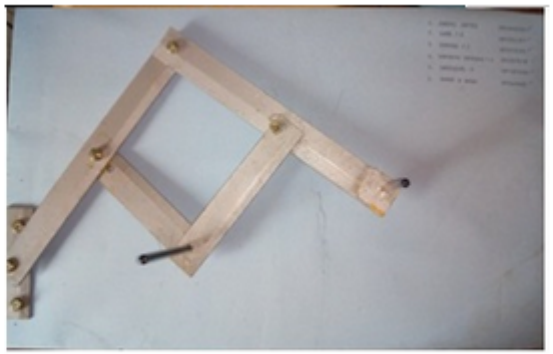
Figure 9.7.13: Mr. Dinesh Bishnoi and Ms. Swathi P of 8thsem along with two PESPS students have attend the science and Engineering Fair “ANVESHANA” held at Bengaluru and won 5,000/- worth prize for presenting the project entitled “HYBRID SOLR ELECTRIC DRIER”

Figure 9.7.14: Technical talk on Automation was arranged to all sixth sem students by Mr. HarshwardhanHiregoudar of “”QualRatio”, Bengaluru

Figure 9.7.15: Students of 4thsem had attended the two day workshop on “CAST YOUR FUTURE BY CASTING” held at STJIT, Ranebennur.

Figure 9.7.16: The Robotics workshop been conducted for the 4th and 6th semester students of Mechanical Engineering from 01 – 04 – 2019 to 03 – 04 – 2019. This workshop has been conducted to know the latest technology and for the overall development activities of the students.

(a) (b) (c)



(d)

Figure 9.7.17: As a part of co-curricular activity some of the mini projects were given to 4thsem B section students to fabricate different mechanisms which are the part of their syllabus (a. Elliptical Trammel, b. Quick Return motion mechanism, c. Geneva Wheel Mechanism, d. Pantograph.)

Figure 9.7.18: One day workshop on “Open foam Frame work essential for CFD Technology” was arranged on 09.04.2019 to the faculties of mechanical engineering from different colleges. Prof. Anand M Shivapuji was the resource person for this function.

Figure 9.7.19:

“Hands on tools on foundry and castings” a technical session for the III “A” and “B” section students.

Table 9.7.11: List of the students who had completed nptel online certification courses

List of the students who had completed nptel online certification courses				
Sl. No.	Name of the student	Usn	Course name	Sem
1	Vikhil A. O.	4PM15ME098	Design for quality, manufacturing and assembly	7 (A)
2	ShashwathShetty	4PM15ME076	Robotics	7 (A)
3	Varun A. N.	4PM15ME093	Robotics	7 (A)
4	Subramanya C.	4PM15ME084	Robotics	7 (A)
5	Roshan D’Souza	4PM15ME067	Robotics	7 (A)
6	Abhishek S. R.	4PM15ME001	Design for quality, manufacturing and assembly	7 (B)
7	Gowtham V.	4PM15ME013	Design for quality, manufacturing and assembly	7 (B)

8	Dinesh Kumar Bishnoi	4PM15ME019	Design for quality, manufacturing and assembly	7 (B)
9	JibranHussain	4PM15ME038	Principles of Casting Techniques	7 (B)
10	Swathi	4PM16ME439	Principles of Casting Techniques	7 (B)
11	Suhas G. Bharadwaj	4PM16ME097	Refrigeration and Air Conditioning	5 (B)

Figure 9.7.20 (A): Students participations in national level technical symposium PLASMA held at JNNCE, Shivamogga on November 12th 2018.

Figure 9.7.20 (B): **Motivational talk on Preparation for Gate Exam - 2019** was arranged on 11-10-2018. **Mr. Sunil M. of "DEENABANDU TRUST"**, Chamaraja Nagar was resource person.

Annual Students Activities

PESITM College students won Second Place in VTU State Level Intercollegiate Cultural Events in Folk Dance category conducted by AITM, Belagavi from 11-04-2019 to 15-04-2019.

Figure 9.7.21: Second place in VTU State Level Cultural Event

Group Photograph of students with delegates who attended the CATIA Training program in collaboration with CMS, Bangalore

Figure 9.7.22: CATIA Course conducted by CMS Bengaluru at PESITM Campus

*A technical talk on "How to become successful and a professional engineer" arranged by Mechanical Department in collaboration with Cyber Metric Services, Bangalore, Mr. **T Subramanian,** Vice-President, Head – R&D, Bharath Fritz Werner Ltd., Bangalore was the resource person.*

Figure 9.7.23: Technical Talk given by Prof. T. Subramanian

Technical talk on "Bio-fuels as alternative energy" was conducted on the occasion of World Bio fuel day

Figure 9.7.24: Technical talk on Bio Fuels as alternative enrgy under the banner of SUCHETANA - Eco club

Program on "Demonstration on vermicompost, recycling the waste" conducted as a part of "Swachchta Pakhwada" initiative on 21.07.2018

Figure 9.7.25: Demonstration on Vermicompost, recycling the waste as a part of Swchatha Phakwada

Photograph of projects Expo held in the PESITM premises

Figure 9.7.26: Project Exhibition held at PESITM Campus

Figure 9.7.27: Suhas G. Bharadwaj (4PM16ME097) of 5th Semester, (B Sec.) has presented a paper titled ***"Solar Convective flows in Solar Updraft towers using reflector material as collector"***, in NCARSEM, held at PESITM, Shivamogga on 26th of May 2018.

Figure 9.7.28: ShashwathShetty (4PM15ME076) of 7th Semester, (A Sec.) has presented a paper titled ***"Zero Turn Vehicle"***, in NCARSEM, held at PESITM, Shivamogga on 26th of May 2018.

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120) Total Marks 110.00

10.1 Organization, Governance and Transparency (40) Total Marks 40.00

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

Vision :
To be the most preferred Institution for Engineering and Management Education, Research and Entrepreneurship by creating professionally superior and ethically strong global manpower.
Mission :
To prepare students for professional accomplishments and responsible global citizenship while fostering continuous learning and to provide state-of-the-art education through the committed and highly skilled faculty by partnering and collaborating with industry and R&D institutes.

10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies (10) Institute Marks : 10.00

Governing Council of the institute

The Governing Council of the Institute is constituted as per the norms of AICTE, New Delhi, Affiliating University & Govt. of Karnataka and it is the supreme administrative body. The Governing Council of the institute has a robust framework for the governance and it works towards meeting the interests of all stake holders. The Governing Council meets a minimum of two times a year or whenever needed.

