

ACADEMY OF MARITIME EDUCATION AND TRAINING DEEMED TO BE UNIVERSITY

SELF ASSESSMENT REPORT(TIER - I) FOR Electrical and Electronics Engineering -Marine

Part A : Institutional Information

1 Name and Address of the Institution

ACADEMY OF MARITIME EDUCATION AND TRAINING DEEMED TO BE UNIVERSITY,
NO,135, EAST COST ROAD, KANATHUR, REDDIKUPPAM CHENNAI. KANCHIPURAM

2 Name and Address of Affiliating University

3 Year of establishment of the Institution:

2007

4 Type of the Institution:

☐ Institute of National Infortance	☐ Autonomous
☐ University	☐ Any other(please specify)
☒ Deemed University	

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

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
Power Systems	PG	2018	2018	18	No	18	Not eligible for accreditation	--	--	No	2
Electrical and Electronics Engineering - Marine	UG	2008	2008	60	Yes	60	Applying first time	--	--	Yes	4
Sanctioned Intake for Last Five Years for the Electrical and Electronics Engineering - Marine											
Academic Year				Sanctioned Intake							
2019-20				60							
2018-19				60							
2017-18				45							
2016-17				30							
2015-16				30							
2014-15				30							
Mechanical Engineering	UG	2014	2014	60	Yes	120	Applying first time	--	--	No	4
Sanctioned Intake for Last Five Years for the Mechanical Engineering											
Academic Year				Sanctioned Intake							
2019-20				120							
2018-19				120							
2017-18				70							
2016-17				90							
2015-16				60							
2014-15				60							
Petroleum Engineering	UG	2008	2008	60	Yes	60	Eligible but not applied	--	--	0	4
Sanctioned Intake for Last Five Years for the Petroleum Engineering											
Academic Year				Sanctioned Intake							
2019-20				60							
Naval Architecture and Offshore Engineering	UG	2007	2007	90	Yes	60	Eligible but not applied	--	--	0	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
Sanctioned Intake for Last Five Years for the Naval Architecture and Offshore Engineering											
Academic Year				Sanctioned Intake							
2019-20				60							
Sanctioned Intake for Last Five Years for the Naval Architecture and Offshore Engineering											
Academic Year				Sanctioned Intake							
2018-19				120							
2017-18				65							
2016-17				90							
2015-16				90							
2014-15				90							
Mining Engineering	UG	2016	2016	60	Yes	60	Not eligible for accreditation	--	--	0	4
Sanctioned Intake for Last Five Years for the Mining Engineering											
Academic Year				Sanctioned Intake							
2019-20				60							
2018-19				60							
2017-18				30							
2016-17				60							
2015-16				0							
2014-15				0							
Food Processing Technology	UG	2016	2016	60	Yes	60	Not eligible for accreditation	--	--	0	4
Sanctioned Intake for Last Five Years for the Food Processing Technology											
Academic Year				Sanctioned Intake							
2019-20				60							
2018-19				60							
2017-18				25							
2016-17				60							
2015-16				0							
2014-15				0							
Marine Engineering	UG	2001	2001	96	Yes	360	Eligible but not applied	--	--	0	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
Sanctioned Intake for Last Five Years for the Marine Engineering											
Academic Year					Sanctioned Intake						
2019-20					360						
2018-19					360						
2017-18					250						
2016-17					200						
2015-16					200						
2014-15					200						
Mechanical Engineering	PG	2017	2017	18	No	18	Not eligible for accreditation	--	--	0	2
Petroleum Engineering	PG	2017	2017	18	No	18	Not eligible for accreditation	--	--	0	2
Naval Architecture and Offshore Engineering	PG	2017	2017	18	No	18	Not eligible for accreditation	--	--	0	2

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Mechanical Engg.
2	Post Graduate	Management	Master of Business Administration (Shipping and Logistics Management)
3	Under Graduate	Engineering & Technology	Electrical and Electronics Engineering -Marine

9 Total number of employees

A. Regular* Employees (Faculty and Staff):

Items	2019-20		2018-19		2017-18	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	135	135	104	104	72	72
Faculty in Engineering (Female)	38	38	24	24	17	17
Faculty in Maths, Science & Humanities teaching in engineering program (Male)	43	43	40	40	31	31
Faculty in Maths, Science & Humanities teaching in engineering program (Female)	19	19	16	16	11	11
Non-teaching staff (Male)	323	323	301	301	225	225
Non-teaching staff (Female)	74	74	64	64	51	51

B. Contractual* Employees (Faculty and Staff):

Items	2019-20		2018-19		2017-18	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	0	0	0	0	0	0
Faculty in Engineering (Female)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities teaching in engineering Programs (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities teaching in engineering Programs (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

Course Name	2019-20	2018-19	2017-18
Total no. of Boys	1831	1932	1926
Total no. of Girls	48	44	34
Total	1879	1976	1960

Engineering and Technology- PG Shift-1

Course Name	2019-20	2018-19	2017-18
Total no. of Boys	79	59	24
Total no. of Girls	13	7	1
Total	92	66	25

Engineering and Technology- MBA Shift-1

Course Name	2019-20	2018-19	2017-18
Total no. of Boys	67	58	65
Total no. of Girls	3	7	7
Total	70	65	72

11 Vision of the Institution:

To sustain identity as a World Class Leader in Maritime Education and empower learners with wholesome knowledge through progressive innovation in training, research and development which will render students a unique learning experience and a transformation impact on the Global Society.

12 Mission of the Institution:

AMET will strive continuously to

1. Impart value-based higher education and technical knowledge with uncompromising strides of an outstanding quality.
 2. Emerge as a Centre of Excellence inculcating skill development in recent technologies in accordance with industrial trends.
 3. Create World class research capabilities on par with the finest in the world and broaden student's horizons beyond classroom education.
 4. Nurture talent and entrepreneurship to enable all round personality development among students.
 5. Empower students across socio economic strata
 6. Make a positive difference to society through technical education.
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13 Contact Information of the Head of the Institution and NBA coordinator, if designated:

Head of the Institution	
Name	Col.Dr.G.THIRUVASAGAM
Designation	Vice Chancellor
Mobile No.	9566112211
Email ID	vc@ametuniv.ac.in

☒ NBA Coordinator, If Designated

Name	Dr.T.SASILATHA
Designation	Dean Academic
Mobile No.	9444752994
Email ID	deaneem@ametuniv.ac.in

PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	50	50.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	100	100.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	175	175.00
4	STUDENTS' PERFORMANCE	100	82.17
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	198.00
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	75	75.00
8	FIRST YEAR ACADEMICS	50	46.31
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
	Total	1000	976

Part B : Criteria Summary

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (50)

Total Marks 50.00

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

Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	To sustain identity as a World Class Leader in Maritime Education and empower learners with wholesome knowledge through progressive innovation in training, research and development which will render students a unique learning experience and a transformation impact on the Global Society.
Mission of the institute	AMET will strive continuously to 1. Impart value-based higher education and technical knowledge with uncompromising strides of an outstanding quality. 2. Emerge as a Centre of Excellence inculcating skill development in recent technologies in accordance with industrial trends. 3. Create World class research capabilities on par with the finest in the world and broaden student's horizons beyond classroom education. 4. Nurture talent and entrepreneurship to enable all round personality development among students. 5. Empower students across socio economic strata 6. Make a positive difference to society through technical education.

Vision of the Department	To emerge as a Centre for higher learning and research through development of highly competent, innovative and world class Marine Electrical and Electronics Engineers while remaining sensitive to ethical, societal and environmental issues.												
Mission of the Department	<table border="1"> <thead> <tr> <th>Mission No.</th><th>Mission Statements</th></tr> </thead> <tbody> <tr> <td>M1</td><td>To impart quality education in order to produce highly innovative, socio- economically conscious Marine Electrical and Electronics Engineers.</td></tr> <tr> <td>M2</td><td>To provide knowledge and skills, that is essential to meet the local and global demands in Marine Electrical and Electronics Engineering.</td></tr> <tr> <td>M3</td><td>To upgrade student's technical knowledge through industry interaction activities.</td></tr> <tr> <td>M4</td><td>To foster strong ethics, positive attitude and transform the Department into Centre of Excellence by promoting world class research and development to meet the challenging needs of society.</td></tr> <tr> <td>M5</td><td>To motivate and guide students for developing entrepreneurship or pursue higher education and train them for overall personality development.</td></tr> </tbody> </table>	Mission No.	Mission Statements	M1	To impart quality education in order to produce highly innovative, socio- economically conscious Marine Electrical and Electronics Engineers.	M2	To provide knowledge and skills, that is essential to meet the local and global demands in Marine Electrical and Electronics Engineering.	M3	To upgrade student's technical knowledge through industry interaction activities.	M4	To foster strong ethics, positive attitude and transform the Department into Centre of Excellence by promoting world class research and development to meet the challenging needs of society.	M5	To motivate and guide students for developing entrepreneurship or pursue higher education and train them for overall personality development.
Mission No.	Mission Statements												
M1	To impart quality education in order to produce highly innovative, socio- economically conscious Marine Electrical and Electronics Engineers.												
M2	To provide knowledge and skills, that is essential to meet the local and global demands in Marine Electrical and Electronics Engineering.												
M3	To upgrade student's technical knowledge through industry interaction activities.												
M4	To foster strong ethics, positive attitude and transform the Department into Centre of Excellence by promoting world class research and development to meet the challenging needs of society.												
M5	To motivate and guide students for developing entrepreneurship or pursue higher education and train them for overall personality development.												

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

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Have a successful career in Marine or other related Electrical and Electronics Engineering fields or pursue higher education and research in multidisciplinary area.
PEO2	Apply Engineering fundamentals, technical knowledge, skills and modern tools to solve real world Electrical Engineering problems in Maritime industries.
PEO3	Adapt to any environment and practice the ethics of their profession, consistent with a sense of social responsibility
PEO4	Exhibit the skills by updating the breadth of knowledge in the life-long learning process to meet the global challenges.

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

Total Marks 15.00

Institute Marks : 15.00

The Mission and Vision are published at

Table B. 1.3 (a)

University website	Lab Manuals
Department website	Course Files
Laboratories	Faculty Rooms
Curriculum / syllabus books	Brochures of National and International conferences
Dean Office	Brochures of Seminars
Departmental Notice Boards	Brochures of Workshops
Class Rooms	Department Newsletter & Magazines

The Process of Dissemination

Apart from being published at various prominent places in the University campus, the Vision and Mission of the Department and PEOs of the Program are also made known to the various stakeholders. The list of stakeholders is mentioned in Fig 1.3.

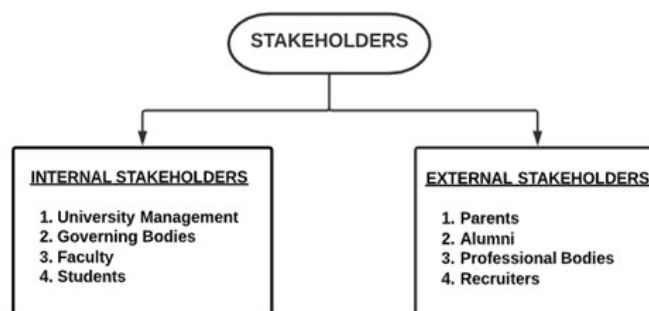


Fig: 1.3 List of Stakeholders

The University/ Department ensure awareness among the stakeholders on the vision and mission of the Department by conducting various meetings, orientation programs and interactive sessions frequently throughout the academic year.

Table B. 1.3 (b) Process of dissemination among the various stakeholders

Stakeholders	Process of Dissemination	Frequency of Meeting	Responsibility
Faculty	Department Faculty meetings	First meeting of every semester	HoD / Dean
Students	Orientation Program	Annual	HoD/Dean
Parents	Parent - Teacher Meetings	Biannual	Faculty Members
Alumni	Alumni Interaction	Annual	Alumni Co-Ordinator
Recruiters	Placement drives	Annual	Placement Director

University Management	Management review meeting with all HoDs	Annual	Vice Chancellor
Professional Bodies	Interaction in Workshop/Seminar/ Conference	First meeting of every semester	President of the Student Chapter
Governing Bodies	Board of Management	Annual	Vice Chancellor

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

Total Marks 15.00

Institute Marks : 15.00

Process for defining Vision and Mission of the Department:

Vision and Mission Statements of Department have been established by undertaking a systematic and meticulous consultation process with the help of the various stakeholders and the concerned committee involved.

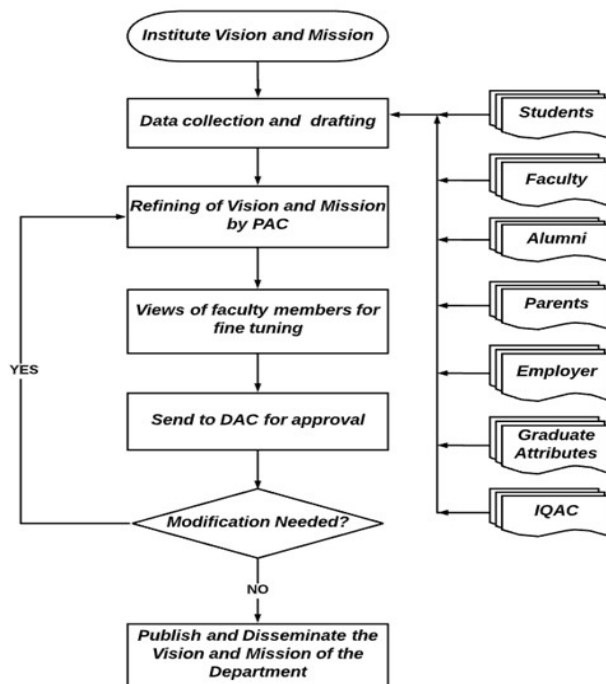


Fig: 1.4 (a) Process for defining Vision and Mission of the Department

Step1: The Vision and Mission statement of the Institute are taken and inputs are gathered from the stakeholders (Students, Faculty, Parents, Employer, and Alumni). The views of the Internal Quality Assurance Cell (IQAC) and the Graduate Attributes are also considered and consolidated.

Step2: The consolidated data is refined to formulate the Vision and Mission of the Department by the Program Assessment Committee (PAC) keeping in mind the key issues.

Step3: The formulated statements are circulated to the faculty members of the Department. Acquiring their views, the statements are fine-tuned in accordance with the global trends.

Step4: The fine-tuned statements are sent to the Department Advisory Committee (DAC) for approval. Considering its consensus, the Vision and Mission statement of the Department are published and disseminated. If any modifications are suggested, the above process is repeated again.

Process for defining Program Educational Objectives:

The Program Educational Objectives are established through a consultation process involving the core constituents such as Students, Alumni, Faculty, Employer and Professional body members. The PEOs are established through the following steps:

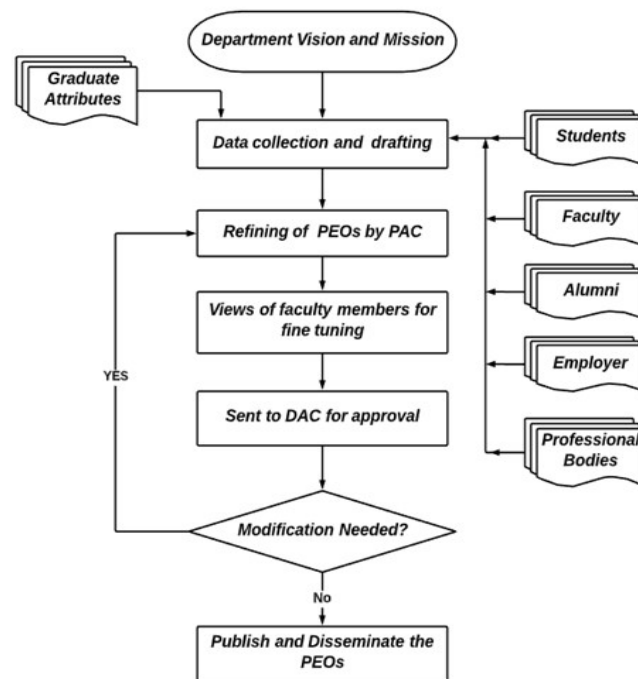


Fig: 1.4 (b) Process for defining PEOs of the Department

Step1: Vision and Mission of the Department are considered along with the graduate attributes and inputs from various stakeholders.

Step2: The collective inputs are congregated and reviewed by the Program Assessment Committee (PAC) for refining the PEOs.

Step3: The refined PEOs are discussed with the faculty members of the Department. Their views are considered for fine tuning the objectives.

Step4: The fine-tuned statements are scrutinized by the Department Advisory Committee (DAC) and their consensus are considered to frame the PEOs.

Step5: Acquiring the output from the Department Advisory Committee (DAC), the framed PEOs are published and disseminated. If any modifications are suggested, the above process is repeated again.

1.5 Establish consistency of PEOs with Mission of the Department (10)

Total Marks 10.00

Institute Marks : 10.00

Table B.1.5: Consistency of PEOs with Mission of the Department

PEO Statements	M1	M2	M3	M4	M5	Justification
PEO1: Have a successful career in Marine or other related Electrical and Electronics Engineering fields or pursue higher education and research in multidisciplinary area.	3	3	2	3	3	M1: Strongly support PEO1. Mission 1 focuses on quality education. The quality education and strong foundation are essential to produce highly innovative Marine Electrical and Electronics Engineers. They can solve their critical issues and manage all situations. M2: Strongly support PEO1. Mission 2 clearly focus on both knowledge and skills essential in the field of Marine Electrical and Electronics Engineering. Both technical knowledge and skills are required for the students to face the challenges in global Maritime sectors. M3: Moderately supports PEO1. Mission 3 focus on the upgradation of knowledge through industry institute interaction activities. Interaction with industries and real world helps the students to upgrade their knowledge and skills. M4: Strongly support PEO1. Knowledge, Strong ethics and positive attitude will help in making decisions in all critical situations. This is inculcated by promoting world class research and development to meet the challenging needs of society. M5: Strongly support PEO1 because Mission 5 clearly focus on developing entrepreneurship or pursue higher education and motivate the students for their overall personality development.
PEO2 Apply Engineering fundamentals, technical knowledge, skills and modern tools to solve real world Electrical Engineering problems in Maritime industries.	3	3	3	2	2	M1: Strongly support PEO2. Quality education helps students to acquire technical knowledge and skills in order to produce highly innovative Engineers for the industry M2: Strongly support PEO2. By applying knowledge and innovative skills, students are able to excel in their career and research as per the industrial demands. M3: Strongly supports PEO2. Interaction with industries and real world helps students to become competent, productive and better successful professional. M4: Moderately support PEO2. Apart from skills and knowledge, ethics and positive attitude is also required to become an Engineering professional with a good career. M5: Moderately support PEO2. By applying their technical knowledge and innovative skills, students are able to develop their own enterprises or pursue higher education and productive in addressing the needs of the industry.

PEO3 Adapt to any environment and practice the ethics of their profession, consistent with a sense of social responsibility.	3	2	3	3	3	M1: Strongly supports PEO3. By acquiring quality education, students will be able to adapt any kind of environment and to have good ethics in their professional career. M2: Moderately support to achieve PEO3 because it focuses on knowledge and skills to meet the local and global demands in specialized areas. M3: Strongly support PEO3. To practice the ethics of their professional career, updating the knowledge is essential through industry interaction activities. M4: Strongly supports PEO3 since strong ethics and positive attitude is required to become a successful professional in the society. M5: Strongly support PEO3 because student can adapt to any environment and practice their profession with all social responsibility.
PEO4 Exhibit the skills by updating the breadth of knowledge in the life-long learning process to meet the global challenges.	2	3	3	2	3	M1: Moderately support PEO4. Since Mission 1 focus on quality education to produce innovative and socio-economically conscious Marine Electrical and Electronics Engineers, updating the knowledge and lifelong learning is essential to meet the challenges in Marine Electrical field. M2: Strongly supports PEO4 as Mission 2 focuses on knowledge and skills in Marine Electrical and Electronics Engineering field. Updating knowledge and skills is always required to meet all the challenges at their work places. M3: Strongly supports PEO4. Collaboration with industries helps students to update their knowledge to meet all the challenges. M4: Moderately supports PEO4. Since strong ethics and positive attitude of students, with lifelong learning will make a successful professional, who can face all challenges with the needs of society. M5: Strongly supports PEO4 as Mission 5 clearly focus on developing entrepreneurship or pursue higher education and motivate the students to engage in the life-long learning process to meet all challenges at their profession.

3 - Strong Correlation 2 -Moderate Correlation 1 - Weak Correlation

PEO Statements	M1	M2	M3	M4	M5
Have a successful career in Marine or other related Electrical and Electronics Engineering fields or pursue higher education and research in multidisciplinary area.	3	3	2	3	3
Apply Engineering fundamentals, technical knowledge, skills and modern tools to solve real world Electrical Engineering problems in Maritime industries.	3	3	3	2	2
Adapt to any environment and practice the ethics of their profession, consistent with a sense of social responsibility	3	2	3	3	3
Exhibit the skills by updating the breadth of knowledge in the life-long learning process to meet the global challenges.	2	3	3	2	3

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (100)

Total Marks 100.00

2.1 Program Curriculum (30)

Total Marks 30.00

2.1.1 State the process for designing the program curriculum (10)

Institute Marks : 10.00

Program curriculum has a composition of Basic Science, Engineering Science, Humanities and Social Sciences, Professional Core, Professional Electives, Open Electives, Project Work, Internship and Employability Enhancement Courses. The process is described in a flow chart as shown in Fig 2.1.1 (a)

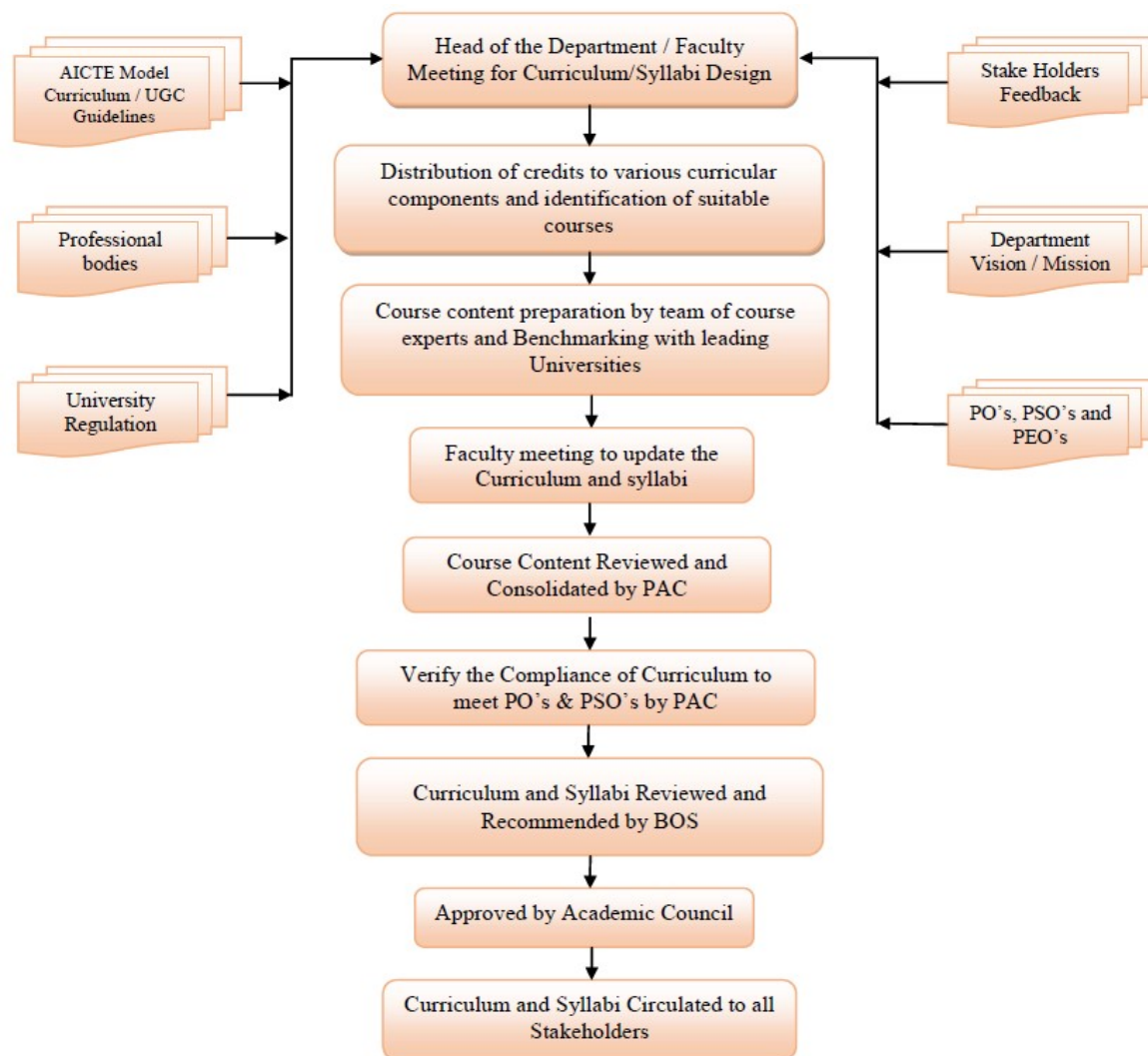


Fig 2.1.1 (a) Process for designing the program curriculum

An extensive multi-step process has been put in place in the Department of EEE for the design of program curriculum to ensure that the curriculum is continuously updated and stays in synchronous with the fast-paced changes in the technology and industry requirements. Periodic changes are made based on societal needs, current trends in the job market, change in technology and future prospective of students to develop their career.

Step 1: A meeting has been convened by the Head of the Department to design the curriculum and syllabi for the B.E (Electrical and Electronics Engineering – Marine) Program. In the meeting various inputs from AICTE Model Curriculum, UGC, Professional bodies, Stakeholders, Department vision and mission, PO's, PSO's, PEO's and University Regulation have been taken to frame the Curriculum and Syllabi.

Step 2: Distribution of Credits to various curricular components and identification of suitable courses are decided in the meeting for designing the curriculum and syllabi.

Step 3: Course content is prepared by the team of course experts with course objectives and course outcomes, benchmarking with leading Universities.

Step 4: The prepared Curriculum and syllabi are discussed and reviewed in the faculty meeting.

Step 5: Program Assessment Committee (PAC) consists of Domain experts from the Department, update the reviewed document, consolidate and verify the Compliance of Curriculum to meet PO's & PSO's for the Board of Studies meeting.

Step 6: The BOS consists of Faculty, experts from the academic institutions, industry experts, University nominee, alumni and students. The consolidated curriculum and syllabi is discussed and corrections/suggestions from BOS members are incorporated and a final Program curriculum and syllabi with scheme of evaluation is recommended to the Academic Council.

Step 7: Academic Council approves the recommendations of BOS through the Academic Council Meeting (ACM). Suggestions from the members of the Academic Council are well received and incorporated in the curriculum and syllabi.

2.1.2 Structure of the Curriculum (5)

Institute Marks : 5.00

ID	Course Code	Course Title	Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	Theory Credits	Practical Credits	Total Credits
1	C403	Professional Elective Course 4	3	0	0	3	3	0	3
2	C404	Open Elective Course 4	3	0	0	3	3	0	3
3	C405	Marine Control Engineering and Automation	3	0	0	3	3	0	3
4	C406	Professional Development Programme-II	0	0	2	2	0	0	0
5	C407	Value Added Training Program-V	0	0	2	2	0	0	0
6	C408	Industrial Visit-V	0	0	0	0	0	0	0
7	C409	Marine Control Engineering and Automation Laboratory	0	0	2	2	0	1	1
8	C410	Project Work-Phase 1	0	0	6	6	0	3	3
9	C411	Internship-2	0	0	0	0	0	1	1
10	C412	Professional Elective Course 5	3	0	0	3	3	0	3
11	C413	Professional Elective Course 6	3	0	0	3	3	0	3
12	C414	Industrial Visit-VI	0	0	0	0	0	0	0
13	C415	Project Work-Phase 2	0	0	16	16	0	8	8
14	C118	Programming for Problem Solving Laboratory	0	0	2	2	0	1	1
15	C201	Engineering Mathematics III	3	1	0	4	4	0	4

16	C202	Engineering Mechanics	2	1	0	3	3	0	3
17	C203	Electric Circuit Analysis	2	1	0	3	3	0	3
18	C204	Electromagnetic Theory	2	1	0	3	3	0	3
19	C205	Electrical Machines–I	3	0	0	3	3	0	3
20	C206	Electron Devices and Circuits	3	0	0	3	3	0	3
21	C207	Electrical Machines–I Laboratory	0	0	2	2	0	1	1
22	C208	Electric Circuit Analysis Laboratory	0	0	2	2	0	1	1
23	C209	Electrical Wokshop Practices	0	0	2	2	0	1	1
24	C210	Value Added Training Program-I	0	0	2	2	0	0	0
25	C211	Interpersonal Communication	0	0	2	2	0	1	1
26	C212	Analog Integrated Circuits	3	0	0	3	3	0	3
27	C213	Electrical Machines-II	3	0	0	3	3	0	3
28	C214	Digital System Design	3	0	0	3	3	0	3
29	C215	Transmission and Distribution	3	0	0	3	3	0	3
30	C216	Thermodynamics	3	0	0	3	3	0	3
31	C217	Open Elective Course 1	3	0	0	3	3	0	3
32	C218	Value Added Training Program-II	0	0	2	2	0	0	0
33	C219	Industrial Visit-II	0	0	0	0	0	0	0
34	C220	Integrated Circuits Laboratory	0	0	2	2	0	1	1
35	C221	Electrical Machines–II Laboratory	0	0	2	2	0	1	1
36	C222	Professional Communication	0	0	2	2	0	1	1
37	C301	Professional Ethics and human Values	3	0	0	3	3	0	3
38	C302	Microprocessors and Microcontrollers	3	0	0	3	3	0	3
39	C101	Technical English	2	0	0	2	2	0	2

40	C102	Engineering Physics- I	3	0	0	3	3	0	3
41	C103	Engineering Mathematics-I	3	1	0	4	4	0	4
42	C104	Basic Electrical Engineering	3	1	0	4	4	0	4
43	C105	Induction Program	0	0	0	0	0	0	0
44	C106	English Laboratory-I	0	0	2	2	0	1	1
45	C107	Basic Electrical Engineering Laboratory	0	0	2	2	0	1	1
46	C108	Engineering Graphics	1	0	4	5	1	2	3
47	C109	Work Shop Practices	0	0	4	4	0	2	2
48	C110	Engineering Chemistry	3	1	0	4	4	0	4
49	C111	Engineering Physics-II	2	0	0	2	2	0	2
50	C112	Engineering Mathematics-II	3	1	0	4	4	0	4
51	C113	Programming for Problem Solving	3	0	0	3	3	0	3
52	C114	Environmental Science	2	0	0	2	0	0	0
53	C115	English Laboratory-II	0	0	2	2	0	1	1
54	C116	Engineering Physics Laboratory	0	0	2	2	0	1	1
55	C117	Engineering Chemistry Laboratory	0	0	2	2	0	1	1
56	C321	Professional Development programme-I	0	0	2	2	0	0	0
57	C322	Value Added Training Program-IV	0	0	2	2	0	0	0
58	C323	Industrial Visit-IV	0	0	0	0	0	0	0
59	C324	Power Electronics Laboratory	0	0	2	2	0	1	1
60	C325	Digital Signal Processing Laboratory	0	0	2	2	0	1	1
61	C326	Mini Project	0	0	4	4	0	2	2
62	C401	Power System Protection and Switchgear	3	0	0	3	3	0	3
63	C402	Solid State Drives	3	0	0	3	3	0	3

64	C303	Marine Electrical Technology	3	0	0	3	3	0	3
65	C304	Professional Elective Course-1	3	0	0	3	3	0	3
66	C305	Control Systems	3	1	0	4	4	0	4
67	C306	Open Elective Course 2	3	0	0	3	3	0	3
68	C307	Indian Constitution	2	0	0	2	0	0	0
69	C308	Value Added Training Program-III	0	0	2	2	0	0	0
70	C309	Industrial Visit-III	0	0	0	0	0	0	0
71	C310	Marine Electrical Technology Laboratory	0	0	2	2	0	1	1
72	C311	Microprocessors and Microcontrollers Laboratory	0	0	2	2	0	1	1
73	C312	Internship-1	0	0	0	0	0	1	1
74	C313	Power Electronics	3	0	0	3	3	0	3
75	C314	Power System Analysis	3	0	0	3	3	0	3
76	C315	Digital Signal Processing	3	1	0	4	4	0	4
77	C316	Professional Elective Course 2	3	0	0	3	3	0	3
78	C317	Professional Elective Course 3	3	0	0	3	3	0	3
79	C318	Open Elective Course 3	3	0	0	3	3	0	3
80	C319	Essence of Indian Traditional Knowledge	2	0	0	2	0	0	0
81	C320	Gender Sensitivity	2	0	0	2	0	0	0
		Total	121	10	84	215	123	37	160

2.1.3 State the components of the curriculum (5)

Institute Marks : 5.00

Course Components	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	14.37	25.00	23
Engineering Sciences	15.00	31.00	24
Humanities and Social S	5.63	13.00	9
Program Core	36.87	68.00	59
Program Electives	11.25	18.00	18
Open Electives	7.5	12.00	12
Project(s)	8.13	26.00	13
Internships/Seminars	1.25	6.00	2
Any other (Please speci	0	22.00	0
Total number of Credits			160

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

Institute Marks : 10.00

The curriculum for B. E. in Electrical and Electronics Engineering- Marine maintains a balance among various categories of courses from Science, Mathematics, Engineering, Humanities and Social Science including Management, Projects and Internship components. The syllabus for each course has been designed to meet compliance of the curriculum for attaining the POs and PSOs defined for the Program.

The Program Outcomes and Program Specific Outcomes (PSOs) of Electrical and Electronics Engineering-Marine are shown in the Table B. 2.1.4 (a)

Table B. 2.1.4 (a) Program Outcomes (PO's) and Program Specific Outcomes (PSO's)

PROGRAM OUTCOMES (PO's)	
PO 1	Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2	Problem Analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 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.
PO 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.
PO 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.
PO 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.
PO 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.
PO 8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO 9	Individual and Team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO 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
PO 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
PO 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.
PROGRAM SPECIFIC OUTCOMES (PSO'S)	

PSO 1	Apply the knowledge of Electrical Engineering, investigate and solve the complex Marine Electrical Engineering problems to meet the specified needs with appropriate considerations for the society.
PSO 2	Develop solutions for complex Engineering problems in the broad field of power electronics and drives, power systems, high voltage Engineering and Marine Engineering and control.
PSO 3	Analyze, design and integrate Electrical systems in on board ships and apply modern tools and techniques in marine industries and create passion for life-long learning and research in advanced fields.

Process used to identify extent of compliance of the curriculum

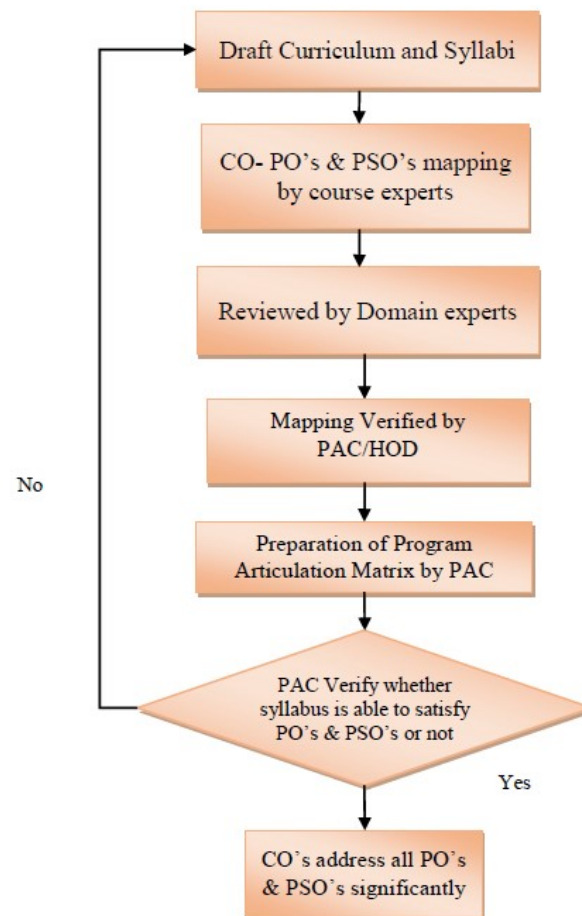


Fig: 2.1.4(a) Process used to identify extent of compliance of the curriculum

Step 1: Course Content is prepared by course experts with CO-PO's and PSO's mapping.

Step 2: Course content with CO-PO mapping is reviewed by the Domain experts.

Step 3: The CO-PO's and PSO's mapping is verified by the PAC and HOD.

Step4: PAC prepares the Program Articulation Matrix and verifies whether all courses are significantly mapped with the PO's and PSO's

Step 5: It is ensured that all POs/PSOs are adequately covered by the courses being taught and each course is mapped to high correlation level with at least one PO. It is also ensured that all POs/PSOs have high correlation with adequate number of courses.

Step 6: PAC verifies whether syllabus is able to contribute significantly the PO's and PSO's else suggestion given to course experts to enrich the course content to attain the PO's and PSO's.

The courses that are highly correlated with each of the POs and PSOs of regulation D (2018-19) are shown in Table B.2.1.4 (b)

REGULATION D (2018-19 - Curriculum)

Table: B.2.1.4 (b): POs/PSOs Vs Courses Mapped with High Correlation

POs /PSOs	Courses Mapped Significantly
PO1	UDEEC01,UDMTC03,UDEE301,UDEE3PA,UDEE4PB,UDMCCPA,UDMCC01,UDEE302, UDEE303,UDEE402,UDEE504,UDEE5PA,UDEE6PC
PO2	UDEEC01,UDEECPA,UDEE301,UDEE303,UDEE3PA,UDEE401,UDEE402,UDEE403,UDEE4PB,UDEE501,UDEE504,UDEE5PA,UDEE6PC
PO3	UDEECPA,UDCHC01,UDCHCPA,UDMTC03,UDEE303,UDEE3PA,UDEE402,UDEE4PB, UDEE501 UDEE504,UDEE5PA,UDEE5PB,UDEE6PC
PO4	UDEE302,UDEE3PA,UDEE4PB,UDEE502,UDEE504,UDEE6PC
PO5	UDPHCPA,UDITCPA,UDEE403,UDEE502,UDEE5PB,UDEE6PB,UDEE6PC
PO6	UDEE5PC,UDEE6PA,UDEE6PC
PO7	UDCHC01,UDBTC01,UDCHCPA,UDEE502
PO8	UDVCC03,UDVCC05,UDVCC06
PO9	UDLECPA,UDLECPB,UDEE5PA,UDEE5PC,UDEE6PC
PO10	UDLECPA,UDMCCPA,UDLECPB,UDITCPA,UDEE5PA,UDEE5PC,UDEE6PC
PO11	UDEE4PB,UDEE5PC,UDEE6PC
PO12	UDLEC01,UDLECPA,UDLECPB,UDMCC01,UDEE303,UDEE3PA,UDEE402,UDEE4PB, UDEE5PA,UDEE5PC,UDEE6PC
PSO1	UDEE302,UDEE3PA,UDEE4PA,UDEE4PB,UDEE504,UDEE5PA,UDEE5PC,UDEE6PC
PSO2	UDEE302,UDEE3PA,UDEE401,UDEE4PA,UDEE4PB,UDEE504,UDEE5PC,UDEE6PC
PSO3	UDEE302,UDEE304,UDEE3PA,UDEE4PA,UDEE4PB,UDEE504,UDEE603,UDEE6PC

2.2 Teaching-Learning Processes (70)

Total Marks 70.00

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

Institute Marks : 15.00

The teaching learning process is described in the flow chart as shown in Fig 2.2.1(a). The course choices are collected from the Faculty by the PAC. Based on the specialization of Faculty, experience in handling the course, the courses are allotted and time table is prepared and circulated to the students. The lesson plans are prepared by the Faculty with the careful selection of activity based learning techniques and the same is approved by PAC.