The Governing Council of PESITM is given below

Name	Designation	Position
Prof. M R Doreswamy	Chancellor, PES University, Bengaluru	**Chairman**
Sri B Y Raghavendra	Management Trustee, PES Trust (R), Shivamogga Member of Parliament, Shivamogga	**Member**
Prof. JawaharDoreswamy	Treasurer, PES Institutions. Pro-Chancellor- PES University, Bengaluru	**Member**
Sri B. Y. Vijayendra	Joint Treasurer, PES Trust (R), Shivamogga	**Member**
Smt. S. Y. Arunadevi	Joint Secretary, PESITM & Trustee	**Member**
Smt. S. Y. Umadevi	Industry Executive	**Member**

Smt. Tejaswini Raghavendra	Trustee	**Member**
Dr. S. S. Gupta	Director, Rajiv Gandhi Institute for Steel Technology, JSW steels, Bellary, Karnataka. Member.	**Member**
Dr. M R Shivakumar.	Principal, SRSIT, Bangalore	**VTU Nominee Member.**
Dr. G P Prabhukumar	Emeritus Professor New Horizon College of Engineering, Bangalore	**Member**
Dr. L S Nandeesh	Professor of Chemistry, Academic Director and NAAC Consultant (Sri Jagadguru Renukacharya Education Society, Bangalore)	**Member**
Prof. Dr. R. Nagaraja .	Chief Coordinator – Administration, PES Trust (R), Shivamogga	**Member**
Dr. Jagadeesh S N.	HOD & Professor PESITM, Shivamogga	**Member**
Dr. Guruvareddy	Professor, Dept of ECE PESITM, Shivamogga.	**Member**
Dr. Chaitanya Kumar M V	Principal PESITM, Shivamogga	**Member Secretary**

Major Responsibilities of the Governing Council

- To uphold the legal stature of the college in view of AICTE, UGC, State Government and affiliating University (VTU) or any other body or agency.
- To take decisions regarding the intake and addition or discontinuation of any program accordingly recommending the Principal to take formal steps with the affiliating body to put this into action.
- Fix the fee structure and any charges applicable in accordance with the recommendation of administrative bodies and the prescribed fee structure of affiliating university.
- Extension, Renovation or Procurement plans recommended by Core Committee.
- Decide the promotions or penalties as recommended by the Academic Committee.
- Approve the budget and recommend necessary corrections.
- Nominate and constitute other central committees for smooth discharge of responsibilities

Powers and Functions of the Governing Council

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

- Ensure proper management& maintenance of the institution in relation to land, infrastructure, equipment, and funds, including loans and grants received from AICTE, Central Government and Government of Karnataka.
- Ensure compliance with norms and standards prescribed by the Government of Karnataka and affiliating University.
- To ensure implementation of provision of acts, instructions, rules, and regulations prescribed by AICTE and Government of Karnataka in matters of service conditions of the staff relating to appointment, leave Provident Fund, age of retirement and disciplinary actions.

- To submit reports and returns from time to time to AICTE, Government of Karnataka and affiliating University.
- Create a peaceful and favorable atmosphere for study free from ragging.

Powers and Functions of Chairperson of Governing Council

- The Chairperson shall ensure that the Governing Council is functioning properly to meet the desired deliverables.
- In the event of taking a vote on any decision and if a tie occurs, then the decision of Chairperson shall be final.
- The Chairperson shall ensure that the decisions taken in the Governing Council meeting are implemented by Member Secretary.

Powers and Functions of Member Secretary of Governing Council

- Principal of the institution, by default, is the Member Secretary of the Governing Council.
- Member Secretary executes the decisions taken in the Governing Council on behalf of the Governing Council.
- He would take correspondence on behalf of the Governing Council meeting in relation to the decisions taken in it and get it confirmed by the Chairperson and members present. With confirmation, the proceedings would be forwarded to AICTE, Government of Karnataka and affiliating University.
- He will exercise powers and functions as maybe imposed and assigned by the Governing Council from time to time.
- The Member Secretary would issue appointment letters to the staff selected by the Recruitment Committee after the approval from the sponsoring trust and the Governing Council of the institute.

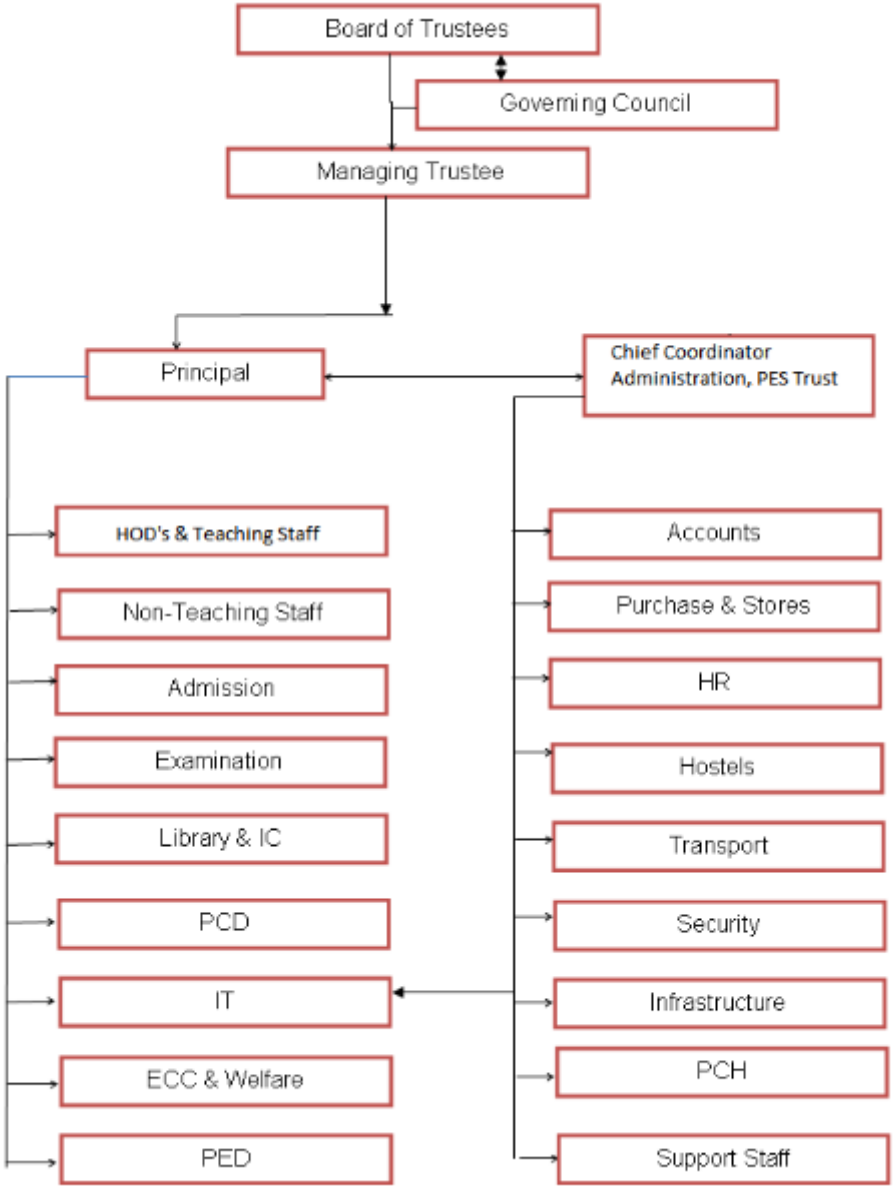


Fig 10.1: Organizational Chart

Functions of key administrative positions

Position	**Functions**

Principal	• He functions as the Head of the Institution and is the Member-Secretary of the GC. • He is responsible for the overall development of the Institution. • Ensure the attainment of the vision of the Institution through strategic mission. • Define quality policy and objectives. • Define & delegate responsibilities of various positions in the organization. • He is the final authority for all academic, admission, administrative, co-curricular and extracurricular, research, placement, innovation, resource mobilization, planning and development, recruitment. • He also coordinate the needs of meeting statutory and regulatory requirements of the government (AICTE, UGC, DTE) and University (VTU). • He channelizes the growth and benchmarking activities of accreditation (NBA/NAAC) and affiliation (VTU) processes for the institute. • He is the single point contact (SPC) for external bodies (industries, academia, regulators, institutions/organizations, companies) and also for stakeholders: industries, parents, and alumni.
Vice-Principal	• To discharge the routine duty of Principal in his absence. • Head of the Internal Quality Assurance cell. • Alumni interaction. • Branding tasks & admissions • Prepare and execute the academic calendar. • Oversee the teaching-learning process. • Carry out result analysis and submit corrective measures to Principal. • Initiate better teaching-learning methods. • Co-curricular activities. • Formation of the student council. • Sports &Cultural activities.

Head of Departments	• He / She is the functional and administrative head of the concerned department. • He/she ensures the smooth running of the concerned department by laying goals and milestones of the department. Vision and Mission statements too are chalked out for streamlining all further actions. • HOD builds and leads the team of required numbers of faculty members • The HOD ensures planning, execution, troubleshooting of all academic activities (theory and lab classes), examination (CIE)along with supporting smooth conduction of VTU examinations, research and publication, projects and developmental activities. • He/she coordinates intra (with IIIC, T & P and other depts. /centers at the institute) and inter (with other academia and industries) institutional communicational roles. • HOD plans and organizes events (conferences, seminars, workshops, and training) and conducts industrial visits and guest lectures for the benefit of dept. (students and faculty members). • He/she organizes meetings with stakeholders (particularly, parents) in the form of PTM. • Develop Calendar of events, Timetables for each section/semester, Upkeep and maintain records of the department, maintain laboratories and assets, assign duties and monitor faculty performance, verifies faculty appraisal, benchmark the growth parameters, monitor mentoring of students by the mentors (faculty team), identify and execute action on departmental needs, develop team towards audits and compliance, monitor R&D and project activities of the department, ensure up-keeping of departmental library, lead team towards publications and IP, seek MOUs from related industries. • He/she renders all support to the team lead, Principal. • He/she encourages and motivates the team to contribute to the positive growth of the department, in turn, the institution.

Manager, Training & Placements	• Director T & P is solely responsible for planning, connecting, organizing, culminating all activities leading to the placement needs of the graduating students. • He develops and nurtures contacts/connects with industries/companies/ organizations/alumni database in view of placement needs. • He ensures the smooth coordination with various stakeholders required for the process of placement. • He initiates the process of feedback collection from the visiting companies/organizations for offering placement and shares with concerned departments for better understanding and possible improvements in the subsequent sessions/years. • He coordinates activities for pool-in placement drives. • Facilitate career guidance to the students. • He significantly contributes to building the brand value of the institution.
I/C Library	• The Librarian is responsible for the resources of the Library and Information Centre comprising of assets in both hard and soft forms. The associated duties are: • He envisages the plans, initiates actions for addressing all possible needs of primary stakeholders - students, teachers and research scholars (via identifying and ordering books, reference material, journals, online resources, issue of resources and maintenance of records). • He with his team undertakes series of tasks towards optimal utilization and for maintenance of the library. • Maintain library discipline and culture. • Prepare annual budget for library
Director Physical Education	• Proposing an annual budget. • Creation and upkeep of sports facilities. • Purchasing of sport items. • Conduct training camps. • Ensure the smooth conduct of sports. • Encourage students to participate in regional / zonal / VTU tournaments.

10.1.3 Decentralization in working and grievanceredressal mechanism (10) Institute Marks : 10.00

Majority of the decisions within the department are made by the respective heads of the departments.

Sl. No	Name	Head of the department
1.	Dr. Jagadeesha S. N.	Computer Science & Engineering
2.	Dr. Hiremath M. N.	Civil Engineering
3.	Dr. Manoj Kumar	Electrical and Electronics Engineering
4.	Dr. Chandrappa D.N	Electronics and Communication Engineering
5.	Dr. Prasanna Kumar H. R.	Information Science & Engineering
6.	Dr. Basavarajappa Y H	Mechanical Engineering
7.	Dr. Prasanna Kumar T M	MBA

A number of committees are present in the college that is formed taking into the considerations of the stakeholders. There is diversification that ensures that the committees address any issues faced by the stake holders and also aims for the improvements under the purview of the respective committees. The various committees, their in-charge, roles and responsibilities & meeting details are given below:

1. Academic Monitoring Committee (AMC)

Name	**Position**
Dr. S N Jagadeesha, HOD-CSE	Chairman
Dr. Guruva Reddy , Vice-Principal	Member
Mr. Rakesh, Dept. of ECE	Member
Dr. Girish, Dept. of ME	Member
Mr. Kiran Kumar, Dept. of EEE	Member
Dr. Manu, Dept. of CSE	Member
Dr. Pramod, Dept. of ISE	Member
Dr. ArvindMallik D M, Dept. of MBA	Member
Dr. Shivkumar, Dept. of Basic Science	Member

Roles & Responsibilities:

- The AMC thoroughly works on designing the educational process
- It continuously reviews and monitors the process keeping in view the emerging needs and expectations of the industry
- The AMC along with the strength of the faculty members continuously works on updating and restructuring the innovative skill sets for promoting academic excellence

- To verify faculty –academic pre-preparation and generate verification reports.
- To conduct monthly audit of course delivery and submit report to HOD.
- To conduct midterm & end term academic monitoring /verification and submit report to HOD
- To maintain departmental academic file
- To prepare departmental academic calendar
- To make sure that daily attendance report of each class is filled properly before submitting.
- To monitor works of class teacher and smooth conduction of academics.
- To conduct departmental audit per semester
- To conduct interdepartmental audit per semester
- To observe lecture conduction of faculty member along with senior faculty members.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	30/10/2019	09	0
	16/01/2020	09	0
CAYm1	18/10/2018	06	3
	29/01/2019	09	0
	26/04/2019	09	0
CAYm2	20/10/2017	07	2
	29/01/2018	09	0
	27/04/2018	09	0
	26/07/2018	09	0
CAYm3	26/08/2016	09	0
	26/10/2016	07	2
	27/01/2017	09	0
	28/04/2017	09	0
	31/07/2017	08	1

Time Table Committee

Name	Designation
Dr. Aveesh S T, Dept. of Mathematics	Coordinator

Mr. Shivanand D C, Dept. of M.E	Member
Mr. Rakesh M K, Dept. of Civil Engineering	Member
Mr. Raghavendra K, Dept. of CSE	Member
Mr. Vishnu V M, Dept. of ECE	Member
Mr. Arjun U, Dept. of ISE	Member
Mrs. Neetha H M, Dept. of EEE	Member
Dr. Chandru K, First Year	Member

Roles & Responsibilities:

- Time-Table preparation for each department.
- To Prepare Individual Timetable & Room wise Timetable get approval by the Principal.
- Allotment of Classrooms, Labs, Tutorial Rooms etc.
- Correlate the timetable with the calendar of events of the department & College**.**