To strengthen the teaching-learning process, the following initiatives have been taken:

- Adherence to Academic Calendar
- Instruction methods and Pedagogical Initiatives
- Continuous Assessment in the laboratory
- Methodologies to support Slow Learners/Advanced Learners
- Student Feedback and action taken

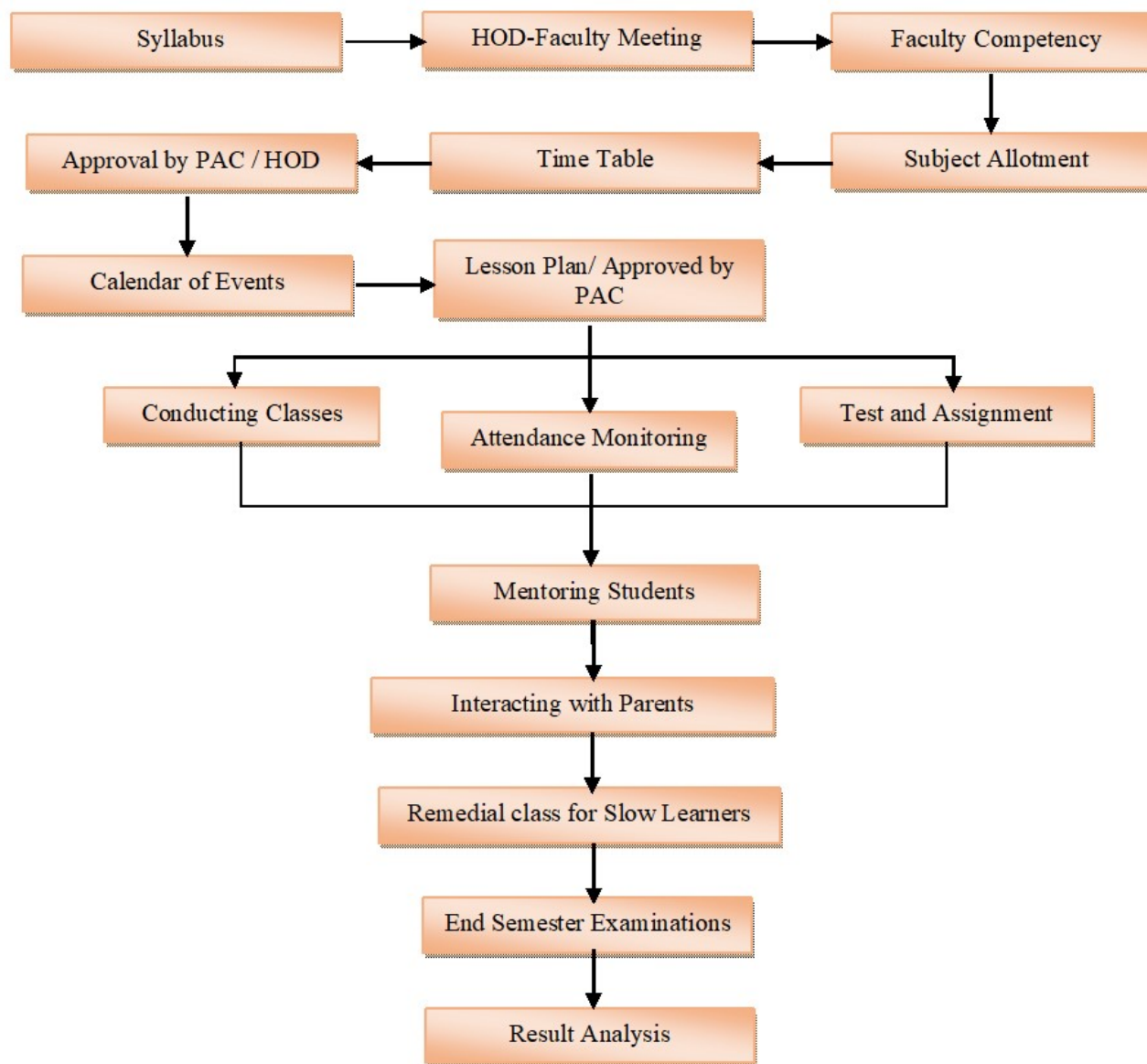


Fig: 2.2.1 (a) Teaching Learning Process

ADHERENCE TO THE ACADEMIC CALENDAR:

The Academic calendar is prepared by the Office of the Registrar and is made available in the website. Department Academic calendar is prepared by the Department for every semester before reopening the classes, displayed on the notice board and provided to the students. It consists of the activities planned for the semester which includes commencement of the classes, internal test dates, and commencement of end semester exams. A sample of Departmental action plan in adherence to the University academic calendar is presented in Table B.2.2.1 (a) &(b).

Table B 2.2.1 (a): University Academic Calendar for the Year 2017-2018**JULY 2017**

DATE	DAY	EVENTS	No. of Working Days
1	Saturday	Founder's Birth Day	-
2	Sunday	Holiday	-
3	Monday		-
4	Tuesday		-
5	Wednesday		-
6	Thursday		-
7	Friday		-
8	Saturday	Holiday	-
9	Sunday	Holiday	-
10	Monday		-
11	Tuesday		-
12	Wednesday		-
13	Thursday		-
14	Friday		-
15	Saturday	Holiday World Youth Skills Day	-
16	Sunday	Holiday	-
17	Monday	University reopens for ODD semester	1
18	Tuesday		2
19	Wednesday		3
20	Thursday		4
21	Friday		5
22	Saturday	Holiday	-
23	Sunday	Holiday	-
24	Monday		6
25	Tuesday		7
26	Wednesday		8
27	Thursday		9
28	Friday		10
29	Saturday	Holiday	-
30	Sunday	Holiday	-
31	Monday		11

Total No. of Working Days-11



Good conduct becomes the seed for goodwill and
impropriety always yields agony.

Thirukural

**32****AUGUST 2017**

DATE	DAY	EVENTS	No. of Working Days
1	Tuesday		12
2	Wednesday		13
3	Thursday		14
4	Friday		15
5	Saturday	Holiday	-
6	Sunday	Holiday	-
7	Monday		16
8	Tuesday		17
9	Wednesday		18
10	Thursday		19
11	Friday		20
12	Saturday	Holiday International Youth Day	-
13	Sunday	Holiday	-
14	Monday	Holiday Krishna Jayanthi	-
15	Tuesday	Independence Day	-
16	Wednesday	Commencement of First Internal Test	21
17	Thursday		22
18	Friday	Annual Convocation	23
19	Saturday	Holiday World Humanitarian Day	-
20	Sunday	Holiday	-
21	Monday		24
22	Tuesday		25
23	Wednesday		26
24	Thursday		27
25	Friday	Holiday Vinayagar Chathurthi	-
26	Saturday	Holiday	-
27	Sunday	Holiday	-
28	Monday	Last date for uploading First Internal Marks	28
29	Tuesday		29
30	Wednesday		30
31	Thursday		31

Total No. of Working Days-20



One attains eminence through decorum;
one attains unprecedented infamy due to indecorum.

Thirukural

**33**

SEPTEMBER 2017

DATE	DAY	EVENTS	No. of Working Days
1	Friday		32
2	Saturday	Holiday Bakrid	-
3	Sunday	Holiday	-
4	Monday		33
5	Tuesday	Teachers' Day	34
6	Wednesday		35
7	Thursday		36
8	Friday	International Literacy Day (UNESCO)	37
9	Saturday	Holiday	-
10	Sunday	Holiday	-
11	Monday		38
12	Tuesday		39
13	Wednesday		40
14	Thursday		41
15	Friday		42
16	Saturday	Holiday	-
17	Sunday	Holiday	-
18	Monday	Commencement of Second Internal Test	43
19	Tuesday		44
20	Wednesday	Academic Council Meeting	45
21	Thursday	International Day of Peace	46
22	Friday		47
23	Saturday	Holiday	-
24	Sunday	Holiday	-
25	Monday		48
26	Tuesday		49
27	Wednesday		50
28	Thursday	World Maritime Day(IMO) / Last date for uploading Second Internal Marks	51
29	Friday	Holiday Ayutha Pooja	-
30	Saturday	Holiday Vijaya Dasami	-

Total No. of Working Days-20



The strong-willed don't shrivel their propriety,
knowing the suffering inflicted by impropriety.

Thirukural

**34****OCTOBER 2017**

DATE	DAY	EVENTS	No. of Working Days
1	Sunday	Holiday Muharram	-
2	Monday	Holiday Gandhi Jayanthi	-
3	Tuesday		52
4	Wednesday	Green Card Meeting	53
5	Thursday	Green Card Meeting	54
6	Friday	Green Card Meeting	55
7	Saturday	Holiday	-
8	Sunday	Holiday	-
9	Monday		56
10	Tuesday		57
11	Wednesday		58
12	Thursday		59
13	Friday		60
14	Saturday	Holiday	-
15	Sunday	Holiday	-
16	Monday	Holiday	-
17	Tuesday	Holiday	-
18	Wednesday	Holiday Deepavali	-
19	Thursday	Holiday Deepavali	-
20	Friday		61
21	Saturday		62
22	Sunday	Holiday	-
23	Monday		63
24	Tuesday		64
25	Wednesday	Board of Research Meeting	65
26	Thursday		66
27	Friday		67
28	Saturday		68
29	Sunday	Holiday	-
30	Monday		69
31	Tuesday		70

Total No. of Working Days-19



A person who has envy has no wealth; a person
who has no decorum has no growth.

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**35**

NOVEMBER 2017

DATE	DAY	EVENTS	No. of Working Days
1	Wednesday		71
2	Thursday		72
3	Friday		73
4	Saturday	Holiday	-
5	Sunday	Holiday	-
6	Monday	Commencement of Practical Examination	74
7	Tuesday		75
8	Wednesday		76
9	Thursday		77
10	Friday		78
11	Saturday		79
12	Sunday	Holiday	-
13	Monday	Commencement of Model Examinations	80
14	Tuesday		81
15	Wednesday		82
16	Thursday		83
17	Friday		84
18	Saturday		85
19	Sunday	Holiday	-
20	Monday		86
21	Tuesday		87
22	Wednesday		88
23	Thursday		89
24	Friday	Issue of Hall Tickets	90
25	Saturday	Holiday	-
26	Sunday	Holiday	-
27	Monday	Last date for uploading Model Exam Marks and CIA Marks	
28	Tuesday	Commencement of University Exams	
29	Wednesday		
30	Thursday		

Total No. of Working Days - 20



One can relearn if he forgets the scriptures; but, a brahmin ceases to be one, when he strays from his decorum.

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**36****DECEMBER 2017**

DATE	DAY	EVENTS	No. of Working Days
1	Friday	Holiday Milad-un-Nabi	-
2	Saturday	Holiday	-
3	Sunday	Holiday	-
4	Monday		
5	Tuesday		
6	Wednesday		
7	Thursday		
8	Friday		
9	Saturday	Holiday	-
10	Sunday	Holiday	-
11	Monday		
12	Tuesday		
13	Wednesday	Academic Council Meeting	
14	Thursday		
15	Friday	University Exam Ends	
16	Saturday	Winter Vacation Starts	-
17	Sunday	Holiday	-
18	Monday		
19	Tuesday		
20	Wednesday		
21	Thursday		
22	Friday		
23	Saturday	Holiday	-
24	Sunday	Holiday	-
25	Monday	Holiday Christmas	-
26	Tuesday		
27	Wednesday		
28	Thursday		
29	Friday		
30	Saturday	Holiday	-
31	Sunday	Holiday	-

Total No. of Working Days - 19



Class is determined by propriety of conduct; impropriety will lead to being considered part of an ignoble class.

Thirukural

**37****Table B: 2.2.1 (b) Academic Calendar for the Department of EEE during 2017-2018 (Odd Semester)**

Date	Events
17.07.2017	University reopens for ODD Semester
02.08.2017	CAT I Question Paper submission
1 st week of August	Guest Lecture
16.08.2017	Commencement of CAT I Examination

28.08.2017	Submission of CAT I Marks
04.09.2017	Submission of CAT II Question Papers
1st week of September	Two Days Faculty Development Program
18.09.2017	Commencement of CAT II Examination
3 rd week of September	Motivational Talk
20.09.2017	Academic Council Meeting
2 nd week of September	Industrial Visit
3 rd week of September	Guest Lecture
4 th week of September	One Day Faculty Development Program
28.09.2017	Submission of CAT II Marks
04.10.2017 to 06.10.2017	Parents & Teachers Meeting (Green Card Meeting)
1 st week of October	International Conference
2 nd week of October	Alumni Interaction with students
2 nd week of October	Extension activity
20.10.2017	Submission of Model Exam Question papers
31.10.2017	Submission of ESE Question papers
06.11.2017	Commencement of University End Semester Practical Examinations
13.11.2017	Commencement of Model Examinations
24.11.2017	Issue of Hall Tickets for End Semester Examinations
4 th week of November	Course choices from faculty for 2017-18 (Even Semester)
4 th week of November	Selection of Elective Courses by the Students for 2017-18 (Even Semester)
27.11.2017	Submission of Model Exam Marks and Internal Marks
28.11.2017	Commencement of University End Semester Examinations
1 st week of December	Work Load Distribution to the faculty for 2017-18 (Even Semester)
2 st week of December	Two days National Workshop
2 nd week of December	Time Table uploading for 2017-18 (Even Semester)
13.12.2017	Academic Council Meeting
3 rd week of December	Two days National Workshop
2 nd week of December	Course coordinator's Meeting
2 nd week of December	Preparation of Academic Calendar for 2017-18 (Even Semester)
15.12.2017	University End Semester Examination Ends
16.12.2017	ODD Semester Vacation Commences
3 rd week of December	Lesson Plan Submission for 2017-18 (Even Semester)

Table B 2.2.1 (c): Adherence to Academic Schedule**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING****2017 – 2018(ODD SEM) – ADHERENCE TO ACADEMIC SCHEDULE**

S.NO	YEAR OF STUDY	CAT I		CAT II		MODEL EXAM		ESE EXAM	
		SCHEDULED DATE	CONDUCTED DATE	SCHEDULED DATE	CONDUCTED DATE	SCHEDULED DATE	CONDUCTED DATE	SCHEDULED DATE	CONDUCTED DATE
1	I Yr	16.08.2017	16.08.2017	18.09.2017	18.09.2017	13.11.2017	13.11.2017	28.11.2017	28.11.2017
		to	to	To	to	to	to	to	to
		22.08.2017	22.08.2017	22.09.2017	22.09.2017	18.11.2017	18.11.2017	15.12.2017	15.12.2017
2	II/III/IV Yr	16.08.2017	16.08.2017	18.09.2017	18.09.2017	13.11.2017	13.11.2017	28.11.2017	28.11.2017
		to	to	to	to	to	to	to	to
		23.08.2017	23.08.2017	25.09.2017	25.09.2017	18.11.2017	18.11.2017	15.12.2017	15.12.2017
Dean/EE									

Table B 2.2.1 (d): Deviations in the Academic Schedule**2017 – 2018(ODD SEM) – DEVIATIONS IN THE ACADEMIC SCHEDULE**

S.No	Industrial Visit to Tamil Nadu Generation and Distribution Corporations Ltd- (Velachery Substation)		Two days Faculty Development Program on Recent Trends on Renewable Energy & Power Electronics Using MATLAB		Guest Lecture on Embedded system and IOT	
	SCHEDULED DATE	CONDUCTED DATE	SCHEDULED DATE	CONDUCTED DATE	SCHEDULED DATE	CONDUCTED DATE
1	3 rd week of September	11.10.2017	1st week of September	15.09.2017 & 16.09.2017	1 st week of August	7.8.2017
Dean/EEE						

Table B 2.2.1 (e): Department Action Plan

Department Action Plans	Period	Remarks
Course choices from Faculty	2-3 weeks prior to the commencement of semester	Course choices are requested from faculty for the forthcoming semester
Work Load Distribution	Work load Distribution 2-3 weeks prior to the commencement of semester	Allotment of courses are done by the HOD based on the specialization of faculty or based on the expertise on a particular Course
Time Table Uploading	2 weeks prior to the commencement of semester	Time table is prepared by the Time-table committee and the same is approved by PAC and HOD, is uploaded in the University ERP.
Course/ Lesson Plan	2 weeks prior to the commencement of semester	Course plans are collected from the faculty for their respective courses and reviewed by PAC

CAT, Model exam and ESE question papers	2 weeks for CAT and 4 weeks for Model and ESE prior to the commencement of examination	Question papers have been collected from the faculty and reviewed at the Department level by PAC
Mini Project (III year)	Within 1 week after commencement of semester	Students are allowed to form their group and choose the guide, identify the Project and same is submitted to project coordinator for record.
Main Project (IV Year)	One month prior to the commencement of the VIII Semester.	Students are allowed to form their group and choose the guide based on the area of interest, identify the Project and same is submitted to Project coordinator for record. Project coordinator prepares the schedules for Review and Presentation.

INSTRUCTION METHODS AND PEDAGOGICAL INITIATIVES:

Class time table, lesson plans and study manuals for all subjects are prepared, accepted and distributed to students by the class in-charges /mentors. The faculty focus on outcome-based education and use the OBE in a constructive and creative way to meet student's learning needs.

Student Centric learning methods are implemented by the Department Faculty to provide students with the best learning environment. Two hours are allotted in the lesson plan to teach content beyond the syllabus for every subject and is approved by PAC/HOD.

All the Faculty are obliged to have registers for maintaining the attendance of the students. The course files are prepared for every subject by the subject handling Faculty. In order to reduce the gap between industry and institutes, industrial visits, Implant Training and Industrial workshops are arranged every semester.

Few of the instruction methodologies are listed below.

- ICT based learning: Use of LCD projectors, Smart Board and provision for interactive teaching learning
- Animated videos/ NPTEL/MOOC Courses
- LMS and Google class room for Quiz, Assignment, Notes, etc.
- Digital texts enable real time learning, monitoring, comprehension and online assessment
- ERP for attendance, feedback, etc.
- Project based Learning for Core Courses
- Workshops/ Value Added Courses by Core Industries
- Expert talk/ Guest Lectures
- Group discussions/ Seminar
- **Laboratory/ video based demonstration:** Demonstration of system or parts of a real-world system using modern tools.
- **Group discussion/ presentation:** Students learn through group discussion and are asked to deliver short presentation on a topic.

Faculty undergo Faculty Development Program and learn various Pedagogical tools to improve their teaching learning process. Sample list of Training Program attended by faculty is listed in Table B: 2.2.1

(f).

Table B: 2.2.1 (f) Sample list of Training Program attended by Faculty

S.No	Name of the Faculty	Title of the Program	Duration	Conducted by	Reason for attending the training
1	Dr.T.Sasilatha	AICTE - UKIERI Technical Leadership Development Program	30.07.2019 to 02.08.2019 04.12.2019 to 07.12.2019	AICTE- Head Quarters, Jodhpur Institute of Technology, Jodhpur	Implementation of Change Management Project
		Orientation Program - Examination Reform Policy	15.04.2020 to 18.04.2020	AICTE- Institutional Development skill	Implementation of Examination Reforms policy in the Institution
		Orientation Program - OBE	28.01.2019 & 09.03.2019	AMET Deemed to be University.	Implement OBE in teaching learning and assessment process
		Student Induction Program	26.11.2018 to 28.11.2018	AICTE Sponsored induction program, Easwari Engineering College, Chennai	To organize Student Induction Program in the Institution

2	Dr.V.Karthikeyan	Orientation Program - OBE	28.01.2019 & 09.03.2019	AMET Deemed to be University.	Implement OBE in teaching learning and assessment process
		Advance Power Electronics and Control	28.01.2019 to 31.03.2019	NPTEL Online	To be familiar with Advanced Power Electronics and Control
		Patent Drafting for Beginners	10.01.2019 to 31.03.2019	NPTEL Online	To gain knowledge about patent filing
		Introduction to Industry 4.0 and Industrial Internet of Things	10.01.2019 to 28.04.2019	NPTEL Online	To acquaint with Industry 4.0 technologies
3	Dr.T.Baldwin Immanuel	Outcome based pedagogic principles for Effective Teaching	27.08.2018 to 21.09.2018	NPTEL Online	To acquaint knowledge on Effective Teaching
		Orientation Program - OBE	28.01.2019 & 09.03.2019	AMET Deemed to be University.	Implement OBE in teaching learning and assessment process
		Advanced Power Electronics and Control	28.01.2019 to 31.03.2019	NPTEL online	To be familiar with Advanced Power Electronics and Control
4	Dr.G.Themozhi	Significance of CO Po attainment in CO Po mapping in course attainment	17.07.2020	AMET Deemed to be University, Chennai	To update with CO-PO attainment
		E-Content Development" through online	12.06.2020 to 15.06.2020	AMET Deemed to be University, Chennai	To be familiar with E content development
5	Dr.M.Deva Brinda	E-Content Development" through online	12.06.2020 to 15.06.2020	AMET Deemed to be University, Chennai	To be familiar with E content development
		AICTE ATAL Sponsored Artificial Intelligence: Algorithms to Architecture	08.06.2020 to 12.06.2020	IIT Delhi	To update with emerging technologies
		Faculty development programme on outcome based education	01.05.2020	InPods ed tech	To update with OBE
6	Mr.P.Veerakumar	Renewable Energy Sources Integrated Smart Power Grid Scenarios and control aspects using HVDC and FACTS	16.07.2018 to 21.07.2018	SSN College of Engineering, Kalavakkam, Tamilnadu	To gain knowledge on Smart Grid
		Effective engineering teaching in practice	12.01.2019 to 25.02.2019	NPTEL Online	To acquaint knowledge on Effective Teaching
		Introduction to Internet of Things	July 2019 to October 2019	NPTEL Online	To update with emerging technologies
7	Mrs.R.Elavarasi	Energy Efficient solutions for smart Energy systems	14.02.2019 to 16.02.2019	SRM Institute of Science and Technology, Kattankulathur.	To gain knowledge on Smart energy systems
		Effective Engineering teaching in practice	19.01.2019 to 25.02.2019	NPTEL online	To acquaint knowledge on Effective Engineering Teaching
8	Mr.S.Janarthanan	Virtual Lab on Electrical Machines	08.05.2020	Srinivasa Ramanujan Institute of Technology, AP	To conversant knowledge in simulation tools
		Faculty Development Program on Evolution of Teaching and Learning Process -COVID19	11.05.2020 to 15.05.2020	Bharath Institute of Higher Education and Research, Chennai	To update with online teaching methodologies
		Significance of CO -PO attainment in CO-PO mapping in course attainment	17.07.2020	AMET Deemed to be University, Chennai	To update knowledge on Mapping of CO's and PO's

		E-Content Development through online	12.6.2020 to 15.6.2020	AMET Deemed to be University, Chennai	To be familiar with E- content development
9	Ms.G. Jegadeeswari	SRO Incorporating Universal Human Values in Technical Education	11.05.2020 to 15.05.2020	Anna University	To enrich Human values in Technical Education
		Outcome Based Education	01.05.2020	InPods Ed-tech Pvt Ltd, Pune	Implement OBE in teaching learning and assessment process
		Identifying weaker students and remedial actions	04.05.2020	InPods Ed-tech Pvt Ltd, Pune	Useful to identify weaker students and how remedial actions should be carried out
		Blended Learning and Flipped classroom	17.08.2020&21.08.2020	Mothilal Nehru National Institute of Technology, Ahmadabad (MNNIT)	Implement blended learning and flipped classroom activities in teaching
		Effective Teaching and Research Skills	5.11.2019 to 11.11.2019	Vidya Jyothi Institute of Technology, Hyderabad	To update effective teaching methods
10	Mrs.R.K.Padmashini	Advanced Linear Continuous Control Systems	27.08.2018 to 19.10.2018	NPTEL Online	To update emerging technologies
		Instructional design and delivery system	8.7.2019 to 14.7.2019	NITTTR,CHENNAI	To update effective delivery system and instructional design in TLP

Table B: 2.2.1 (g) Sample Courses with Activity based Learning

S.No.	Course Name	Topic Covered	Activity	Conducted Date	Course Incharge / Designation	Year of Study	RELEVANCE TO POS, PSOS
1	Electron Devices and Circuits	Half wave and Full wave Rectifier	Demo	02.08.2019	Dr.T.Sasilatha / Professor & Dean	II Yr EEEM	PO1,PO3, PO12, PSO1,PSO2,PSO3
2	Electrical Machines - I	Speed Control of DC Motor	Group Discussion	11.09.2019	Dr.V.Karthikeyan / Professor	II Yr EEEM	PO1,PO6,PO9,PO10, PSO1,PSO2,PSO3
3	Communication Engineering	Pulse Modulation Concepts	MCQ	16.08.2019	Dr. G.Themozhi / Professor	III Yr EEEM	PO1,PO2,PO5,PO9, PO10 PSO1
4	Instrumentation and Control	Pneumatic Transducer	One Minute paper	21.10.2019	Dr.M.Deva Brindha / Associate Professor	III Yr EEEM	PO1,PO3,PO4, PO9, PO10
5	Marine Electrical Protection and Switchgear	Zones of Protection and Essential Qualities of Protection	Seminar	05.08.2019	Dr.D.Lakshmi / Associate Professor	IV Yr EEEM	PO1,PO4, PO9, PO10, PO12, PSO1
6	Special Electrical Machines	Stepper Motor and Switched Reluctance Motor	Quiz	12.09.2019	Ms.G.Jagadeeswari / Assistant Professor	IV Yr EEEM	PO1,PO2,PO6, PO9, PO10 PSO2,PSO3

Collaborative learning:

Collaborative learning is an educational approach to teaching and learning that involves group of students working together to solve a problem, complete a task or create a product. In Collaborative learning, students benefited by the development of higher-level thinking, better oral communication, self-management and leadership skills, an increase in student retention, self- esteem and responsibility. This type of learning promotes better student-faculty interaction. Students prepare themselves for the real life social and employment situations.

Project Based Learning (PBL)

Project Based Learning (PBL) is one of the way for collaborative learning. It is significantly more effective than traditional instruction to train competent and skilled practitioners and it promotes long-term retention of knowledge and skills. It is an innovative practice that is used to implement Outcome Based Education in AMET Deemed to be University.

Table B. 2.2.1(h) Project Based Learning methods adopted in Teaching Learning Process- Sample Courses 2019-2020

Course Name	Title of the Project	Name of the student	Relevance to PO's and PSO's
Analog Integrated Circuits	Solar Battery charger circuit	Balaji M	PO1, PO3, PO5, PO9, PO10, PO11, PO12, PSO2, PSO3
		Pradeep Kumar R	
		Dinesh.M	
		Amuthan. A	
Electric Circuit Analysis	Filter Circuit	Prabhul B	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12, PSO1, PSO2
		Akash P Santosh	
		Vengadeshwara Rao S	
		S Voms	
Microprocessor and Microcontrollers	Digital Voltmeter using 8051 Microcontroller	Aagash G	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12, PSO1
		Arun kumar K S	
		I Hasheem Shariff	
		Jaya Surya G	
Power Electronics	Inverter design with Harmonic analysis using MATLAB Simulink	Nirmal kumar B	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12, PSO2
		Viknesh S	
		Hariharan N	
		Bala Ganesh P	
Special Electrical Machines	BLDC motor speed control	Beer Mohamed Uvaiz. N	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3
		Akash S	
		Anitosh Mondal	
		Vaithiyanathan M S	

Energy Club

Energy club in the Department of EEE is actively doing many activities under the guidance of a senior faculty. Activities such as quiz programs, group discussions and various competitions are conducted once in a week with the student leaders, volunteers and faculty. Energy audit and Environmental audit of the University is conducted by the active participation of volunteers and EEE Marine students in association with the certified external agency. The club activities are helpful to improve their technical, leadership and interpersonal skills of the students.

Regular conduction of conference by industrial experts, academic institutes and government agencies allow students to upgrade their knowledge. Soft skills training / personality coaching activities are also carried out to develop student's communication skills.

CONTINUOUS ASSESSMENT IN THE LABORATORY

Every laboratory exercise / experiment is categorized as

- Demo Experiments

- Exercise Experiments
- Structured Enquiry
- Open-ended Experiment

Student performance during the laboratory class is evaluated and the student's records are maintained by the faculty. Continuous evaluation of each laboratory experiment is done based on the following parameters.

Table B: 2.2.1 (i). Marks distribution for laboratory courses

Component of Evaluation	Internal/ external	Marks	Total Marks
Observation Note Book	Internal	15	40
Practical Performance during classes		15	
Record Note Book		10	
Practical Exam	External	30	60
Result		10	
Viva Voce		20	
Grand Total			100

Table B: 2.2.1 (j). Rubrics for continuous Evaluation (Laboratory Courses)

Assessment Parameter	Proficient (3 marks)	Acceptable (2 marks)	Needs Improvement (Less than 2)
Familiarization with the components/ Equipment	Listed the components, /equipments required to execute the given experiments with their specifications and type	Listed the components/equipments required to execute the given experiments with incorrect specifications and type.	Listed partial list of components/ equipments only
Designing Circuits/ writing Programs	Design the circuit diagram with components and equipments available in a proper sequence or order with power sources / written the programs to execute the experiments with proper algorithm or flow chart	Erroneous Design of circuit diagram with components and equipments available /written the programs with improper algorithms or flow chart	Improper design of circuits, which need lot of improvements / written programs with more errors and wrong algorithms or flow chart
Experimental Results	Obtained the correct results, which are matched with the master record results/pre-determined values	Output results are not matched with master record values or pre-determined values. Up to 5 % deviations are there	Output results are much deviated from expected or completely wrong results
Result Interpretation	Acquired meaningful and usable information and to make the most informed decisions	Acquired meaningful information but not usable to make the most informed decisions	Not able to acquire meaningful and usable information
Viva-voce	Answers all questions with proper explanation	Answers all questions but with less relevance or explanation	Not able to answer most of the questions relevantly

METHODOLOGIES TO SUPPORT SLOW LEARNERS AND ADVANCED LEARNERS

Based on the academic performance of the students, slow learners are identified and encouraged to attend additional classes to understand the subject in a better way. Mentors assist the slow learners in all aspects. Advance learners are encouraged to attend seminars, group discussions and present their ideas in Symposium, National/ International Conferences. High-talented students are encouraged to take case studies and industry related projects.

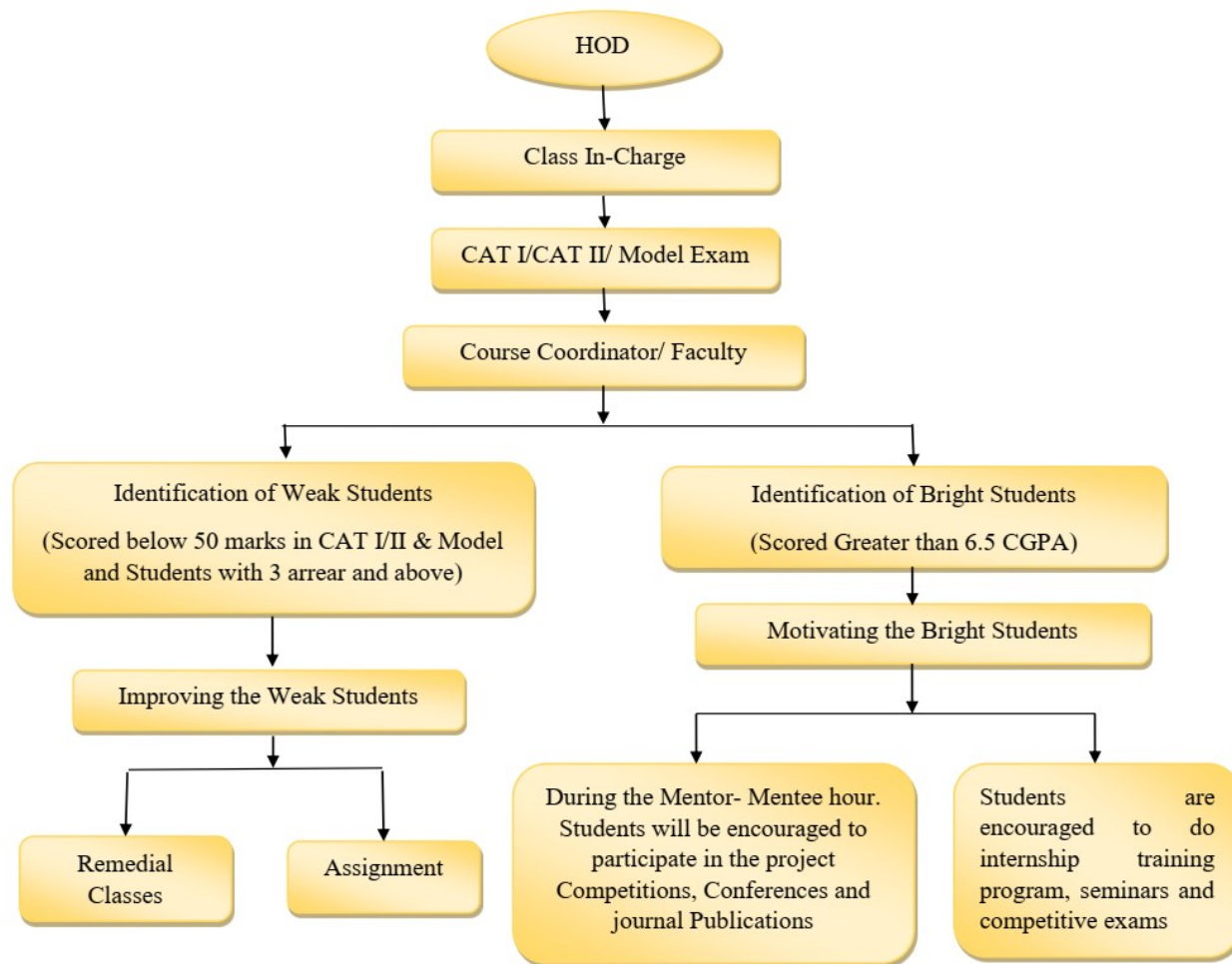


Fig: 2.2.1 (b) Methodologies to support Weak and Bright Students

STUDENT FEEDBACK AND ACTION TAKEN

Student feedback is a mandatory procedure in AMET Deemed to be University. Every student is expected to give the feedback once in a semester on various parameters. The feedback is regarding course coverage and other parameters to improve the course delivery methodologies etc.

Student Feedback of Teaching and Learning Process and actions taken

The feedback collected from the students is summarized and the weighted score for each parameter is calculated. Based on the weighted score, the parameters for which the score is less than 3.5 will be identified as the parameter that requires corrective action. HOD will counsel the faculty and suggest corrective measures for identified parameters with suitable solutions such as attending workshop and faculty development training program to improve teaching and learning. Students feedback analysis of Teaching and Learning process is shown in Table B. 2.2.1(k)

Table B: 2.2.1 (k) Student Feedback of Teaching and Learning Process



AMET
ACADEMY OF MARITIME EDUCATION AND TRAINING
DEEMED TO BE UNIVERSITY
 (Under Section 3 of UGC Act 1956)

FEEDBACK ANALYSIS

Course	B.E. - Electrical and Electronics Engineering-Marine - BE(EEM)-10
Semester	Fourth
Group Number	1

Feedback Analysis - Table

S.No	Subject Code	Subject Name	Faculty	Feedback Parameters															Avg
				The Faculty provided clear introduction about the subject and himself/herself	The Faculty dressing, neatness and appearance	The voice of the Faculty is audible even to the last row	The writing of the Faculty is clear, bold and visible even to the last row	The faculty comes to the class on time and completes on time	The Faculty communicates well with the students	The Faculty gives time for interaction	The faculty encourages students to ask questions and interact	The faculty uses modern teaching aids such as smart board, audio-visuals, multimedia, ppt etc.	The faculty is having good knowledge on the subject	The attitude of the Faculty towards students	The Faculty is enthusiastic, confident and dynamic in the class	The Faculty provides summary on the lectures	The faculty provides information about additional resources for learning such as web links, e-books, study materials etc.	Overall opinion about the Faculty	
1	UDEE401	Analog Integrated Circuits	S.SINTHUJA	4.1	4.1	4.0	4.3	4.1	4.0	4.0	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.1	4.1
2	UDEE402	Electrical Machines - II	Dr.Baldwin Immanuel	4.3	4.5	4.4	4.4	4.4	4.7	4.4	4.4	4.4	4.6	4.5	4.5	4.4	4.4	4.5	4.5
3	UDEE504	Control Systems	G.JEGADEESWARI	4.0	4.3	4.3	4.3	4.3	4.1	4.2	4.3	4.2	4.3	4.0	4.2	4.1	4.2	4.1	4.2
4	UDEE404	Transmission and Distribution	R.K.PADMA SHINI	4.4	4.4	4.2	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.4	4.4	4.4	4.3	4.5	4.4
5	UDMCC02	Thermodynamics	Mr.J.HARISH KUMAR	4.5	4.6	4.6	4.6	4.5	4.4	4.4	4.5	4.3	4.6	4.4	4.4	4.5	4.3	4.5	4.5
6	UDEE4PA	Integrated Circuits Laboratory	S.SINTHUJA	4.3	4.2	4.2	4.2	4.4	4.2	4.2	4.2	4.2	4.3	4.2	4.1	4.2	4.1	4.2	4.2
7	UDEE4PB	Electrical machines Laboratory - II	Dr.Baldwin Immanuel	4.4	4.5	4.4	4.5	4.4	4.4	4.4	4.4	4.4	4.5	4.4	4.5	4.5	4.4	4.4	4.4
8	UDLECPD	Spoken English - IV	MARIA MONOLISA	4.3	4.2	4.2	4.2	4.4	4.3	4.3	4.3	4.3	4.2	4.3	4.3	4.3	4.0	4.3	4.3

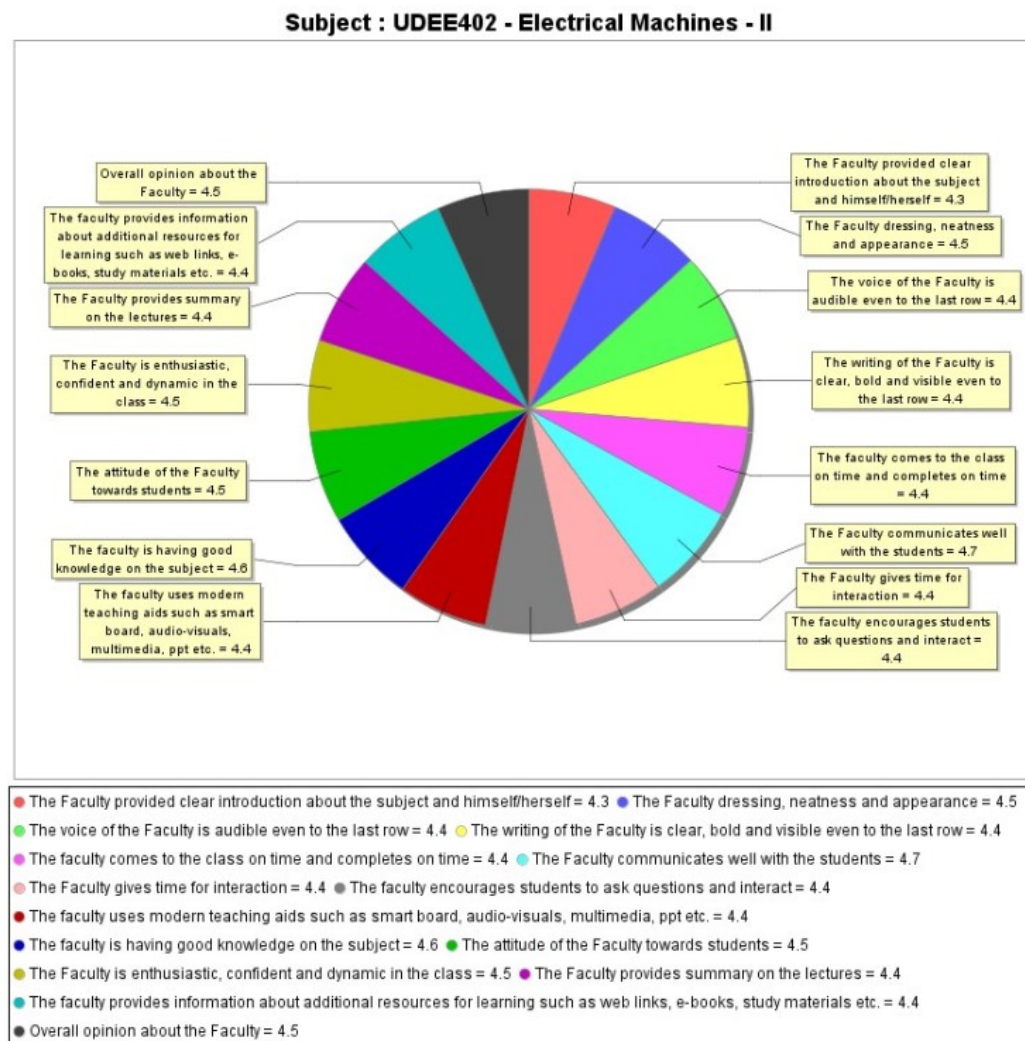


Fig: 2.2.1 (c) Student Feedback on faculty for the subject Electrical machines II

Student Feedback through Class Committee Meeting and Action Taken:

Class Committee Meeting (CCM) is conducted three times in a semester by the Program Coordinator regarding course coverage and other parameters to improve the course delivery methodologies etc. The Format for Class Committee Meeting shown in Fig 2.2.1 (d)



AMET
ACADEMY OF MARITIME EDUCATION AND TRAINING
(Under Section 3 of UGC Act 1956)

FROM THE OFFICE OF DEAN-EEE

Date: 11.08.2017

CIRCULAR

It is proposed to conduct first class committee meeting with faculty members and student representatives in the department of EEE for the academic year 2017 – 2018 (ODD Sem) at EEE Seminar hall for I Yr, II Yr, III Yr and IV Yr as scheduled below

S.No.	Year	Date and Time
1	I Yr	28.08.2017
2	II Yr	28.08.2017
3	III Yr	24.08.2017
4	IV Yr	24.08.2017

AGENDA

1. Syllabus Coverage (Theory and Laboratory)
2. Attendance Percentage and Discipline

All faculty members are requested to make it convenient to attend the meeting as per the above schedule. The class mentors are requested to inform the students representatives, two from academically bright and another two from slow learners to attend the meeting.

Final Year Mentor : Mr.S.Janarthanan

Third Year Mentor : Mr.P.Veerakumar

Second Year Mentor : Mr.V.Karthikeyan

First Year Mentor : Mr.T.Baldwin Immanuel

Dean/EEE



AMET
ACADEMY OF MARITIME EDUCATION AND TRAINING
(Under Section 3 of UGC Act 1956)

Department of Electrical and Electronics Engineering Minutes of Class committee meeting with Final Year B.E-EEE- Marine

Academic Affairs

Date: 24.08.2017

Feedback from the students regarding academics were collected orally based on the following criteria 1.Syllabus coverage for each subject 2. Quality of teaching 3.Text book /question bank

Final Year-EEE- Marine								
S.No	Sem	Subject Name	Staff Name	Dept	Syllabus coverage	Quality of teaching	Text book /Question bank	Remarks
1	VII	Solid State Drives	Mr.S.Janarthanan	EEE	1.5	V.Good	Provided	---
2	VII	Professional ethics and human values	Dr.M.Rajavelan	EEE	1.5	V.Good	Provided	---
3	VII	Marine Electrical Protection and Switch Gears	Mr.P.Muthukumar	EEE	1.6	Good	Provided	Need PPT
4	VII	High Voltage on Merchant Ships	Mrs.G.Jagadeeswari	EEE	1.6	Good	Provided	---
5	VII	Special Electrical Machines	Dr.S.V.Saravanan	EEE	1.4	Satisfactory	Provided	Need class notes
6	VII	Marine Control Engineering and Automation	Ms.T.Dhanya	EEE	1.5	V.Good	Provided	---
7	VII	High Voltage and Switch Gear Laboratory	Mrs.G.Jagadeeswari	EEE	4 exp.	Good	Lab manual given	---
8	VII	Marine Electrical Lab-II	Ms. S.Sinduja	EEE	4 exp.	Good	Lab manual given	---

General Points Discussed:

- > Pervious semester result analysis and CAT-1 Exam.
- > Coaching class for slow learners and Activities for advanced learners.
- > Industrial Visit and Value Added Training program.
- > Dress codes of the Students.

Non Academic Issues

Nil

Action Taken:

- > The dean asked the faculty member to arrange the industrial visit and workshop for the students.
- > Class mentors are instructed to follow the college dress code.

Class Mentor: Mr.S.Janarthanan

Dean/EEE

Fig: 2.2.1 (d) Feedback from Students on Class Committee Meeting

The Process for Internal Continuous Assessment Question Paper Setting and evaluation is described in the Fig: 2.2.2 (a)

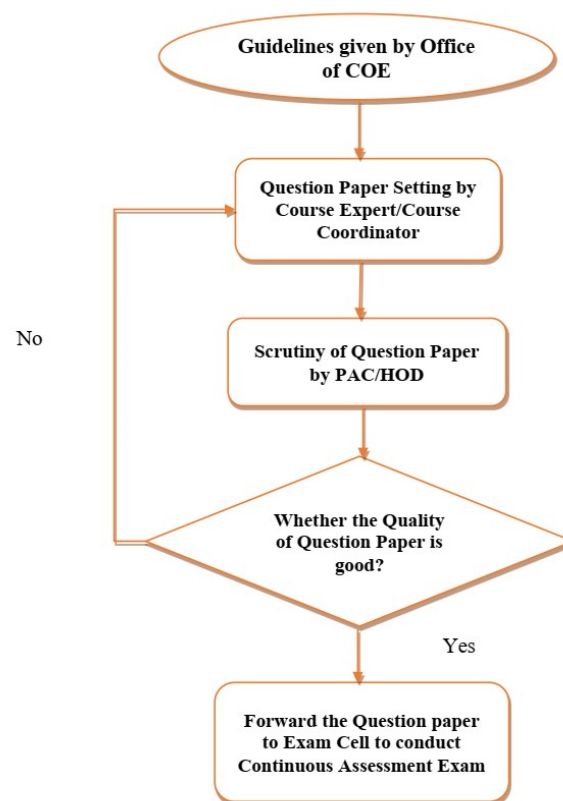


Fig: 2.2.2 (a) Process for Internal Continuous Assessment Question Paper Setting and evaluation

The quality of Internal Question paper, Assignment and evaluation is ensured by following a definite process of question paper setting and strategy for evaluations:

INTERNAL QUESTION PAPER SETTING

- The question papers are prepared based on course outcomes. Each question is mapped with the corresponding course outcome.
- The question papers are also prepared based on Bloom's taxonomy framework which ensures quality in accordance with Program Outcomes and Program Specific Outcomes.
- Two sets of Question paper for CAT 1, CAT 2 and Model Examination are set by the subject Faculty.
- The question papers are verified by PAC and Head of the Department ensure the incorporation of above said standards and then the question papers are kept in a confidential manner.
- On the day of Exam, One set is selected by the HOD and multiple copies of question papers are taken for conducting the examination.

CONTINUOUS ASSESSMENT TEST (CAT)

- Two Continuous Assessment Tests are conducted for each subject per semester.

The question paper pattern for conducting the Continuous Assessment Test is mentioned below:

Internal Question paper pattern:

Continuous Assessment (CAT I & II)

Part A: 6 x 2 = 12 Marks

Part B: 1 x10 = 10 Marks (Compulsory Question)

Part C: 2 x14 = 28 Marks (Either or choice Type)

Total = 50 Marks

MODEL EXAMINATION

- For each course of the program, a model examination is conducted prior to the end semester examination.
- This assessment process helps the students to prepare for End Semester Examination and also gave the insight of overall understanding in the respective course.

The question paper pattern for conducting the Model Exam is mentioned below:

Internal Question paper pattern:

Model Examination

Part A: 10 x 2 = 20 Marks

Part B: 1 x 10 = 10 Marks (Compulsory Question)

Part C: 5 x 14 = 70 Marks (Either or choice Type)

Total= 100 Marks



MODEL EXAMINATIONS – NOVEMBER 2019

Programme & Batch : Semester :
 Course Title : Course Code :
 Duration : Maximum :

Instructions:

1. Before attempting any question paper, be sure that you got the correct question paper.
2. The missing data, if any, may be assumed suitably
3. Use the sketches wherever necessary

CO1:
 CO2:
 CO3:
 CO4:
 CO5:
 CO6:

Questi on No	Question	Mark	K Level (K1-K4)	(CO)

Section A (10 * 2 = 20 Marks) Answer all Questions

1		2	K1	CO1
2		2	K2	CO1
3		2	K1	CO2
4		2	K2	CO2
5		2	K1	CO3
6		2	K2	CO3
7		2	K1	CO4
8		2	K2	CO4
9		2	K1	CO5
10		2	K2	CO5

Section B (1 * 10 = 10 Marks) Compulsory Question

11		10	K4	CO6

Section C (5 * 14 = 70 Marks) Answer All Questions

12 (a)		14	K3	CO1

(OR)

12 (b)		14	K3	CO1

13(a)		14	K3	CO2

(OR)

13 (b)		14	K3	CO2

14(a)		14	K3	CO3

(OR)

14 (b)		14	K3	CO3

15 (a)		14	K3	CO4

(OR)

15 (b)		14	K3	CO4

16 (a)		14	K3	CO5

(OR)

16 (b)		14	K3	CO5

Knowledge Level as per Bloom Taxonomy
 K1- Remember; K2- Understand; K3- Apply; K4- Analyse

CO1, CO2, CO3, CO4, CO5 Indicates the Course Outcome in Unit 1, Unit 2, Unit 3, Unit 4 and Unit 5]

Fig: 2.2.2 (b) Sample Question Paper for Model Examination

END SEMESTER EXAMINATION

End Semester Examination is conducted for students, who satisfies 75% of attendance and the answer scripts are evaluated by the Internal/ External evaluators to assess the outcomes.

The questions are of three categories:

- One third of the questions are direct questions which could be answered by average students.
- One third of the questions are analytical type. Certain amount of thinking, analysis and mathematical knowledge are required to resolve.
- Remaining one third of the questions are indirect questions. Certain amount of critical thinking is needed.

Table B 2.2.2 (a): Distribution of question & marks among the Units of syllabus

Unit	Question Numbers	Total Marks
1	1,2,12	18

2	3,4,13	18
3	5,6,14	18
4	7,8,15	18
5	9,10,16	18
Unit 1 to 5	11 (Compulsory Question)	10

Table B 2.2.2 (b): Mapping between COs and questions

COs	Knowledge level (Blooms taxonomy, K1, K2, K3...)	Question Numbers	Total Marks
CO1	K1 to K4	1,2,12	18
CO2		3,4,13	18
CO3		5,6,14	18
CO4		7,8,15	18
CO5		9,10,16	18
CO6		11	10

Initiatives to Improve the Quality of Continuous Assessment/ End Semester Examination Question Papers:

The Faculty who handles the subject/Course expert prepares the question papers for CAT and Model Examination based on the Bloom's taxonomy action verbs and corresponding course outcomes.

- The question papers are scrutinized by the Exam cell Coordinator and PAC Committee.
- The HOD approves the question papers in respect of CAT tests and Model examination. If any question paper is not upto the standard level it will be resend to the Faculty for improving the quality of the question paper.
- For End semester Examination, subject experts are identified from the department/outside the University/ premier institutions and two sets of question papers are collected from them. The CoE scrutinize the question paper along with the Head of the Department for conducting the End Semester Examination.

Assessment Procedure – Tests and Examinations

For each theory course, the assessment pattern for CAT is illustrated in the following Table.

Table B. 2.2.2 (c) Theory Course Assessment pattern

S.No	Assessment	Syllabus Coverage	Marks	Weightage
1	CAT I	Unit 1, 2	50	10
2	CAT II	Unit 3, 4	50	10
3	Model Examination	All 5 Units	100	10
4	Assignment/ Seminar	-	20	5
5	Attendance	-	-	5
Total Internal				40

For each practical course, the assessment pattern for ESE is illustrated in the following Table.

Table B. 2.2.2 (d) Practical Course Assessment pattern – Regulation R, A, B, C and D

S.No	Assessment	Marks	Weightage

1	Internal Assessment	40	40
2	ESE	100	60
Total Marks			100

SCHEME OF EVALUATION:

As per the Academic calendar, CAT 1, CAT II and Model Examinations are conducted. Scheme of evaluation must be prepared by the Course teacher and verified by PAC members and forwarded to Head of the Department for final approval. Answer Scripts are evaluated by the concerned faculty with approved scheme of evaluation and same are distributed to the students along with the corrected Answer Scripts for verification within one week duration. The final marks are entered in the ERP portal by the Course teacher.

Slow learners are identified based on the performance of Continuous Assessment Examination and previous Academic performance, remedial classes are conducted for the students.

End Semester Examination is conducted by the office of Controller of Examination (COE) in a Centralized manner. After conducting the End Semester Examination, the question papers are sent to the Course experts/Course Coordinator for preparing the scheme of evaluation and the same is verified by the PAC and forwarded to the Head of the Department for approval. All the answer scripts are allotted with dummy numbers before the evaluation process for maintaining the confidentiality. Answer Scripts are evaluated in the Office of COE in a Centralized way under the supervision of Evaluation Board Chairman.

ASSIGNMENT

For each course, Assignments are given to the students to develop their analytical and problem solving skills. Assignment submission deadlines are announced by the respective Faculty. Similar to CAT me / CAT II / Model Exam / ESE Question papers, the assignments are also in line with Bloom's Taxonomy level, CO and difficulty levels that has been predefined. All assignment are framed and mapped with COs and Bloom's taxonomy action verbs as per the format shown in Table B. 2.2.2(e). The rubrics based evaluation and its Evaluation format are shown in Table B 2.2.2 (f).

Table B. 2.2.2 (e) Sample Assignment format

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING			
ASSIGNMENT NO. I/ II/ III			
Program & Batch:		Semester:	
Course Code &Name:		Max Marks: 10	
SI No	Assignment Question	Mapped CO's	Bloom's Taxonomy Knowledge Level
1			K4, K5, K6
2			
3			
4			
5			
Faculty In-Charge		PAC	Dean-EEE

Table B. 2.2.2 (f) Rubrics for Assignment

TRAIT LEVELS	LEVELS OF PERFORMANCE			
	EXCELLENT (10 Marks)	GOOD (8 to 9 Marks)	SATISFACTORY (5 to 7 Marks)	NEEDS IMPROVEMENT (less than 5)

Concept quality and relevance	High quality, correct and useful information presented in a clear and succinct form	Correct and mostly useful information presented in a clear and concise form	Information presented was mostly correct, concepts are difficult to follow	Little / No information presented
Circuit Diagram/Block Diagram	Diagrams succinctly and logically conveyed the techniques and mechanism	Most of the Diagrams succinctly and logically conveyed the techniques and mechanism	Most of the Diagrams used to convey the technical information are inaccurate or unclear	Diagrams used did not convey the technical information due to the poor presentation.
Critical explanation	Topic was thoroughly and critically discussed in relation to underlying technical aspects	Topic was mostly discussed critically in relation to underlying technical aspects	Large sections discuss the topic or circuit with little integration	Most of the discussion of the underlying mechanism was not related to the topic or inappropriately linked
Method of Solving problems	Chosen efficient method that made sense, explained and get the correct answer	Chosen good strategies and get the correct answer	Chosen lengthy strategies and was confusing in few places	Chosen inappropriate method and did not get the correct answer
Presentation	Exceptionally well-presented and argued; ideas are detailed, well-developed, supported with specific evidence & facts, as well as examples and specific details.	Well-presented and argued; ideas are detailed, developed and supported with evidence and details, mostly specific.	Content is not sound and solid; ideas are present but not particularly developed or supported; some evidence, but usually of a generalized nature.	Needs to edit errors. Special attention should be given to write sentences.

SEMINAR

For each course, a seminar on a particular topic is given to the students for developing their Communication skills, Presentation skills and in-depth knowledge on the subject. Rubrics based evaluation is followed for assessing the students.

2.2.3 Quality of student projects (20)

Institute Marks : 20.00

The projects are chosen by the students based on the requirements of core industries or society. A brief idea of various fields for selecting project has been given to the students by the Head of the Department.

Credits have been allotted for the curriculum based projects, which has been divided into project Phase –I and Phase-II. Phase-I consists of 3 credits and Phase-II of 8 credits. Projects are selected by the students based on the students' interest and real time issues in industry.

In project phase-1, a preliminary literature review is done by the students and later the objectives are refined by project guide, project Coordinator and Head of the Department. Project is evaluated based on the reviews. At the end of the semester, students are expected to provide the solutions for the real time issues.

In project phase-II students are expected to clearly define the objectives, work plan and Methodology with the support of literature survey. Students are assessed based on the performance by the Project guide, Project coordinator and Head of the Department.

Assessment is done based on the quality, applicability, technical knowhow and innovative ideas. Evaluation is based on internal reviews and End semester project Viva-Voce Examination.

The project list ensures no repetition of project work and also encourages students to improve the previous work. The Faculty encourages the students to carry out in house projects or industrial projects and support is provided with all necessary software and hardware.

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

Process Flow for the Student Projects

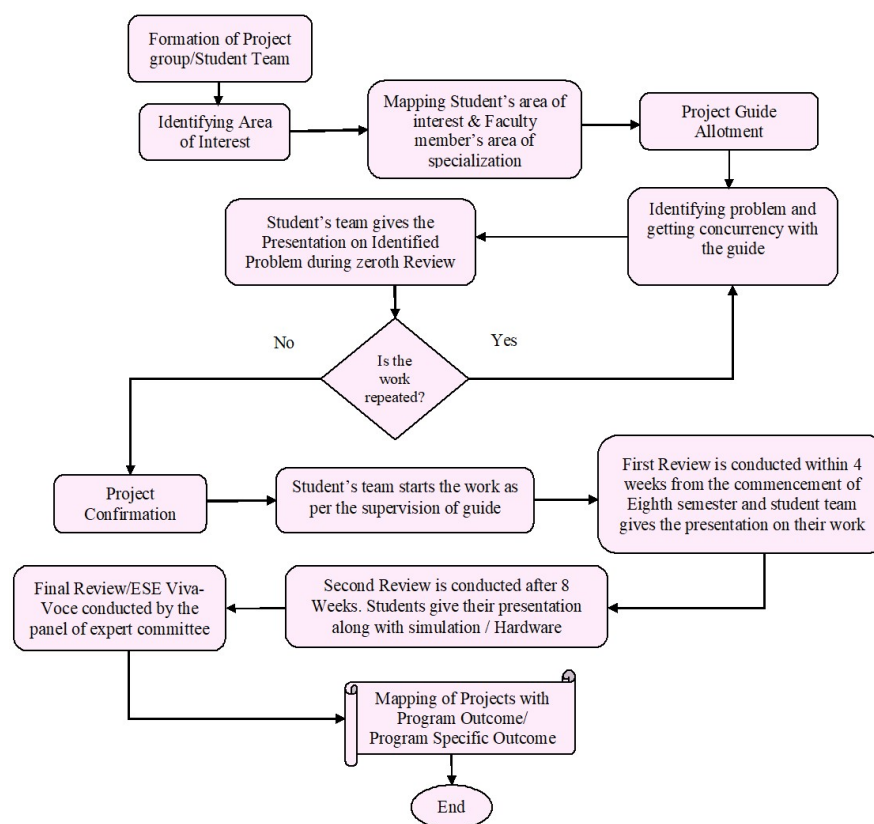


Fig: 2.2.3 (a) Process Flow for the Student Project

Step 1: The project coordinator gives the guidelines to the students for selecting the project and instructions to be followed. Students form groups among themselves based on their area of interest.

Step 2: Project coordinator collects the title of the project based on the literature review done by the students and real time problems identified in the industry.

Step 3: Head of the Department finalizes the project title and project group.

Step 4: Head of the Department allots the project guide to the project group based on the Faculty's area of specialization.

Step 5: Head of the Department nominate the panel members for conducting zeroth review, first review, second review and final reviews. Review dates are finalized based on academic calendar.

Step 6: After getting guidance from the project guide, students team present their work in zeroth review. If the performance is satisfied, then the project title is confirmed by the panel members and gives approval to proceed further.

Step 7: Students team starts their work as per the guidelines given by the project guide and present their work progress in first review within 4 weeks from the commencement of the Eighth semester.

Step 8: Panel members review the work progress and suggest their idea for improving the performance.

Step 9: Project Coordinator/ guide inform the students to complete the simulation / hardware and present the output results in second review.

Step 10: Based on the guidelines given by the project guide, students present their completed project (hardware kit / simulation work) in second review after 8 weeks.

Step 11: In Final review, students present their completed project to the external expert with report and hardware kit / simulation work. External expert and Panel members review the project work and categories the project work as innovation, research and implementation projects.

Step 12: Mapping of project with PO, PSOs is done by the project coordinator.

Table B. 2.2.3 (a): Area of Interest/Specialization of Faculty

S.No	Name of the Faculty	Engineering (Specialization)
1	Dr.T.Sasilatha	Electronics Design, VLSI
2	Dr.V.Karthikeyan	Power Electronics and Drives
3	Dr. G.Themozhi	Signal Processing
4	Dr.S.V.Saravanan	Wireless Communication
5	Dr.T.Baldwin Immanuel	Power Electronics and Drives
6	Dr.D.Lakshmi	Power Systems
7	Dr.M.Deva Brinda	Power Systems
8	Dr. S. Priya	Power Electronics and Drives
9	Mr. P.Veerakumar	Power System Engineering
10	Mrs.R.Elavarasi	Applied Electronics
11	Dr.P.Shanthi	Power Electronics and Drives
12	Mr.S.Janarthanan	Electrical Drives and Control
13	Mr.C.Gnanavel	Power Electronics and Drives
14	Ms. G.Jegadeeswari	Power Electronics and Drives
15	Dr. M.Rajavelan	Power electronics and Drives
16	Mrs.R.K.Padmashini	Power Electronics and Drives
17	Mr.P.Sathish Khanna	Energy Engineering
18	Mr.J.Aran Glenn	Power Systems Engineering
19	Mr.K.Manikandan	Power Electronics

20	Mr. S. Amirtharaj	Power Systems

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

Table B.2.2.3 (b): List of student projects Batch 2016-2020

S.No	Name of the Students	Name of the Supervisor	Title of the Project	Supported POs	Supported PSOs
1	Ganesh Babu.K	Mr.Amritharaj	Digital control for MPPT voltage regulation of partial shaded PV module	PO2,PO3,PO4,PO5, PO6,PO7,PO8, PO9,PO10,PO11,PO12	PSO1, PSO2, PSO3
2	Naveen Raj.R				
3	Mohan Raj.R				
4	Surya.A	Dr.V.Karthikeyan	Automated solar panel cleaning system	PO2,PO3,PO4,PO5, PO6,PO7,PO8, PO9,PO10,PO11,PO12	PSO1, PSO2, PSO3
5	Praveen.D				
6	Karthi.P				
7	Abiraj.B	Mrs.Padmashini	A new half bridge Impedance Source Converter with high Voltage Gain	PO2,PO3,PO4,PO5, PO6,PO7,PO8, PO9,PO10,PO11	PSO1, PSO2, PSO3
8	Joel. Robinson				
9	Akash.S				
10	Immanuel Peter				
11	Punnoose. Benny	Dr.T.Baldwin Immanuel	Smart Helmet	PO2,PO3,PO4,PO5, PO6,PO7,PO8, PO9,PO10,PO11,PO12	PSO1, PSO2, PSO3
12	Sreerag.Sreekumar				
13	Avinash. Vijay				
14	Dharun.S	Dr.D.Lakshmi	SEPIC Converter Based Electric Vehicle using BLDC Motor	PO2,PO3,PO4,PO5, PO6,PO7,PO8, PO9,PO10,PO11,PO12	PSO1, PSO2, PSO3
15	Sri Ram Surath Kumar.V				
16	Beer Mohammed Uvaiz				
17	Vaithinathan M S				
18	Dinesh Kumar.M	Mr.C.Gnanavel	UPF Rectifier for PMSG Based Wind Energy Conversion System	PO2,PO3,PO4,PO5, PO6,PO7,PO8,	PSO1, PSO2, PSO3

19	Venketesh.S			PO9,PO10,PO11,PO12	
20	Suriya.R				
21	Samuel Mathew.G				
22	Gokulakrishnan.B	Mr.K.Manikandan	Home Automation system based on IOT using Cellular Devices	PO2,PO3,PO4,PO5, PO6,PO7,PO8, PO9,PO10,PO11,PO12	PSO1, PSO2, PSO3
23	Vignesh.B				
24	Snahasish. Saha	Mr.S.Janarthanan	Expeditious Identification of Earth fault on Ship	PO2,PO3,PO4,PO5, PO6,PO7,PO8, PO9,PO10,PO11,PO12	PSO1, PSO2, PSO3
25	Azarutheen.S	Dr.D.Lakshmi	Speed Control of Induction motor using Fuzzy and Internet of Things	PO2,PO3,PO4,PO5, PO6,PO7,PO8, PO9,PO10,PO11,PO12	PSO1, PSO2, PSO3
26	Santhosh. Kumar				
27	Anitosh Mondal				
28	Krishnaraj.S	Dr.G.Themozhi	Investigation of suitable Bidirectional DC to DC Converter for solar Applications	PO2,PO3,PO4,PO5, PO6,PO7,PO8, PO9,PO10,PO11,PO12	PSO1, PSO2, PSO3

Table B.2.2.3 (c): List of student projects Batch 2015-2019

S.No	Name of the Students	Name of the Supervisor	Title of the Project	Supported POs	Supported PSOs
1	Aashlyn Mossas Anonty	Dr. T.Baldwin Immanuel	Smart Agriculture Monitoring Using Image Processing	PO1, PO2, PO3,PO4, PO5, PO6, PO7, PO8,PO9,PO10,PO11, PO12	PSO1, PSO2, PSO3
2	Akshai				
3	Yaswanth S				
4	Allwin Renold.S	Dr. S. V. Saravanan	An Intelligent Method to Control the Float Stability in Ships Using Gyroscopic Sensor.	PO1, PO2,PO3,PO4, PO5, PO6, PO7, PO8,PO9,PO10,PO11, PO12	PSO1, PSO2, PSO3
5	Manikandan.N				
6	Soundarapandiyar.L				
7	Ananthan Unni	Dr. M. Rajavelan	Energy Budget Analyser, by Monitoring and controlling of daily consumption of water and electricity	PO1, PO2,PO3,PO4, PO5, PO6, PO7, PO8,PO9,PO10,PO11, PO12	PSO1, PSO2, PSO3
8	Oswin Sancho.U				
9	Bajare Shardul Jayanta				
10	Inbaraj.I	Mrs. R. Elavarasi	Automatic Collision Avoidance System Using IoT for Ship	PO1, PO2,PO3,PO4, PO5, PO6, PO7,PO8,PO9,PO10,PO11,	PSO1, PSO2, PSO3
11	Vignesh K				

12	Gorakavi Lakshmi Prasanna Kumar			PO12	
13	Jaya Krishnan.K	Mr. P. Veerakumar	IoT & GSM Based Integrated Home Security and Electrical Appliances Control System	PO1, PO2,PO3, PO4, PO5,PO6, PO7,PO8,PO9,PO10,PO11, PO12	PSO1, PSO2, PSO3
14	Jayakumar.M				
15	Joseph Melvin.B				
16	Nandhakumar. G	Mrs.R.K.Padmashini	Multilevel Inverter with Reduced Number of Switches	PO1, PO2,PO3, PO4, PO5,PO6, PO7,PO8,PO9,PO10,PO11, PO12	PSO1, PSO2, PSO3
17	Sivaraman. U				
18	Suryakumar.A				
19	Navin Kumar. R	Mr. C. Gnanavel	A Novel Bidirectional Module Multilevel Inverter for Electric Vehicle Applications	PO1, PO2,PO3,PO4, PO5, PO6, PO7,PO8,PO9,PO10,PO11, PO12	PSO1, PSO2, PSO3
20	Baskar. M				
21	Divins Sobi .S				
22	Rajkumar E	Dr. M. Rajavelan	Low-Cost Quartz Crystal Microbalance System	PO1, PO2,PO3, PO4, PO5,PO6, PO7,PO8,PO9,PO10,PO11, PO12	PSO1, PSO2, PSO3
23	Mathandeeup.M				
24	Ajithkumar L				

Table B.2.2.3 (d): List of student projects Batch 2014-18

S.No	Name of the Students	Name of the Supervisor	Title of the Project	Supported POs	Supported PSOs
1	Gokula Krishnaa.K.R	Dr. V. Karthikeyan	Synthesize and characteristics of tin doped titanium oxide solar cell	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
2	Siva Sankar.R				
3	Ranjith Kumar. M	Mr. C. Gnanavel	Robust energy management of a solar PV using multilevel inverter for marine applications	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
4	Ninad Kamalakar Ragji				
5	Aravindhan. V	Dr. P. Muthukumar	Analysis of random pulse width modulation by using FGPA	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
6	Saravana Kumar.R				
7	Thomson Pradeep.J				
8	Rajan Gope	Dr. M. Rajavelan	Design and development of wearable solar cell for military soldiers	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
9	Hari Prasath.T				

Table B.2.2.3 (e): List of student projects Batch 2013-17

S.No	Name of the Students	Name of the Supervisor	Title of the Project	Supported POs	Supported PSOs
1	Gokulnath.A	Ms.A.Mubashira Anjum	Implementation of Light Fidelity in Marine Safety and Data Transmission System	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3

2	Rehan Hyder.H	Dr.S.V.Saravanan	A Novel approach for automatic oil spill detection from ship and intimation using ANN and WMM for the marine safety	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
3	Sathish Kumar. B				
4	Tamada Santosh Kumar Dhananjayudu				
5	Naveen.A	Mr.V.Karthikeyan	Unmanned Coastal Monitoring and Propulsion System	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
6	Deewakar Sourabh				
7	Diogo Manuel Antonio				
8	Niranjankumar. S	Dr.A.Kalirasu	Design and Construction of Sea Water Intake and Outlet System	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
9	Moulish Kumar. N	Mr.S.Janarthanan	Wireless Motor Control and Monitoring System Using Zigbee	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
10	Gowtham.D	Dr.S.V.Saravanan	An Internet of Things Approach for Motion Detection using Raspberry Pi3 model	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
11	Rabesh. I				
12	Logesh. M				
13	Madhup. C	Mr.M.Dheepak	Wireless Fisherman Safety and Guidance System based on Microcontroller	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
14	Pradeep.S				
15	Raja. S				
16	Ravindran.P				
17	Chozhan. S	Mr.R.Sundar	PC Controlled Underwater Robot with Surveillance Camera.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3
18	Varatharajan.R				
19	Bharath Kumar.G				
20	Vasanth.M				

Category Analysis of Projects

All projects carried out by the students are categorized on the basis of types of projects such as application based projects, products based, research based. The summary of analysis report of the projects is given in the following Table B.2.2.3 (f).

Table B.2.2.3 (f): Types of Projects carried out in three academic Years

Academic Year	Type of Projects		
	Implementation	Application	Research
2019-2020	4	4	2
2018-2019	4	3	1
2017-2018	2	1	1
2016-2017	3	3	2

SCHEME OF EVALUATION**I) Project work****Internal Review – 50 Marks**

Based on the performance of the students, internal review (Zeroth review, First, Second review) marks are awarded by the project panel members.

External Review – 50 Marks

Expert Committee review the Project and award marks according to the rubrics.

II) Mini Project**Internal Review - 50 Marks**

Based on the performance of the students, internal review (First, Second review) marks are awarded by the project panel members.

External Review – 50 Marks

Expert Committee conducts the examination and awards marks according to the rubrics.

Table B.2.2.3 (g): Rubrics for Project Presentations (Sample)

Assessment Method	Excellent (10 marks)	Good (8 – 9 marks)	Average (6 – 7 marks)	Below Average (< 5 marks)
Design of HW/ SW (Input, power modulators, System design, feedback system, sensors, signal conditioning units, etc)	Appropriate design methodology and proper justification for selected the same	Design methodology not properly justified	Design methodology not defined and justified properly	Design methodology not appropriate to the problem statement
SW development / HW module fabrications	SW development / Hardware fabrication is excellent	SW development / Hardware fabrication is good	SW development / Hardware fabrication is not up to the mark	SW development / Hardware fabrication is poor
Algorithms or controller's implementation in Main /Subsystems	Algorithm/Controller implementation is suitable to the proposed project	Algorithm / Controller implementation is suitable but not providing the expected output	Algorithm / Controller implementation is not appropriate to the proposed project	Algorithm / Controller is not implemented properly
Performance Analysis of the proposed system	Expected performance is obtained	Moderate performance of the proposed system	Average performance is obtained	Poor performance of the system
Comparing the results of the proposed system with the State of Art	Results of the proposed system are expected level.	Results of the proposed system are satisfactory	Results of the proposed system are not satisfactory	Expected results are not obtained
Report	Project report is according to the specified format. Reference and Citations are appropriate and well mentioned	Project report is according to the specified format. Reference and Citations are appropriate and but not mentioned well.	Project report is according to the specified format but some mistakes and insufficient reference and citation	Project report is not prepared according to the specified format. Reference and Citations are not appropriate
Presentation Skills	Content of the presentation are appropriate and well arranged. Proper eye contact and attention with audience.	Content of the presentations are appropriate but not well arranged. Eye contact not proper	Content of the presentations are appropriate but not well arranged.	Content of the presentations are not appropriate and poor presentation

Communication skills	Communication is excellent and delivery was clear.	Communication and delivery were generally good but could have been more effective	Weak in communication skill. Delivery relied too much on ppt/notes and lacked spontaneity	Language was unclear. Delivery relied exclusively on notes

Continuous monitoring and evaluation of Project

The progress of a project is monitored by the Project Coordinator.

- The continuous progress is assessed through periodic review by panel (zeroth review, first review and second review before final review) based on Rubrics
- The purpose of the review is to track progress in the project work and to ensure that the student takes the correct direction to achieve the goals of the project.
- An external examiner shall evaluate in the final assessment. The findings are based on various criteria, which concentrated on the entire study path. These kinds of scheduled reviews help the students to develop their research, communication and team management skills.

Student Projects Funded by AMET

Our students have innovative ideas and much interested to do projects. Our university has launched student project funding scheme to encourage the students to involve in various innovative projects and invited project proposals for the grant of financial support to carry out the projects.

Our department students, whose project proposals have been selected and sanctioned for financial assistant with the amount is given below.

Table B.2.2.3 (h): Student Minor Projects Funded by AMET

S.No	Name of the Students	Title of the Projects	Name of the Supervisor	Seed Money Sanctioned by AMET
1	S. Alwin Renold	Geofencing	Dr. T. Sasilatha	Rs. 11,000/-
	N. Manikandan			
	Soundarapandiyan.L			
2	Bajare Shardul. J	Under Water & Flying Surveillance Robot	Dr. T. Sasilatha	Rs. 15,000/-
	Yashwanth			
3	R. Saravana Kumar	DFIG based wind farm for Reactive Power Compensation	Mr. S. Janarthanan	Rs. 15,000/-
	J. Thomson Pradeep			
	V. Aravindhan			
4	K. R. Gokula Krishna	Enhancement in Performance of Thin Film Solar Cells	Dr. V. Karthikeyan	Rs. 15,000/-
	T. Hariprasath			
	R. Siva Sankar			

Consultancy Project Completed by Our Students

Our students completed the project titled Cover CTR CPAD POKA YOKA System with Barcode Automation for Hyundai SANTRO LHD Variant at Sintex RAPL India Limited in association with CDCE Automation Pvt Ltd during the academic year 2018 – 2019.

Table B.2.2.3 (i): Consultancy Project done by III Year Students

S.No	Name of the Students	Title of the Project	Year
1	S. Venkatesh	POKA YOKA System with Barcode Automation	III Year / B.E(EEE-Marine)
2	Anitosh Mondal		
3	Ganesh Babu. K		
4	Naveen raj. R		



Figure 2.2.3 (b): Project Team of 'POKA YOKA System with Barcode Automation' with our Hon' Vice Chancellor

Impact Analysis of Student Project:

1. Innovative solutions for various industrial/societal problems are developed.
2. Skill set of the students are improved.
3. Acquire knowledge on various aspects of project management.
4. Confidence level of the students is increased.
5. Enhanced team spirit.
6. Document preparation and presentation.
7. More tendencies to showcase their project work in project exhibition were observed.
8. Products/prototypes are developed

Table B.2.2.3 (j): Projects Published/ Awards Received by Students (2019-2020)

S.No	Name of the students	Name of the Supervisor	Title of the Paper	Name of the Journal	Volume/ Issue No.
1	Ganesh Babu.K	Mr. S. Amirtharaj	Digital Control for MPPT Voltage Regulation of partial Shaded PV Module	Journal of Interdisciplinary Cycle Research	Vol: XII, Issue: III, March 2020
	Naveen Raj. R				
	Mohan Raj. R				
2	Dinesh Kumar. M	Mr. C. Gnanavel	UPF Rectifier for PMSG Based wind Energy Conversion system	Journal of Interdisciplinary Cycle Research	Vol: XII, Issue: III, March 2020
	Samul Mathew				
	Suriya.R				

	Venkatesh.S				
3	Azarutheen. S	Dr. D. Lakshmi	Speed Control of induction Motor Using Fuzzy and Internet of Things	Journal of Interdisciplinary Cycle Research	Vol: XII, Issue: III, March 2020
	Santhosh Kumar.D				
	Anitosh Mondal				
4	L. Patrica	Mr. C. Gnanavel	Experimental Investigation of Hybrid Battery/Super Capacitor Energy Storage System for Electric Vehicles	International Journal of Advanced Science and Technology	Vol: 29, Issue: 4s, 2020
5	M. Abisha	Dr. D. Lakshmi	SMEC Coil and PV Fed Z- Source Inverter based Electric Vehicle with Fuzzy Based speed control	Journal of Interdisciplinary Cycle Research	Vol: XII, Issue: III, March 2020
6	S. Viknesh	Ms. G. Jegadeeswari	Simulation and Implementation of Thirty One Level Cascaded Multilevel Inverter fed Brushless DC Motor Drive Applications	Journal of Xidian University	Vol: 14, Issue: 7, July 2020
	P. Dhanasekar				
	R. Dinesh				
	Manoj. CK				

Table B.2.2.3 (k): Projects Presented/Published in National/ International Conferences by Students (2019-2020)

S.No	Name of the Students	Title of the Paper	Name of the Conference	Venue	Date
1	Azarutheen. S	Improved Power factor and THD of CUK Converter using PMBLDC Motor for Electric Vehicles	1 st International Conference on Computer Communications & Power Systems (ICCCPS-2020)	Sri Venkateswaraa College of Technology, Chennai	29.05.2020
	Santhosh Kumar.D				&
	Anitosh Mondal				30.05.2020
2	Naveen Raj. R	Analysis of water Observation using Arduino based on GSM and Wireless Detector Technology	International Conference on Modern trends in Engineering & Research (ICMTER-2020)	Marthandam College of Engineering and Technology, Kanyakumari	12.03.2020
	Mohan Raj. R				&
	Ganesh Babu.K				13.03.2020
3	Beer Mohamed Uvaiz	Wi Fi Enabled System for Smart Electrical Appliances using Mesh Topology	International Conference on Modern trends in Engineering & Research (ICMTER-2020)	Marthandam College of Engineering and Technology, Kanyakumari	12.03.2020
	Vaithiyathan. S				&
	Sri Ram Surath Kumar.V				13.03.2020
4	S. Viknesh	Implementation of thirty one level cascaded multilevel inverter fed brushless dc motor drive applications	International E-Conference On "Challenges And Opportunities In Renewable Energy, Smart Systems And E-Mobility" (ICCORSE- 2020)	SRM Easwari Engineering College, Chennai	30.07.2020
	P. Dhanasekar				&
	R. Dinesh				31.07.2020
	C.K. Manoj				



Figure 2.2.3 (c): Certificate of Appreciation won by Students

To strengthen interaction with industries and to keep our students are updated with the latest trends in core industries, the Department had entered into an agreement with the following companies and organizations. Industry interactions helped the students to acquire the practical knowledge. So in order to improve the technical abilities various industry-institute collaborative activities are carried out in the Department.