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	22-01-2020	7	01
CAYm1	06-06-2019	8	00
	05-01-2019	8	00
CAYm2	12-06-2018	8	00
	08-01-2018	8	00
CAYm3	05-06-2017	7	00
	09-01-2017	7	00

2. Discipline Committee

Name	Position
Dr. Girisha L, Associate Professor , Dept. of ME	Chairman
Dr. Praveen Kumar C M, Asst. Professor, Dept. of Chemistry	Member
Mr. Rakesh, Asst. Professor, Dept. of Civil Engineering	Member
Mrs. Neetha, Asst. Professor, Dept. of EEE	Member
Mrs. Prathibha, Asst. Professor , Dept. of CSE	Member

Dr. Sendhil, Physical Director	Member
Dr. M N Hiremath, HOD- CV & Chief Warden – Boys Hostel	Member
Mrs. Yagnodhbhavi, Asst. Professor, Dept. of CV & Chief Warden – Girls Hostel	Member

Roles & Responsibilities:

- To maintain and enforce strict discipline within the college campus.
- All the students should wear their ID Cards while they are in the campus and their respective class rooms.
- In case of any violation of dress code or disturbance in the class, the ID card will be confiscated from the student which will be handed over to the student on the same day with a warning and advice from the Disciplinary Committee Members.
- In case of any misbehavior or violation of the college rules, the ID cards of the students will be kept with the Disciplinary Committee Members till the enquiry is over.
- To enforce total prohibition of cell phone usage by the students within the college campus. Please note that cell phone is prohibited in the college campus and if a student is found carrying a cell phone, it will be taken away and handed over to the Principal.
- To monitor the movement of the students in the college and prevent students loitering around in the corridors during the college working hours.
- To ensure that all the students attend classes without bunking and prevent them from leaving the college early. Please note that no student can leave the college early without prior permission from the concerned authorities.
- Smoking is strictly prohibited in the college campus and ensures that this is being strictly followed.
- To ensure that students maintain complete silence in the library.
- To maintain proper discipline in the college canteen and student common boys/girl resting room during the college working hours.
- If any damage is caused to the college property by any student / group of students, the cost of the same will be recovered with a fine from the said student / group of this will be followed by disciplinary action.
- If any indiscipline is found by any of the students, warn them on the first instance. Take disciplinary action based on the rules and regulations of the committee, if the pattern of misconduct continues.
- Submit the enquiry report of any incidents/issues after conducting a committee meeting.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	17.08.2019	7	0
	28.09.2019	5	2
	23.09.2019	7	0
	26.11.2019	7	0
	19.12.2019	7	0
	25.02.2020	6	1
CAYm1	03.09.2018	7	0
	24.10.2018	7	0

	31.10.2018	7	0
	24.11.2018	5	2
	20.12.2018	7	0
	11.01.2019	6	1
	23.02.2019	7	0
	27.03.2019	7	0
	20.04.2019	7	0
	29.05.2019	7	0
	22.06.2019	7	0
CAYm2	26.09.2017	7	0
	21.10.2017	7	0
	24.11.2017	5	2
	29.12.2017	7	0
	02.02.2018	6	1
	30.03.2018	7	0
	26.04.2018	7	0
	31.05.2018	5	2
	23.06.2018	7	0

3. Anti-Ragging Committee

Name	**Designation**
Dr. Chaitanya Kumar M V,Principal	Chairman
Dr. Prasanna Kumar T M, HOD-MBA	Coordinator
Dr. Jagadeesha S N, HOD-CSE	Member
Dr. Manoj Kumar, HOD - EEE	Member
Dr. Shivkumar K, HOD-Chemistry	Member
Dr. Sendhil, Physical Education Director	Member
Dr. Basavarajappa Y H, HOD-M.E	Member
Dr. Prasanna Kumar H R, HOD-ISE	Member
Dr. M N Hiremath, HOD-Civil & Warden-Boys Hostel	Member
Dr. Chandrappa D N, HOD-ECE	Member
Dr. Aveesh, HOD-Maths	Member
Dr. PramodPai, HOD-Physics	Member
Mrs. Yagnodbhavi H M, Dept. of Civil Engg.	Member
Mr. Ramesh, Resident Warden – Boys Hostel	Member

Mrs. Manjula, Resident Warden – Girls Hostel	Member
Mr. SuhasBharadwaj, Student – ME	Member
Ms.SwathiSarang, Student - ISE	Member
Mr. Abhijith H K, Student – Civil Engg.	Member

Roles & Responsibilities:

- Preventing the menace of ragging in the college and making the campus zerp ragging zone.
- Ensure anti-ragging instructions are displayed at prominent places in college campus and hostels
- To make surprise raids in the college, hostels and other vulnerable places where students generally visit and where either the incidents of ragging have occurred or which are potentially prone to ragging.
- To conduct an on-the-spot enquiry into any incident of ragging referred to it by any member of the committee or any faculty as the case may be.
- If any such above incidents are observed, take immediate action to prevent the same and report the same to the principal without any delay.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	27/09/2019	18	0
	25/07/2019	14	4
CAYm1	09/08/2018	11	1
CAYm2	09/08/2017	12	0
CAYm3	25/08/2016	10	0

4. Co-curricular and Extra-Curricular Activities Committee

Name	Position
Dr. Prasanna Kumar T M, HOD-MBA	Chairman
Mr. Rakesh M K, Dept. of Civil Engineering	Member
Mrs. Deeksha Kamath, Dept. of Basic Science	Member
Mr. Shivayogappa H. J., Dept. Of ECE	Member
Mr. Puneeth B. H., Dept. of CSE	Member
Mr. Vinay S. K, Dept. of ISE	Member
Mrs. Neetha H. M., Dept. of EEE	Member
Mr. Maltesh Kumar Deshpande, Dept. of M.E	Member
Ms. Divya H. A, Dept. of Civil Engineering	Member

Roles & Responsibilities:

- The Cultural Committee shall be responsible for all intra and inter collegiate cultural events in the Institute.

- To plan and schedule cultural events for the academic year.
- The Convener of the committee shall conduct a meeting of the committee to discuss and delegate tasks.

- To prepare the Annual Budget for various cultural events.
- Motivating students to participate in cultural events organized at College, University, National and International levels.
- Organizing cultural events for staff members

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	17/11/2019	09	0
	17/02/2020	09	0
	24/02/2020	09	0
CAYm1	17/08/2018	08	0
	15/11/2018	07	1
	04/02/2019	08	0
	05/04/2019	08	0
CAYm2	19/08/2017	08	0
	14/11/2017	07	1
	03/02/2018	08	0
	12/02/2018	07	1
	26/02/2018	08	0
	19/05/2018	08	0
CAYm3	24/08/2016	08	0
	10/11/2016	08	0
	06/02/2017	07	1
	18/02/2017	05	3
	25/02/2017	08	0
	13/05/2017	08	0

5. Sports Committee

Name	Designation
Dr. Shivkumar, Professor, Basic Science	Chairman
Dr. Sendhil, PED	Member Secretary
Mr. Sunil M E, Dept. of CSE	Member
Mr. Shanthaveeresh, Dept. of EEE	Member

Mr. Shashank B, Dept. of ECE	Member
Mr. Arjun U, Dept. of ISE	Member
Mr. Sanjay, Dept. of Civil Engineering	Member
Mr. Ganesh U L, Dept. of M.E	Member
Mr. Praveen Gujjar, Dept. of MBA	Member

Roles & Responsibilities:

- To provide an environment for physical development of the students.
- To develop team spirit among the students.
- To provide opportunity for the students to showcase their talent in sports.
- To promote sportsmanship among students by organizing various sports activities.
- Organizing various indoor and outdoor games during sports week.
- Motivating students to participate in sports events organized at University, national and international levels.
- Organizing sports events for staff members.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	01/08/2019	09	0
	23/01/2020	09	0
CAYm1	06/08/2018	09	0
	30/01/2019	09	0
CAYm2	02/08/2017	09	0
	05/01/2018	09	0
CAYm3	05/08/2016	09	0
	05/01/2017	09	0

6. NSS Committee

Name	Designation
Mr. Prasanna Nayak H, Dept. of ME	NSS Officer
Mr. Ganesh U L, Dept. of ME	Member
Mr. Puneeth B H, Dept. of CSE	Member
Mr. Amshith Kumar, Dept. of Civil Engineering	Member
Mr. Venkatesh, Dept. of ISE	Member
Mr. Shivayogi, Dept. of ECE	Member

Mr. Shantveeresh, Dept. of EEE	Member
Mr. Arjun J, Dept. of MBA	Member
Dr. Chandru K, First Year	Member

Roles & Responsibilities:

- Develop a sense of social and civic responsibility among students.
- Utilize student's knowledge in finding practical solution to individual and community problems.
- Acquire leadership qualities and democratic attitude.
- Develop community service attitude during emergencies and natural disasters.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	07/08/2019	09	0
	11/02/2020	08	1
CAYm1	08/08/2018	07	0
	07/02/2019	08	0
CAYm2	11/08/2017	06	1
	13/02/2018	07	0
CAYm3	09/08/2016	08	0
	20/02/2017	07	0

7. Grievance Redressal Committee

Grievance Redressal Committee is constituted as per AICTE regulations. The committee shall meet within a week from the date of receipt of any petition/complaint from any student and take necessary action as deem fit and initiate necessary action for solving problem.

Mechanism for redressing grievance.

- The departmental level grievances are attended by the concerned Class Coordinators, Mentors / or Department Heads.
- Unresolved grievances at the departmental level are referred to the Grievance Redressal Committee of the institution.
- The committee shall send report with recommendations to all concerned within 15 days from the date of receipt of the complaint

Note: Student can register complaint through online using college website.

Grievance Redressal Committee: 2019-20

Name	Position
Dr. Chaintanya Kumar M V, Principal	Chairperson
Dr. Prasanna Kumar T M, HOD-MBA	Member

Mrs. Shyamala S. C., Assistant Professor, ECE	Member
Dr. Praveen Kumar C.M., Assistant Professor, Basic Science	Member
Mr. Roshan, Student - CSE	Special Invitee

Roles & Responsibilities:

- To resolve student grievances related to both academic as well as non-academic matters.
- To ensure there is no bias or prejudices while dealing with students
- To promote and establish transparent practices related to students
- To create a conducive environment for learning

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	27/09/2019	05	0
CAYm1	09/08/2018	08	0
CAYm2	09/08/2017	08	0
CAYm3	25/08/2016	08	0

8. Anti-Sexual harassment Committee

Name	Designation
Dr. Sunitha B S, Associate –Professor , CSE	Chairperson
Mrs. Yagnodhbavi H M, Assistant Professor, Civil	Member
Mrs. Shymala S C, Assistant Professor, ECE	Member
Dr. Prasanna Kumar H R, HOD-ISE	Member
Mrs. Vani G S, Assistant Professor, ISE	Member
Mrs. Manjula, Office-Executive	Member

Roles & Responsibilities:

- Prevent discrimination and sexual harassment against women (active and preventive in nature) in the campus, hostel and college premises by promoting gender amity among students.
- Prevention of sexual harassment to ensure safe learning environment for girl students
- To ensure provision of an educational environment that is free from sexual harassment.
- To address any oral, written or online complaint at WECARE about sexual harassment.

Sexual harassment includes oral or written statements of a sexual nature to a person , or in a person’s presence.

- Aiming at ensuring support services to the victimized and termination of the harassment.
- If any such incidents occur / found, report the same to the Principal immediately.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	09/09/2019	7	2
	18/11/2019	6	0
CAYm1	16/08/2018	9	2
	14/09/2020	6	0
CAYm2	09/08/2017	9	0
	23/10/2017	6	0
CAYm3	25/08/2016	9	0

9. Entrepreneur Development Cell (EDC)

Name	Position
Dr. Chandrappa D N, HOD- ECE	Coordinator
Dr. Basavarajappa Y H , HOD- ME	Member
Dr. Pramod S P, CDC	Member
Dr. Nandan N Shenoy, Dept. of Civil Engineering	Member
Mr. Kunja D Shinde, Dept. of ECE	Member
Mr. Santosh M B, Dept. of ME	Member
Mr. Pradeep K. Dept of CSE	Member
Mr. Kiran Kumar G R, Dept. of EEE	Member
Mr. Arjun J, Dept of MBA	Member

Roles & Responsibilities:

- To create an entrepreneurship eco-system in the institute, where students would learn the technicalities of entrepreneurship and become job providers instead of job seekers.
- To be in continuous contact with District Industry Officer, KSFC and other Government and private nodal agencies.
- To arrange lectures on establishment of new start-ups, MSM enterprises.
- Strive to establish an incubation centre with Governmental funding.
- Create a strong network of mentors who would provide sector specific knowledge & real world practical guidance.
- To arrange Entrepreneurship training programs, conduct events and inspirational programs.

- Build a strong team with adequate knowledge and experience in guiding start-ups, building business plans, facilitating investments, building networks, etc.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	09.01.2020	08	Nil
CAYm1	04.10.2019	08	Nil
CAYm2	06/09/2018	08	Nil
CAYm3	16/04/2018	08	Nil

10. Training & Placement Cell

Name	Designation
Dr. Manoj Kumar, HOD-EEE	Chairman
Mr. Pramod S Prabhudev, Manager – T&P	Member Secretary
Mr. Kalpana S - EEE	Member
Mr. Chethan B R -ECE	Member
Dr. Likewin Thomos - CSE	Member
Mr. Arjun U – ISE	Member
Mr. Vinod Rampur - ME	Member
Mr. Sharath S K - Civil	Member
Mr. Arjun J - MBA	Member

Roles & Responsibilities:

- To review the Training & Placement Performance of every outgoing batch of Graduates.
- To understand the Industry Specific Skills and being aware of trending technologies with respect every specialization.
- To analyze the academic performances of students and orient students about eligibility criteria of Companies.
- To ensure maximum student participation in all Training & development initiatives.
- To facilitate Internships, Guest talks, Industry Specific Workshops, Academic Projects,

Industry initiatives and campus recruitment drives. To maintain connectivity with all campus recruited students for mentoring and training programs.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	21st Sep, 2019	9	0