Table B. 2.2.4 (a) Industry Supported Laboratories

S.No	Name of the Laboratory	Industry Collaboration	Activity	Title	Beneficiary
1	Centre of Excellence on On-Board Ship Automation	CDCE Automation and Robotics Pvt Ltd, Chennai	Value Added Training	Industrial Automation	43
			National Workshop	Conceptual Practices in Industrial automation	42
			Consultancy Project	POKA YOKA System with Barcode Automation	10
2	Incubation Centre on Robotics	Electronics Platform Research Labs (EPR Labs), Chennai	Value Added Training Program	Product development training and basic robotics using MCU	47
			Value Added Training Program	Product development training and basic robotics using MCU	29
			National workshop	Hands on training on BIPED walking robot for Industrial Application	40
			National workshop	Advances in Robotics and Artificial Intelligence	38

Table B. 2.2.4 (b) List of MOUs

S. No	Name of the MOU Partner	Company logo
1	TVS Training Services Pvt. Ltd, Chennai	
2	National Institute for Empowerment of Persons with Multiple Disabilities, Chennai	
3	Labtech Electronics Private Ltd. Chennai	
4	Signals and Systems Pvt. Ltd. Chennai	
5	VI Microsystems Pvt. Ltd. Chennai	
6	Equinox Pristine Info solutions, Chennai	
7	ENSUN Energy Systems Private Ltd., Chennai	
8	IPL Products, Chennai	
9	Pantech ProEd Pvt. Ltd., Chennai	
10	CDCE Automation and Robotics, Chennai	
11	Electronics Platform Research Labs (EPR Labs), Chennai	

12	Yokogawa India Limited, Chennai	
13	Ministry of Micro, Small, Medium t	

Table B. 2.2.4 (c) Beneficiary Activities under MOU's

S. No	MoU partner	Activity under MoU	Topics	Year
1	Lab Tech Electronics Private Limited, Chennai-600032.	Value Added Training Program	Solar Based Renewable Energy Technology	Jan 2019
2	VI Microsystems Pvt. Ltd. Chennai	Three Days Short term Training Program	Big Data Analytics in Smart Grid	Mar2020
3		Guest Lecture	Electrical Machines	Sep 2019
4		Training Program	Automation using PLC and SCADA	Apr 2019
5	TVS Training and Services Limited, Chennai	Value Added Training Program	Electrical Machines and Control	Sep2019
6		Value Added Training Program	Electrical Machines and Control	Mar2019
7	Ensun Energy Systems Pvt. Ltd, Chennai-600040	Workshop	Renewable energy sources and solar energy storage system	Sept 2018
8		Installation	Solar Power Plant	Oct 2017
9	Equinox Pristine Info solutions, Chennai-600054.	Faculty Development Program	Ethical Hacking and Cyber security	Sept 2018
10	I.P.L products ,Chennai	Industrial visit	Manufacturing of Distribution , Power for Isolators feeders pillar boxes	Sept 2019
11		Industrial visit	Manufacturing of Distribution , Power for Isolators feeders pillar boxes	Aug 2018
12		Industrial visit	Manufacturing of Distribution , Power for Isolators feeders pillar boxes	Mar 2018
13		International Conference Delegate	Panel Board Discussion	Oct 2018
14	Signals Systems (India) Pvt Ltd, Chennai-603103.	Guest lecture	Embedded System Design	Nov 2019
15		Industrial visit	Embedded Systems	Sept 2019
16		Value Added Training Program	Latest Technology Raspberry Pi with IoT using Python	Mar2019
17		Workshop	Machine learning using Python	Jan 2019
18		Guest lecture	Machine learning using PYTHON	Nov 2018
19		Industrial visit	Embedded design and Product Development	Aug2018
20		Industrial visit	Production Monitoring	Mar2018
21		Value Added Training	Industrial Automation	Sep 2020

22		Faculty Development Program	Industry 4.0	Aug 2019
23	CDCE Automation, Chennai-600054	National Workshop	Conceptual Practices in Industrial automation	Oct 2018
24		Value Added Training Program	Onboard shipping Automation	May 2017
25		Consultancy Project	Two Consultancy Projects completed	Apr2019
26		Value Added Training Program	Product development training and basic robotics using MCU	Dec2019
27	Electronics Platform Research Lab, Chennai	Value Added Training Program	Product development training and basic robotics using MCU	Nov 2018
28		National workshop	Hands on training on BIPED walking robot for Industrial Application	Aug 2018
29		Incubation Centre	Training for Students	Sept 2018
30		Industrial visit	Robotics using AI	Aug 2017
31		National workshop	Advances in Robotics and Artificial Intelligence	July 2017
32	Pantech Pro Ed. India Pvt. Ltd, Chennai	Faculty Development Program	Recent Trends on Renewable Energy & Power Electronics Using MATLAB	Sept 2017
33	Yokogawa India Limited Chennai-600034	One credit Course	Safety Instrumented System	May 2017
34		Guest Lecture	Industrial Instrumentation	Aug 2018
35	National Institute for Empowerment of persons with multiple disabilities (NIEPMD), Chennai	Community activity	Solar Power Plant Installation	Jan 2019

Table B. 2.2.4 (d) Participation of Experts from Industry in Curriculum Development

S.No	Name of the expert from industry	Nature of Association
1	Dr. Santhosh Annadurai Deputy General Manager, GE T&D Ltd, Chennai	Member of BOS
2	Dr. P. Aranganathan, Manager TVS- Sundaram Brakes Lining Ltd, Chennai	Member of BOS
3	Dr. S. Paramasivam, Functional Head- Research, Danfoss Industries Pvt Ltd. Chennai	Member of BOS
4	Mrs. Namakiri Ramesh, Senior Manager, Tech Mahindra Ltd, Chennai	Member of BOS

Table B. 2.2.4 (e) Value Added Training Program in Collaboration with Industry

S.No	Semester	Value Added Training Program	Company
1	(2018-2019) EVEN	Latest Technology on Raspberry Pi with IoT using Python	Signals & Systems (India) Pvt. Ltd, Chennai
2		Electrical Machines and Control	TVS Training & Services Limited, Chennai

3	(2018-2019) ODD	Product Development & Basic Robotics using MCU	Electronics Platforms Research Labs, Chennai
4		On-Board Ship Automation	CDCE Automation and Robotics, Chennai
5	(2019-2020) ODD	Solar Based Renewable Energy Technology	Labtech Electronics Pvt Ltd, Chennai
6		Computer Aided Design (CAD)	CADD Centre, Chennai
7		Product Development & Basic Robotics using MCU	Electronics Platforms Research Labs, Chennai
8		Electrical Machines and Control	TVS Training & Services Limited, Chennai
9	2019-2020 EVEN	Simulation of Electrical Circuits Using MATLAB	Lab Tech Electronics, Chennai
10		Measurement and Instrumentation	CDCE Automation and Robotics, Chennai
11		Design of Controllers using Labview	Pantech Pvt Ltd, Chennai
12		Programmable Logic Controllers	VI Micro Systems Pvt Ltd, Chennai

Table B. 2.2.4 (f) Workshop/ Faculty Development Program/ Seminar Organized in collaboration with Industry

Academic Year 2019-2020

S.no	Date	Program	Title of the Program	Industry Collaboration	Resource Person
1	25.05.2020 to 29.05.2020	Five days National level FDP	Modeling, technologies and Control on Electric vehicle (Powering the future of Sustainable Mobility)	- RRT Electro Power (P) Ltd, Chennai - Decibels Lab Pvt Ltd, Bengaluru - Innovation and VAVE Consultant, Bengaluru	- Dr. S. Sreejith, AP/EEE. NIT, SECHAR, Assam - Dr.T. Thandapani, Director, RRT Electro Power (P) Ltd, Chennai - Mr. S.D. Suraj, Founder and CEO Decibels Lab Pvt Ltd, Bengaluru - Mr. P. Arunraj, technical, Innovation and VAVE consultant, Bengaluru - Dr. C. Bharathraja, ASP/EEE, SRM Institute of Science and Technology, Chennai
2	02.03.2020 to 04.03.2020	Three days short term training program	Big Data Analytics in Smart Grid	VI Micro Systems Pvt Ltd, Chennai	- Dr. R. Vijayarajeswaran, Managing Head, VI Micro Systems Private Limited - Mr. Satish Kumar, Technical Head, VI Micro Systems Pvt Ltd. - Er. K. Karunakaran, RTD, SEE, TANGEDCO, Chennai
3	17.12.2019 to 19.12.2019	Three Days National workshop	Artificial Intelligence and Machine Learning using Python	3G Institute of Research Policy and Studies, IIT Campus, Chennai	Mr. R. Venkatraj, Business Head, 3G I R P S, IIT Campus, Chennai
4	13.08.2019	One day workshop	Hands-on Training on Printed Circuit Board Design	IE Solutions Pvt Ltd, Chennai	Mr. A. Parameswaran, Support Engineer, IE Solutions Pvt Ltd, Chennai
5	21.08.2019 & 22.08.2019	Two days' workshop	Role of Surveillance robots in smart factories	Electronics Platform Research Labs, Chennai	Mr. Karthikeyan, Chief Operating Officer, Electronics Platform Research Labs, Chennai

6	19.09.2019 & 20.09.2019	Two Days FDP	Smart Micro Grids and Energy Storage using Homer and PV System	Power projects private Limited, Chennai	• Mr.P.Selva Kumar, CEO /Founder, Power Projects Pvt.Ltd. Chennai

Academic Year 2018-2019

S.no	Date	program	Title of the Program	Industry Collaboration	Resource Person
1	22.03.2019	One day workshop	Machine Learning using Python'	Signals & Systems India Pvt Ltd, Chennai	• Mr. E. Murugan, Engineer & Project Development, Signals & Systems (India) Pvt Ltd
2	30.03.2019	One Day National Seminar	Electric And Hybrid Electric Vehicle	Ashok Leyland, Chennai	• Mr. Venugopal.P, Senior General Manager (R&D), Brakes India Pvt Ltd, Chennai • Mr. B. Balaji, GM, Ashok Leyland, Chennai • Mr. S.A. Sundaresan, Vice-President, EV and E-Mobility Solutions, Ashok Leyland, Chennai
3	08.04.2019	One day workshop	Renewable Energy Sources and Solar Energy Storage System	Ensun Energy India Pvt Ltd, Thiruparankundram, Tamilnadu	• Mr. K. Kandasamy, Managing Director, Ensun Energy India Pvt Ltd
4	22.02.2019 & 23.02.2019	Two day workshop	Ethical Hacking and Cyber Security	Pristine Info solutions Pvt Ltd, Mumbai	• Mr. Sankalp Mate, Cyber Security Analyst, Pristine Info Solutions, Mumbai
5	30.01.2019 & 31.01.2019	Two day workshop	Simulation of Power System Transients in modern grids	Powersys Solution, Chennai	• Mr. V.P. Boopathi, Senior Support Engineer, Powersys, Chennai
6	29.01.2019	One day workshop	Hands-on Training on Printed Circuit Board Design	IE Solutions Pvt Ltd, Chennai	• Mr. Sundar, Support Engineer, IE Solutions Pvt Ltd
7	07.09.2018 & 08.09.2018	Two day workshop	Hands-on Training on Internet of Things using Raspberry PI	IFANDFOR ENDEAVOURS, Chennai	• Mr. S. Kalidas, Founder & Director, IFANDFOR Endeavours, Chennai
8	30.08.2018 & 31.08.2018	Two day workshop	Hands-on Training on BIPED Walking Robot for Industrial Application	Electronics Platform Research Labs, Chennai	• Mr. R. Purushothaman, CEO / Founder, Electronics Platform Research Labs

Academic Year 2017-2018

S.no	Date	program	Title of the Programme	Industry Collaboration	Resource Person
1	08.03.2018 & 09.03.2018	Two Days National Seminar	Analysis of Transients in Power System using Electromagnetic Transient Program (EMTP-RV)	Powersys Solution, Chennai	• Mr. V.P. Boopathi, Senior Support Engineer, Powersys, Chennai • Mr. D. Yabes, Support Engineer, Powersys, Chennai
2	13.12.2017 & 14.12.2017	Two Days National Workshop	Conceptual Practices in Industrial Automation	CDCE Automation, Chennai	• Mr. Rajasekar Jayakumar, Director, CDCE Automation, Trainer- Ministry of Micro, Small & Medium Enterprises
3	07.12.2017 & 8.12.2017	Two Days National Workshop	Advances in Robotics and Artificial Intelligence	Electronics Research Labs, Chennai	• Mr. R. Purushothaman, CEO / Founder, Electronics Platform Research Labs, Chennai

4	22.09.2017	One Day FDP	Electromagnetic Transient Program (EMTP-RV) for power system Applications	Powersys Solution, Chennai	• Mr. V.P. Boopathi, Senior Support Engineer, Powersys, Chennai • Mr. D. YABES, Support Engineer, Powersys, Chennai
5	15.09.2017 & 16.09.2017	Two Days FDP	Recent Trends on Renewable Energy & Power Electronics Using MATLAB	Pantech ProEd Pvt Ltd, Chennai	• Mr. M. Malaippan, Director, Pantech Group of Companies, Chennai • Mr. J. Gokul Kumar, Head-Training & Placements, Pantech ProEd Pvt Ltd, Chennai

Table B. 2.2.4 (g) Guest lectures by various industry experts for partial delivery of the courses

Academic Year (2019-2020)

S. No	Name of the Resource person	Topics	Year
1	Er. Thirumal, AE, TANGEDCO, Chennai	Renewables constraints to integrate with grid	04.03.2020
2	Rtd. Er. P. Rajagunanidhi, Executive Engineer, TNEB, Chennai	Grid integration And its challenges	03.03.2020
3	Mr. S. Ramalingam, National President, Energy and Fuel User Association of India.	Uses of Renewable Energy & Conservation of Fossil fuels,	05.02.2020
4	Er. K. Ramesh, Executive Engineer/Protection Communication/Korattur, TANTRANSO, TNEB, Chennai	Analysis and Mitigation of power Quality and protection in power system	10.01.2020
5	Mr. Karunakaran, Rtd. Superintending Engineer TANGEDCO, Chennai	Commissioning of 210KV Substation-Sunguvarchathram	09.01.2020
6	Mr. E. Arun Kumar, Vice President, RETECH Solutions private Limited, Chennai	Applications of special electrical machines in industrial robotics	15.11.2019
7	Mr. K. S. Kavin, R&D Engineer, AB Technologies, Nagercoil	Hardware interfacing with microcontrollers	12.11.2019
8	Dr. J. Balamurugan, AE/TNEB, Chennai	Renewable energy and environment control	31.10.2019
9	Dr. C. L. Kuppuswamy, Deputy General Manager, Saipem, India	Electrical Machines and transformers in Marine Applications	23.10.2019
10	Mr. G. Balamurali, AE, TANGEDCO, Chennai	Mitigation of issues in power systems	14.09.2019
11	Mr. M. S. Balasubramanian, Design Manager, L&T, Chennai	Power Generation from thermal power plant	14.09.2019
12	Mr. R. Vijayarajeswaran, VI Micro system, Chennai	Electrical Machines and its applications,	15.09.2019
13	Mrs. Padmavathy, Sarada Technologies Training and Development, Chennai	Industry 4.0	14.08.2019

Academic Year (2018-2019)

S. No	Name of the Resource person	Topics	Year
1	Mr. Sugumar, Project Lead, Chennai	Machine learning using Python	12.03.2019
2	Mr. Manoj Ranganathan, Mobicore Pvt. Ltd, Chennai	Process control and marine automation	13.03.2019
3	Mr. A. Murugesan, Rtd. expert from TNEB, Chennai	Transmission And Distribution	12.02.2019
4	Mr. Hariharan, Powersys, Chennai.	Marine Electrical System Design and Layout	15.11.2018
5	Mr. Murugan, Engineering & Project Development, SANDS, Chennai	Embedded System Design	16.11.2018
6	Mr. C. Jayashankar, Scientist – E, CVRDE, DRDO, Avadi, Chennai.	Electrical Estimation and Wiring	20.11.2018

7	Er. B. Srinivasan, Senior Manager, TANGEDCO, Chennai	Solutions in harnessing the Renewable energy for power generation	20.08.2018
8	Er .B. Muthuraj, Senior Manager, HP Private Limited, Chennai	IoT based Embedded system	14.09.2018
9	Mr.S.Kumar,Ph.D,AEE, CEDC, TANGEDCO, West Chennai	Mitigation of issuesin power High voltage Engineering	27.09.2018
10	Er. B. Srinivasan, Senior, Manager, TANGEDCO, Chennai	Industry 4.0	17.09.2018

Academic Year (2017-2018)

S. No	Name of the Resource person	Topics	Year
1	Mr. Balasubramanian , R&D Engineer, Chennai	Embedded system and IOT	07.08.2017
2	Dr. Mohana Sundaram, Ph.D,AEE,TANGEDCO, Project Division, Head Office, Chennai	Mitigation of issues in power plant Engineering	08.09.2017
3	Mr. A.Prabu , AGM,Volt Tech Engineers Private Limited, Chennai	Testing and Commissioning of Substation	15.09.2017
4	Dr.S.Kumar,Ph.D,AEE, CEDC, TANGEDCO, West Chennai	Issues on Power system Protection	28.09.2017
5	Mr. K.Ramachandran , Director, Adhithya Electrical Power System Private Limited	Power plant –Load Flow Analysis	02.10.2017
6	Er. B. Srinivasan, Senior Manager, TANGEDCO, Chennai	Solutions in harnessing the renewable energy for power generation	28.01.2018
7	Er .B. Muthuraj, Senior Manager, HP Private Limited, Chennai	IOT in Electrical Sensor	16.02.2018
8	Er.K.Gokula Krishnan, Director, Nest Lives Private Limited, Chennai	Design and Installation of Solar PV Systems	23.02.2018
9	Er. B. Srinivasan, Senior Manager, TANGEDCO, Chennai	Solutions in harnessing the renewable energy for power generation	08.03.2018
10	Dr.C.L.Kuppuswamy, Deputy General Manager, Saipem India	Electrical Machines and transformers in Marine Applications	22.03.2018

Table B 2.2.4 (h) Impact Analysis of Industry Institute Interaction

Initiative	Implementation	Impact Analysis
Industry-Institute Interaction	Arranging Guest Lectures, Workshop and Value added training to students inside the University with different industrial Experts. e.g. Signals & Systems (India) Pvt. Ltd , TVS Training & Services Limited, Electronics Platforms Research Labs , CDCE Automation and Robotics, Labtech Electronics Pvt,3G Institute of Research Policy and Studies, Pristine Info solutions Pvt Ltd, etc.	Industry-Institute Interaction is the most preferred activity for mutual benefit and growth of industries as well as institutions.
		It encourages the students to undertake the final year projects in the industry with a joint supervisor from the industry.
		It increases the research and development activities in both industries as well as institutions.
		Teaching-learning processes improves by integrating industrial training to the students which provides an exposure of the corporate world.
		It promotes development of entrepreneurs which further leads to rapid industrialization.
		To produce proficient graduates ready for the industry, it is necessary to know the requirements of the industries through industry-institute interaction.
		Hands on experience on Latest technology.

2.2.5 Initiatives related to industry internship/summer training (10)

Institute Marks : 10.00

INDUSTRIAL INTERNSHIP:

The students are encouraged to take up internship programs during their semester break. Faculty give their guidelines, suggestions and scope and contact details of an internship. They also helped the students by interacting with the industrial experts, provide the students recommendation letters and other necessary supports. The alumni coordinator constantly interacts with alumni those who are working in the industries and request them to provide necessary guidelines and supports for their junior's internship.

Scheme of Evaluation for Industrial Internship**Internal Review-50 Marks**

Marks are awarded by Internship Coordinator and HOD based on the evaluation through rubrics.

External Review– 50 Marks

Expert committee review the internship report and awards the marks based on the rubrics.

HOME INTERNSHIP:

COVID-19 pandemic has impacted every sector in the country including education. Summer internships have been impacted negatively and many students are deprived of industrial Exposure during March 2020. AICTE has given guidelines to the students to work from home internship which includes easy to do internship like data entry, content writing, design of electrical systems etc. Based on the guidelines the home internship program is planned for 15 days.

1. Each day student worked for 3 hours Internship either in book or online material from home and same activity was noted in dairy/note
2. Each batch submitted the title of internship to their respective Mentors, one week prior to the start of internship and got approval.
3. Every weekend students report the progress of work to the internship coordinator through concern Mentors.
4. Each group prepared the Internship report and submits the individual daily activity diary/ note on the reopening day of the University
5. The outcome of the students is measured on the basis of Internship report, Daily note, Presentation, Viva Voce and as per AICTE Guidelines.
6. The Evaluation of home internship is done by Panel members approved by HOD, Mentor and Internship Coordinator.

Implementation details:**Table B. 2.2.5 (a) Industrial Internship****Academic Year (2019-2020)**

S.No	Name of the Students	Company Name	Duration of the Internship	No. of Days
1	Akash S	HYKON India Pvt Ltd, Kerala	14.02.2020 to 14.03.2020	30 days
2	Abiraj.B	HYKON India Pvt Ltd, Kerala	14.02.2020 to 14.03.2020	30 days
3	Joel Robinson	HYKON India Pvt Ltd, Kerala	14.02.2020 to 14.03.2020	30 days
4	Immanuel Peter James	HYKON India Pvt Ltd, Kerala	14.02.2020 to 14.03.2020	30 days
5	Punnoose Benny	SMEC Private Ltd, Kerala	14.01.2020 to 28.01.2020	15 days
6	Sreerag Sreekumar	SMEC Private Ltd Kerala	14.01.2020 to 28.01.2020	15 days
7	V.Vinnarasi	TANGEDCO, Chennai	21.01.2020 to 04.02.2020	15 days
8	A.Yogesh Kumar	TANGEDCO, Chennai	21.01.20 to 04.02.2020	15 days
9	P.Naveen	TANGEDCO, Chennai	30.12.2019 to 13.01.2020	14 days
10	R.Manoj Kumar	TANGEDCO, Chennai	30.12.2019 to 13.01.2020	14 days
11	D.S. Manivannan	TANGEDCO, Chennai	30.12.2019 to 13.01.2020	14 days

12	Sridhar.B	TANGEDCO, Chennai	30.12.2019 to 13.01.2020	14 days
13	Aagash G	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
14	Abhishek M Deepak	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
15	Balamurugan K	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
16	Balaji M	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
17	C R Brijesh	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
18	Mohammed Shuaib K	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
19	Pradeep M	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
20	V Rudran	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
21	K.Sudarshan	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
22	Surya Prasad A	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
23	K.Vignesh	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
24	M.C.Veerapathiran	Cochin Shipyard Limited, Kerala	17.12.2019 to 28.12.2019	14 days
25	P.Balaganesh	P.V. Spinning Mill India Pvt Ltd, Sathamangalam	21.11.2019 to 03.12.2019	14 days
26	P.Adarsh	Foreview Technologies Pvt Ltd, Chennai	02.10.2019 to 15.10.2019	14 days
27	P.Arun	Foreview Technologies Pvt Ltd, Chennai	02.10.2019 to 15.10.2019	14 days
28	N.Hariharan	Foreview Technologies Pvt Ltd, Chennai	10.07.2019 to 23.07.2019	14 days
29	Mohamed Najeem.N	Foreview Technologies Pvt Ltd, Chennai	01.07.2019 to 15.07.2019	15 days
30	B.Nirmal Kumar	Foreview Technologies Pvt Ltd, Chennai	02.10.2019 to 15.10.2019	14 days
31	Navin Anand	Foreview Technologies Pvt Ltd, Chennai	02.10.2019 to 15.10.2019	14 days
32	Purushothaman.N	Foreview Technologies Pvt Ltd, Chennai	10.07.2019 to 23.07.2019	14 days
33	Venkatesan.K	Foreview Technologies Pvt Ltd, Chennai	01.07.2019 to 15.07.2019	15 days
34	Ezhilarasan.R	Foreview Technologies Pvt Ltd, Chennai	10.07.2019 to 23.07.2019	14 days
35	M.C.Veerapathiran	Kaashiv InfoTech, Chennai	21.07.2019 to 03.08.2019	15 days
36	Joel Rodrigues Da Costa Mestre	CADD Centre, Chennai	13.06.2019 to 08.07.2019	26 days

Academic Year (2018-2019)

S.No	Name of the Students	Company Name	Duration of the Internship	No. of Days
1	Snahasish Saha	Garden Reach Ship builders & Engineers Ltd,Kolkata	29.05.2019 to 27.06.2019	28 days
2	Manivannan.D.S	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
3	P.Dhanasekar	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
4	R.Hemanth Raj	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
5	R.Karthick	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
6	Brijesh.C.R	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days

7	Balamurugan.K	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
8	HasheemShariff.I	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
9	Manoj.ck	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
10	Manoj kumar.R	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
11	Naveen.B	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
12	M.Pradeep	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
13	Santhosh.B	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
14	Sridhar.B	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
15	Pratik Kumar Gupta	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
16	Viknesh.S	Hindustan Shipyard Ltd, Visakhapatnam, AP	27.05.2019 to 08.06.2019	12 days
17	Raj Kumar .E	Vik-Sandvik Design India Pvt. Ltd., Chennai.	1 Month	30 days
18	Jayakumar .M	Vik-Sandvik Design India Pvt. Ltd., Chennai.	1 Month	30 days
19	Shardul Bajare	ALBION Engineering India, Chennai	1 Month	30 days
20	Surya Kumar.A	ALBION Engineering India, Chennai	1 Month	30 days
21	R.Navin Kumar	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
22	N.Manikandan	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
23	Oswin Sancho	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
24	Sivaraman.U	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
25	Soundarapandiyan.L	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
26	L.Ajith Kumar	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
27	I.Inbaraj	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
28	Aashlyn Mossas Antony	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
29	Akshai	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
30	S.AllwinRenold	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
31`	Ananthan Unni	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
32	M.Baskar	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
33	S.DivinsSobi	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
34	S.Yaswanth	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
35	B.Joseph Melvin	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
36	Mohammed Azhair.M.S	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
37	Yogesh Kumar.A	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
38	Maheshwaran. A	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
39	V.Vinnarasi	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days

40	Hemanth Raj.R	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
41	A.Duraipandi	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
42	Santhosh.B	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
43	DS.Manivannan	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
44	S.Viknesh	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
45	B.Sridhar	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
46	R.Karthick	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
47	B. Naveen	Chennai Port Trust, Chennai	26.12.2018 to 10.01.2019	14 days
48	M.Mathandeepeu	NSIC Technical Services Centre. Chennai	18.12.2018 to 30.12.2018	14 days
49	K.Jayakrishnan	NSIC Technical Services Centre. Chennai	18.12.2018 to 30.12.2018	14 days
50	M.Jayakumar	NSIC Technical Services Centre. Chennai	18.12.2018 to 30.12.2018	14 days
51	K.Vignesh	NSIC Technical Services Centre. Chennai	18.12.2018 to 30.12.2018	14 days
52	Sri Snahasish Saha	Paradip Port Trust, Odisha	01.06.2018 to 15.06.2018	15 days

Academic Year (2017-2018)

S.No	Name of the Students	Company Name	Duration of the Internship	No. of Days
1	Jayakumar M	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
2	Navin Kumar R	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
3	Ajith Kumar L	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
4	Vignesh K	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
5	Jaya Krishnan K	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
6	Baskar M	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
7	Raj Kumar E	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
8	Bajare Shardul Jayantha	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
9	AllwinRenold S	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
10	Yaswanth S	Chennai Port Trust, Chennai	26.12.2017 to 08.01.2018	14 days
11	Avinash Vijay	K.R. Industries, Chennai	20.12.2017 to 04.01.2018	14 days
12	Beer Mohamed Uvaiz. N	K.R. Industries, Chennai	20.12.2017 to 04.01.2018	14 days
13	Ganeshbabu K	K.R. Industries, Chennai	20.12.2017 to 04.01.2018	14 days
14	Joel Robinson	K.R. Industries, Chennai	20.12.2017 to 04.01.2018	14 days
15	Punnoose Benny	K.R. Industries, Chennai	20.12.2017 to 04.01.2018	14 days
16	Snahasish Saha	K.R. Industries, Chennai	20.12.2017 to 04.01.2018	14 days
17	Sreerag Sreekumar	K.R. Industries, Chennai	20.12.2017 to 04.01.2018	14 days
18	Praveen.D	K.R. Industries, Chennai	20.12.2017 to 04.01.2018	14 days

19	Akash S	K.R. Industries, Chennai	26.12.2017 to 09.01.2018	15 days
20	Santhosh Kumar D	K.R. Industries, Chennai	26.12.2017 to 09.01.2018	15 days
21	Vaithyanathan M S	K.R. Industries, Chennai	26.12.2017 to 09.01.2018	15 days
22	Sri Ram Surath Kumar. V	K.R. Industries, Chennai	26.12.2017 to 09.01.2018	15 days
23	Krishnaraj.S	K.R. Industries, Chennai	26.12.2017 to 09.01.2018	15 days
24	Azarutheen S	K.R. Industries, Chennai	26.12.2017 to 09.01.2018	15 days
25	Gokulakrishnan.B	K.R. Industries, Chennai	26.12.2017 to 09.01.2018	15 days
26	Dinesh Kumar.M	K.R. Industries, Chennai	26.12.2017 to 09.01.2018	15 days
27	Sivasankar R	K.R. Industries, Chennai	07.09.2017 to 21.09.2017	15 days
28	Thomson Pradeep J	K.R. Industries, Chennai	07.09.2017 to 21.09.2017	15 days
29	Hariprasath T	K.R. Industries, Chennai	07.09.2017 to 21.09.2017	15 days

Table B 2.2.5 (b) Questionnaires for industrial internship

Q1	To what extend does the training help you to learn the recent advances in technology?
Q2	How far the training does equip you with necessary technical skills to face the industry?
Q3	To what extend does the training encompass job oriented content that will help you in getting a job?
Q4	How far does the training provide the knowledge that you are expected to be required?
Q5	To what extend does the training extend an opportunity to develop your personality, communication, leadership skills and critical thinking skills?
Q6	To what degree does the training facilitate you in improving your ability to formulate, analyse and solve problems?
Q7	How far did the training inculcate necessary values to have a concern for the society?
Q8	To what extend does the training expand your understanding on the ethical and environmental issues concerning engineering in society?
Q9	How far did laboratory enhance your understanding of the concepts?
Q10	To what extend does the laboratory enable you to apply the learnt theory practically?
Q11	Acceptance by fellow workers and coordination with them, opportunity to develop your human relations.
Q12	How far did the training provide you levels of responsibility consistent with your ability and growth?

Table B.2.2.5 (c) Sample Students Feedback Analysis for Industrial Internship – 2019-2020

Name of the Students	Register Number	Year/Sem	Name of the Industry	Period of Training	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	REMARKS
Akash S	AEE16028L	IV	HYKON India Pvt Ltd, Kerala	1 Month	2	2	3	3	2	2	2	3	2	2	3	2	Learned Many New Ideas Based On Eee
Abiraj.B	AEE16001	IV	HYKON India Pvt Ltd, Kerala	1 Month	3	3	2	3	3	3	2	2	3	3	3	2	Excellent
Joel Robinson	AEE16010	IV	HYKON India Pvt Ltd, Kerala	1 Month	3	2	3	3	2	2	3	2	2	2	3	2	Excellent Campus Placement and Good Training Given

Immanuel Peter James	AEE16009	IV	HYKON India Pvt Ltd, Kerala	1 Month	3	2	3	2	3	3	3	2	3	3	3	3	Excellent Coordination, Good Interaction
Punnoose Benny	AEE16016	IV	SMEC Private Ltd Kerala	1.5 Months	2	2	2	2	2	2	3	2	2	2	3	2	Excellent Training Given
Sreerag Sreekumar	AEE16026	IV	SMEC Private Ltd Kerala	1.5 Months	3	3	3	3	3	3	3	3	3	3	3	3	Gathered Knowledge About The Preparation Of Circuit Board.EX PCB Board
V.Vinnarasi	AEE17001	III	TANGENCO, Chennai	8 Days	3	2	3	3	3	3	3	3	3	3	3	3	Good
A.Yogesh Kumar	AEE17046	III	TANGENCO, Chennai	8 Days	3	2	2	3	3	2	2	2	1	1	1	1	Good
P.Naveen	AEE17031	III	TANGENCO, Chennai	8 Days	3	3	2	2	2	3	3	3	3	3	3	3	Good Experience
R.Manoj Kumar	AEE17025	III	TANGENCO, Chennai	8 Days	3	2	2	3	2	2	3	3	2	2	3	3	Good Guidance And training given
D.S. Manivannan	AEE17023	III	TANGENCO, Chennai	8 Days	2	2	3	3	2	2	2	3	2	2	3	2	Good Training Given
Sridhar.B	AEE17048	III	TANGENCO, Chennai	8 Days	3	3	3	3	3	3	3	3	3	3	1	2	Good Training Given
Aagash G	AEE17002	III	Cochin Shipyard Limited, Kerala	5 Days	2	2	3	3	2	2	2	3	2	2	3	2	Good. Still Need To Improve Regarding Equipments
Abhishek M Deepak	AEE17003	III	Cochin Shipyard Limited, Kerala	5 Days	3	2	3	3	3	2	3	3	2	3	2	3	Improved Our Technical Skills
Surya Prasad A	AEE17041	III	Cochin Shipyard Limited, Kerala	5 Days	2	2	1	1	1	1	3	3	2	2	3	3	This Training Is Practical And Understanding
K.Vignesh	AEE17053L	III	Cochin Shipyard Limited, Kerala	5 Days	3	3	3	3	3	3	2	2	3	3	1	1	Training Was Good
M.C.Veerapathiran	AEE17052L	III	Cochin Shipyard Limited, Kerala	5 Days	3	3	2	2	3	2	3	2	2	2	3	3	Very Good Response And Flexibility
P.Balaganesh	AEE17009	III	P.V. Spinning Mill India Pvt Ltd, Chennai	9 Days	3	3	3	3	3	2	3	3	3	2	2	2	Very Good Response And Flexibility
P.Adarsh	AEE17004	III	Foreview Technologies Pvt Ltd, Chennai	6 Days	2	1	1	1	1	3	3	2	2	3	3	3	Very Useful.
P.Arun	AEE17007	III	Foreview Technologies Pvt Ltd, Chennai	6 Days	3	3	3	3	3	3	3	2	2	2	3	3	Very Useful.
N.Hariharan	AEE17016	III	Foreview Technologies Pvt Ltd, Chennai	6 Days	3	2	2	3	2	2	3	3	2	2	3	3	Very Useful.
Mohamed Najeem.N	AEE17026	III	Foreview Technologies Pvt Ltd, Chennai	6 Days	2	3	3	3	3	3	2	2	2	3	3	2	Very Useful.
B.Nirmal Kumar	AEE17033	III	Foreview Technologies Pvt Ltd, Chennai	6 Days	3	2	2	3	2	2	3	3	2	2	3	3	Very Useful.
Navin Anand	AEE17032	III	Foreview Technologies Pvt Ltd, Chennai	6 Days	3	3	2	3	3	3	2	3	2	3	2	3	Very Useful.

Purushothaman.N	AEE17035	III	Foreview Technologies Pvt Ltd, Chennai	6 Days	3	3	3	2	2	3	3	3	3	3	3	3	Very Useful.
Venkatesan.K	AEE17044	III	Foreview Technologies Pvt Ltd, Chennai	6 Days	2	2	3	3	2	2	2	3	2	2	3	2	Very Useful. Good Training Given
Ezhilarasan.R	AEE17051L	III	Foreview Technologies Pvt Ltd, Chennai	6 Days	3	3	3	3	3	3	3	3	3	3	2	3	We Got More Exposure Towards New Software Like Dig silent, MI power. Obtained A Good Technical Knowledge
M.C.Veerapathiran	AEE17052L	III	Kaashiv InfoTech, Chennai	6 Days	3	3	3	2	3	3	3	3	3	2	2	3	We Got More Knowledge about Matlab Software
Joel Rodrigues Da Costa Mestre	AEE17050	III	CADD Centre, Chennai	1 Month	3	2	2	3	2	2	3	3	2	2	3	3	We Got More Knowledge about Software ETAP 12.6.0
				Average	2.667	2.417	2.53	2.639	2.44	2.5	2.639	2.64	2.39	2.42	2.58	2.4	

Impact Analysis of Industrial Internship

1. Students are exposed to real time practical experience of the subjects studied in the class room and realized the practical importance of the subjects
2. Industrial training inculcated more interest in the subjects.
3. Student's technical skills have improved
4. Communication skills of the students have improved
5. Student's placement has improved
6. Students gain valuable hands on experience
7. Students participate in more technical events
8. Students will explore the internship outcomes in terms of innovative projects.

HOME INTERNSHIP

Table B.2.2.5 (d) Home Internship

Academic Year (2019-2020) – I YEAR

S.No	Name of the Students	Internship Topic	Name of the Guide/ Mentor
1	Gokul Vishnu. R Nithish. P Ajay Kannan Sevugaperumal. K Veermanikandan. K	Digital Manifold Gauge	Mrs. R. Elavarasi
2	Aswin Saji Risi Gokulnath. M Amita Gadling, Shaurab Modak	Electric Power Grid	Dr. T. Baldwin Immanuel

3	Aravind Kumar. R Durai Ruben. G Madhuban. M Sriraj. A Nithin Vinith. R	Automatic Street Light Using LDR	Dr. V. Karthikeyan
4	Syed Mohammad Salman Arun Kumar. G Uday Kumar Namala Saket	Adaptive Piezoelectric Energy Harvesting Circuit	Dr. G. Themozhi
5	Ashwin.S Jyothish Azad. S.K Basil Saji	Light Emitting Diode	Mr. C. Gnanavel
6	Ajay.G Anandu Madhav. A Abhinav.V Abhinav.S.	Self-Switching Power Supply	Mr. P. Veerakumar
7	Aditya Kumar Immanuel Kujur Yaswanth Babu. K Louice Paul. P	Transformer	Mr. S. Janarthanan
8	Dharshini. S Ganesh Sudheep Alex Prem	Wind Mill	Dr. Deva Brindha

Academic Year (2019-2020) – II YEAR

S.No	Name of the Students	Title of Internship	Name of the Supervisor
1	Pradeep Kumar R Vomsi S Vengadeshwara Rao S Austin Jebraj S	Renewable energy (Solar,Wind,Fuel Cells)	Dr. V. Karthikeyan

2	Dinesh. M Amuthan. A Sai Hari. S Mahima. R	IoT based health monitoring System/Agriculture/Marine Applications	Dr. T.Baldwin Immanuel
3	Jayalal. J James Jain Prabhul B Balaji. M	Review of Power Converters for Solar System	Mr. Amirtharaj
4	Gokul Raj. R Tamil Selvan. D Vinu. P Adharsh. B.A	Review of MPPT Control	Mr. Manikandan
5	Manoj. V Krishnakanth. U Akash P Karan R K	Energy storage system	Ms. G. Jegadeeswari
6	Anadhu.K Biju. J Sethu.V	Design of Electrical Vehicle.	DR. Deva Brindha

Academic Year (2019-2020) – III YEAR

S.No	Name of the Students	Title of Internship	Name of the Supervisor
1	Balamurugan K Nirmal Kumar B Pradeep M Surya Prasad A	Study of Machine Learning in Agricultural sectors	Dr. T. Sasilatha
2	I Hasheem Shariff Manivannan Ds Mohamed Yaseer N Joel Rofotopolos Rodrigues Da Costa Mestre	Study on Thermoelectric Generation system for Waste Heat Recovery	Dr. V. Karthikeyan
3	P Dhanasekar Dinesh R Manoj C K Viknesh S	Performance Analysis of Cascaded Multilevel Inverter Fed Brushless Dc Motor	Ms. G. Jegadeeswari

4	Hemanth Raj R	IOT Based Monitoring of Electrical Machines	Mr.K.Manigandan
	Jaya Surya G		
	Mohamed Najeem N		
	Udhayakumar A		
5	Arun Kumar K S	Smart Locking system	Dr. D. Lakshmi
	Mohammed Azhair M S		
	Mohammed Shuaib K		
	Naveen P		
	Sudarshan K		
6	Adarsh P	Smart energy meter to control tapping	Dr. G. Themozhi
	Duraipandi A		
	Rudran V		
	Veerapathiran M C		
7	Vinnarasi V	Detection of Plant stress Identification using Machine Learning	Mr. P. Veerakumar
	Manoj Kumar R		
	Maheshwaran A		
	Pratik Kumar Gupta		
8	Aagash G	Maintenance of ship using Robotics	Dr. T. Baldwin Immanuel
	Brijesh C R		
	Yogesh Kumar A		
	Vignesh K		
9	Bala Ganesh P	Automated Boat Using Sensor	Dr.M.Deva Brindha
	Hariharan N		
	Ezhil Arasan R		
	Purushothaman.N		
	Akash K		
10	Abhishek M Deepak	Electric Prevent Hijacker system using Raspberry-PI	Mr.Amritharaj
	Arun P		
	Balaji M		
	Navin Anand		
	Venkatesan. K		
11	Karthick R	Study of Robotics in Hazardous Situations	Mr.C.Gnanavel
	Naveen B		

	Santhosh B		
	Sridhar		

Academic Year (2019-2020) – IV YEAR

S.No	Name of the Students	Title of Internship	Name of the Mentor
1	Ganesh Babu.K	Efficient MPPT Technique for PV system	Dr. D. Lakshmi
2	Naveen Raj.R		
3	Mohan Raj.R		
4	Surya.A	Remote operated solar panel cleaning system	Dr. V. Karthikeyan
5	Praveen.D		
6	Karthi.P		
7	Abiraj.B	Simulation of half bridge impedance source inverter for automotive applications	Mr. S. Janarthanan
8	Joel. Robinson		
9	Akash.S		
10	Immanuel Peter	Safety system for bike riders	Dr. T. Baldwin Immanuel
11	Punnoose. Benny		
12	Sreerag.Sreekumar		
13	Avinash. Vijay	Power factor correction and speed control of BLDC motor with SEPIC converter	Ms. G. Jegadeeswari
14	Dharun.S		
15	Sri Ram Surath Kumar.V		
16	Beer Mohammed Uvaiz	Wind Energy Conversion System	Mr. C. Gnanavel
17	Vaithinathan M S		
18	Dinesh Kumar.M		
19	Venketesh.S	Home Automation system	Mrs. R.K. Padmashini
20	Suriya.R		
21	Samuel Mathew.G		
22	Gokulakrishnan.B	Earth fault Identification on ships.	Mr. S. Janarthanan
23	Vignesh.B		
24	Snahasish. Saha		
25	Azarutheen.S	Speed Control of Induction motor with advanced controllers	Mr.K.Manikandan
26	Santhosh. Kumar		
27	Anitosh Mondal		
28	Krishnaraj.S	Design of Suitable dc to dc converter for charging and discharging of solar system	Dr. G. Themozhi

Table B. 2.2.5 (e) Implementation and Impact Analysis of Home Internship

Initiative	Implementation	Impact Analysis
In House Summer Training / Home Internship as per the guidelines given by AICTE	During lockdown period In-house training is arranged for the students through digital technology. Faculty mentors help the students and get the benefits of their expertise.	Improvement in the competency on using simulation tools.
		Better exposure on digital technologies
		Understanding Virtual lab concepts initiated by MHRD.

Industrial Visit:

The Department organizes industrial visits for students to relevant organizations/companies to enable the students to experience the practical implementation of theoretical knowledge in real world. This gave them an insight of exposure to the industrial environment and the work culture ethics in Industries. The visits also helps the students to learn about people management, which was essential in any organization.

Table B. 2.2.5 (f) Industrial Visit**Academic Year (2019-2020)**

S.No	Company Name	Date of Visit	No. of Students
1	Airport Authority of India, Chennai	31.10.2019	47
2	I.P.L Products , Chennai	17.09.2019	24
3	I.P.L Products, Chennai	09.10.2019	47
4	LabTech Electronics Pvt. Ltd, Chennai	29.01.2020	24
5	K.R Industries, Chennai	18.01.2020	29

Academic Year (2018-2019)

S.No	Company Name	Date of Visit	No. of Students
1	Signal and System (India) Pvt.Ltd, Chennai	31.10.2018	24
2	I.P.L Products , Chennai	31.08.2018	47
3	BSNL Meenambakkam, ,Chennai	15.11.2018	75
4	Signal and System (India) Pvt. Ltd, Chennai	26.03.2019	28
5	North Chennai Thermal Power Station, Chennai	04.03.2019	24

Academic Year (2017-2018)

S.No	Company Name	Date of Visit	No. of Students
1	Tamil Nadu Generation and Distribution Corporations Ltd - (Velachery Substation)	11.10.2017	13
2	I.P.L Products , Chennai	22.03.2018	34
3	RLT Instrumentation Pvt. Ltd	03.04.2018	24
4	Chennai Port and Shipping Visit	24.04.2018	65

Implementation and Impact Analysis of Industrial Visit:

1. Exposure to students work place realities, challenges and culture thereby ensuring that on completion of their Program, the students are industry / corporate ready
2. Students understand the importance of ethical practices at the work place.
3. It enables the students and faculty to analyze gaps in the knowledge / skill sets being imparted at the University which then are supplemented by additional courses / trainings during the remaining duration of the Program.
4. Select projects to find solutions to the problems faced by the industries.
5. The student are able to identify emerging job opportunities and the corresponding skill sets required.
6. Students also develops a network of associations / relationships in the organizations which translates into industry mentor-mentee relationships

7. Students learn to appreciate the inter-disciplinary nature of work environment
8. Students gain an insight into managerial approaches and importance of team work
9. Students wish to pursue higher education are able to choose their future area of specialization in a more focused manner

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (175)

Total Marks 175.00

Define the Program specific outcomes

:

PSO1	Apply the knowledge of Electrical Engineering, investigate and solve the complex Marine Electrical Engineering problems to meet the specified needs with appropriate considerations for the society.
PSO2	Develop solutions for complex Engineering problems in the broad field of power electronics and drives, power systems, high voltage Engineering and Marine Engineering and control.
PSO3	Analyze, design and integrate Electrical systems in on board ships and apply modern tools and techniques in marine industries and create passion for life-long learning and research in advanced fields.

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

Total Marks 25.00

Institute Marks : 25.00

No. of Core Courses : 6	C2 : 2	C3 : 2	C4 : 2

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

Course Name :	C2 07	Course Year :	2015-2019

Course Name	Statements
C2 07.1	Illustrate the construction details and characteristics of DC generators
C2 07.2	Determine the performance characteristic of DC motors
C2 07.3	Outline the functions of single phase and three pahse transformers
C2 07.4	Analyze the perofrmance and characteristics of induction machines
C2 07.5	Infer knowledge on the performance and characterisitcs of synchronous machines
C2 07.6	Apply the knowledge of Electrical machines in Engineering applications

Course Name :	C2 14	Course Year :	2015-2019

Course Name	Statements
C2 14.1	Demonstrate the basics of control system
C2 14.2	Illustrate the time response of various systems and tuning techniques of controllerrss of controllers

C2 14.3	Explain the frequency response and stability analysis of a system
C2 14.4	Analyze the controllability and observability of a system
C2 14.5	Design lag,lead and lag-lead compensators
C2 14.6	Apply the knowledge of control systems in Engineering fields

Course Name :	C3 03	Course Year :	2015-2019

Course Name	Statements
C3 03.1	Explain the architecture of 8085 and 8086 microprocessor
C3 03.2	Demonstrate the assembly language programs using 8085
C3 03.3	Illustrate the peripheral Interfacing Concepts
C3 03.4	Infer the knowledge of Interrupts and architecture of microprocessor 8051
C3 03.5	Develop the microcontroller programming for Engineering Applications
C3 03.6	Apply the programming knowledge of microprocessors and microcontrollers in Engineering Applications

Course Name :	C3 13	Course Year :	2015-2019

Course Name	Statements
C3 13.5	Demonstrate the steps involved in design of various types of synchronous machines
C3 13.6	Apply the knowledge of design in manufacturing of electrical machines
C3 13.1	Outline the important parameters involved in design of electrical machines
C3 13.2	Explain the design procedures of DC machines
C3 13.3	Illustrate the design methods of transformers with cooling system arrangements
C3 13.4	Design stator and rotor of induction motor with the given specifications

Course Name :	C4 01	Course Year :	2015-2019

Course Name	Statements
C4 01.1	Illustrate the steady state operation and transient dynamics of a motor load system
C4 01.2	Demonstrate the operation of solid state DC drives
C4 01.3	Explain the operation and performance of Induction motor drives

C4 01.4	Summarize the operation and control of synchronous motor drives
C4 01.5	Deisgn the controllers for AC and DC motor drives
C4 01.6	Apply the concepts of drives and its control in industrial applications

Course Name :	C4 12	Course Year :	2015-2019

Course Name	Statements
C4 12.1	Compare different Flexible Ac Transmission Systems devices
C4 12.2	Explain Static VAR Compensators and its applications
C4 12.3	Demonstrate the functions of Thyristor Controlled Series Capacitor and its applications
C4 12.4	Illustrate Voltage Source Converter based FACTS Controllers
C4 12.5	Discuss the co-ordination of FACTS Controllers
C4 12.6	Apply the knowledge of FACTS device in power systems

Course Articulation Matrix

:

1 . course name : C207

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C207.1	Illustrate the	3	3	2	2	2	-	-	-	-	-	2	3
C207.2	Determine t	3	3	3	3	2	-	-	-	-	-	3	3
C207.3	Outline the	3	3	3	3	2	-	-	-	-	-	2	3
C207.4	Analyze the	3	3	3	2	2	-	-	-	-	-	2	2
C207.5	Infer knowle	3	3	3	3	2	-	-	-	-	-	3	3
C207.6	Apply the k	3	3	3	3	2	-	-	-	-	-	3	3
Average		3.00	3.00	2.80	2.70	2.00	0.00	0.00	0.00	0.00	0.00	2.50	2.80

2 . course name : C214

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C214.1	Demonstral	3	3	3	3	3	-	-	-	-	-	1	1
C214.2	Illustrate the	3	3	2	3	2	-	-	-	-	-	2	2

C214.3	Explain the	3	2	3	3	3	-	-	-	-	-	1	1
C214.4	Analyze the	3	3	3	3	3	-	-	-	-	-	1	2
C214.5	Design lag,	3	3	3	3	3	-	-	-	-	-	2	3
C214.6	Apply the k	3	3	3	3	2	1	-	-	-	-	2	2
Average		3.00	2.80	2.80	3.00	2.70	1.00	0.00	0.00	0.00	0.00	1.50	1.80

3 . course name : C303

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303.1	Explain the	2	3	2	-	-	-	-	-	-	-	2	2
C303.2	Demonstral	3	3	3	2	-	-	-	-	-	-	2	3
C303.3	Illustrate th	3	3	3	3	3	-	-	-	-	-	3	2
C303.4	Infer the kn	2	3	3	2	3	-	-	-	-	-	2	3
C303.5	Develop the	3	3	3	3	2	-	-	-	-	-	2	3
C303.6	Apply the p	3	3	3	3	2	-	-	-	-	-	3	2
Average		2.70	3.00	2.80	2.70	2.50	0.00	0.00	0.00	0.00	0.00	2.30	2.50

4 . course name : C313

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C313.5	Demonstral	3	2	-	-	-	-	-	-	-	-	-	-
C313.6	Apply the k	2	3	3	3	-	-	-	-	-	-	-	2
C313.1	Outline the	3	3	2	2	2	-	-	-	-	-	2	2
C313.2	Explain the	3	3	2	-	3	-	-	-	-	-	2	2
C313.3	Illustrate th	3	2	3	2	3	-	-	-	-	-	2	3
C313.4	Design stat	2	3	3	2	3	-	-	-	-	-	3	3
Average		2.80	2.70	2.60	2.30	2.80	0.00	0.00	0.00	0.00	0.00	2.30	2.40

5 . course name : C401

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C401.1	Illustrate th	3	2	2	-	-	-	-	-	-	-	2	3
C401.2	Demonstral	3	2	3	-	-	-	-	-	-	-	2	2

C401.3	Explain the	3	3	3	-	-	-	-	-	-	-	3	3
C401.4	Summarize	3	3	2	3	3	-	-	-	-	-	3	3
C401.5	Deisgn the	3	3	3	3	2	2	-	-	-	-	3	2
C401.6	Apply the c	3	3	2	3	3	3	-	-	-	-	3	3
Average		3.00	2.70	2.50	3.00	2.70	2.50	0.00	0.00	0.00	0.00	2.70	2.70

6 . course name : C412

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C412.1	Compare di	3	3	2	-	-	-	-	-	-	-	-	-
C412.2	Explain Sta	2	3	3	3	-	-	-	-	-	-	3	3
C412.3	Demonstra	3	2	3	-	-	-	-	-	-	-	3	3
C412.4	Illustrate Vc	2	3	3	-	-	-	-	-	-	-	3	3
C412.5	Discuss the	3	3	3	3	3	-	-	-	-	-	3	3
C412.6	Apply the k	3	3	3	2	3	-	-	-	-	-	3	3
Average		2.70	2.80	2.80	2.70	3.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00

1 . Course Name : C207

Course	PSO1	PSO2	PSO3
C207.1	3	2	2
C207.2	2	2	3
C207.3	2	3	2
C207.4	3	2	2
C207.5	3	2	3
C207.6	3	3	3
Average	2.70	2.33	2.50

2 . Course Name : C214

Course	PSO1	PSO2	PSO3
C214.1	3	2	2
C214.2	3	3	3

C214.3	3	3	3
C214.4	3	3	3
C214.5	3	3	3
C214.6	3	3	3
Average	3.00	2.80	2.80

3 . Course Name : C303

Course	PSO1	PSO2	PSO3
C303.1	2	-	-
C303.2	3	2	2
C303.3	2	2	-
C303.4	2	-	3
C303.5	3	2	2
C303.6	3	2	2
Average	2.50	2.00	2.20

4 . Course Name : C313

Course	PSO1	PSO2	PSO3
C313.5	3	2	2
C313.6	3	3	2
C313.1	2	2	3
C313.2	3	2	2
C313.3	2	2	3
C313.4	2	2	-
Average	2.50	2.20	2.40

5 . Course Name : C401

Course	PSO1	PSO2	PSO3
C401.1	2	2	3
C401.2	2	3	3

C401.3	3	3	3
C401.4	3	2	2
C401.5	3	3	3
C401.6	3	2	2
Average	2.70	2.50	2.70

6 . Course Name : C412

Course	PSO1	PSO2	PSO3
C412.1	3	2	3
C412.2	3	3	2
C412.3	2	3	3
C412.4	3	2	-
C412.5	3	3	2
C412.6	2	3	3
Average	2.70	2.70	2.60

Program Articulation Matrix

:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	PO1	PO2	PO3	PO4	2	2.5	2.2	PO8	2.7	2.7	PO11	3
C102	2.7	2.7	2.7	2	2	PO6	PO7	PO8	PO9	PO10	PO11	1.8
C103	2.3	2.4	2.3	1.8	2.3	PO6	PO7	PO8	PO9	PO10	PO11	2.2
C104	2.3	1.6	3	PO4	2	PO6	2.8	PO8	PO9	PO10	PO11	2
C105	2.5	2.5	2.3	2	2	PO6	PO7	PO8	PO9	2	PO11	2
C106	2.7	2.5	2.2	2.3	2	PO6	PO7	PO8	PO9	2	PO11	2
C107	2.3	2.2	2.3	2.5	2	PO6	PO7	PO8	2	2	PO11	2.2
C108	2.3	1.6	3	2	2	PO6	2.5	PO8	2.5	2.5	PO11	PO12
C109	2.3	2.2	2.5	1.7	2.3	PO6	PO7	PO8	PO9	1.7	PO11	1.8
C110	PO1	PO2	PO3	PO4	PO5	2.3	1.5	1.5	2	2	PO11	2.2
C111	2	PO2	1.8	PO4	1.7	PO6	PO7	PO8	1.5	2	PO11	2

C112	PO1	PO2	PO3	PO4	PO5	2	2	2	2.3	PO10	PO11	PO12
C113	PO1	PO2	PO3	PO4	PO5	2	2	PO8	1.7	1.7	PO11	1.8
C114	2.7	2.3	2.7	2.2	1	PO6	PO7	PO8	PO9	PO10	PO11	2.3
C115	2.5	2.2	1.7	1.6	1	PO6	PO7	PO8	PO9	PO10	PO11	1.5
C116	2.8	2.8	2.5	2.3	1.7	PO6	PO7	PO8	PO9	PO10	PO11	1.7
C117	2.7	2	2	2	1.8	PO6	PO7	PO8	PO9	PO10	PO11	2.3
C118	2.5	2.7	2.2	1.5	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.5
C119	2	2	2.3	1.8	1.8	PO6	PO7	PO8	1.8	2	2.7	2.2
C120	2.7	2.3	1.8	2.7	1.4	PO6	PO7	PO8	PO9	3	PO11	2.5
C121	PO1	PO2	PO3	PO4	PO5	2.2	1.5	2	2.2	2.5	PO11	1.6
C201	2.8	2.7	2.8	2.5	1.7	PO6	PO7	PO8	PO9	PO10	PO11	1.8
C202	3	3	2.8	2.7	2	PO6	PO7	PO8	PO9	PO10	2.5	2.8
C203	2.7	2.7	2.5	2	1.5	PO6	PO7	PO8	PO9	PO10	PO11	1.8
C204	PO1	PO2	PO3	PO4	PO5	2.2	2	2	1.7	PO10	PO11	1.7
C205	3	2.5	2.3	1.5	1	PO6	PO7	PO8	PO9	PO10	PO11	2
C206	2.5	3	2.7	2.3	2.8	PO6	PO7	PO8	2	PO10	2.5	2.3
C207	2.8	2.8	3	3	2.5	PO6	PO7	PO8	2.5	2.7	2.8	3
C208	3	2.5	2.3	2.5	1	PO6	PO7	PO8	PO9	PO10	PO11	2.5
C209	2.7	2.7	2.5	2.2	2.5	PO6	PO7	PO8	1.5	2.2	2	2.5
C210	PO1	PO2	PO3	PO4	PO5	2.5	1.8	2.5	2	2	PO11	2.3
C211	2.8	2.3	2.8	2.2	1.3	PO6	PO7	PO8	PO9	PO10	2	1.6
C212	2.5	2.7	2.5	2.8	2	PO6	PO7	PO8	PO9	PO10	2.5	2.5
C213	2.7	3	2.2	2.7	1.8	PO6	PO7	PO8	PO9	PO10	2.3	2.3
C214	3	2.8	2.8	3	2.7	1	PO7	PO8	PO9	PO10	1.5	1.8
C215	3	2.8	2.7	2.2	2.5	1.5	PO7	PO8	PO9	PO10	1.7	2.5
C216	2.5	2.8	2.7	2.7	2.2	PO6	PO7	PO8	PO9	PO10	2	2.2
C217	2.7	2.7	2.7	2.7	2.5	PO6	PO7	PO8	2.2	1.8	2.7	2.7
C218	2.7	2.5	2.5	2.7	2.5	PO6	PO7	PO8	2.2	2.2	2	2.7
C219	3	2.5	2.8	2.3	2.2	PO6	PO7	PO8	2.2	2.3	2.5	2.5
C220	PO1	PO2	PO3	PO4	PO5	2.7	2.2	2.7	3	3	PO11	3
C301	2.3	2	2.2	2.5	2.5	3	2.8	PO8	PO9	PO10	2.7	3

C302	2.7	2.5	2.5	2.8	3	2.7	3	PO8	PO9	PO10	2.7	2.5
C303	2.7	3	2.8	2.7	2.5	PO6	PO7	PO8	PO9	PO10	2.3	2.5
C304	3	2.5	2.7	2.8	2	PO6	PO7	PO8	PO9	PO10	2	2
C305	2.3	2.7	2.7	2.3	2.5	PO6	PO7	PO8	PO9	PO10	2.7	2.8
C306	2.5	2.5	2.3	2.6	2.3	3	PO7	PO8	PO9	PO10	2.3	2
C307	2.7	3	2.8	2.7	2.8	PO6	PO7	PO8	PO9	PO10	2.3	2.7
C308	2.3	2	2.2	2.5	2	3	2.8	PO8	PO9	PO10	2.2	2
C309	3	3	3	2.7	2.5	PO6	PO7	PO8	2.8	2.8	2.5	3
C310	PO1	PO2	PO3	PO4	PO5	2.5	1.8	2.5	2	2	PO11	2.3
C311	3	2.7	2.8	2.6	2.5	PO6	PO7	PO8	PO9	PO10	3	2.3
C312	2.7	2.7	2.5	2.5	2.5	PO6	PO7	PO8	PO9	PO10	2.5	2.5
C313	2.8	2.7	2.6	2.3	2.8	PO6	PO7	PO8	PO9	PO10	2.3	2.4
C314	2.5	2.5	2.5	2.5	2.5	PO6	PO7	PO8	PO9	PO10	2.4	2.4
C315	2.5	2.7	2.7	2.8	2.5	2.5	PO7	PO8	PO9	PO10	2	2
C316	2.5	2.7	2.5	2.5	3	3	PO7	PO8	PO9	PO10	2.3	2.3
C317	2.8	2.4	2.5	2.5	2.3	2.7	PO7	PO8	2.7	2.3	2.6	2.4
C318	2.7	2.7	2.4	3	3	PO6	PO7	PO8	2.3	2.7	2.7	2.5
C319	PO1	PO2	PO3	PO4	PO5	PO6	2	PO8	PO9	2	1	PO12
C401	3	2.7	2.5	3	2.7	2.5	PO7	PO8	PO9	PO10	2.7	2.7
C402	3	2.7	2.8	2.4	2.7	PO6	PO7	PO8	PO9	PO10	2.8	3
C403	3	3	2.5	2.8	3	PO6	PO7	PO8	PO9	PO10	3	3
C404	3	2.6	2.8	2.5	3	PO6	PO7	PO8	PO9	PO10	2.2	2.8
C405	3	3	2.4	3	3	PO6	PO7	PO8	PO9	PO10	2.5	2.8
C406	3	2.7	3	2.8	3	3	PO7	PO8	PO9	PO10	2.8	2.8
C407	3	2.7	2	1.8	2.7	PO6	PO7	PO8	3	2.3	2.7	3
C408	3	3	2.7	2.7	3	PO6	PO7	PO8	3	2.3	2.8	3
C409	PO1	PO2	PO3	PO4	PO5	2.8	2.7	PO8	3	2.5	3	3
C410	3	2.8	3	3	3	2.8	2.5	2.5	3	2.5	3	3
C411	2.5	2.8	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	2.7
C412	2.7	2.8	2.8	2.7	3	PO6	PO7	PO8	PO9	PO10	3	3
C413	PO1	PO2	PO3	PO4	3	3	2.5	2.5	2.5	2.8	PO11	2.7

C414	3	2.8	2.7	2.8	3	2.8	2.5	2.5	3	2.8	3	3

Course	PSO1	PSO2	PSO3
C101	PSO1	PSO2	PSO3
C102	2.3	2.4	2.4
C103	2	2.6	2.4
C104	1.6	2	2.3
C105	PSO1	PSO2	PSO3
C106	2.5	2	2
C107	2	2.6	2.4
C108	1.7	2	2.3
C109	PSO1	PSO2	PSO3
C110	PSO1	PSO2	PSO3
C111	PSO1	PSO2	PSO3
C112	PSO1	PSO2	PSO3
C113	PSO1	PSO2	PSO3
C114	2.3	2	2.2
C115	1.5	1.8	2
C116	2.3	2.3	2.3
C117	2.3	PSO2	PSO3
C118	2.5	2	3
C119	2.7	1.5	1.7
C120	2.7	3	PSO3
C121	PSO1	PSO2	PSO3
C201	2.3	2	2.7
C202	2.7	2.3	2.5
C203	2	2	2
C204	PSO1	PSO2	PSO3
C205	2	2.4	2.4
C206	1.8	1.8	2
C207	3	3	3

C208	2.7	2.4	2.4
C209	2	2	1
C210	PSO1	PSO2	PSO3
C211	1.6	2	1.5
C212	2.5	2	2.7
C213	2.5	2.8	2.7
C214	3	2.8	2.8
C215	3	2.8	2.8
C216	2.7	2.5	2.7
C217	3	3	3
C218	1.7	2.5	2.7
C219	2.5	2.5	2.7
C220	PSO1	PSO2	PSO3
C301	2.3	2.5	2.5
C302	2.2	2.5	2.3
C303	2.5	2	3
C304	2.4	2.3	PSO3
C305	2.3	2.5	PSO3
C306	2.7	2	PSO3
C307	2.7	2.2	PSO3
C308	2	2.3	2.5
C309	2.8	2.5	2.7
C310	PSO1	PSO2	PSO3
C311	2.7	2.5	2.5
C312	2.5	2.5	2.8
C313	2.5	2.2	2.4
C314	2.7	2.4	2.6
C315	2.3	2.5	2.4
C316	2.3	2.3	2.7
C317	2.4	2.4	2.4
C318	2.7	2.4	2.2

C319	3	PSO2	PSO3
C401	2.7	2.5	2.7
C402	2.7	3	2.8
C403	2.8	2.8	2.7
C404	3	2.6	2.7
C405	2.5	2.7	2.8
C406	3	2.7	2.6
C407	2.7	3	2.8
C408	2.8	2.8	2.7
C409	2.8	2.8	2.7
C410	2.8	2.8	2.8
C411	3	3	2.3
C412	2.7	2.7	2.6
C413	PSO1	PSO2	PSO3
C414	3	3	3

3.2 Attainment of Course Outcomes (75)

Total Marks 75.00

Institute Marks : 10.00

A] Assessment proces

In the Outcome Based Education, evaluation of Course Outcome is done through internal and external assessment processes such as CAT1, CAT2, Model Examination, End Semester Examination, Assignments and Seminar or any Activity Learning Methods (ALM). Direct assessment includes evaluation of the student's knowledge and skills based on their performance in the internal and external assessments and indirect assessment is done through Course End Survey.

B] Assessment Tools:-

The direct assessment tools are used for evaluation is shown in Table B 3.3 and indirect assessment tools of evaluation is shown in Table B 3.4.

Table B 3.3: Direct Assessment Tools

Assessment Process	Frequency	Process
DIRECT ASSESSMENT TOOLS		
THEORY		
Continuous Assessment Test (CAT)	Two per semester	The internal assessments are carried out in a centralized manner in the Department level and are so designed to facilitate the assessment of the attainments of the outcome.
Model Exam	One per semester	The Model examinations is of three hour duration and covers the entire syllabus of the course and satisfies all course outcomes for the particular course
End Semester Examination	As per the End semester exam schedule	The end semester examination is of three hour duration and covers the entire syllabus of the course and satisfies all course outcomes for the particular course.
Assignments	Two / Three Assignments per course	Assignments are given to assess the critical and analytical skills of the students, and is taken as a tool to assess the attainment of COs
Seminar/ALM	One per Course	Seminar topics are given to the students to improve their communication skills, gaining thorough knowledge in the subject, networking with others, renewing motivation and confidence which is also taken as a method to assess the attainment of Cos
LABORATORY COURSES		
Performance Evaluation	Continuous monitoring	Continuous Evaluation of Laboratory courses as per the lab schedule
End Semester Exam	As per the End Semester Examination schedule	The end semester examinations are of three hour duration and cover all the experiments of the course and satisfy all course outcomes.
MINI PROJECT		
Reviews	1.First review 2.Second review	Student groups are mentored by a Faculty and periodic reviews are conducted to monitor and evaluate the progress of the project in meeting the objectives, efficiency and sustainability.
End Semester Viva-voce	As per the Practical Examination Schedule	Depending on the relevance, project objectives and rubrics, projects are evaluated and the students are graded.
PROJECT WORK		
REVIEWS	1.Zeroth review 2.1 st review 3.2 nd review	Student groups are mentored by a faculty and periodic reviews are conducted to monitor and evaluate the progress of the project in meeting the objectives, effectiveness, efficiency, impact and sustainability
Viva -voce	As per the Practical Examination Schedule	Depending on the relevance, rubrics, level of achievement of project objectives, projects are evaluated and the students are graded

INTERNSHIPS		
Presentation	One per semester	Rubric based assessment.
PERSONALITY DEVELOPMENT PROGRAM		
Continuous evaluation process	Throughout the semester	Rubric based assessment based on the objectives of the program.
SOFT SKILLS		
Continuous evaluation process	Throughout the semester	Assessment process includes Interactions with questions structured properly and analyzing student's communication and writing abilities
INDUSTRIAL VISITS		
Review	A minimum of one Industrial visit per semester.	To achieve the learning outcome more qualitatively, industrial visits are organized and the students are assessed based on rubrics
PHYSICAL EDUCATION		
Performance Evaluation	Continuous monitoring	Continuous Evaluation of physical fitness and activities as per the schedule
Fitness assessment	One course per degree program	Student assessment is done in alignment with University standards and rubrics
VALUE ADDED COURSES		
Training module	One Course per Semester	To make the students industry fit, Value Added Courses are conducted. The students are certified after the completion of the course and are assessed based on rubrics.

Table B 3.4: Indirect Assessment Tools

S.No	Assessment Tool	Frequency	Method Description
1	Course End Survey	End of semester	To enhance the Teaching Learning Process, Students are provided with an opportunity to reflect and provide feedback based on their understanding level and is taken as an indirect assessment tool for the attainment of COs.

The sample course end survey for the subject UAEE802- Flexible AC Transmission Systems (8 SEM -2015 regulation) is given below in Fig 3.1.

QUESTIONNAIRE PATTERN FOR COURSE END SURVEY

 AMET ACADEMY OF MARITIME EDUCATION AND TRAINING DEEMED TO BE UNIVERSITY (Under Section 3 of UGC Act 1956)		
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING		
<u>STUDENT COURSE END EVALUATION QUESTIONNAIRE</u>		
Academic Year:		
Course Name:		
Course Code: -		
Instructor Name:		
Name(in Full):	Roll No:	Class :
Mail-id:		
VISION AND MISSION OF THE INSTITUTION		
VISION		
To sustain identity as a World Class Leader in Maritime Education and empower learners with wholesome knowledge through progressive innovation in training, research and development which will render students a unique learning experience and a transformation impact on the Global Society.		
MISSION		
AMET will strive continuously to		
✦ Impart value-based higher education and technical knowledge with uncompromising strides of an outstanding quality.		
✦ Emerge as a Centre of Excellence inculcating skill development in recent technologies in accordance with industrial trends.		
✦ Create World class research capabilities on par with the finest in the world and broaden student's horizons beyond classroom education.		
✦ Nurture talent and entrepreneurship to enable all round personality development among students.		
✦ Empower students across socio economic strata		
✦ Make a positive difference to society through technical education.		
VISION AND MISSION OF THE DEPARTMENT		
VISION		
To emerge as a Centre for higher learning and research through development of highly competent, innovative and world class Marine Electrical and Electronics Engineers while remaining sensitive to ethical, societal and environmental issues.		
MISSION		
✦ To impart quality education in order to produce highly innovative, socio- economically conscious Marine Electrical and Electronics Engineers.		
✦ To provide knowledge and skills, that is essential to meet the local and global demands in Marine Electrical and Electronics Engineering.		
✦ To upgrade student's technical knowledge through industry interaction activities.		
✦ To foster strong ethics, positive attitude and transform the Department into Centre of Excellence by promoting world class research and development to meet the challenging needs of society.		
✦ To motivate and guide students for developing entrepreneurship or pursue higher education and train them for overall personality development.		
• Kindly rate the following criteria on a scale of 1-3. (1- Disagree, 2- Agree, 3- Strongly agree)		

• Your genuine response will be helpful for the continuous quality improvement of our UG program in Electrical and Electronics Engineering, AMET Deemed to be University.

1. I have gained the knowledge of Reactive power control in electrical power transmission lines.
1- Disagree 2- Agree 3- Strongly agree
2. I have learnt about the applications of FACTS devices in transmission lines.
1 Disagree 2- Agree 3- Strongly agree
3. I can acquire the knowledge of working of SVC?
1- Disagree 2- Agree 3- Strongly agree
4. I can able to analyze the need of SVC in enhancement of power system voltage?
1- Disagree 2- Agree 3- Strongly agree
5. I have learnt about the working of the Thyristor Controlled Series capacitor?
1- Disagree 2- Agree 3- Excellent
6. I got an idea about the steady state stability in power system by the application of TCSC.
1- Disagree 2- Agree 3- Excellent
7. I understood the operation and applications of the Static Synchronous Compensator.
1- Disagree 2- Agree 3- Excellent
8. I can acquire the knowledge of using SSSC in load flow and transient stability studies?
1- Disagree 2- Agree 3- Excellent
9. I have learnt about the Co-ordination of FACTS devices in transmission lines
1- Disagree 2- Agree 3- Excellent
10. I have gained the knowledge of designing multiple controllers using linear control techniques?
1- Disagree 2- Agree 3- Excellent
11. I can able to use the various series and shunt FACTS for suitable power system applications.
1- Disagree 2- Agree 3- Excellent
12. I have learnt the usage of FACTS device in power sector?
1- Disagree 2- Agree 3- Excellent

COMMENTS ON STRENGTHS AND WAYS OF IMPROVEMENT
Comments (Teaching Approaches):

♣ Are you satisfied with the levels of Question paper?

♣ Is the faculty of the course solving your queries to your fullest satisfaction?

♣ Any further, constructive comment

Faculty In-Charge

PAC

DEAN/EEE

Fig: 3.1 Questionnaire Pattern for Course End Survey

CO Assessment process for Theory, Laboratory courses and Project work are shown in Table B3.5, B3.6 and B3.7

Table B 3.5: CO Assessment Process for Theory Courses

Assessment		CO1	CO2	CO3	CO4	CO5	CO6
	IA (CAT-I, CAT-II, Model exam and Assignments/ALM)	40%	40%	40%	40%	40%	40%
	ESE	60%	60%	60%	60%	60%	60%

	Total	Direct assessment (DA)	100%	100%	100%	100%	100%	100%
DA (90%) = DA x 0.9			90%	90%	90%	90%	90%	90%
INDA = CES x 0.1			10%	10%	10%	10%	10%	10%
CO attainment % = DA + INDA			100%	100%	100%	100%	100%	100%
IA : Internal Assessment				ESE : End Semester Examination				
CAT I : Continuous Assessment Test -I				CAT II : Continuous Assessment Test –II				
DA : Direct Assessment				INDA : Indirect Assessment				
CES : Course End Survey								
ALM : Activity Learning Method								

Table B 3.6 CO Assessments for Laboratory Courses

Assessment		CO1	CO2	CO3	CO4	CO5	CO6
	IA (Observation+ performance evaluation + Record)	40%	40%	40%	40%	40%	40%
	ESE	60%	60%	60%	60%	60%	60%
	Total Direct Assessment (DA)	100%	100%	100%	100%	100%	100%
DA (90%) = TDA x 0.9		90%	90%	90%	90%	90%	90%
INDA = CES x 0.1		10%	10%	10%	10%	10%	10%
CO attainment % = DA + INDA		100%	100%	100%	100%	100%	100%
IA : Internal Assessment				ESE : End Semester Examination			
CES : Course End Survey		DA : Direct Assessment					
INDA : Indirect Assessment		CES : Course End Survey					

Table B 3.7: CO Assessment for Project Work

Assessment		CO1	CO2	CO3	CO4	CO5	CO6
	IA (Zeroth Review , First Review and Second Review)	50%	50%	50%	50%	50%	50%
	Viva voce/ ESE	50%	50%	50%	50%	50%	50%
	Total assessment	100%	100%	100%	100%	100%	100%
DA (90%) = TDA x 0.9		90%	80%	90%	80%	80%	80%
INDA = CES x 0.1		10%	10%	10%	10%	10%	10%
CO attainment % = DA + INDA		100%	100%	100%	100%	100%	100%
IA : Internal Assessment		ESE : End Semester Examination		CES : Course End Survey			
DA : Direct Assessment		INDA : Indirect Assessment					

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

Institute Marks : 65.00

Table B 3.8 Methodology for Setting Attainment Level for Courses

Assesment Tools	Attainment Level	2015-19
For theory , laboratory & Employment Opportunity courses	1	50 % to 60 % students scoring more than the set subject threshold for each course outcome
	2	>60 % to 70 % students scoring more than the set subject threshold for each course outcome
	3	>70% students scoring more than the set subject threshold for each course outcome

Table B.3.8 shows the Methodology for Setting Attainment Level for Courses

COURSE OUTCOMES

Based on the tools and processes described in section 3.2.1, the assessment of Course Outcomes are carried out for all the courses. Table B 3.9 gives the attainment of COs for core courses for 2015- 2019 Batch students.