CAYm1	24th Jan, 2020	8	1
CAYm2	5th oct, 2018	8	1
CAYm3	11th Sep, 2017	9	1

11. Purchase Committee

Sl. No.	Designation	Name of the Person	Position
1	CCA, PES Trust (R) &	Dr. Nagaraja R	Chairman (Authorized to sign POs)
2	Principal, PESITM		Member (Authorized to sign POs)
3	Head /Section Head of the concerned Dept		Member
4	Senior Professor, of the concerned Dept		Member
5	Assistant Professor Dept. of Civil Engg.	Mr. Nandan N Shenoy	Member Secretary

Roles & Responsibilities:

- To scrutinize requisitions for equipment of various departments and decide upon the necessity of purchasing the equipment, keeping in view the requirements specified by the University, AICTE, NBA, NAAC, GOI, GOK etc.
- To coordinate all the purchases of various Departments and ensure the procurement of required items as per schedule
- To call and scrutinize tenders/ quotations for items of purchase, with the help of department.
- To ensure that the supplies/services quoted for comply with what was requested.
- To carry out discussions and negotiations with suppliers and procure the best quality items with competitive price.
- To seek clarification from suppliers/service providers wherever necessary.
- To finalize the terms and conditions in the purchase order.
- To forward the negotiated /finalized quote for approval of the management through
- To arrange for sending the purchase order, inspection and acceptance/ rejection of the equipment received, with the help of department.
- To communicate the decision of the Committee to concerned department.
- Normally frequency of the CPC meeting should be once in 15 days; whereas in case of urgency and necessity CPC can meet as and when required.
- If the value of the purchase falls lesser than Rs 10,000/- (Ten Thousand Rupees), Purchase section/Dept with the consent of the chairman may proceed with purchasing the indented items directly without the approval of the Purchase committee.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	14/02/2020	05	00
CAYm1	23/08/2018	04	00
CAYm2	27/04/2017	04	00
CAYm3	26/08/2016	04	00

12. Budget Committee

Sl. No.	Designation	Name of the Person	Position
1	Governing Council Member	Mrs. Umadevi S Y	Chairperson
2	CCA, PES Trust (R)	Dr. Nagaraja R	Member
3	Principal, PESITM		Member
4	All Department HODs		Members
5	Accounts Manager		Member
6	Assistant Professor, Civil Engg	Mr. Nandan N Shenoy	Member Secretary

Roles & Responsibilities:

- Ensuring that the financial elements of the institution are in accordance with its vision, mission, objectives and strategic plan.
- To assist PES Trust in fulfilling its fiduciary responsibility.
- To protect the organization from legal challenges and liabilities.
- To guard the organization against illegal, unethical, or incompetent activities by fiscal managers.
- To protect the organization from actual or apparent conflict of interest.
- To act as an advisory panel to the financial operations.
- To evaluate both the financial operations and the people in charge of it meticulously.
- To be vigilant of illegal, unethical, or incompetent financial dealings engaged in by individuals or groups that the organization deals with, or financial arrangements that may harm the organization.
- Participating in the annual audit and carry out meticulous pre-audit checks.
- Evaluating PESITM’s fiscal operations, and those in charge of it.
- Reporting to the board of trustees about the financial conditions of PESITM, and/or any financial irregularities or inefficiencies regularly.
- To evaluate and approve budget of the programmes, activities, conferences, FDPs, SDPs, Workshops, Symposiums and/or any other academic, curricular and co-curricular, any other events of PESITM.
- Examine and scrutinize the annual budget of the Institute prepared by the principal and make suggestions and recommendations.

- To take up any other activity/responsibility as assigned by the Managing Trustee from time to time.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	09/12/2019	13	00
CAYm1	03/01/2019	13	00
CAYm2	06/12/2017	13	00
CAYm3	05/12/2016	13	00

13. Student Welfare Committee

Name	Designation
Dr. Prasanna Kumar H R, HOD-ISE	Chairman
Mrs. Yajnodhbavi, Dept. of Civil Engineering	Member
Mr. Amruth, Dept. of M.E	Member
Mr. Pradeep, Dept. of CSE	Member
Mrs. Neetha, Dept. of EEE	Member
Dr. Pramod, Dept. of ISE	Member
Mr. Praveen Kumar B H, Dept of MBA	Member
Dr. Chandru, Dept. Of Mathematics	Member

Roles & Responsibilities:

- Addressing the students regarding issues with facilities available in the college.
- Addressing the issues regarding Ragging in the campus.
- Giving awareness to students regarding various scholarship schemes.
- Giving awareness about reporting issues through website link (we care), email to student welfare process, suggestion box
- Conducting the meeting at least two times in a year to resolve the student's issues and taking necessary actions. Meeting can be called as and when required, depending upon the seriousness of the issue.
- If any issues found, immediately report to the Principal.

Meetings

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
CAY	06/08/2019	08	0

	31/10/2019	08	0
	27/01/2020	07	1
CAYm1	30/08/2018	09	0
	28/11/2018	08	2
	20/02/2019	09	0
CAYm2	31/08/2017	09	0
	28/12/2017	09	0
	12/02/2018	09	0
CAYm3	16/08/2016	08	1
	30/08/2016	09	0
	30/11/2017	09	0
	01/02/2017	07	2
	03/05/2017	09	0

10.1.4 Delegation of financial powers (10)

Institute Marks : 10.00

Preparation of the budget is very important for running any departments. Every department at PESITM prepares a budget before the commencement of the academic year. Department Heads, with Senior Professors give the requisition to the Principal with regard to stationery, lab requirements, etc, for which budget allocations are approved by the Principal in discussion with the Management. Also, every Department Head is expected to give separate budget for FDPs, SDPs and any other activities planned by the department to Principal for approval.
Key administrative personnel are empowered to take decision with regard to spending money for any important operational purpose and the table given below outline financial powers for these personnel.

Sl.No.	Designation	Financial Power (in Rs.)
1	Chief Coordinator – Administration (CCA)	1,00,000.00
2	Principal	50,000.00
3	All HoDs	25,000.00

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

Institute Marks : 5.00

Information of PESITM Policies, Rules, Processes and Dissemination made available to the public on the college website. The URL is http://pestrust.edu.in/pesitm

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30) Total Marks 26.00

10.2.1 Adequacy of budget allocation (10) Institute Marks : 9.00

Before the commencement of every academic year a meeting of all the Heads of departments is convened and budgetary requirement is taken, which includes procurement of new equipment, maintenance/servicing of existing equipment, consumables required, building space and also books required for the library. For buildings detailed plans and estimates are prepared and approval is taken for the same in the Governing Council meetings. A detailed report of all the development works undertaken and their current status is presented in the Governing Council meeting. The budgetary requirements are met through the admission fees collected from the students and the revenue generated. The budget allocated at the beginning of the financial year is adequate for managing the expenditure during that year. In case of any additional funds required, the management provides the requisite support.

10.2.2 Utilization of allocated funds (15) Institute Marks : 12.00

The allocated funds are utilized properly and are adequate as per the Academic requirements. The budget funds are utilized on priority basis as per the requirements of each department, based on availability of funds. However, all recurring and non-recurring expenditure of departments is met in full (including salaries, lab consumables etc).