Table B 3.9 Course Outcome for Core Courses of 2015-2019 Batch

COURSE CODE		COURSE NAME	COs	Direct Attainment	Direct Attainment (90%)	Indirect Attainment	Indirect Attainment (10%)	90%DA+10%IA	Attainment Level
First year Courses									
C101	UALE12	Technical English - I	CO1	64.17%	57.75%	90.91%	9.09%	66.84%	2
			CO2	65.83%	59.25%	93.18%	9.32%	68.57%	2
			CO3	61.67%	55.50%	88.64%	8.86%	64.36%	2
			CO4	62.50%	56.25%	86.36%	8.64%	64.89%	2
			CO5	67.50%	60.75%	86.36%	8.64%	69.39%	2
			CO6	87.50%	78.75%	97.73%	9.77%	88.52%	3
C102	UAMT13	Engineering Mathematics - I	CO1	28.18%	25.36%	90.91%	9.09%	34.45%	0
			CO2	40.91%	36.82%	93.18%	9.32%	46.14%	0
			CO3	31.82%	28.64%	88.64%	8.86%	37.50%	0
			CO4	27.27%	24.55%	86.36%	8.64%	33.18%	0
			CO5	33.64%	30.27%	86.36%	8.64%	38.91%	0
			CO6	90.91%	81.82%	97.73%	9.77%	91.59%	3
C103	UAPH12	Engineering Physics – I	CO1	79.09%	71.18%	90.91%	9.09%	80.27%	3
			CO2	92.73%	83.45%	93.18%	9.32%	92.77%	3
			CO3	90.00%	81.00%	88.64%	8.86%	89.86%	3
			CO4	98.18%	88.36%	86.36%	8.64%	97.00%	3
			CO5	87.27%	78.55%	86.36%	8.64%	87.18%	3

			CO6	95.45%	85.91%	97.73%	9.77%	95.68%	3
C104	UACHC1	Engineering Chemistry	CO1	48.18%	43.36%	90.91%	9.09%	52.45%	1
			CO2	62.73%	56.45%	93.18%	9.32%	65.77%	2
			CO3	59.09%	53.18%	88.64%	8.86%	62.05%	2
			CO4	69.09%	62.18%	86.36%	8.64%	70.82%	3
			CO5	86.36%	77.73%	86.36%	8.64%	86.36%	3
			CO6	95.45%	85.91%	97.73%	9.77%	95.68%	3
C105	UAIT13	Fundamentals of Computer	CO1	70.91%	63.82%	93.18%	9.32%	73.14%	3
			CO2	90.00%	81.00%	93.18%	9.32%	90.32%	3
			CO3	98.18%	88.36%	77.27%	7.73%	96.09%	3
			CO4	98.18%	88.36%	86.36%	8.64%	97.00%	3
			CO5	90.00%	81.00%	86.36%	8.64%	89.64%	3
			CO6	95.45%	85.91%	97.73%	9.77%	95.68%	3
C106	UAMC1B	Engineering Graphics	CO1	58.18%	52.36%	90.91%	9.09%	61.45%	2
			CO2	60.00%	54.00%	93.18%	9.32%	63.32%	2
			CO3	52.73%	47.45%	88.64%	8.86%	56.32%	1
			CO4	55.45%	49.91%	75.00%	7.50%	57.41%	1
			CO5	53.64%	48.27%	86.36%	8.64%	56.91%	1
			CO6	58.18%	52.36%	97.73%	9.77%	62.14%	2
C107	UAPH1B	Physics Laboratory	CO1	43.64%	39.27%	90.91%	9.09%	48.36%	0
			CO2	49.09%	44.18%	93.18%	9.32%	53.50%	1
			CO3	40.00%	36.00%	88.64%	8.86%	44.86%	0
			CO4	40.00%	36.00%	86.36%	8.64%	44.64%	0
			CO5	45.45%	40.91%	86.36%	8.64%	49.55%	0
			CO6	47.27%	42.55%	97.73%	9.77%	52.32%	1
C108	UACHCA	Chemistry Laboratory	CO1	70.91%	63.82%	90.91%	9.09%	72.91%	3
			CO2	70.91%	63.82%	93.18%	9.32%	73.14%	3
			CO3	70.91%	63.82%	88.64%	8.86%	72.68%	3
			CO4	70.91%	63.82%	86.36%	8.64%	72.45%	3
			CO5	70.91%	63.82%	86.36%	8.64%	72.45%	3
			CO6	70.91%	63.82%	97.73%	9.77%	73.59%	3
C109	UAIT1B	Fundamentals of Computer Practical	CO1	75.45%	67.91%	90.91%	9.09%	77.00%	3
			CO2	75.45%	67.91%	93.18%	9.32%	77.23%	3

			CO3	75.45%	67.91%	88.64%	8.86%	76.77%	3
			CO4	75.45%	67.91%	86.36%	8.64%	76.55%	3
			CO5	75.45%	67.91%	86.36%	8.64%	76.55%	3
			CO6	73.64%	66.27%	97.73%	9.77%	76.05%	3
C110	UALE1A	Soft Skills –I	CO1	73.64%	66.27%	100.00%	10.00%	76.27%	3
			CO2	73.64%	66.27%	100.00%	10.00%	76.27%	3
			CO3	73.64%	66.27%	100.00%	10.00%	76.27%	3
			CO4	73.64%	66.27%	100.00%	10.00%	76.27%	3
			CO5	76.36%	68.73%	100.00%	10.00%	78.73%	3
			CO6	47.27%	42.55%	100.00%	10.00%	52.55%	1
C111	UAWS1B	Workshop Practices Laboratory	CO1	78.18%	70.36%	90.91%	9.09%	79.45%	3
			CO2	74.55%	67.09%	93.18%	9.32%	76.41%	3
			CO3	74.55%	67.09%	88.64%	8.86%	75.95%	3
			CO4	61.82%	55.64%	86.36%	8.64%	64.27%	2
			CO5	70.91%	63.82%	86.36%	8.64%	72.45%	3
			CO6	61.82%	55.64%	97.73%	9.77%	65.41%	2
C112	UAPT1B	Physical Education	CO1	84.55%	76.09%	90.91%	9.09%	85.18%	3
			CO2	84.55%	76.09%	93.18%	9.32%	85.41%	3
			CO3	84.55%	76.09%	88.64%	8.86%	84.95%	3
			CO4	84.55%	76.09%	86.36%	8.64%	84.73%	3
			CO5	85.45%	76.91%	86.36%	8.64%	85.55%	3
			CO6	82.73%	74.45%	97.73%	9.77%	84.23%	3
C113	UALE202	Technical English – II	CO1	78.18%	70.36%	90.91%	9.09%	79.46%	3
			CO2	68.18%	61.36%	93.18%	9.32%	70.68%	3
			CO3	62.73%	56.45%	88.64%	8.86%	65.32%	2
			CO4	65.45%	58.91%	86.36%	8.64%	67.55%	2
			CO5	51.82%	46.64%	86.36%	8.64%	55.27%	1
			CO6	95.45%	85.91%	97.73%	9.77%	95.68%	3
C114	UAMT203	Engineering Mathematics –II	CO1	61.82%	55.64%	93.18%	9.32%	64.96%	2
			CO2	59.09%	53.18%	93.18%	9.32%	62.50%	2
			CO3	53.64%	48.27%	93.18%	9.32%	57.59%	1
			CO4	60.00%	54.00%	88.64%	8.86%	62.86%	2
			CO5	56.36%	50.73%	88.64%	8.86%	59.59%	1

			CO6	95.45%	85.91%	97.73%	9.77%	95.68%	3
C115	UAPH202	Engineering Physics – II	CO1	56.36%	50.73%	90.91%	9.09%	59.82%	1
			CO2	37.27%	33.55%	93.18%	9.32%	42.86%	0
			CO3	54.55%	49.09%	88.64%	8.86%	57.96%	1
			CO4	45.45%	40.91%	86.36%	8.64%	49.55%	0
			CO5	26.36%	23.73%	86.36%	8.64%	32.36%	0
			CO6	95.45%	85.91%	97.73%	9.77%	95.68%	3
C116	UAEE201	Electric Circuit Analysis	CO1	70.91%	63.82%	90.91%	9.09%	72.91%	3
			CO2	69.09%	62.18%	93.18%	9.32%	71.50%	3
			CO3	62.73%	56.45%	88.64%	8.86%	65.32%	2
			CO4	62.73%	56.45%	86.36%	8.64%	65.09%	2
			CO5	52.73%	47.45%	86.36%	8.64%	56.09%	1
			CO6	95.45%	85.91%	97.73%	9.77%	95.68%	3
C117	UAIT202	Data Structure and Algorithm	CO1	64.85%	58.36%	95.45%	9.55%	67.91%	2
			CO2	53.33%	48.00%	93.18%	9.32%	57.32%	1
			CO3	42.42%	38.18%	88.64%	8.86%	47.05%	0
			CO4	40.76%	36.68%	86.36%	8.64%	45.32%	0
			CO5	30.91%	27.82%	86.36%	8.64%	36.46%	0
			CO6	92.27%	83.05%	97.73%	9.77%	92.82%	3
C118	UAEE202	Electronic Devices and Circuits	CO1	77.27%	69.55%	92.86%	9.29%	78.83%	3
			CO2	78.18%	70.36%	92.86%	9.29%	79.65%	3
			CO3	55.45%	49.91%	95.24%	9.52%	59.43%	1
			CO4	67.27%	60.55%	90.48%	9.05%	69.59%	2
			CO5	56.36%	50.73%	88.10%	8.81%	59.54%	1
			CO6	95.45%	85.91%	95.24%	9.52%	95.43%	3
C119	UAEE2PA	Electrical and Electronics Circuits Laboratory	CO1	69.09%	62.18%	97.73%	9.77%	71.96%	3
			CO2	90.00%	81.00%	92.86%	9.29%	90.29%	3
			CO3	90.00%	81.00%	92.86%	9.29%	90.29%	3
			CO4	90.00%	81.00%	88.10%	8.81%	89.81%	3
			CO5	90.00%	81.00%	88.10%	8.81%	89.81%	3
			CO6	80.91%	72.82%	88.10%	8.81%	81.63%	3
C120	UAIT2PB	Data Structure and Algorithm Lab	CO1	79.09%	71.18%	97.62%	9.76%	80.94%	3
			CO2	84.55%	76.09%	93.18%	9.32%	85.41%	3

			CO3	84.55%	76.09%	93.18%	9.32%	85.41%	3
			CO4	84.55%	76.09%	88.64%	8.86%	84.95%	3
			CO5	80.91%	72.82%	88.64%	8.86%	81.68%	3
			CO6	68.18%	61.36%	88.64%	8.86%	70.23%	3
C121	UALE2PA	Soft skills-II	CO1	93.64%	84.27%	93.18%	9.32%	93.59%	3
			CO2	91.82%	82.64%	93.18%	9.32%	91.96%	3
			CO3	90.91%	81.82%	88.64%	8.86%	90.68%	3
			CO4	66.36%	59.73%	88.64%	8.86%	68.59%	2
			CO5	37.27%	33.55%	88.64%	8.86%	42.41%	0
			CO6	69.09%	62.18%	97.73%	9.77%	71.96%	3
Second Year Courses									
C201	UAMTC03	Engineering Mathematics - III	CO1	88.00%	79.20%	90.00%	9.00%	88.20%	3
			CO2	56.00%	50.40%	94.00%	9.40%	59.80%	1
			CO3	85.60%	77.04%	88.00%	8.80%	85.84%	3
			CO4	64.80%	58.32%	84.00%	8.40%	66.72%	2
			CO5	80.00%	72.00%	82.00%	8.20%	80.20%	3
			CO6	100.00%	90.00%	98.00%	9.80%	99.80%	3
C202	UAEE305	DC and AC Machines	CO1	85.60%	77.04%	90.00%	9.00%	86.04%	3
			CO2	36.80%	33.12%	94.00%	9.40%	42.52%	0
			CO3	62.40%	56.16%	88.00%	8.80%	64.96%	2
			CO4	47.20%	42.48%	84.00%	8.40%	50.88%	1
			CO5	57.60%	51.84%	82.00%	8.20%	60.04%	2
			CO6	100.00%	90.00%	98.00%	9.80%	99.80%	3
C204	UAEVC01	Environmental Science	CO1	84.00%	75.60%	90.00%	9.00%	84.60%	3
			CO2	42.40%	38.16%	94.00%	9.40%	47.56%	0
			CO3	47.20%	42.48%	88.00%	8.80%	51.28%	1
			CO4	59.20%	53.28%	84.00%	8.40%	61.68%	2
			CO5	41.60%	37.44%	82.00%	8.20%	45.64%	0
			CO6	100.00%	90.00%	98.00%	9.80%	99.80%	3
C205	UAMCC04	Fluid Mechanics	CO1	68.00%	61.20%	90.00%	9.00%	70.20%	3
			CO2	26.40%	23.76%	94.00%	9.40%	33.16%	0
			CO3	16.80%	15.12%	88.00%	8.80%	23.92%	0
			CO4	26.40%	23.76%	84.00%	8.40%	32.16%	0

			CO5	31.20%	28.08%	82.00%	8.20%	36.28%	0
			CO6	100.00%	90.00%	98.00%	9.80%	99.80%	3
C206	UAEE306	Digital Logic Circuits	CO1	76.80%	69.12%	90.00%	9.00%	78.12%	3
			CO2	33.60%	30.24%	94.00%	9.40%	39.64%	0
			CO3	60.00%	54.00%	88.00%	8.80%	62.80%	2
			CO4	58.40%	52.56%	84.00%	8.40%	60.96%	2
			CO5	20.80%	18.72%	82.00%	8.20%	26.92%	0
			CO6	100.00%	90.00%	98.00%	9.80%	99.80%	3
C207	UAEE3PB	DC and AC Machines Laboratory	CO1	92.00%	82.80%	90.00%	9.00%	91.80%	3
			CO2	95.20%	85.68%	94.00%	9.40%	95.08%	3
			CO3	93.60%	84.24%	88.00%	8.80%	93.04%	3
			CO4	88.80%	79.92%	84.00%	8.40%	88.32%	3
			CO5	80.80%	72.72%	82.00%	8.20%	80.92%	3
			CO6	88.80%	79.92%	98.00%	9.80%	89.72%	3
C208	UAMCCPC	Fluid Mechanics Laboratory	CO1	58.40%	52.56%	90.00%	9.00%	61.56%	2
			CO2	58.40%	52.56%	94.00%	9.40%	61.96%	2
			CO3	58.40%	52.56%	88.00%	8.80%	61.36%	2
			CO4	56.80%	51.12%	84.00%	8.40%	59.52%	1
			CO5	52.00%	46.80%	82.00%	8.20%	55.00%	1
			CO6	47.20%	42.48%	98.00%	9.80%	52.28%	1
C209	UAIT3PA	Object Oriented Programming Laboratory	CO1	78.40%	70.56%	90.00%	9.00%	79.56%	3
			CO2	78.40%	70.56%	94.00%	9.40%	79.96%	3
			CO3	78.40%	70.56%	88.00%	8.80%	79.36%	3
			CO4	78.40%	70.56%	84.00%	8.40%	78.96%	3
			CO5	78.40%	70.56%	82.00%	8.20%	78.76%	3
			CO6	65.60%	59.04%	98.00%	9.80%	68.84%	2
C210	UALECPD	Soft Skills – III	CO1	96.00%	86.40%	92.00%	9.20%	95.60%	3
			CO2	89.60%	80.64%	90.00%	9.00%	89.64%	3
			CO3	98.40%	88.56%	86.00%	8.60%	97.16%	3
			CO4	84.80%	76.32%	90.00%	9.00%	85.32%	3
			CO5	94.40%	84.96%	96.00%	9.60%	94.56%	3
			CO6	80.80%	72.72%	90.00%	9.00%	81.72%	3
C211	UAMT403	Numerical Methods and Transforms	CO1	84.17%	75.75%	89.58%	8.96%	84.71%	3

			CO2	67.50%	60.75%	91.67%	9.17%	69.92%	2
			CO3	63.33%	57.00%	87.50%	8.75%	65.75%	2
			CO4	62.50%	56.25%	85.42%	8.54%	64.79%	2
			CO5	63.33%	57.00%	83.33%	8.33%	65.33%	2
			CO6	100.00%	90.00%	97.92%	9.79%	99.79%	3
C212	UAEE405	Transducers	CO1	85.00%	76.50%	93.75%	9.38%	85.88%	3
			CO2	80.00%	72.00%	95.83%	9.58%	81.58%	3
			CO3	91.67%	82.50%	89.58%	8.96%	91.46%	3
			CO4	89.17%	80.25%	85.42%	8.54%	88.79%	3
			CO5	86.67%	78.00%	87.50%	8.75%	86.75%	3
			CO6	100.00%	90.00%	97.92%	9.79%	99.79%	3
C213	UAEE404	Linear Integrated Circuits	CO1	85.00%	76.50%	89.58%	8.96%	85.46%	3
			CO2	85.00%	76.50%	93.75%	9.38%	85.88%	3
			CO3	50.00%	45.00%	87.50%	8.75%	53.75%	1
			CO4	57.50%	51.75%	85.42%	8.54%	60.29%	2
			CO5	62.50%	56.25%	83.33%	8.33%	64.58%	2
			CO6	67.50%	60.75%	97.92%	9.79%	70.54%	3
C214	UAEE406	Control Systems	CO1	77.50%	69.75%	91.67%	9.17%	78.92%	3
			CO2	70.00%	63.00%	93.75%	9.38%	72.38%	3
			CO3	70.83%	63.75%	87.50%	8.75%	72.50%	3
			CO4	76.67%	69.00%	85.42%	8.54%	77.54%	3
			CO5	73.33%	66.00%	83.33%	8.33%	74.33%	3
			CO6	100.00%	90.00%	97.92%	9.79%	99.79%	3
C215	UAEE403	Electromagnetic Theory	CO1	72.50%	65.25%	93.75%	9.38%	74.63%	3
			CO2	62.50%	56.25%	91.67%	9.17%	65.42%	2
			CO3	55.00%	49.50%	87.50%	8.75%	58.25%	1
			CO4	48.33%	43.50%	87.50%	8.75%	52.25%	1
			CO5	56.67%	51.00%	85.42%	8.54%	59.54%	1
			CO6	100.00%	90.00%	93.75%	9.38%	99.38%	3
C216	UAMCC05	Pneumatics, Hydraulics and Electrical Control Systems	CO1	75.00%	67.50%	89.58%	8.96%	76.46%	3
			CO2	60.00%	54.00%	89.58%	8.96%	62.96%	2
			CO3	60.00%	54.00%	91.67%	9.17%	63.17%	2
			CO4	62.50%	56.25%	91.67%	9.17%	65.42%	2

			CO5	60.00%	54.00%	81.25%	8.13%	62.13%	2
			CO6	100.00%	90.00%	95.83%	9.58%	99.58%	3
C217	UAEE4PC	Integrated Circuits Laboratory	CO1	47.50%	42.75%	89.58%	8.96%	51.71%	1
			CO2	47.50%	42.75%	93.75%	9.38%	52.13%	1
			CO3	47.50%	42.75%	87.50%	8.75%	51.50%	1
			CO4	47.50%	42.75%	85.42%	8.54%	51.29%	1
			CO5	47.50%	42.75%	83.33%	8.33%	51.08%	1
			CO6	47.50%	42.75%	97.92%	9.79%	52.54%	1
C218	UAMCCPB	Pneumatics, Hydraulics and Electrical Control Systems Laboratory	CO1	84.17%	75.75%	89.58%	8.96%	84.71%	3
			CO2	84.17%	75.75%	91.67%	9.17%	84.92%	3
			CO3	89.17%	80.25%	87.50%	8.75%	89.00%	3
			CO4	84.17%	75.75%	85.42%	8.54%	84.29%	3
			CO5	84.17%	75.75%	83.33%	8.33%	84.08%	3
			CO6	84.17%	75.75%	97.92%	9.79%	85.54%	3
C219	UAEE4PB	Transducers Laboratory	CO1	92.50%	83.25%	87.50%	8.75%	92.00%	3
			CO2	92.50%	83.25%	91.67%	9.17%	92.42%	3
			CO3	92.50%	83.25%	87.50%	8.75%	92.00%	3
			CO4	92.50%	83.25%	85.42%	8.54%	91.79%	3
			CO5	92.50%	83.25%	83.33%	8.33%	91.58%	3
			CO6	92.50%	83.25%	97.92%	9.79%	93.04%	3
C220	UALECPE	Soft Skills – IV	CO1	80.83%	72.75%	93.75%	9.38%	82.13%	3
			CO2	70.83%	63.75%	93.75%	9.38%	73.13%	3
			CO3	66.67%	60.00%	89.58%	8.96%	68.96%	2
			CO4	66.67%	60.00%	87.50%	8.75%	68.75%	2
			CO5	68.33%	61.50%	95.83%	9.58%	71.08%	3
			CO6	75.83%	68.25%	89.58%	8.96%	77.21%	3
Third Year Courses									
C301	UAEE505	Power Electronics	CO1	54.17%	48.75%	91.67%	9.17%	57.92%	1
			CO2	63.33%	57.00%	93.75%	9.38%	66.38%	2
			CO3	65.00%	58.50%	87.50%	8.75%	67.25%	2
			CO4	64.17%	57.75%	95.83%	9.58%	67.33%	2
			CO5	59.17%	53.25%	83.33%	8.33%	61.58%	2
			CO6	100.00%	90.00%	97.92%	9.79%	99.79%	3

C302	UAEE507	Marine Electrical Technology	CO1	61.67%	55.50%	87.50%	8.75%	64.25%	2
			CO2	55.00%	49.50%	89.58%	8.96%	58.46%	1
			CO3	73.33%	66.00%	89.58%	8.96%	74.96%	3
			CO4	65.83%	59.25%	83.33%	8.33%	67.58%	2
			CO5	74.17%	66.75%	85.42%	8.54%	75.29%	3
			CO6	66.67%	60.00%	89.58%	8.96%	68.96%	2
C303	UAEE503	Microprocessor and Micro Controller	CO1	45.83%	41.25%	89.58%	8.96%	50.21%	1
			CO2	50.00%	45.00%	83.33%	8.33%	53.33%	1
			CO3	64.17%	57.75%	87.50%	8.75%	66.50%	2
			CO4	51.67%	46.50%	87.50%	8.75%	55.25%	1
			CO5	57.50%	51.75%	85.42%	8.54%	60.29%	2
			CO6	100.0%	90.00%	85.42%	8.54%	98.54%	3
C304	UAMEC01	Marine Engineering – I	CO1	62.50%	56.25%	85.42%	8.54%	64.79%	2
			CO2	64.17%	57.75%	85.42%	8.54%	66.29%	2
			CO3	71.67%	64.50%	87.50%	8.75%	73.25%	3
			CO4	75.00%	67.50%	85.42%	8.54%	76.04%	3
			CO5	65.00%	58.50%	85.42%	8.54%	67.04%	2
			CO6	87.50%	78.75%	89.58%	8.96%	87.71%	3
CPE305	UAEE511	Communication Engineering	CO1	64.17%	57.75%	89.58%	8.96%	66.71%	2
			CO2	64.17%	57.75%	91.67%	9.17%	66.92%	2
			CO3	65.83%	59.25%	87.50%	8.75%	68.00%	2
			CO4	60.83%	54.75%	95.83%	9.58%	64.33%	2
			CO5	65.00%	58.50%	85.42%	8.54%	67.04%	2
			CO6	79.17%	71.25%	89.58%	8.96%	80.21%	3
COE306	UAEE515	Electrical Estimation and Wiring	CO1	52.50%	47.25%	89.58%	8.96%	56.21%	1
			CO2	63.33%	57.00%	87.50%	8.75%	65.75%	2
			CO3	72.50%	65.25%	91.67%	9.17%	74.42%	3
			CO4	64.17%	57.75%	89.58%	8.96%	66.71%	2
			CO5	55.00%	49.50%	85.42%	8.54%	58.04%	1
			CO6	100.00%	90.00%	91.67%	9.17%	99.17%	3
C307	UAEE5PD	Microprocessor and Microcontroller Laboratory	CO1	65.00%	58.50%	87.50%	8.75%	67.25%	2
			CO2	65.00%	58.50%	89.58%	8.96%	67.46%	2
			CO3	61.67%	55.50%	91.67%	9.17%	64.67%	2

			CO4	61.67%	55.50%	85.42%	8.54%	64.04%	2
			CO5	65.00%	58.50%	91.67%	9.17%	67.67%	2
			CO6	65.00%	58.50%	95.83%	9.58%	68.08%	2
C308	UAEE5PE	Power Electronics Laboratory	CO1	67.50%	60.75%	89.58%	8.96%	69.71%	2
			CO2	67.50%	60.75%	89.58%	8.96%	69.71%	2
			CO3	67.50%	60.75%	83.33%	8.33%	69.08%	2
			CO4	67.50%	60.75%	91.67%	9.17%	69.92%	2
			CO5	62.50%	56.25%	89.58%	8.96%	65.21%	2
			CO6	62.50%	56.25%	83.33%	8.33%	64.58%	2
C309	UAEE5PC	Marine Electrical Technology Laboratory	CO1	62.50%	56.25%	89.58%	8.96%	65.21%	2
			CO2	70.83%	63.75%	89.58%	8.96%	72.71%	3
			CO3	70.83%	63.75%	87.50%	8.75%	72.50%	3
			CO4	72.50%	65.25%	91.67%	9.17%	74.42%	3
			CO5	77.50%	69.75%	91.67%	9.17%	78.92%	3
			CO6	77.50%	69.75%	85.42%	8.54%	78.29%	3
C310	UALECPF	Personality Development Programme-I	CO1	100.00%	90.00%	91.67%	9.17%	99.17%	3
			CO2	100.00%	90.00%	91.67%	9.17%	99.17%	3
			CO3	95.83%	86.25%	85.42%	8.54%	94.79%	3
			CO4	100.00%	90.00%	89.58%	8.96%	98.96%	3
			CO5	100.00%	90.00%	89.58%	8.96%	98.96%	3
			CO6	100.00%	90.00%	89.58%	8.96%	98.96%	3
C311	UAEE604	Process Control and Marine Automation	CO1	97.50%	87.75%	89.58%	8.96%	96.71%	3
			CO2	97.50%	87.75%	93.75%	9.38%	97.13%	3
			CO3	92.50%	83.25%	87.50%	8.75%	92.00%	3
			CO4	95.00%	85.50%	85.42%	8.54%	94.04%	3
			CO5	95.00%	85.50%	83.33%	8.33%	93.83%	3
			CO6	100.00%	90.00%	97.92%	9.79%	99.79%	3
C312	UAEE602	Digital Signal Processing	CO1	85.00%	76.50%	83.33%	8.33%	84.83%	3
			CO2	78.33%	70.50%	66.67%	6.67%	77.17%	3
			CO3	77.50%	69.75%	72.92%	7.29%	77.04%	3
			CO4	72.50%	65.25%	68.75%	6.88%	72.13%	3
			CO5	55.83%	50.25%	68.75%	6.88%	57.13%	1
			CO6	100.00%	90.00%	68.75%	6.88%	96.88%	3

C313	UAEE601	Design of Electrical Machines	CO1	57.50%	51.75%	87.50%	8.75%	60.50%	2
			CO2	63.33%	57.00%	100.00%	10.00%	67.00%	2
			CO3	68.33%	61.50%	83.33%	8.33%	69.83%	2
			CO4	53.33%	48.00%	75.00%	7.50%	55.50%	1
			CO5	57.50%	51.75%	91.67%	9.17%	60.92%	2
			CO6	100.00%	90.00%	100.00%	10.00%	100.00%	3
COE315	UAEE610	Electrical Energy Generation, Utilization and Conservation	CO1	85.83%	77.25%	93.75%	9.38%	86.63%	3
			CO2	83.33%	75.00%	100.00%	10.00%	85.00%	3
			CO3	80.00%	72.00%	95.83%	9.58%	81.58%	3
			CO4	88.33%	79.50%	93.75%	9.38%	88.88%	3
			CO5	81.67%	73.50%	97.92%	9.79%	83.29%	3
			CO6	100.00%	90.00%	100.00%	10.00%	100.00%	3
C316	UAMEC02	Marine Engineering – II	CO1	85.00%	76.50%	85.42%	8.54%	85.04%	3
			CO2	67.50%	60.75%	93.75%	9.38%	70.13%	3
			CO3	57.50%	51.75%	85.42%	8.54%	60.29%	2
			CO4	20.83%	18.75%	85.42%	8.54%	27.29%	0
			CO5	51.67%	46.50%	85.42%	8.54%	55.04%	1
			CO6	100.00%	90.00%	93.75%	9.38%	99.38%	3
C317	UAEE6PA	Process Control and Marine Automation Laboratory	CO1	85.00%	76.50%	89.58%	8.96%	85.46%	3
			CO2	78.33%	70.50%	91.67%	9.17%	79.67%	3
			CO3	100.00%	90.00%	87.50%	8.75%	98.75%	3
			CO4	100.00%	90.00%	85.42%	8.54%	98.54%	3
			CO5	100.00%	90.00%	83.33%	8.33%	98.33%	3
			CO6	100.00%	90.00%	97.92%	9.79%	99.79%	3
C318	UAEE6PB	Digital Signal Processing Laboratory	CO1	60.00%	54.00%	87.50%	8.75%	62.75%	2
			CO2	60.00%	54.00%	91.67%	9.17%	63.17%	2
			CO3	100.00%	90.00%	87.50%	8.75%	98.75%	3
			CO4	100.00%	90.00%	85.42%	8.54%	98.54%	3
			CO5	100.00%	90.00%	83.33%	8.33%	98.33%	3
			CO6	88.33%	79.50%	97.92%	9.79%	89.29%	3
C319	UAIVCPZ	Industrial Visit	CO1	100.00%	90.00%	87.50%	8.75%	98.75%	3
			CO2	58.33%	52.50%	79.17%	7.92%	60.42%	2
			CO3	87.50%	78.75%	87.50%	8.75%	87.50%	3

			CO4	70.83%	63.75%	85.42%	8.54%	72.29%	3
			CO5	87.50%	78.75%	87.50%	8.75%	87.50%	3
			CO6	87.50%	78.75%	91.67%	9.17%	87.92%	3
Fourth Year Courses									
C401	UAEE706	Solid State Drives	CO1	93.33%	84.00%	97.92%	9.79%	93.79%	3
			CO2	83.33%	75.00%	95.83%	9.58%	84.58%	3
			CO3	95.00%	85.50%	91.67%	9.17%	94.67%	3
			CO4	97.50%	87.75%	93.75%	9.38%	97.13%	3
			CO5	92.50%	83.25%	91.67%	9.17%	92.42%	3
			CO6	100.00%	90.00%	97.92%	9.79%	99.79%	3
C402	UAEE702	High Voltage On Merchant Ships	CO1	91.67%	82.50%	100.00%	10.00%	92.50%	3
			CO2	81.67%	73.50%	97.92%	9.79%	83.29%	3
			CO3	87.50%	78.75%	97.92%	9.79%	88.54%	3
			CO4	85.00%	76.50%	93.75%	9.38%	85.88%	3
			CO5	75.00%	67.50%	93.75%	9.38%	76.88%	3
			CO6	97.50%	87.75%	97.92%	9.79%	97.54%	3
C403	UAEEC02	Marine Control Engineering and Automation	CO1	82.50%	74.25%	100.00%	10.00%	84.25%	3
			CO2	80.00%	72.00%	97.92%	9.79%	81.79%	3
			CO3	77.50%	69.75%	95.83%	9.58%	79.33%	3
			CO4	77.50%	69.75%	97.92%	9.79%	79.54%	3
			CO5	82.50%	74.25%	95.83%	9.58%	83.83%	3
			CO6	95.00%	85.50%	97.92%	9.79%	95.29%	3
C404	UAEE704	Marine Electrical Protection and Switch Gears	CO1	87.50%	78.75%	100.00%	10.00%	88.75%	3
			CO2	87.50%	78.75%	97.92%	9.79%	88.54%	3
			CO3	86.67%	78.00%	97.92%	9.79%	87.79%	3
			CO4	90.83%	81.75%	97.92%	9.79%	91.54%	3
			CO5	86.67%	78.00%	93.75%	9.38%	87.38%	3
			CO6	92.50%	83.25%	100.00%	10.00%	93.25%	3
C405	UAEE705	Marine Electrical System Design and Layout	CO1	75.83%	68.25%	100.00%	10.00%	78.25%	3
			CO2	80.00%	72.00%	97.92%	9.79%	81.79%	3
			CO3	77.50%	69.75%	97.92%	9.79%	79.54%	3
			CO4	82.50%	74.25%	93.75%	9.38%	83.63%	3
			CO5	87.50%	78.75%	95.83%	9.58%	88.33%	3

			CO6	95.00%	85.50%	100.00%	10.00%	95.50%	3
CPE406	UAEE711	Embedded System Design	CO1	85.00%	76.50%	100.00%	10.00%	86.50%	3
			CO2	86.67%	78.00%	100.00%	10.00%	88.00%	3
			CO3	92.50%	83.25%	100.00%	10.00%	93.25%	3
			CO4	97.50%	87.75%	93.75%	9.38%	97.13%	3
			CO5	88.33%	79.50%	95.83%	9.58%	89.08%	3
			CO6	98.33%	88.50%	100.00%	10.00%	98.50%	3
C407	UAEE7PA	High Voltage and Switch Gear Laboratory	CO1	60.00%	54.00%	97.92%	9.79%	63.79%	2
			CO2	60.00%	54.00%	93.75%	9.38%	63.38%	2
			CO3	60.00%	54.00%	97.92%	9.79%	63.79%	2
			CO4	60.00%	54.00%	95.83%	9.58%	63.58%	2
			CO5	60.00%	54.00%	95.83%	9.58%	63.58%	2
			CO6	60.00%	54.00%	97.92%	9.79%	63.79%	2
C408	UAEE7PB	Marine Automation Laboratory	CO1	95.00%	85.50%	95.83%	9.58%	95.08%	3
			CO2	95.00%	85.50%	93.75%	9.38%	94.88%	3
			CO3	93.33%	84.00%	97.92%	9.79%	93.79%	3
			CO4	93.33%	84.00%	95.83%	9.58%	93.58%	3
			CO5	90.00%	81.00%	97.92%	9.79%	90.79%	3
			CO6	93.33%	84.00%	97.92%	9.79%	93.79%	3
C409	UAISCPX	Internship	CO1	100.00%	90.00%	95.83%	9.58%	99.58%	3
			CO2	100.00%	90.00%	93.75%	9.38%	99.38%	3
			CO3	95.83%	86.25%	93.75%	9.38%	95.63%	3
			CO4	95.83%	86.25%	95.83%	9.58%	95.83%	3
			CO5	95.83%	86.25%	95.83%	9.58%	95.83%	3
			CO6	95.83%	86.25%	97.92%	9.79%	96.04%	3
C410	UAMPCPY	Minor Project	CO1	100.00%	90.00%	95.83%	9.58%	99.58%	3
			CO2	79.17%	71.25%	97.92%	9.79%	81.04%	1
			CO3	87.50%	78.75%	93.75%	9.38%	88.13%	2
			CO4	100.00%	90.00%	95.83%	9.58%	99.58%	3
			CO5	100.00%	90.00%	97.92%	9.79%	99.79%	3
			CO6	100.00%	90.00%	100.00%	10.00%	100.00%	3
C411	UAEE801	Mobile Communication	CO1	63.33%	57.00%	91.67%	9.17%	66.17%	2
			CO2	64.17%	57.75%	93.75%	9.38%	67.13%	2

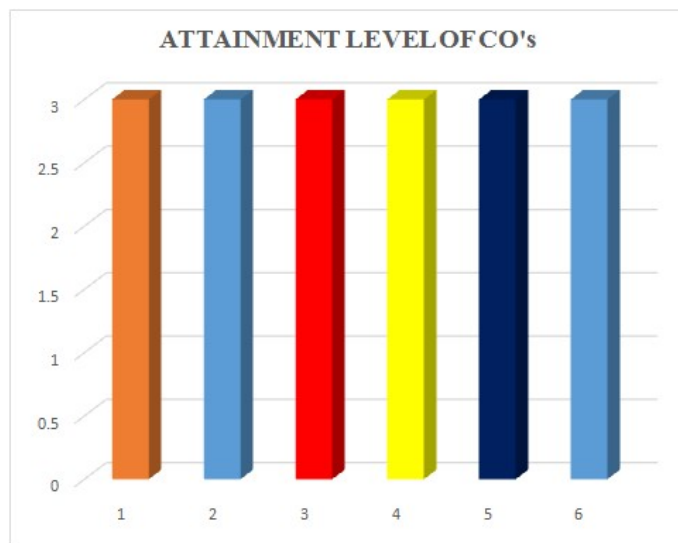
			CO3	68.33%	61.50%	87.50%	8.75%	70.25%	3
			CO4	63.33%	57.00%	91.67%	9.17%	66.17%	2
			CO5	79.17%	71.25%	83.33%	8.33%	79.58%	3
			CO6	86.67%	78.00%	97.92%	9.79%	87.79%	3
C412	UAEE802	Flexible AC Transmission Systems	CO1	52.50%	47.25%	89.58%	8.96%	56.21%	1
			CO2	47.50%	42.75%	91.67%	9.17%	51.92%	1
			CO3	60.83%	54.75%	87.50%	8.75%	63.50%	2
			CO4	58.33%	52.50%	91.67%	9.17%	61.67%	2
			CO5	65.00%	58.50%	85.42%	8.54%	67.04%	2
			CO6	85.83%	77.25%	97.92%	9.79%	87.04%	3
C413	UABSC01	Total Quality Management	CO1	83.33%	75.00%	89.58%	8.96%	83.96%	3
			CO2	80.83%	72.75%	93.75%	9.38%	82.13%	3
			CO3	75.00%	67.50%	87.50%	8.75%	76.25%	3
			CO4	70.83%	63.75%	85.42%	8.54%	72.29%	3
			CO5	85.83%	77.25%	83.33%	8.33%	85.58%	3
			CO6	78.33%	70.50%	97.92%	9.79%	80.29%	3
C414	UAEE8PA	Project Work	CO1	100.00%	90.00%	91.67%	9.17%	99.17%	3
			CO2	87.50%	78.75%	97.92%	9.79%	88.54%	2
			CO3	100.00%	90.00%	89.58%	8.96%	98.96%	3
			CO4	100.00%	90.00%	85.42%	8.54%	98.54%	3
			CO5	100.00%	90.00%	85.42%	8.54%	98.54%	3
			CO6	100.00%	90.00%	100.00%	10.00%	100.00%	3

The Assessment process for CO and PO attainment for a sample Course UAEE706 / Solid State Drives (VII-Sem -2015 regulation) is shown in table 3.10 and is graphically represented in Fig.3.2 and 3.3

Table B 3.10 CO Assessment Process for the Course UAEE706 / Solid State Drives (Sample)

S.No	Process for CO attainment	CO attainment					
		CO1	CO2	CO3	CO4	CO5	CO6
1	% of Direct Attainment through Internal Exams(CAT I & II, Model Exam, Assignment I,II,III & ALM)	83.33%	83.33%	100.00%	100.00%	100.00%	100.00%
2	40% from Direct Attainment through Internal Exams	33.33%	33.33%	40.00%	40.00%	40.00%	40.00%
3	% of Direct Attainment through End Semester Exam	100.00%	83.33%	91.67%	95.83%	87.50%	100.00%
4	60% from Direct Attainment through End Semester Exam	60.00%	50.00%	55.00%	57.50%	52.50%	60.00%

5	40% + 60% of Direct Attainment	93.33%	83.33%	95.00%	97.50%	92.50%	100.00%
6	90% from Direct Attainment	84.00%	75.00%	85.50%	87.75%	83.25%	90.00%
7	% of Indirect Attainment Through Course End Survey	97.92%	95.83%	91.67%	93.75%	91.67%	97.92%
8	10% from Indirect Attainment Through Course End Survey	9.79%	9.58%	9.17%	9.38%	9.17%	9.79%
9	90% from Direct + 10% from Indirect For Co Attainment	93.79%	84.58%	94.67%	97.13%	92.42%	99.79%
Attainment Level		3	3	3	3	3	3



Fig; 3.2 CO Attainment level for the course UAEE706- Solid State Drives

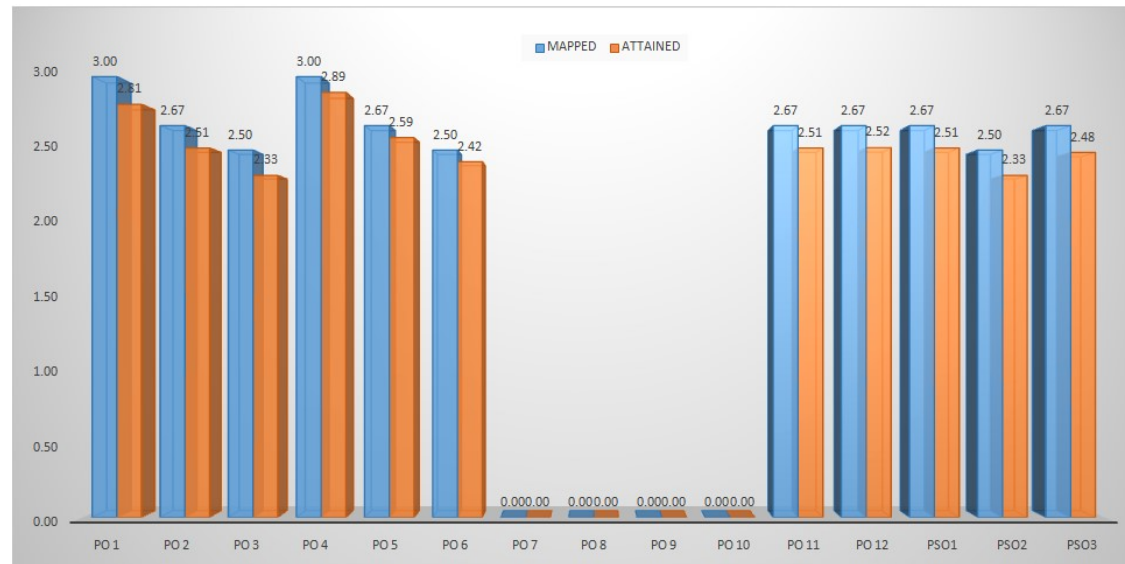


Fig 3.3 PO mapped Vs attained for the course UAEE706 - Solid State Drives

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

Total Marks 75.00

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

Institute Marks : 10.00

The Program Outcome and Program Specific Outcome are assessed through the following Direct and Indirect assessment tools.

Direct assessment tools:

- Internal Assessment Examinations
- Assignments / Seminar / Active Learning Methods - Rubrics based evaluation
- End semester examinations
- Rubrics based Performance Evaluation in Laboratory classes
- End semester Practical Examination
- Project - Rubrics based evaluation

Indirect assessment tools:

- Employer survey
- Student Exit survey
- Alumni Survey

The PO assessment process is elucidated in the Fig 3.4 and the same procedure is followed for calculating the attainment of PSOs. The direct and indirect assessment tools are tabulated in Table 3.11, which is used for the evaluation of POs and PSOs.

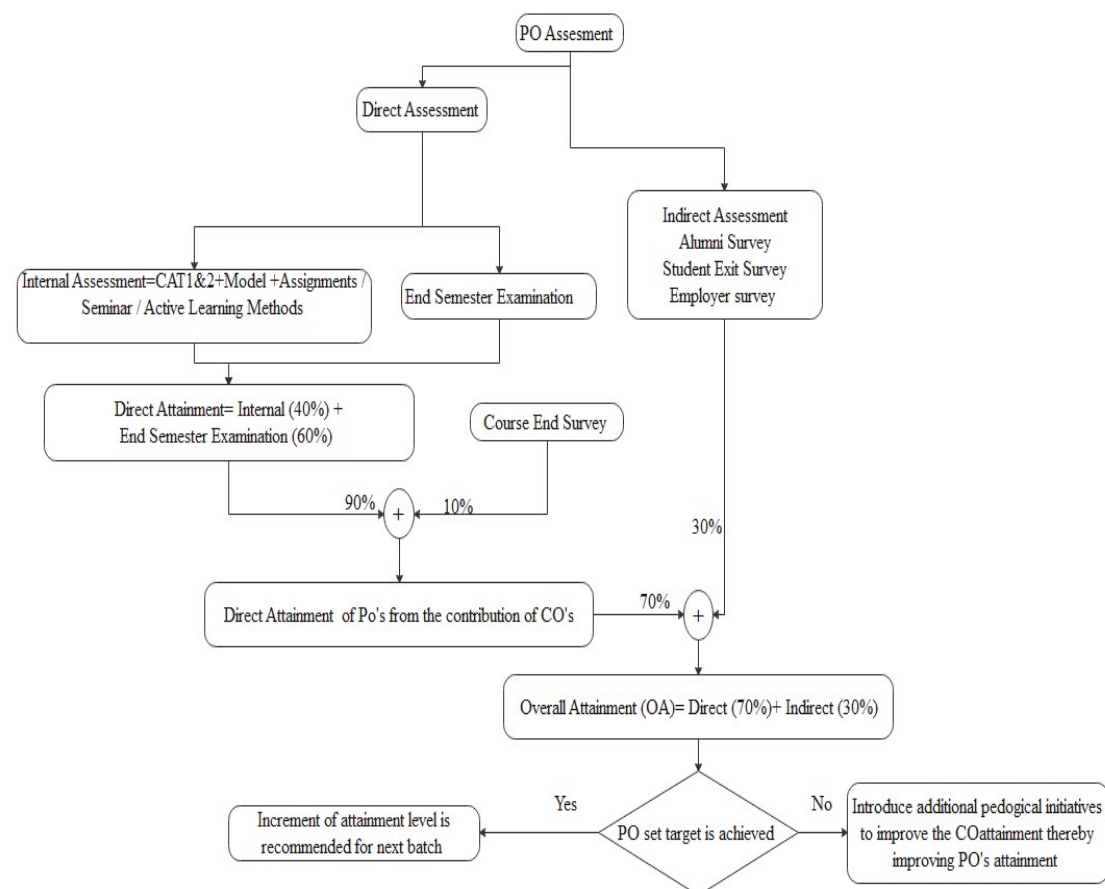


Fig 3.4 PO Assessment process

Table B 3.11. PO and PSO Attainments through Assessment Tools, Assessment Frequency & Responsibility

S.No	Assessment Tool/Activity	Assessment frequency	Responsibility	Program Outcomes												Program Specific Outcomes		
				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12	PSO1	PSO2	PSO3
DIRECT ASSESSMENT TOOLS																		
1	Continuous Assessment Test (CAT)	Two per semester	Course Coordinator	√	√	√	√	√	√	√	√	√	√	√	√	√	√	
2	Model Exam	One per semester		√	√	√	√	√	√	√	√	√	√	√	√	√	√	

3	End Semester Examination	One per semester		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
4	Assignments	Two/ Three per semester		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
5	Activity Learning Methods(ALM)	Throughout the semester		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
LABORATORY																		
6	Performance Evaluation	Throughout the semester	Course Coordinator	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
7	End Semester Exam	One per semester		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Mini Project / Project																		
8	Project	Two/ Three Reviews	Project Review Committee	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Internship																		
9	Internship report &Presentation	One per semester	Internship in-charge	-	-	-	-	-	√	√	√	√	√	√	√	√	√	√
Personality Development Program																		
10	Continuous evaluation	Throughout the semester	Concern In-charge	-	-	-	-	-	√	√	√	√	√	√	√	√	√	√
Soft skills																		
11	Continuous evaluation	Throughout the semester	Concern In-charge	-	-	-	-	√	√	√	√	√	√	√	√	√	√	√
Industrial visits																		
12	Report &Review	One per semester	Concern In-charge	-	-	-	-	-	-	-	√	√	√	√	√	√	√	√
Physical education																		
13	Fitness assessment	One course per the degree program	Physical Education Trainer	-	-	-	-	-	-	√	√	√	-	-	√	-	-	-
Value Added courses																		
14	Training module	One per semester	Project Review Committee	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
INDIRECT ASSESSMENT TOOLS																		
15	Employer Survey	Once in a year	Program Coordinator	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√

16	Alumini Survey	Once in a year	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
17	Students Exit Survey	Once in a year	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√

QUALITY/RELEVANCE OF ASSESSMENT TOOLS AND PROCESS

DIRECT ASSESSMENT TOOL:

Direct assessment tools used are described in Table B 3.3. Initially the attainment of each course outcome is determined using internal assessment and External Assessment as described in section 3.2.1. The PO attainment for each course is determined from the attainment values obtained for each course outcome related to that PO and CO-PO mapping values. Similarly the PSO attainment is also determined.

INDIRECT ASSESSMENT TOOL:

Indirect assessment is done through student exit survey, Alumni Survey and Employer Survey. Student Exit survey is given a weightage of 15%, Alumni survey a weightage of 10% and Employer survey of 5% during the assessment process.

STUDENT EXIT SURVEY:

An exit survey was conducted for each student, who has completed the programme of study. Relevant questionnaire of the student exit survey form to evaluate the attainment of PO and PSO is given below in fig 3.5.

Student Exit survey Questionnaire format




**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
STUDENT EXIT SURVEY**

Program	B.E. EEE- Marine
Student Name	
Roll No/ Reg No	
Year of Graduation	

VISION AND MISSION OF THE INSTITUTION

VISION

To sustain identity as a World Class Leader in Maritime Education and empower learners with wholesome knowledge through progressive innovation in training, research and development which will render students a unique learning experience and a transformation impact on the Global Society.

MISSION

AMET will strive continuously to

- ❖ Impart value-based higher education and technical knowledge with uncompromising strides of an outstanding quality.
- ❖ Emerge as a Centre of Excellence inculcating skill development in recent technologies in accordance with industrial trends.
- ❖ Create World class research capabilities on par with the finest in the world and broaden student's horizons beyond classroom education.
- ❖ Nurture talent and entrepreneurship to enable all round personality development among students.
- ❖ Empower students across socio economic strata
- ❖ Make a positive difference to society through technical education.

VISION AND MISSION OF THE DEPARTMENT

VISION

To emerge as a Centre for higher learning and research through development of highly competent, innovative and world class Marine Electrical and Electronics Engineers while remaining sensitive to ethical, societal and environmental issues.

MISSION

- ❖ To impart quality education in order to produce highly innovative, socio- economically conscious Marine Electrical and Electronics Engineers.
- ❖ To provide knowledge and skills, that is essential to meet the local and global demands in Marine Electrical and Electronics Engineering.
- ❖ To upgrade student's technical knowledge through industry interaction activities.
- ❖ To foster strong ethics, positive attitude and transform the Department into Centre of Excellence by promoting world class research and development to meet the challenging needs of society.
- ❖ To motivate and guide students for developing entrepreneurship or pursue higher education and train them for overall personality development.

Kindly rate the following criteria on a scale of 1-3
 • Your genuine response will be helpful for the continuous quality improvement of our UO programme in EEE AMET deemed to be University.
 • 1-Poor 2- Good 3- Excellent

S.No	Criteria Rating	Program Outcomes and Program Specific Outcomes PO1-PO12 and PSO1-PSO3	Criteria Rating
1	Rate your basic engineering knowledge to become a competent engineer after joining AMET	PO1	
2	Rate the quality of teaching offered by the department to you to understand the recent development in engineering.	PO2	
3	How efficient are you in developing effective solutions to the problems?	PO3	
4	Rate your ability to approach and analyze a problem to arrive at concrete and effective results	PO4	
5	Have you learnt any new skills or techniques apart from those included in the curriculum?	PO5	
6	How better are you in understanding the societal problems with your core knowledge?	PO6	
7	Rate the awareness that you have about the available resources and ensure judicious use of them without affecting the environment for sustainable progress.	PO7	
8	Are you satisfied with your Development of personal code of ethics?	PO8	
9	Are you satisfied with your group activity during their course of study?	PO9	
10	Rate your comfort while speaking in a large group and do you think that you have acquired communication skills after joining to our college?	PO10	
11	Are you satisfied with the training provided by the Department to you to do interdisciplinary projects and carry them out in time and utilize fund in a meaningful way?	PO11	
12	Rate the training provided by the institution to prepare you a successful self-reliant engineer?	PO12	
13	Have you achieved excellence in power systems and offshore energy engineering fields?	PSO1	
14	Rate our Attainment of proficiency to find solutions on research problems	PSO2	
15	Rate your Professional Skills	PSO3	

Suggestions for Improvement:

Signature _____

Fig: 3.5 Student Exit survey Questionnaire format

Feedbacks are taken from the Alumni to assess the long term impact of the program. Relevant questionnaire of the Alumni survey form to evaluate the attainment of PO and PSO is given below in fig 3.6.

Alumni survey Questionnaire format




ALUMNI SURVEY FORM

1	Name	:	
2	Academic Year	:	
3	Specialization and Period of Graduation	:	
4	Address for Communication	:	
5	City:	State:	Pin code:
6	Employment details	:	
7	Email	:	
8	Company and Designation	:	

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- ❖ Emerge as a Centre of Excellence inculcating skill development in recent technologies in accordance with industrial trends.
- ❖ Create World class research capabilities on par with the finest in the world and broaden student's horizons beyond classroom education.
- ❖ Nurture talent and entrepreneurship to enable all round personality development among students.
- ❖ Empower students across socio economic strata
- ❖ Make a positive difference to society through technical education.

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MISSION

- ❖ To impart quality education in order to produce highly innovative, socio- economically conscious Marine Electrical and Electronics Engineers.
- ❖ To provide knowledge and skills, that is essential to meet the local and global demands in Marine Electrical and Electronics Engineering.
- ❖ To upgrade student's technical knowledge through industry interaction activities.
- ❖ To foster strong ethics, positive attitude and transform the Department into Centre of Excellence by promoting world class research and development to meet the challenging needs of society.
- ❖ To motivate and guide students for developing entrepreneurship or pursue higher education and train them for overall personality development.

Kindly rate the following criteria on a scale of 1-3

3. **Excellent** 2. **Good** 1. **Poor**

Your genuine response will be helpful for the continuous quality improvement of our UO programme in EEE of AMET deemed to be University

S.No	Criteria Rating	Program Outcomes and Program Specific Outcomes PO1- PO12 and PSO1- PSO3	Criteria Rating
1	Rate your basic engineering knowledge to become a competent engineer after joining AMET	PO1	
2	Ability acquired to apply knowledge of Mathematics, Science and Engineering in real time for problem solving	PO2	
3	Competence developed to analyze and interpret data and design complex Electrical and Electronic system or process specific needs.	PO3	
4	Conduct investigations of complex problems		
5	Skills gained to apply modern engineering tools and techniques for engineering practices	PO5	
6	Skills gained to apply modern engineering tools relevant to your field and techniques for engineering practices and help to meet societal needs	PO6	
7	Obligation level acquired to develop engineering solutions for sustainable development	PO7	
8	Responsibility level acquired to develop in ethically and economically .	PO8	
9	Leadership qualities and team spirit inculcated through various student	PO9	
10	Rate your level of Communication with peers	PO10	
11	Rate your Project management skills and accounting	PO11	
12	Zeal to engage in, to resolve contemporary issues and acquire lifelong learning in your career	PO12	
13	Have you achieved excellence in power systems and offshore energy engineering fields?	PSO1	
14	Rate our Attainment of proficiency to find solutions on research problems	PSO2	
15	Rate your Professional Skills	PSO3	

Any Suggestions:

Signature of the Alumni

Fig: 3.6 Alumni survey Questionnaire format

EMPLOYER SURVEY:

A survey is conducted from the company where the graduates are working, after one or two years of their graduation. A questionnaire prepared containing all the aspects of the program attainment and the feedback is collected from the employers of various reputed industries/ organizations graduated from the University. Based on the feedback, the POs and PSOs assessments, the curriculum and syllabus for the Program are modified. Relevant questionnaire of the Employer survey form to evaluate the attainment of PO and PSO is given below in fig 3.7.




EMPLOYER FEEDBACK FORM

Name	:
Organization	:
Industry / Sector	:
Designation of Employer	:
Date	:
Alumni Name	:
Alumni Designation	:
Please give your feedback for Mr. /Ms.	

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❖ Emerge as a Centre of Excellence inculcating skill development in recent technologies in accordance with industrial trends.
❖ Create World class research capabilities on par with the finest in the world and broaden student's horizons beyond classroom education.
❖ Nurture talent and entrepreneurship to enable all round personality development among students.
❖ Empower students across socio-economic strata
❖ Make a positive difference to society through technical education.
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MISSION
❖ To impart quality education in order to produce highly innovative, socio-economically conscious Marine Electrical and Electronics Engineers.
❖ To provide knowledge and skills, that is essential to meet the local and global demands in Marine Electrical and Electronics Engineering.
❖ To upgrade student's technical knowledge through industry interaction activities.
❖ To foster strong ethics, positive attitude and transform the Department into Centre of Excellence by promoting world class research and development to meet the challenging needs of society.
❖ To motivate and guide students for developing entrepreneurship or pursue higher education and train them for overall personality development.

- Evaluate him/her on following criteria on the bases of your experience.
- And give marks out of 3
- 3-Excellent 2-Good 1-Poor

Sr. No.	Criteria	Program Outcomes and Program Specific Outcomes PO1- PO12 and PSO1- PSO3	Marks out of 3
1	Effectively Apply Engineering knowledge	PO1	
2	Problem solving skills	PO2	
3	Design/development of solutions	PO3	
4	Conduct investigations of complex problems	PO4	
5	Extent of Modern tool usage	PO5	
6	The engineer and society	PO6	
7	Environment and sustainability	PO7	
8	Ethics	PO8	
9	Individual and team work	PO9	
10	Communicate effectively	PO10	
11	Project management and finance	PO11	
12	Life-long learning	PO12	
13	Level of excellence in power systems and offshore energy engineering fields	PSO1	
14	proficiency to find solutions on research problems	PSO2	
15	Professional Skills	PSO3	

Signature of the Employer

Fig: 3.7 Employee survey Questionnaire format

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

Institute Marks : 65.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	PO1	PO2	PO3	PO4	1.42	1.78	1.56	PO8	1.89	1.89	PO11	2.01
C102	1.72	1.72	1.72	1.83	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.83
C103	2.11	2.17	2.10	2.16	2.11	PO6	PO7	PO8	PO9	PO10	PO11	2.00
C104	1.75	1.65	2.87	PO4	1.82	PO6	1.98	PO8	PO9	PO10	PO11	1.05
C105	2.28	2.28	2.13	1.88	2.24	PO6	PO7	PO8	PO9	1.89	PO11	1.85
C106	1.59	1.50	1.29	1.39	1.48	PO6	PO7	PO8	PO9	1.49	PO11	1.24
C107	1.38	1.57	1.33	1.33	1.38	PO6	PO7	PO8	1.32	1.27	PO11	1.32
C108	PO1	PO2	PO3	PO4	PO5	1.69	1.70	1.71	1.91	PO10	PO11	PO12
C109	1.70	1.46	2.21	1.60	1.46	PO6	1.82	PO8	1.82	1.82	PO11	1.46
C110	1.79	1.66	1.92	1.53	1.72	PO6	PO7	PO8	PO9	1.53	PO11	1.53
C111	PO1	PO2	PO3	PO4	PO5	1.67	1.54	1.37	1.69	1.59	PO11	1.74
C112	1.45	PO2	1.63	PO4	1.43	PO6	PO7	PO8	1.42	1.45	PO11	1.38
C113	PO1	PO2	PO3	PO4	PO5	1.49	1.67	PO8	1.34	1.57	PO11	1.45
C114	1.82	1.54	1.82	1.44	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.56
C115	1.94	1.44	1.91	1.16	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.91
C116	2.02	2.01	1.81	1.62	1.28	PO6	PO7	PO8	PO9	PO10	PO11	1.33
C117	1.91	2.10	1.86	1.86	2.78	PO6	PO7	PO8	PO9	PO10	PO11	1.48
C118	1.98	1.98	1.72	1.43	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.83
C119	1.74	1.74	2.03	1.73	2.03	PO6	PO7	PO8	1.92	1.96	2.22	2.12
C120	2.12	1.86	1.73	2.00	1.70	PO6	PO7	PO8	PO9	2.13	PO11	1.93
C121	PO1	PO2	PO3	PO4	PO5	1.60	1.62	1.80	1.70	2.13	PO11	1.41
C201	2.26	2.04	2.26	1.98	1.7	PO6	PO7	PO8	PO9	PO10	PO11	1.77
C202	2.02	2.02	1.88	1.79	1.45	PO6	PO7	PO8	PO9	PO10	1.68	1.94
C203	2.55	1.94	1.94	1.7	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C204	PO1	PO2	PO3	PO4	PO5	1.46	1.96	1.52	1.64	PO10	PO11	1.42
C205	2.06	1.73	2.2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.2
C206	1.57	2.05	1.92	1.76	2.05	PO6	PO7	PO8	2	PO10	1.64	2.11

C207	2.55	2.54	2.69	2.54	2.18	PO6	PO7	PO8	2.24	2.4	2.54	2.69
C208	1.76	1.47	1.36	1.48	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.45
C209	2.06	2.06	1.93	1.68	1.93	PO6	PO7	PO8	1.52	1.98	1.54	1.93
C210	PO1	PO2	PO3	PO4	PO5	2.04	1.6	1.81	1.92	1.63	PO11	1.87
C211	2.11	1.75	2.14	1.67	1.4	PO6	PO7	PO8	PO9	PO10	1.74	1.48
C212	2.25	2.38	2.22	2.52	1.99	PO6	PO7	PO8	PO9	PO10	2.24	2.25
C213	1.86	2.15	1.55	1.91	1.65	PO6	PO7	PO8	PO9	PO10	1.72	1.72
C214	2.38	2.26	2.26	2.38	2.09	PO6	PO7	PO8	PO9	PO10	1.64	1.81
C215	2.05	1.85	1.77	1.95	1.65	1.41	PO7	PO8	PO9	PO10	1.83	1.72
C216	1.81	2.05	1.93	1.92	1.7	PO6	PO7	PO8	PO9	PO10	1.62	1.74
C217	1.38	1.38	1.38	1.38	1.29	PO6	PO7	PO8	1.24	1.16	1.38	1.38
C218	2.28	2.14	2.27	2.28	2.15	PO6	PO7	PO8	2.06	2.33	1.7	2.13
C219	2.76	2.3	2.61	2.15	2.54	PO6	PO7	PO8	2	2.15	2.3	2.3
C220	PO1	PO2	PO3	PO4	PO5	1.96	1.6	1.97	2.21	2.21	PO11	2.21
C301	1.68	1.54	1.62	1.78	1.9	1.93	2	PO8	PO9	PO10	1.89	2.1
C302	1.82	1.72	1.69	1.88	2.03	1.82	2.19	PO8	PO9	PO10	1.82	1.7
C303	1.74	1.92	1.84	1.79	1.71	PO6	PO7	PO8	PO9	PO10	1.56	1.56
C304	2.18	1.81	2.1	2.09	1.55	PO6	PO7	PO8	PO9	PO10	1.49	1.52
C305	1.6	1.84	1.82	1.68	1.87	PO6	PO7	PO8	PO9	PO10	1.85	1.93
C306	1.79	1.79	1.7	1.9	1.82	2.24	PO7	PO8	PO9	PO10	1.7	1.38
C307	1.78	1.77	1.86	1.73	1.84	PO6	PO7	PO8	PO9	PO10	1.55	1.78
C308	1.58	1.48	1.48	1.69	1.33	2.01	1.62	PO8	PO9	PO10	1.51	1.33
C309	2.21	2.21	2.21	1.97	1.86	PO6	PO7	PO8	2.01	2.01	1.86	2.21
C310	PO1	PO2	PO3	PO4	PO5	2.48	1.82	2.49	1.99	1.99	PO11	2.32
C311	2.71	2.54	2.62	2.47	2.36	PO6	PO7	PO8	PO9	PO10	2.9	2.55
C312	2.21	2.06	1.84	1.84	1.95	PO6	PO7	PO8	PO9	PO10	1.98	1.84
C313	1.96	1.87	1.87	1.66	1.97	PO6	PO7	PO8	PO9	PO10	1.68	1.73
C314	1.79	1.81	1.86	1.64	1.79	PO6	PO7	PO8	PO9	PO10	1.7	1.7
C315	2.21	2.34	2.35	2.44	2.23	2.23	PO7	PO8	PO9	PO10	1.76	2.02
C316	1.99	1.94	1.71	1.73	2.4	2.32	PO7	PO8	PO9	PO10	1.82	2.04
C317	2.67	2.17	2.33	2.18	2.31	2.64	PO7	PO8	2.64	2.18	2.46	2.26

C318	2.34	2.34	2.16	2.54	2.54	PO6	PO7	PO8	2.03	2.21	2.36	2.16
C319	PO1	PO2	PO3	PO4	PO5	1.68	1.67	2.63	1.93	1.93	2.3	1.75
C401	2.81	2.51	2.33	2.89	2.59	2.42	PO7	PO8	PO9	PO10	2.51	2.52
C402	2.62	2.34	2.43	2.06	2.33	PO6	PO7	PO8	PO9	PO10	2.39	2.59
C403	2.52	2.52	2.11	2.35	2.54	PO6	PO7	PO8	PO9	PO10	2.55	2.58
C404	2.69	2.33	2.52	2.24	2.71	PO6	PO7	PO8	PO9	PO10	2.24	2.51
C405	2.54	2.54	2.08	2.57	2.67	PO6	PO7	PO8	PO9	PO10	2.18	2.39
C406	2.76	2.46	2.79	2.60	2.80	2.96	PO7	PO8	PO9	PO10	2.61	2.61
C407	1.91	1.70	1.27	1.49	1.70	PO6	PO7	PO8	1.91	1.91	1.65	1.91
C408	2.81	2.81	2.49	2.50	2.81	PO6	PO7	PO8	2.78	2.31	2.56	2.79
C409	PO1	PO2	PO3	PO4	PO5	2.64	2.59	PO8	2.91	2.42	2.88	2.88
C410	2.84	2.71	2.84	2.84	2.84	2.66	2.13	2.50	2.84	2.50	2.84	2.84
C411	1.82	2.07	2.28	2.37	2.38	PO6	PO7	PO8	PO9	PO10	PO11	2.11
C412	1.75	1.83	1.84	1.77	2.31	PO6	PO7	PO8	PO9	PO10	1.99	1.99
C413	PO1	PO2	PO3	PO4	2.29	2.40	2.00	2.13	1.99	2.42	PO11	2.14
C414	2.94	2.77	2.60	2.77	2.94	2.77	2.46	2.44	2.94	2.79	2.94	2.94

PO Attainment Indirect

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Alumni Sur	2.84	2.84	2.68	2.84	2.84	3.00	3.00	2.84	3.00	3.00	2.84	2.84
Employer S	2.69	2.84	2.84	2.80	2.63	2.63	2.75	2.37	2.69	2.84	2.84	2.80
Student Exi	3.00	2.63	2.63	2.75	2.37	2.75	3.00	2.84	2.80	3.00	2.84	3.00

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
InDirect Attainment	2.84	2.77	2.72	2.80	2.61	2.79	2.92	2.68	2.83	2.95	2.84	2.88
Direct Attainment	2.09	2.01	2.02	1.96	2.02	2.10	1.87	2.03	1.99	1.98	2.03	1.93

PSO Attainment

Course	PSO1	PSO2	PSO3
C101	PSO1	PSO2	PSO3
C102	2.75	1.96	1.96
C103	1.81	2.36	2.16

C104	1.82	1.56	1.88
C105	PSO1	PSO2	PSO3
C106	1.43	1.20	1.19
C107	1.06	1.55	1.37
C108	PSO1	PSO2	PSO3
C109	1.46	1.46	1.71
C110	PSO1	PSO2	PSO3
C111	PSO1	PSO2	PSO3
C112	PSO1	PSO2	PSO3
C113	PSO1	PSO2	PSO3
C114	1.6	1.38	1.44
C115	1.91	1.56	1.56
C116	1.69	1.62	1.62
C117	1.45	PSO2	PSO3
C118	2.03	1.19	2.32
C119	2.31	1.74	1.73
C120	2.1	2.12	PSO3
C121	PSO1	PSO2	PSO3
C201	1.9	1.94	1.74
C202	2.04	1.78	1.68
C203	2.2	2	1.41
C204	PSO1	PSO2	PSO3
C205	PSO1	1.5	2.55
C206	1.51	1.56	2.03
C207	2.69	2.69	2.69
C208	1.62	1.39	1.39
C209	1.59	1.49	PSO3
C210	PSO1	PSO2	PSO3
C211	1.87	1.68	1.54
C212	2.23	1.87	2.39
C213	1.76	2.03	1.89
C214	2.38	2.25	2.25

C215	2.05	1.92	1.92
C216	1.88	1.81	1.91
C217	1.55	1.55	1.55
C218	1.71	2.14	2.28
C219	2.3	2.3	2.46
C220	PSO1	PSO2	PSO3
C301	1.84	1.79	1.78
C302	1.67	1.72	1.58
C303	1.63	1.39	1.48
C304	1.72	1.56	1.93
C305	1.62	1.68	1.88
C306	1.87	1.45	1.82
C307	1.78	1.51	1.5
C308	1.48	1.51	1.62
C309	2.09	1.85	1.98
C310	PSO1	PSO2	PSO3
C311	2.54	2.39	2.4
C312	1.97	1.97	2.14
C313	1.68	1.49	1.52
C314	1.96	1.68	1.84
C315	2.06	2.2	2.13
C316	1.62	1.73	1.93
C317	2.18	2.29	2.30
C318	2.34	1.94	1.83
C319	2.36	1.76	PSO3
C401	2.51	2.33	2.48
C402	2.34	2.62	2.48
C403	2.39	2.38	2.23
C404	2.69	2.33	2.42
C405	2.13	2.4	2.37
C406	2.76	2.62	2.44
C407	1.91	1.91	1.91

C408	2.65	2.65	2.5
C409	2.75	2.55	2.55
C410	2.71	2.67	2.67
C411	2.37	2.37	2.11
C412	1.69	1.74	1.72
C413	PSO1	PSO2	PSO3
C414	2.94	2.94	2.94

PSO Attainment Indirect

Survey	PSO1	PSO2	PSO3
Student Exit Survey	3.00	2.63	2.87
Alumni Survey	3.00	3.00	3.00
Employer Survey	3.00	2.80	3.00

PSO Attainment Level

Course	PSO1	PSO2	PSO3
Direct Attainment	2.02	1.92	1.98
InDirect Attainment	3.00	2.81	2.96

4 STUDENTS' PERFORMANCE (100)

Total Marks 82.17

Institute Marks :

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)	60	60	45	30	30	30	30
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)	35	22	45	23	22	7	18
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	2	3	6	2	2	2
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	35	24	48	29	24	9	20

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)	35				
2018-19 (CAYm1)	24	9			
2017-18 (CAYm2)	48	17	19		
2016-17 (CAYm3)	29	2	3	2	
2015-16 (LYG)	24	4	4	3	3
2014-15 (LYGm1)	9	1	3	3	3
2013-14 (LYGm2)	20	7	8	8	8

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)	35				
2018-19 (CAYm1)	24	10			
2017-18 (CAYm2)	48	28	30		
2016-17 (CAYm3)	29	16	20	19	
2015-16 (LYG)	24	22	24	24	24
2014-15 (LYGm1)	9	7	8	8	8
2013-14 (LYGm2)	20	18	20	20	20

4.1 Enrolment Ratio (20)

Total Marks 14.00

Institute Marks : 14.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2019-20 (CAY)	60	35	58.33
2018-19 (CAYm1)	60	22	36.67
2017-18 (CAYm2)	45	45	100.00

Average [(ER1 + ER2 + ER3) / 3] : 65.00

Assessment : 14.00

4.2 Success Rate in the stipulated period of the program (20)

Total Marks 9.02

4.2.1 Success rate without backlogs in any semester / year of study (15)

Institute Marks : 4.20

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	24.00	9.00	20.00
Y Number of students who have graduated without backlogs in the stipulated period	3.00	3.00	8.00
Success Index [$SI = Y / X$]	0.12	0.33	0.40

Average SI [(SI1 + SI2 + SI3) / 3] : 0.28

Assessment [15 * Average SI] : 4.20

4.2.2 Sucess rate in stipulated period (5)

Institute Marks : 4.82

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	24.00	9.00	20.00
Y Number of students who have graduated in the stipulated period	24.00	8.00	20.00
Success Index [$SI = Y / X$]	1.00	0.89	1.00

Average SI[(SI1 + SI2 + SI3) / 3]: 0.96

Assessment [5 * Average SI] : 4.82

Note : If 100% students clear without any backlog then also total marks scored will be 40 as both 4.2.1 & 4.2.2 will be applicable simultaneously.**4.3 Academic Performance in Second Year (10)**

Total Marks 9.15

Institute Marks : 9.15

Academic Performance	CAYm2 (2017-18)	CAYm3 (2016-17)	LYG (2015-16)
Mean of CGPA or mean percentage of all successful students(X)	6.72	6.40	6.72
Total number of successful students (Y)	32.00	23.00	24.00
Total number of students appeared in the examination (Z)	34.00	28.00	24.00
API [X * (Y/Z)]	6.32	5.26	6.72

Average API [(AP1 + AP2 + AP3)/3] : 6.10

Assessment [1.5 * AverageAPI] : 9.15

4.4 Placement, Higher Studies and Entrepreneurship (30)

Total Marks 30.00

Institute Marks : 30.00

Item	LYG(2015-16)	LYGm1(2014-15)	LYGm2(2013-14)
Total No of Final Year Students(N)	24.00	8.00	20.00
No of students placed in the companies or goverment sector(X)	18.00	5.00	16.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	4.00	2.00	3.00
No of students turned entrepreneur in engineering/technology (Z)	2.00	1.00	1.00
Placement Index [(X+Y+Z)/N] :	1.00	1.00	1.00

Average Placement [(P1 + P2 + P3)/3] : 1.00

Assessment [30 * Average Placement] : 30.00

Program Name : Electrical and Electronics Engineering -Marine
Assessment Year : 2018-19 (CAYm1)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Akshai	AEE15005	Albion Engineering India Pvt Ltd	AEI-ID:12070
2	Allwin Renold.S	AEE15006	SEATEAM Management India Pvt Ltd	IMO:9610935
3	Ananthan Unni	AEE15007	MEDITERRANEAN SHIPPING COMPANY	App ID: 23453
4	Baskar. M	AEE15008	IPL Products, Chennai	EMP.ID5002
5	Divins Sobi .S	AEE15011	Albion Engineering India Pvt Ltd	AEI-ID:12081
6	Inbaraj.I	AEE15012	IPL Products, Chennai	EMP.ID:5003

7	Jaya Krishnan.K	AEE15013	Albion Engineering India Pvt Ltd	AEI-ID:12071
8	Jayakumar.M	AEE15014	VIK SANDVIK Ship Design and Off Shore Engineering India Pvt Ltd	VSS ID:2002038
9	Joseph Melvin.B	AEE15016	VIK SANDVIK Ship Design and Off Shore Engineering India Pvt Ltd	VSS ID:2002034
10	Manikandan.N	AEE15017	MAERSK Shipping Solutions	APM ID:3075729
11	Rajkumar E	AEE15021	VIK SANDVIK Ship Design and Off Shore Engineering India Pvt Ltd	VSS ID:2002036
12	Sivaraman. U	AEE15022	Mediterranean Shipping Company	App ID: 23455
13	Suryakumar.A	AEE15026	Albion Engineering India Pvt Ltd	AEI-ID:12086
14	Gorakavi Lakshmi Prasanna Kumar	AEE15030	MAERSK Shipping Solutions	AMP-ID: 3075741
15	Mathandeepu.M	AEE15033L	VIK SANDVIK Ship Design and Off Shore Engineering India Pvt Ltd	VSS ID:2002057
16	Bajare Shardul Jayanta	AEE15032L	K R Industries, Chennai	EMP.ID 20100
17	Ajithkumar L	AET191002	IPL Products, Chennai	EMP.ID:5012
18	Oswin Sancho.U	AEE15020	IPL Products, Chennai	EMP.ID:5014

Assessment Year : 2017-18 (CAYm2)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Ranjith Kumar. M	AEE14603	AIDA CRUISES	ID Card: 18055
2	Hari Prasath.T	AEE14607	FLOTOTECH	ID CARD: Dept.: Service Engineer
3	Thomson Pradeep.J	AEE14608	MAERSK Shipping Solutions	AMP-ID: 3068744
4	Ninad Kamalakar Ragji	AEE14609L	SEMBCORB Marine Limited	ID CARD No: 10041591
5	Siva Sankar.R	AEE14610L	SEMBCORB Marine Limited	ID CARD No: 10035641

Assessment Year : 2016-17 (CAYm3)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Deewakar Sourabh	AEE13603	OSM Crew Management Private Limited	IMO:9433937
2	Gokulnath.A	AEE13605	PIL Shipping	IPN NO: INPIL00595
3	Gowtham.D	AEE13606	SEA4MARINE Shipping Management Pvt Ltd	APL-149/2019
4	Madhup. C	AEE13609	Shipment Tracking Services, Chennai	EMP ID 1421
5	Moulish Kumar. N	AEE13610	Integrity Ships	IMO:9119000
6	Naveen.A	AEE13611	Elegant Marine Services	P.P.NO.NO242220
7	Niranjankumar. S	AEE13612	MSC SHIP Management Ltd	ID Card: Rank: TR. ETO Vessel: MSC SHREYA B
8	Pradeep.S	AEE13613	SEATEAM Management India Pvt Ltd	IMO:9196644
9	Raja. S	AEE13615	SEATEAM Management India Pvt Ltd	IMO:9600932
10	Rehan Hyder.H	AEE13617	MAERSK Shipping Solutions	AMP-ID: 3072999
11	Sathish Kumar. B	AEE13618	SYNERGY	ID CARD: Rank: Tr. Electrical Officer Vessel: EVER GREET
12	Bharath Kumar.G	EE13624L	CREW Management Service Ltd	ID CARD: Rank: Elec. CadetVessel:00CL KAOHSIUNG
13	Logesh. M	AEE13608	K R Industries, Chennai	Emp ID: 45310
14	Diogo Manuel Antonio	AEE13623	IPL Products Chennai	EMP.ID:2014
15	Chozhan. S	AEE13602	K R Industries Chennai	EMP.ID:2016
16	Varatharajan.R	AEE13621	IPL Products Chennai	EMP.ID:2017

4.5 Professional Activities (20)

Total Marks 20.00

4.5.1 Professional societies/chapters and organizing engineering events (5)

Institute Marks : 5.00

The Department of EEE has two professional chapters namely Institution of Engineers of India (IEI) and Institute of Electrical and Electronics Engineers (IEEE). Many activities are conducted under these professional chapters.

S. No	Professional Societies
1	Institute of Electrical and Electronics Engineers (IEEE)
2	Institution of Engineers of India (IEI)

IEEE and its members inspire their global community to innovate for better tomorrow through highly sited publications, conferences, Technology standard and professional and Educational activities. IEEE is the trusted voice for Engineering, Computing and Technology Information around the globe.

IEI Students Chapters enhances the knowledge, skill and competency of engineering professionals and also elevates their career by making them a member of an elite group of Engineers.

Table B. 4.5.1 (a) Professional Membership in various Societies

S.No	Name of the faculty	Membership Details
1	Dr.T.Sasilatha	IEEE, ISTE, IAENG, IFERP
2	Dr.V.Karthikeyan	IEEE, ISTE, ISRD, IFERP, IAENG, IRED
3	Dr. G. Themozhi	ISTE, IETE, IEI
4	Dr. Priya	IEEE, IETE
5	Dr.T.Baldwin Immanual	IAAC, IAENG, IFERP, IAOE, IRED, TERA
6	Dr. D. Lakshmi	IEI, IFERP
7	Dr. M. Deva Brindha	IAAC, IRED
8	Mrs.R.Elavarasi	ISTE, IAENG, IFERP, SCIEI
9	Mr. P.Veerakumar	IAENG, IFERP, IRED, SCIEI
10	Mr.S.Janarthanan	IAENG, SCIEI, UACEE, TERA
11	Mr.C.Gnanavel	IAENG, IRED, IEICE
12	Ms.G. Jegadeeswari	IAAC, IAENG, HKSME, IFERP, IEDRC, SCIEI, IAOE, IARA
13	Mr.K.Manikandan	IAENG, RED
14	Mrs. R.K. Padmashini	IAENG, IARDO, IFERP

Table B. 4.5.1 (b) Professional Membership in various Societies

No.	Name of the Student	Membership Details
1	I. Hasheem Shariff	IEEE
2	Mohamed Nasaroli	IEEE
3	Nirmal Baskaran	IEEE
4	Hariharan Nagasubramanian	IEEE
5	Snahasish Saha	IEEE
6	Pratik Gupta	IEEE
7	Manoj kumar Rajagopal	IEEE

8	Aagash Ganesan	IEEE
9	Sriram Surath kumar V	IEEE
10	Anitosh Mondal	IEEE
11	Viknesh S	IEEE
12	Pradeep Murali	IEEE
13	Balamurugan K	IEEE
14	Brijesh C.R	IEEE
15	Venkatesh S	IEEE
16	Naveenraj R	IEEE
17	Dharun Sridharan	IEEE
18	Azarutheen Seerajutheen	IEEE
19	Dineshkumar Manivannan	IEEE
20	Arun K.S	IEEE
21	Surya A	IEEE
22	Akash S	IEEE
23	Ganeshbabu K	IEEE
24	Aravind Kumar R	IEI
25	Syed Mohammad Salman	IEI
26	Vinith R	IEI
27	Dharshini S	IEI
28	Durai Ruben G	IEI
29	Gokul Vishnu R	IEI
30	Amita Shilan Gadling	IEI
31	Aswin Saji	IEI
32	Nithin R	IEI
33	Sriraj A	IEI
34	Madhuban M	IEI
35	Adharsh B A	IEI
36	Akash P Santhosh	IEI
37	Gokulraj R	IEI
38	Jayalal J	IEI
39	Manoj V	IEI
40	Pradeep Kumar R	IEI

41	Tamilselvan D	IEI
42	Jain James	IEI
43	Amuthan A	IEI

Table B: 4.5.1 Events Organized under Professional Society

Academic Year	Date	Event and Title	Resource Person
2019-2020	IEI - Student Chapter		
	02.03.2020 to 04.03.2020	Training Program / Big data analytics in smart grid	Dr.R.Vijaya Rajeswaran Managing Director, Vi Micro Systems Private Limited
	04.03.2020	Guest Lecture / Grid integration and its challenges	Rtd.Er.P. Rajagunanidhi Executive Engineer TNEB,Chennai
	03.03.2020	Guest Lecture / Renewables constraints to integrate with grid	Er. Thirumal , EE, TANGEDCO, Chennai
	10.01.2020	Guest Lecture / Analysis and Mitigation of power Quality and protection in power system	Er.K.Ramesh, TNEB
	09.01.2020	Commissioning of 210KV Substation-Sunguvarchatram	Mr.Karunakaran, Rtd.Superintending Engineer in TANGEDCO
	27.02.2020	QUIZ Programme, Intra Departmental	Co-ordinators: Dr.G. Themozhi, Professor, Mrs.R.K. Padmashini, Assistant Professor Dr.M. Deva Brinda, Professor, AMET Deemed to be University
	31.10.2019	Inauguration Of Institution of Engineers' (Student Chapter)	Er.R.Ramadoss, Honorary Secretary, IEI, Tamil Nadu State Centre
	31.10.2019	Guest Lecture, Renewable Energy and Environment control	Dr.J. Balamurugan , Assistant Executive Engineer, Tamil Nadu Electricity Board Chennai
	02.03.2020 to 04.03.2020	Training Program / Big data analytics in smart grid	DR.R.Vijaya Rajeswaran Managing Director, VI Micro Systems Private Limited
	04.03.2020	Guest Lecture / Grid integration and its challenges	Rtd.Er.P. Rajagunanidhi Executive Engineer TNEB,Chennai
	IEEE - Student Branch		

	17.12.2019 to 19.12.2019	Three Days National workshop on Artificial Intelligence and Machine Learning using Python	Mr. R. Venkatraj, Business Head, 3G Institute of Research Policy and Studies
	15.11.2019	Guest Lecture / Applications of Special Electrical Machines in Industrial Robotics	Mr.E. Arun Kumar Vice President, RETECH Solutions Private Ltd., Chennai
	13.8.2019	One day workshop on Hands-on Training on Printed Circuit Board Design	Mr. A. Parameswaran Support Engineer IE Solutions Pvt Ltd
	21.08.2019 & 22.08.2019	Two days' workshop on Role of Surveillance robots in smart factories	Mr. Karthikeyan Chief Operating Officer Electronics Platform Research Labs
2018-2019	IEEE - Student Branch		
	29.1.2019	One day workshop On Hands-on Training on Printed Circuit Board Design	Mr. SUNDAR Support Engineer IE Solutions Pvt Ltd
	30.1.2019 & 31.1.2019	Two day workshop On Simulation of Power System Transients in modern grids	Mr. V.P. Boopathi Senior Support Engineer, Powersys, Chennai
	22.2.2019 & 23.2.2019	Two day workshop on Ethical Hacking and Cyber Security	Mr. Sankalp Mate Cyber Security Analyst Pristine Info Solutions, Mumbai
	08.04.2019	One day workshop on Renewable Energy Sources and Solar Energy Storage System	Dr.R.Velraj Director & Professor, Institute for Energy Studies, Anna University Dr. M. Sundaram Associate Professor, Dept of EEE, PSG College of Technology, Coimbatore Dr. P. Navaneethakrishnan Head, Dept of Mechanical Kongu Engineering College, Erode
	28.1.2019	One day workshop on Outcome Based Education for NBA Accreditation Process'	Dr. S. Baskar, Professor, Thiyagarajar Engineering College, Madurai
	09.03.2019	One day workshop on Implementation of Outcome Based Education	Dr. S. Baskar, Professor, Thiyagarajar Engineering College, Madurai

22.03.2019	One day workshop on Machine Learning using Python'	Mr. E. Murugan Engineer & Project Development Signals & Systems (India) Pvt Ltd
30.03.2019	One Day National Seminar on ELECTRIC AND HYBRID ELECTRIC VEHICLE	Mr. Venugopal Parvataneni Senior General Manager, R & D, Brakes India Pvt Ltd, Chennai Mr. B. Balaji General Manager (Rtd), Ashok Leyland, Chennai Mr. S.A. Sundaresan Vice- President EV and E- Mobility Solutions, Ashok Leyland, Chennai Mr. Krishna Srinivas Senior Vice President, Corporate Technology Centre Tube Investments of India Ltd, Chennai
26.09.2018 & 27.09.2018	International Conference on Innovations and Research in Marine Electrical and Electronics Engineering ICERMEEE 2018	Abdul Hameed Al-Hashem Senior Researcher, PRC, Kuwait. Prof. Gurmeet Singh, Vice-Chancellor, Pondicherry University Dr. K. Balaraman, Director General, NIWE, MNRE, Govt. of India. MR. Dong Min Chae General Manager, JEONG-IN Pvt.Ltd., Senior Researcher, PRC, Kuwait. Ms. Bhaduri, Director, Product development, PayPal, India. Dr.G. Gridhar, Deputy Director General & Group Head, NIWE, MNRE, Govt. of India. Prof. Dr. Susai Rajendran, Research Director /Corrosion Research Centre, Dindigul, India. Dr. V. N. Mani, Scientist-E, Electronics and Information Technology Centre for Materials for Electronics Technology, Hyderabad. Mr. Krishnan.B, Asst. Director (Technical), NIWE, MNRE, Govt. of India.