Year	Total budget (in laks)		Actual Expenditure (in laks)	
	Non recurring	Recurring	Non recurring	Recurring
2019-20	9644489	76352428	8767717	69411299
2018-19	10209929	109114409	9281754	99194918
2017-18	23141443	101139232	21037675	91944757
2016-17	10299274	82416287	9362976	74923898

10.2.3 Availability of the audited statements on the institute's website (5) Institute Marks : 5.00

PESITM Financial year 2018-19, 2017-18, and 2016-17 Audit Reports made available on the college website. The URL is https://pestrust.edu.in/pesitm/audit-report/

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

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

Table 1 - CFY 2019-20

Total Income 146168166				Actual expenditure(till…): 108179016			Total No. Of Students 2023
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
115783734	0	0	30384432	69411299	8767717	30000000	53474.55

Table 2 - CFYm1 2018-19

Total Income 184698171				Actual expenditure(till…): 128476672			Total No. Of Students 2037
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
134562570	0	0	50135601	99194918	9281754	20000000	63071.51

Table 3 - CFYm2 2017-18

Total Income 181521628				Actual expenditure(till…): 132982432			Total No. Of Students 2123
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
131226010	0	0	50295618	91944757	21037675	20000000	62638.92

Table 4 - CFYm3 2016-17

Total Income 179185454				Actual expenditure(till…): 104286874			Total No. Of Students 2197
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
129510935	0	0	49674519	74923898	9362976	20000000	47467.85

Items	**Budgeted in 2019-20**	**Actual Expenses in 2019-20 till**	**Budgeted in 2018-19**	**Actual Expenses in 2018-19 till**	**Budgeted in 2017-18**	**Actual Expenses in 2017-18 till**	**Budgeted in 2016-17**	**Actual Expenses in 2016-17 till**
Infrastructure Built-Up	279066.70	253697.00	4000000	2437173	10000000	10090809	2900000	2480133
Library	576816.00	567376.00	1500000	1249517	1500000	1315139	1100000	973480
Laboratory equipment	6729962	5189351	3620000	3281160	6050000	5133139	4300000	3759356
Laboratory consumables	286472.00	286472.00	900000	786085	1300000	1034857	300000	165886
Teaching and non-teaching staff salary	58138580.00	709336804	70000000	69895181	70000000	62841764	60000000	52735441
Maintenance and spares	971159.00	55742.00	6000000	5677020	6500000	6260659	4000000	3819908
R&D	100000	100000	100000	125000	100000	159000	100000	109000
Training and Travel	1608808	1528697	2800000	02441309	6350000	4790414	2825000	2398296
	2458310.00	721359.00	11000000	10896523	10000000	10139267	8800000	8275427
Others, specify	7556778.36	1410791.00	12000000	11940110	10000000	11668210	10000000	10093122
Total	**78705952.06**	**719450289.00**	**111920000**	**108729078**	**121800000**	**113433258**	**94325000**	**84810049**

10.3 Program Specific Budget Allocation, Utilization (30) Total Marks 26.00

10.3.2 Utilization of allocated funds (20)

Institute Marks : 18.00

The allocated funds are utilized properly, and adequate as per the Academic requirements.

Year	Approved Budget	Actual Expenditure	Percentage of utilization
2019-20	17319341	15266483	88
2018-19	35802000	33825753	94
2017-18	35397000	33451945	95
2016-17	27845000	25717727	92

10.3.1 Adequacy of budget allocation (10)

Institute Marks : 8.00

The Head of the department instructs the concerned lab in charges to provide the budget required for the coming academic year. The Lab in charge provides, both, recurring and non recurring expenditure budget required for the lab. Based on the budget provided by various lab in charges the a final budget proposal will be prepared with the following items Laboratory equipment

- Laboratory consumables
- Maintenance and spares
- Miscellaneous expenses

The budget provided by the institute to the department is adequate to maintain and procure new items for the departments, to meet the academic requirements. The yearly budget is prepared according to the needs & requirements of the departments taking into consideration of annual intake of students, laboratory & infrastructure developments. The budget allocation and utilization for the last four years is adequate.

Institute Marks :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY: (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2019-20

17319341		Actual expenditure (till…): 15266483		Total No. Of Students 370
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
4100000	13,219,341	3,793,950	11,472,533	41260.76

Table 2 :: CFYm1 2018-19

35802000		Actual expenditure (till…): 33825753		Total No. Of Students 421
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1120000	34,682,000	1,031,092	32,794,661	80346.21

Table 3 :: CFYm2 2017-18

35397000		Actual expenditure (till…): 33451945		Total No. Of Students 466
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1550000	33,847,000	1,265,147	32,186,798	71785.29

Table 4 :: CFYm3 2016-17

27845000		Actual expenditure (till…): 25717727		Total No. Of Students 522
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
615000	27,230,000	458,088	25,259,639	49267.68

Items	Budgeted in 2019-20	Actual Expenses in 2019-20 till	Budgeted in 2018-19	Actual Expenses in 2018-19 till	Budgeted in 2017-18	Actual Expenses in 2017-18 till	Budgeted in 2016-17	Actual Expenses in 2016-17 till
Laboratory equipment	3950000	3647331	1100000	1012500	1500000	1225478	550000	443508
Software	50000	44000	0	0	0	0	0	0
Laboratory consumable	69341	69341	300000	287509	400000	321739	100000	70519
Maintenance and spares	250000	177359	250000	193891	200000	177931	250000	132591
R & D	48000	48000	48000	48000	48000	48000	48000	48000
Training and Travel	100000	102619	20000	18592	50000	39668	15000	14580
	1100000	246476	20382000	20115907	21447000	20298403	17125000	15475956
Total	**5567341**	**4335126**	**22100000**	**21676399**	**23645000**	**22111219**	**18088000**	**16185154**

10.4 Library and Internet (20) Total Marks 18.00

10.4.1 Quality of learning resources (hard/soft) (10) Institute Marks : 8.00

LIBRARY AND INFORMATION CENTER

The library occupies a place of pride and is most lively place in the campus. It is well-furnished and its pleasant ambience with spacious reading room creates conducive environment to faculty and students and serves as a creative and innovative partner in supporting teaching, learning and research activities of the college.

- **Relevance of available learning resources including e-resources**

Library is contributing to achieve the goal and mission the institution. The collection of the library is rich and diverse comprising both digital and print form. The collection includes books, e-books, Journals(print and electronic), project reports, Conference proceedings etc., Library gives utmost importance to collection development of learning materials. The department heads in consultation with the department faculties recommend the required learning materials to be added to the library. The number of titles and volumes are added every year in accordance with the norms and standards set by VTU and AICTE.

- **Accessibility to students**

Library Collection:

The rich collection of the library comprises the following resources:

Sl.	Learning / Reading Materials	Copies
1	Books (Print)	54,641
2	Books (Electronic)	23,629
3	Journals (print)	73
4	Journals (Electronic)	1,113
5	Magazines	15
6	News papers	14
7	CDs/DVDs	469
8	Project reports	315

A campus wide access to various E-resources subscribed to the library through VTU consortium is made through IP enabled access. Any number of users can access to resources at a time. Remote access to the E-resources is provided through KNIMBUS. Users can also access to digital resources through app called mLibrary. Digital library with 16 computers has been established to access E-resources and use NPTEL.

List of Electronic resources subscribed:

Sl.No	ELECTRONIC RESOURCES	TOTAL RESOURCES	URL to access
1	McGraw Hill Education	505 E-Books	http://mcgrawhilleducation.pdn.ipublishcentral.com/ (http://mcgrawhilleducation.pdn.ipublishcentral.com/)
2	Knimbus Open access resouces	E-Books : 10,000+ E-Journals : 5700+	https://pesceb.new.knimbus.com/user#/home (https://pesceb.new.knimbus.com/user#/home)
3	Taylor and francis (E-Books & Journals)	555 Journals + 4950 E-Books	http://www.tandfonline.com/ (http://www.tandfonline.com/)
4	Springer nature (E-Books & Journals)	690 Journals+ 13000 E-books	https://link.springer.com/ (https://link.springer.com/)
5	Sententia Grammar Tool	..	https://sententia.online/ (https://sententia.online/)

6	Emerald management collection (Journals)	120 JOURNALS	https://www.emeraldinsight.com/ (https://www.emeraldinsight.com/)
7	Institution of Civil Engineers (ICE Journals)	10 Journals + 21 Conference Proceedings	https://www.ice.org.uk/ (https://www.ice.org.uk/)
8	ELSEVIER – SCIENCEDIRECT (CSE)	436 E-Books (Perpetual Access)	https://www.sciencedirect.com/ (https://www.sciencedirect.com/)
9	New Age International	220 E-Books (Prepetual Access)	http://www.newagepublishers.com/servlet/nahome/ (http://www.newagepublishers.com/servlet/nahome/)
10	Packt E-Books	5002 E-Books (Perpetual Access)	https://prod.packtpub.com/in/ (https://prod.packtpub.com/in/)

Area and Seating Capacity:

Total area of library is 1171.65 Sq. Mtr.

Seating capacity is 120

Library hours:

Library is functional on all week days and remains open for 12 hours a day.

Working hours of the library

Monday - Friday : 8.00 a.m. to 8.00 p.m.

Saturday : 8.00 a.m. to 5.00p.m.

Sunday : 9.00 a.m. to12.00 p.m.

Library staff:

There are 8 library staff working in library in shifts with 4 staff with professional degree and 4 non professionals

Staff details

Sl. No.	Name	Designation	Qualification
1.	Chandrashekar K. L	Senior Librarian	M.Sc. (lib & Inf science), M.Phil, KSET (PhD)
2.	Raja A	Asst. libn	M.L.I.Sc,
3.	Chandrashekar V. M	Asst. libn	M.L.I.Sc,
4.	Prakash R	Asst. libn	M.L.I.Sc,
5.	Chetan Kumar S. B	Libray Assistant	B.A. (B.L.I. Sc.)
6.	Sunanda M C	Libray Assistant	ITI
7.	Tulasi R	Libray Assistant	PUC
8.	Uday Kumar K	Libraty Attendant	SSLC

Computerisation of library activities :

Computerisation of library activities is done using LIBSOFT software. All the activities of library viz. Acquisition, cataloguing, circulation (Issue/Return), Online public access Catalogue (OPAC). For easy handling of data Barcode technology is also used to barcode learning materials.

Services provided:

Sl. No.	Services	Descriptions
1.	Reference	Separate section is available in the first floor of library with the collection of 3500 reference copies
2.	Circulation service	Issue and return of books on loan for a period of 14 days
3.	Reprography	Photocopy facility is made available inside the library

5.	Information deployment and notification (Current Awareness service)	Newly procured books are displayed at the entrance of the library and also the list is hosted on to the library website. E-mail alerts are also sent.
6.	Internet Access	Digital library with 16 computers with internet at 10mbps is established for the benefit of users in the library.
7.	Bibliography compilation	Bibliographic compilation of Journal articles.
8.	In-house/remote access to e-resources	All the subscribed resources are accessible in house via LAN and remote access is provided through Knimbus.
9.	User Orientation	Orientation is conducted once in every semester compulsorily and as and when demand placed by users.
10.	Assistance in searching database	User will be assisted in searching database in digital library by library staff.
11	Book bank	Book bank facility for all students under which students can borrow 3-4 books for a whole semester and for SC/ST students 2 extra books under SC/ST book bank scheme.
12	Online public Access catalogue(WEB OPAC)	OPAC will provide the bibliographical details of books, Journal articles.
13	Institution Repository	Scholarly publicatons of faculty members, Old Question papers, Newspaper clippings and other reading materials are also made available for students. Over 6000 items are available.

- **Support to students for self-learning activates**

The Library provides excellent facilities and academic ambience for its users for self-learning activities with following initiatives

a. **NPTEL (National programme in Enhanced learning):** Library has established separate NPTEL server to host NPTEL videos which can be accessed via intranet within the campus. One can access the videos in the entire campus without internet. It offers more than

20000 videos of different streams of engineering and Management. These videos serve as a supplement to classroom teaching and learning activities.

b. **SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) and MOOC (Massive Open Online Courses)**: Library has made arrangements for the user to access SWAYAM and and MOOC. We encourage students to take online courses.

c. **e-PG Pathshala:** e-PG Pathshala is an initiative of the MHRD under its National Mission on Education through ICT (NME-ICT). Link to e-PG Pathshala is provided to create awareness and to encourage students to take online courses.

d. **Shodhganga:** The Shodhganga@INFLIBNET Centre provides a platform for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. Link to Shodhganga is provided to create awareness and to encourage students to use it.

e. **Open access resources:** Link of many open access resources is provided which helps in self-study of the students.

f. **National Digital library:** Our library has obtained Institutional membership of NDL. We enroll our students and faculty to NDL and encourage to uses lakhs of resources available freely

g. **DELNET** : Institution is member of DELNET. DELNET offers across to nearly 1.75 crore records of books, periodicals, articles, thesis and dissertations and other databases. Besides this also provides inter library loan and document delivery services all its member libraries.

10.4.2 Internet (10)

Institute Marks : 10.00

Name of the Internet provider	BSNL, Touches communication (AIRTEL) and Jio communication
Available band width	105 Mbps
WiFi availability	Yes, The Campus is Wi-Fi enabled with 24 Access Points
Internet access in labs, classrooms, library and offices of all Departments	1) Computer labs are enabled with LAN, and on request basis Internet can be accessed in labs through Ethernet. Registered devices allowed to access Wi-Fi in the building. 2) Library equipped with browsing center with 10 systems having Internet connection.
Security arrangements	1) Dedicated Cyberoam firewall used for Ethernet connections 2)Cambium WAC controller application installed for Wi-Fi security protection

Annexure I

(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

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

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

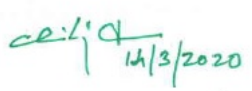
PSO1	Graduates shall be able to design and develop efficient Mechanical systems.
PSO2	Graduates shall be able to analyze, interpret and also lead the team in industries to provide feasible solutions to multidisciplinary engineering and societal problems.

Declaration

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

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

Head of the Institute
Name : Dr. Chaitanya Kumar M.V.
Designation : Principal, PES Institute of Technology & Management, Shivamogga
Signature :



Seal of The Institution :

Place : Shivamogga
Date : 14-03-2020 13:28:57