2017-2018	IEEE - Student Branch		
	08.03.2018 & 9.3.2018	Two Days National Seminar on Analysis of Transients in Power System using Electromagnetic Transient Program (EMTP-RV)	Mr. V.P. Boopathi Senior Support Engineer, Powersys, Chennai
	30.08.2018 & 31.8.2018	Two day workshop On Hands-on Training on BIPED Walking Robot for Industrial Application	Mr. R. Purushothaman CEO / Founder Electronics Platform Research Labs
	7.09.2018 & 8.9.2018	Two day workshop On Hands-on Training on Internet of Things using Raspberry PI	Mr. S. Kalidas Founder & Director, IFANDFOR Endeavours, Chennai
	06.08.2017	International Conference on Innovations and Research in Marine Electrical and Electronics Engineering ICERMEEE 2017	Mr.S. Dwarakanathan,Vice President (Engg., R&D) & (HRD), Brakes India Ltd., (TVS Group), Chennai MR.S. Balaji, Scientist-F, CVRDE, Avadi, DRDO, Ministry of Defence
	15.09.2017 & 16.9.2017	One Day FDP on Recent Trends on Renewable Energy & Power Electronics Using MATLAB	Mr. M. Malaippan Director, Pantech Group of Companies Mr. J. Gokul Kumar Head-Training & Placements, Pantech ProEd Pvt Ltd
	22.09.2017	One Day FDP on Electromagnetic Transient Program (EMTP-RV) for power system Applications	Mr. V.P. Boopathi Senior Support Engineer, Powersys, Chennai Mr. D. Yabes Support Engineer, Powersys, Chennai
	07.12.2017 & 8.12.2017	Two Days National Workshop on Advances in Robotics and Artificial Intelligence	Mr. R. Purushothaman CEO / Founder Electronics Platform Research Labs
	13.12.2017 & 14.12.2017	Two Days National Workshop on Conceptual Practices in Industrial Automation	Mr. Rajasekar Jayakumar Director, CDCE Automation Trainer- Ministry of Micro, Small & Medium Enterprises

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

Institute Marks : 5.00

A newsletter “Electro Marine” is prepared and published half yearly by the students of the Electrical and Electronics Engineering- Marine. The newsletter focuses on the current happenings (trends) in the Core / marine Industries, placements and training information and higher education opportunities for the students and Departmental activities such as workshops, seminars, conferences, journal publications by Faculty, awards received etc.

Table B. 4.5.2 (a) Newsletter

S.No	Name of the Newsletter	Editorial Faculty Members	Editorial Student Members	Periodicity	Year of Publishing
1	Electro Marine	Dr.T.Sasilatha Dr. S. Priya	Mr.Aakash Mr.R.PradeepKumar	January-May	May 2020
2	Electro Marine	Dr.T.Sasilatha Dr.V.Karthikeyan	Mr.D.S.Manivannan Mr.KrishnaRaj	July-December	Dec 2019
3	Electro Marine	Dr.T.Sasilatha Ms. G. Jegadeeswari	Mr. K.Balamurugan Mr.Anitosh Madel	January-May	May 2018
4	Electro Marine	Dr.T.Sasilatha Dr.T. Baldwin Immanuel	Mr.KrishnaRaj Mr.Aakash	July- December	Dec 2018
5	Electro Marine	Dr.T.Sasilatha Mrs. R. Elavarasi	Mr.Aakash Mr. K.Balamurugan	January-May	May 2017
6	Electro Marine	Dr.T.Sasilatha Mr. P.Veerakumar	Mr.Anitosh Mandel Mr. Venkatesh	July- December	Dec 2017

An annual magazine “Electrica” was published every year by the Department which contains the profile of the Department, achievements of Faculty and students, Funding support, technical / non-technical articles by students and Faculty. This provides an opportunity for the students and Faculty to explore their talents and writing skills.

Table B. 4.5.2 (b) Magazine

S.No	Name of the Magazines	Editorial Faculty Members	Editorial Student Members	Periodicity	Year of Publishing
1	Electrica	Dr.T.Sasilatha Ms. G. Jegadeeswari	Ms. Vinnarasi Mr.S. Voms	July- June	2019-2020
2	Electrica	Dr.T.Sasilatha Mr. C. Gnanavel	Mr.Anitosh Mandel Mr. Venkatesh	July- June	2018- 2019
3	Electrica	Dr.T.Sasilatha Mr. Janarthanan	Mr. Jayasurya Mr.Anitosh Mandel	July- June	2017- 2018

Table B 4.5.2(c) Details of Conference Proceedings published

S.No	Name of the Conference Proceedings	Name of the Editor	Academic Year
1	AICTE Sponsored National Conference on Recent Advances in On- Board Ship Automation (RAOBSA-2019) ISBN: 978-93-85434-75-4	Dr.T.Sasilatha Dr. Baldwin Immanuel Mr. C. Gnanavel	2018-19

2	International conference on Innovations and research in Marine Electrical and Electronics Engineering(ICIRMEEE 2018) ISBN: 978- 93-85434-709	Dr.T.Sasilatha Mr. R. Sundar Mrs.Elavarasi	2018-19
3	International conference on Innovations and research in Marine Electrical and Electronics Engineering(ICIRMEEE 2017)	Dr.T.Sasilatha Mr. R. Sundar Mrs.Elavarasi	2017-18

4.4.3 Participation in inter-institute events by students of the program of study (10)

Institute Marks : 10.00

Participation of students in events/ conferences organized by other institutes during last 3 academic years and their achievements in the same is presented below:

Co-curricular activities:

Academic Year: 2019-2020

Table B. 4.5.3 (a) Student Participation in National/ International Conferences

S. No	Name of the Student	Title of the Conference	Venue
1	G. Aagash	Technical Student Conference, Kagada 19	University Visvesvaraya College of Engineering, Bengaluru
2	C.K. Manoj	Technical Student Conference, Kagada 19	University Visvesvaraya College of Engineering, Bengaluru
3	K. Balamurugan	4 th ISSE National conference INAC 2019 on System for Transforming India: Challenges and Opportunities	Indian Society of systems for science and Engineering (ISSE), Space Application Centre (SAR), Ahmadabad
4	Hemanth Raj R	National Conference on Cutting Edge Technologies in Power Conversion and Industrial Drives PCID 2019	Bannari Amman Institute of Technology, Erode
5	Jaya Surya G	National Conference on Cutting Edge Technologies in Power Conversion and Industrial Drives PCID 2019	Bannari Amman Institute of Technology, Erode
6	Karthick R	National Conference on Cutting Edge Technologies in Power Conversion and Industrial Drives PCID 2019	Bannari Amman Institute of Technology, Erode
7	P. Dhanasekar	3rd International Conference on Advance Scientific Innovation in Science, Engineering and Technology (ICASISET-2020)	Bharath Institute of Higher Education and Research (Deemed to be University), Chennai
8	S. Viknesh	3rd International Conference on Advance Scientific Innovation in Science, Engineering and Technology (ICASISET-2020)	Bharath Institute of Higher Education and Research (Deemed to be University), Chennai
9	R. Dinesh	3rd International Conference on Advance Scientific Innovation in Science, Engineering and Technology (ICASISET-2020)	Bharath Institute of Higher Education and Research (Deemed to be University), Chennai
10	C.K. Manoj	International Conference on Power Engineering Computing and Control" (PECCON 2019)	Vellore Institute of Technology (Deemed to be University), Chennai
11	G. Aagash	International Conference on Power Engineering Computing and Control (PECCON 2019)	Vellore Institute of Technology (Deemed to be University), Chennai
12	P. Dhanasekar	International Conference on Power Engineering Computing and Control (PECCON 2019)	Vellore Institute of Technology (Deemed to be University), Chennai
13	P. Dhanasekar	CSIR Sponsored National Conference on New- Generation Materials for Energy Applications-2019	B.S. Abdur Rahman Crescent Institute of Science & Technology, Chennai
14	S. Viknesh	CSIR Sponsored National Conference on New- Generation Materials for Energy Applications-2019	B.S. Abdur Rahman Crescent Institute of Science & Technology, Chennai
15	R. Dinesh	CSIR Sponsored National Conference on New- Generation Materials for Energy Applications-2019	B.S. Abdur Rahman Crescent Institute of Science & Technology, Chennai
16	A Duraipandi	International Conference on (PV Powered Standardized Irrigation System using Soil Moisture Sensor)	Chennai Institute of Technology, Kundrathur, Chennai

17	I Hasheem Shariff	International Conference on (A case study on 20KW Grid Connected Roof Top Solar Photovoltaic System in Tamilnadu)	SSN College of Engineering, Chennai
18	I Hasheem Shariff	International Conference (Smart Switch for Three Phase Supply)	The New College, Royapettai, Chennai
19	N Mohammed Yaseer	International Conference (PV Powered Standardized Irrigation System using Soil Moisture Sensor)	Chennai Institute of Technology, Kandrathur, Chennai

Table B 4.5.3 (b) Student Participation in Project Expo

S. No	Name of the Student	Title of Project Expo	Venue
1	D. Manivannan	Development of Economic Farm and Recycling Fishing Nets	AICTE-Utkrisht Sansathan Vishwakarma Awards 2019 and it got shortlisted for second level scrutiny under USVA'19.
2	S. Viknesh	Development of Economic Farm and Recycling Fishing Nets	AICTE-Utkrisht Sansathan Vishwakarma Awards 2019 and it got shortlisted for second level scrutiny under USVA'19.
3	P. Dhanasekar	Development of Economic Farm and Recycling Fishing Nets	AICTE-Utkrisht Sansathan Vishwakarma Awards 2019 and it got shortlisted for second level scrutiny under USVA'19.
3	Ajay G	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
4	Akash P Santosh	Technical Symposium Invente 4.0 2019	SSN College of Engineering, Chennai
5	Austin Jebaraj S	Technical Symposium Invente 4.0 2019	SSN College of Engineering, Chennai
6	Anandu K	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering, Chennai
7	Prabhul B	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering, Chennai
8	Pradeep Kumar R	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering, Chennai
9	Ajay G	Design Thinking Summit 2K19	Rajalakshmi Engineering College, Chennai

Table B 4.5.3 (c) Student Participation in Hackathon

S. No	Name of the Student	Title of the Hackathon	Venue
1	Anitosh Mondal	Technical Festival Ignitor 2019	CGC Technical Campus, Mohali, Punjab
2	Abhinav.V	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
3	Aditya	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
4	Abhinav.V	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
5	Aditya	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai

Table B 4.5.3(d) Student Participation in Technical Symposium

S. No	Name of the Student	Prize/ Participation	Title of Technical Symposium	Venue
1	Adharsh B A	1 st Prize in Quiz	Technical Symposium, Inventa 4.0 2019	SSN College of Engineering, Chennai
2	Austin Jebaraj S	2 nd Prize in Think-D	Technical Symposium, Inventa 4.0 2019	SSN College of Engineering, Chennai
3	Balaji M	1 st Prize Tech Quiz	Technical Symposium, Inventa 4.0 2019	SSN College of Engineering, Chennai
4	Gokulraj R	1 st Prize in TECH JAM	Symposium, ELECTRO-FEST 2019	Mohamed Sathak AJ College of Engineering, Chennai
5	S Sai Hari	2 nd Prize in FACE TO FACE	Symposium, Pinnacle 2k19	SRM Easwari Engineering College, Chennai
6	Austin Jebaraj S	2 nd Prize in Tech Quiz	Technical Symposium, Inventa 4.0 2019	SSN College of Engineering, Chennai
7	Balaji M	1 st Prize in Think-D	Technical Symposium, Inventa 4.0 2019	SSN College of Engineering, Chennai
8	Sethu Sundar V	2 nd Prize in Bob The Builder (Web Designing)	Symposium, Pinnacle 2k19	SRM Easwari Engineering College, Chennai
9	Akash P Santosh	Participation/ Tech Quiz	Technical Symposium, Inventa 4.0 2019	SSN College of Engineering, Chennai
9	Jayalal.J	Paper Presentation	Symposium, ELECTRO-FEST 2019	Mohamed Sathak AJ College of Engineering, Chennai
9	Manoj V	Paper Presentation	Symposium, ELECTRO-FEST 2019	Mohamed Sathak AJ College of Engineering, Chennai
10	Tamilselvan D	Paper Presentation	Symposium, ELECTRO-FEST 2019	Mohamed Sathak AJ College of Engineering, Chennai
13	Tamilselvan D	Paper Presentation	Symposium, Pinnacle 2k19	SRM Easwari Engineering College, Chennai
14	Vengadeshwara Rao S	Participation/ Decode (Coding)	Symposium, Pinnacle 2k19	SRM Easwari Engineering College, Chennai
15	Vinu Dharmendar P	Paper Presentation	Symposium, Pinnacle 2k19	SRM Easwari Engineering College, Chennai
16	S Voms	Participation/ Bob The Builder (Web Designing)	Symposium, Pinnacle 2k19	SRM Easwari Engineering College, Chennai
17	JAIN JAMES	Paper Presentation	Information Technology Festival, Stithapragya 2k19	KCG College of Technology, Chennai
18	AMUTHAN.A	Paper Presentation	Information Technology Festival, Stithapragya 2k19	KCG College of Technology, Chennai
19	Amuthan. A	Participation/ Technical Quiz	Information Technology Festival, Stithapragya 2k19	KCG College of Technology, Chennai
20	Ajay Kannan	Participation/ (Coding Contest)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai

21	Aditya	Participation/ Debugging Contest)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
22	Ajay G	Participation/ Project Presentation)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
23	Abhinav. V	Participation/ (Coding Contest)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
24	Abhinav. V	Participation/ Debugging Contest)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai

Table B. 4.5.3 (e) Student's participation in Workshop/Seminar

S. No	Name of the Student	Title of the Workshop/ Seminar	Venue
1	R Pradeep Kumar	International Workshop on Ocean Technology	National Institute of Ocean Technology, Chennai
3	B Nirmal Kumar	Workshop (Hybrid & Electric Vehicle)	Madras Institute of Technology, Anna University
4	M Balaji	International Workshop on Ocean Technology	National Institute of Ocean Technology, Chennai
5	S Viknesh	International Workshop on Ocean Technology	National Institute of Ocean Technology, Chennai
8	B Nirmal Kumar	Workshop (Internet of things Workshop)	Vellore Institute of Technology, Chennai
9	M Balaji	Training Program on Realization of Internet of Things for Smart Cities	Anand Institute of Higher Technology, Chennai
10	R Pradeep Kumar	Training Program on Realization of Internet of Things for Smart Cities	Anand Institute of Higher Technology, Chennai
11	S Viknesh	Seminar on (Artificial Intelligence for Embedded System)	Jerusalem College of Engineering, Chennai
12	B Nirmal Kumar	Workshop (Industry 4.0)	Sarada Technologies Training & Development, Chennai
13	Prabhul B	Workshop on Leadership Talk	MHRDs Innovation Cell, Govt of India
14	Pradeep Kumar R	Workshop on Leadership Talk	MHRDs Innovation Cell, Govt of India
15	Tamilselvan D	Workshop on Leadership Talk	MHRDs Innovation Cell, Govt of India
16	S Sai Hari	Workshop on Leadership Talk	MHRDs Innovation Cell, Govt of India
17	Sethu Sundar V	Workshop on Leadership Talk	MHRDs Innovation Cell, Govt of India
18	P. Dhanasekar	Workshop on Leadership Talk	MHRDs Innovation Cell, Govt of India
19	Hemanth Raj R	Workshop on Leadership Talk	MHRDs Innovation Cell, Govt of India
20	Jaya Surya G	Workshop on Leadership Talk	MHRDs Innovation Cell, Govt of India
21	Adharsh B A	Next Generation AI Technologies for Cyber Physical Systems	St. Peter's Engineering College, Hyderabad
22	Akash P Santosh	Next Generation AI Technologies for Cyber Physical Systems	St. Peter's Engineering College, Hyderabad
23	Austin Jebaraj S	Next Generation AI Technologies for Cyber Physical Systems	St. Peter's Engineering College, Hyderabad
24	Balaji M	Next Generation AI Technologies for Cyber Physical Systems	St. Peter's Engineering College, Hyderabad

25	Gokulraj R	Next Generation AI Technologies for Cyber Physical Systems	St. Peter's Engineering College, Hyderabad
26	Jayalal.J	Next Generation AI Technologies for Cyber Physical Systems	St. Peter's Engineering College, Hyderabad
27	R Pradeep Kumar	Alternate Fuels and Hybrid Electric Vehicle	KPR Institute of Engineering and Technology, Arasur
28	S Vengadeshwara Rao	Alternate Fuels and Hybrid Electric Vehicle	KPR Institute of Engineering and Technology, Arasur
29	Akash P Santosh	Alternate Fuels and Hybrid Electric Vehicle	KPR Institute of Engineering and Technology, Arasur
30	S Viknesh	Alternate Fuels and Hybrid Electric Vehicle	KPR Institute of Engineering and Technology, Arasur
31	P Dhanasekar	Alternate Fuels and Hybrid Electric Vehicle	KPR Institute of Engineering and Technology, Arasur
32	Jayalal.J	Alternate Fuels and Hybrid Electric Vehicle	KPR Institute of Engineering and Technology, Arasur
33	Anandu K	Alternate Fuels and Hybrid Electric Vehicle	KPR Institute of Engineering and Technology, Arasur
34	B Nirmal Kumar	Workshop on Data Pipelines	St. Peter's Institute of Higher Education and Research, Chennai
35	Balaji M	Workshop on Data Pipelines	St. Peter's Institute of Higher Education and Research, Chennai
36	Austin Jebaraj S	Workshop on Data Pipelines	St. Peter's Institute of Higher Education and Research, Chennai
37	Anandu K	Workshop on Data Pipelines	St. Peter's Institute of Higher Education and Research, Chennai
38	R Pradeep Kumar	Workshop on Data Pipelines	St. Peter's Institute of Higher Education and Research, Chennai
39	P Dhanasekar	Workshop on Data Pipelines	St. Peter's Institute of Higher Education and Research, Chennai
40	Karthick R	Industrial Automation using SCADA and DCS	Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram
41	Tamilselvan D	Industrial Automation using SCADA and DCS	Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram
42	Vengadeshwara Rao S	Industrial Automation using SCADA and DCS	Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram
43	Vinu Dharmendar P	Industrial Automation using SCADA and DCS	Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram
44	Tamilselvan D	Global Opportunities in Space exploration and research	Sri Venkateswara College of Engineering, Chennai
45	S Sai Hari	Global Opportunities in Space exploration and research	Sri Venkateswara College of Engineering, Chennai
46	Sethu Sundar V	Global Opportunities in Space exploration and research	Sri Venkateswara College of Engineering, Chennai
47	P. Dhanasekar	Global Opportunities in Space exploration and research	Sri Venkateswara College of Engineering, Chennai
48	Hemanth Raj R	Global Opportunities in Space exploration and research	Sri Venkateswara College of Engineering, Chennai
49	Jaya Surya G	Global Opportunities in Space exploration and research	Sri Venkateswara College of Engineering, Chennai

50	Karthick R	Global Opportunities in Space exploration and research	Sri Venkateswara College of Engineering, Chennai

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Table B. 4.5.3 (a) Student Participation in National/ International Conferences

S.No	Name of the Student	Title of the conference	Venue
1	P. Dhanasekar	International Conference on Recent Engineering and Technology ICRET 2019	New Horizon College of Engineering, Bengaluru
2	S. Viknesh	International Conference on Recent Engineering and Technology ICRET 2019	New Horizon College of Engineering, Bengaluru
3	K.Balamurugan	4 th Indian Society of Systems for Science and Engineering (ISSE) National Conference INAC- 2019	Space Application Centre (SAC), Ahmedabad
4	P. Dhanasekar	International Conference on Sustainability Management of Advanced Renewable Energy Technologies (ICSMARET 2019)	Aarupadai Veedu Institute of Technology (Deemed to be University), Chennai
5	S. Viknesh	International Conference on Sustainability Management of Advanced Renewable Energy Technologies (ICSMARET 2019)	Aarupadai Veedu Institute of Technology (Deemed to be University), Chennai
6	R. Dinesh	International Conference on Sustainability Management of Advanced Renewable Energy Technologies (ICSMARET 2019)	Aarupadai Veedu Institute of Technology (Deemed to be University), Chennai
7	P. Dhanasekar	International Conference on Intelligence in Computation, Communication and Robotics (ICICCR 2019)	Bharath Institute of Higher Education and Research (Deemed to be University, Chennai)
8	S. Viknesh	International Conference on Intelligence in Computation, Communication and Robotics (ICICCR 2019)	Bharath Institute of Higher Education and Research (Deemed to be University, Chennai)
9	R. Dinesh	International Conference on Intelligence in Computation, Communication and Robotics (ICICCR 2019)	Bharath Institute of Higher Education and Research (Deemed to be University, Chennai)
10	G. Aagash	National Conference on Cutting Edge Innovations in Engineering and Technology [CEIET - 2019]	Cheran College of Engineering, Karur

Table B 4.5.3(b) Student Participation in Project Expo

S. No	Name of the Student	Prize/ Participation	Title of Project Expo	Venue
1	Aagash G	1 st Prize in Project Expo	Symposium, ELECXA 2K19	SRM Institute of Science and Technology Ramapuram Campus, Chennai
2	Viknesh S	1 st Prize in Project Expo	Symposium, MECHGUST 2K19	Chennai Institute of Technology, Chennai
3	Viknesh S	2 nd Prize in Project Expo	Symposium, AADHARA 2K18	SA Engineering College, Chennai
4	Jain James	Participation	Symposium, SPARCADEUS 2K18	Dhanalakshmi Srinivasan College of Engineering and Technology, Chennai
5	Amuthan. A	Participation	Symposium, SPARCADEUS 2K18	Dhanalakshmi Srinivasan College of Engineering and Technology, Chennai

6	Kulkarni Mahima Rajesh	Participation	Symposium, SPARCADEUS 2K18	Dhanalakshmi Srinivasan College of Engineering and Technology, Chennai

Table B 4.5.3(c) Student Participation in Technical Symposium

S.No	Name of the Student	Prize/ Participation	Title of Technical Symposium	Venue
1	P. Dhanasekar	1 st Prize in Technical Quiz	Symposium, SHILANYA 2K19	JNTUA College of Engineering, Chittoor, AP
2	S. Viknesh	2 nd Prize in Technical Quiz	Symposium, SHILANYA 2K19	JNTUA College of Engineering, Chittoor, AP
3	K.Balamurugan	Best Paper Award in Paper Presentation	Symposium	Govt.college of Engg. Salem
4	Mohammed Najeem	Best Paper Award in Paper Presentation	Symposium	Govt.college of Engg. Salem
5	Aagash G	2 nd Prize in Debugging Contest	Energy Tech Fest, DeOleum 2018	Dhaanish Ahmed College of Engineering, Chennai
6	Brijesh C R	2 nd Prize in Coding Contest	Symposium, ELECXA 2K19	SRM Institute of Science and Technology Ramapuram Campus, Chennai
7	Mohammed Najeem	Participation	Symposium	Government College of Engineering, Salem
8	Balamurugan K	Participation/ (Coding Contest)	Symposium, ELECXA 2K19	SRM Institute of Science and Technology Ramapuram Campus, Chennai
9	Balamurugan K	Participation/ Debugging Contest)	Symposium, ELECXA 2K19	SRM Institute of Science and Technology Ramapuram Campus, Chennai
10	Jaya Surya G	Participation/ (Coding Contest)	Symposium, MECHGUST 2K19	Chennai Institute of Technology, Chennai
11	Purushothaman N	Participation/ Debugging Contest)	Symposium, MECHGUST 2K19	Chennai Institute of Technology, Chennai
12	I Hasheem Shariff	Participation/ Bob The Builder (Web Designing)	Symposium, MECHGUST 2K19	Chennai Institute of Technology, Chennai
13	Abhishek M Deepak	Participation	Energy Tech Fest, DeOleum 2018	Dhaanish Ahmed College of Engineering, Chennai
14	Udhayakumar A	Participation	Energy Tech Fest, DeOleum 2018	Dhaanish Ahmed College of Engineering, Chennai
15	Veerapathiran M C	Participation/ Debugging Contest)	Symposium, AADHARA 2K18	SA Engineering College, Chennai
16	Manoj C K	Participation	Symposium, ELECXA 2K19	SRM Institute of Science and Technology Ramapuram Campus, Chennai
17	Aagash G	Participation	Symposium, ELECXA 2K19	SRM Institute of Science and Technology Ramapuram Campus, Chennai
18	Nirmal Kumar B	Participation	Symposium, ELECXA 2K19	SRM Institute of Science and Technology Ramapuram Campus, Chennai

Table B. 4.5.3 (d) Student Participation in Workshop/Seminar

S.No	Name of the Student	Title of Workshop/ Seminar	Venue
1	M S Mohammed Azhair	Workshop (Ethical Hacking)	IIT, Madras
2	R Hemanth Raj	Workshop (Ethical Hacking)	IIT, Madras
3	M S Mohammed Azhair	Workshop	Anna University, College of Engineering, Guindy, Chennai
4	B Naveen	Workshop on Design of Renewable Energy Systems	Anna University, College of Engineering, Guindy, Chennai
5	N Mohammed Yaseer	Workshop on Design of Renewable Energy Systems	Anna University, College of Engineering, Guindy
6	K.Balamurugan	Workshop	VIT, Chennai
7	K.Balamurugan	Workshop	Anna University, Chennai
8	K.Balamurugan	Workshop	Anna University, Chennai
9	Mohammed Shuaib.K	Workshop	Anna University, Chennai
10	M S Mohammed Azhair	Workshop (Smart Grid using IOT)	Government College of Engineering, Salem
11	S Viknesh	Workshop (Smart Grid using IOT)	Government College of Engineering, Salem
12	B Nirmal Kumar	Workshop (Smart Grid Using IOT)	Government College of Engineering, Salem
13	K.Balamurugan	Workshop	Sarada Technologies, Chennai
14	SanthoishKumar.D	Workshop	SANDS India Pvt.Ltd. Chennai

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Table. B 4.5.3 (a) Student Participation in National/ International Conference

S.No	Name of the Student	Title of Conference	Venue
1	S. Sivasankar	11th National Conference on Mathematical Techniques and Applications	SRM Institute of Science and Technology, Kattankulathur, Chennai
2	Aravindhan. A	11th National Conference on Mathematical Techniques and Applications	SRM Institute of Science and Technology, Kattankulathur, Chennai
3	K. Manikandan	International Conference on Science, Engineering and Technology (ICSET)	Vellore Institute of Technology, Chennai
4	Naveen Kumar. S	National Conference on "Advances in Electrical and Electronics Engineering"	Sri Venkateswara College of Engineering, Chennai
5	Divin Sobi	National Conference on "Advances in Electrical and Electronics Engineering"	Sri Venkateswara College of Engineering, Chennai
6	Jaya Kumar. K	International Conference on Engineering and Advancement in Technology 2018 (ICEAT-2018)	Sri Krishna College Of Technology, Chennai

Table. B 4.5.3 (b) Student Participation in Technical Symposium

S.No	Name of the Student	Prize/ Participation	Title of Technical Symposium	Venue
1	Naveen B	1 st Prize in Tech Quiz	Technical Symposium ELUNT 2018	Jeppiaar Engineering College, Chennai
2	Mohamed Najeem N	2 nd Prize in Coding Contest	Technical Symposium ELUNT 2018	Jeppiaar Engineering College, Chennai
3	Anitosh Mondal	2 nd Prize in Project Presentation	National level technical symposium, MECHGUST 2K18	Chennai Institute Of Technology, Chennai
4	Jaya Krishnan.K	Best Paper award in Paper Presentation	Symposium, Spectron 2k18	BS Abdur Rahman Crescent Institute of Science and Technology, Chennai
5	Baskar. M	Best Paper award in Paper Presentation	Symposium, Spectron 2k18	BS Abdur Rahman Crescent Institute of Science and Technology, Chennai
6	Jaya Surya G	Participation	Technical Symposium ELUNT 2018	Jeppiaar Engineering College, Chennai
7	Abhishek M Deepak	Participation	Symposium Spangles 2018	Easwari Engineering College, Chennai
8	Balaji M	Participation	Symposium Spangles 2018	Easwari Engineering College, Chennai
9	Purushothaman N	Participation	Symposium Spangles 2018	Easwari Engineering College, Chennai
10	Sridhar	Participation	Symposium Spangles 2018	Easwari Engineering College, Chennai
11	Krishnaraj.S	Participation/ (Coding Contest)	National level technical symposium, MECHGUST 2K18	Chennai Institute Of Technology, Chennai
12	Mohan Raj R	Participation/ Debugging Contest)	National level technical symposium, MECHGUST 2K18	Chennai Institute Of Technology, Chennai
13	Praveen.D	Participation/ Project Expo)	National level technical symposium, MECHGUST 2K18	Chennai Institute Of Technology, Chennai
14	Akash S	Participation/ Debugging Contest)	Energy Tech Fest, DeOleum 2018	Dhaanish Ahmed College of Engineering, Chennai
15	Vaithyanathan M S	Participation/ (Coding Contest)	Energy Tech Fest, DeOleum 2018	Dhaanish Ahmed College of Engineering, Chennai
16	Surya .A	Participation/ Debugging Contest)	Energy Tech Fest, DeOleum 2018	Dhaanish Ahmed College of Engineering, Chennai
17	Anitosh Mondal	Participation/ Project Presentation)	Technical Festival, MOZOFEST'18	SRM Institute of Science and Technology Ramapuram Campus, Chennai
18	Santhosh Kumar D	Participation	Technical Festival, MOZOFEST'18	SRM Institute of Science and Technology Ramapuram Campus, Chennai
19	Azarutheen S	Participation	Technical Festival, MOZOFEST'18	SRM Institute of Science and Technology Ramapuram Campus, Chennai
20	Beer Mohamed Uvaiz. N	Participation	Technical Symposium Intent 2018	Agni College of Technology, Chennai
21	Mathandeepeu.M	Participation	Technical Symposium Intent 2018	Agni College of Technology, Chennai
22	Ajithkumar L	Participation	Technical Symposium Intent 2018	Agni College of Technology, Chennai

23	Vignesh K	Participation	IT Technical Symposium, ASTHRA 2K18	Meenakshi Sundararajan Engineering College, Chennai
24	Yaswanth S	Participation/ Contest)	Debugging IT Technical Symposium, ASTHRA 2K18	Meenakshi Sundararajan Engineering College, Chennai
25	Oswin Sancho.U	Participation/ Presentation)	Project IT Technical Symposium, ASTHRA 2K18	Meenakshi Sundararajan Engineering College, Chennai
26	Rajkumar E	Participation/ Contest)	Debugging Symposium, Spectron 2k18	BS Abdur Rahman Crescent Institute of Science and Technology, Chennai
27	Inbaraj.I	Participation/ Presentation)	Paper Symposium, Spectron 2k18	BS Abdur Rahman Crescent Institute of Science and Technology, Chennai

Table. B 4.5.3 (c) Student Participation in Workshop/Seminar

S. No	Name of the Student	Title of Workshop/Seminar	Venue
1	Krishnaraj.S	National Level Workshop on Design of Experiments 2017	Saveetha School of Engineering, Chennai
2	Mohan Raj R	National Level Workshop on Design of Experiments 2017	Saveetha School of Engineering, Chennai
3	S Viknesh	National Level Workshop on Design of Experiments 2017	Saveetha School of Engineering, Chennai
4	B Nirmal Kumar	Two Days National Level Workshop on Conceptual Practices in Industrial Automation	St Joseph's Institute of Technology, Chennai
5	Brijesh C R	Two Days National Level Workshop on Conceptual Practices in Industrial Automation	St Joseph's Institute of Technology, Chennai
6	Mathandeeptu.M	Two Days National Level Workshop on Conceptual Practices in Industrial Automation	St Joseph's Institute of Technology, Chennai
7	Vaithyanathan.M.S	Sustainable Energy for Smart Cities: Generation Storage and Utilization	Sree Sastha Institute of Engineering and Technology, Chennai
8	Beer Mohamed Uvaiz. N	Sustainable Energy for Smart Cities: Generation Storage and Utilization	Sree Sastha Institute of Engineering and Technology, Chennai
9	Mathandeeptu.M	Sustainable Energy for Smart Cities: Generation Storage and Utilization	Sree Sastha Institute of Engineering and Technology, Chennai
10	Ajithkumar L	Publish or Perish	Sree Sastha Institute of Engineering and Technology, Chennai
11	Vignesh K	Publish or Perish	Sree Sastha Institute of Engineering and Technology, Chennai
12	Vaithyanathan.M.S	Publish or Perish	Sree Sastha Institute of Engineering and Technology, Chennai
13	S. Sivasankar	Two Days Hands on Training on IoT for Beginners	Rajalakshmi Institute of Technology, Chennai
14	A. Aravindhan	Two Days Hands on Training on IoT for Beginners	Rajalakshmi Institute of Technology, Chennai
15	S. Saravanan	Two Days Hands on Training on IoT for Beginners	Rajalakshmi Institute of Technology, Chennai

16	S. Sivasankar	National Workshop on Green Energies and Vehicles for Sustainable Environment (NWGEVSE2K18)	Sri Venkateswara College of Engineering, Chennai

5 FACULTY INFORMATION AND CONTRIBUTIONS (200)**Total Marks 198.00**

:

Sr. No	Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof / Assoc. Prof.)	Initial Date of Joining	Association Type	At present working with the Institution (Yes / No)	Date of Leaving	IS HOD?
1	Dr.T. Sasilatha	AVCPS7198C	ME/M. Tech and PhD	20/02/2010	VLSI Design	81	8	5	Professor	13/04/2017	13/04/2017	Regular	Yes		Yes
2	Dr.V. Karthikeyan	AQIPK9680J	ME/M. Tech and PhD	28/07/2017	Power Electronics and Drives	21	2	0	Professor	01/03/2018	04/07/2016	Regular	Yes		No
3	Dr.G. Themozhi	AFNPT9010M	ME/M. Tech and PhD	29/11/2013	Signal Processing	22	7	0	Professor	01/07/2019	01/07/2019	Regular	Yes		No
4	Dr.T. Baldwin Immanuel	ASHPB7375A	ME/M. Tech and PhD	10/03/2018	Power Electronics and Drives	08	0	0	Associate Professor	01/03/2018	17/04/2017	Regular	Yes		No
5	Dr.D. Lakshmi	ABOPL0031H	ME/M. Tech and PhD	19/06/2018	Power Systems	30	0	0	Associate Professor	02/07/2019	02/07/2019	Regular	Yes		No
6	Dr.M. Deva Brinda	AKRPD9051H	ME/M. Tech and PhD	23/08/2018	Power Systems	17	0	0	Associate Professor	01/07/2019	01/07/2019	Regular	Yes		No
7	P. Veerakumar	AHSPV6952D	M.E/M.Tech	28/12/2007	Power Systems	07	0	0	Assistant Professor		16/07/2013	Regular	Yes		No
8	R. Elavarasi	AJKPR2420G	M.E/M.Tech	16/03/2001	Applied Electronics	11	0	0	Assistant Professor		16/07/2014	Regular	Yes		No
9	Dr.P. Shanthi	BCVPP9548J	ME/M. Tech and PhD	30/06/2018	Power Electronics and Drives	03	0	0	Assistant Professor		16/07/2014	Regular	Yes		No
10	S. Janarthanan	ANCPJ8451D	M.E/M.Tech	29/11/2010	Electrical Drives and Control	10	0	0	Assistant Professor		07/03/2016	Regular	Yes		No
11	C. Gnanavel	ATYPG9071G	M.E/M.Tech	28/02/2011	Power Electronics and Drives	06	0	0	Assistant Professor		17/04/2017	Regular	Yes		No

12	G. Jegadeeswari	BFZPJ9513G	M.E/M.Tech	22/11/2016	Power Electronics and Drives	26	0	0	Assistant Professor		17/04/2017	Regular	Yes		No
13	R.K. Padmashini	BZYPP2672P	M.E/M.Tech	30/06/2008	Power Electronics	02	0	0	Assistant Professor		06/08/2018	Regular	Yes		No
14	K. Manikandan	AWYPM2375E	M.E/M.Tech	30/06/2012	Power Electronics and Drives	02	0	0	Assistant Professor		24/01/2019	Regular	Yes		No
15	S. Amirtharaj	ARPPA4998K	M.E/M.Tech	26/04/2006	Power Systems	05	0	0	Assistant Professor		01/07/2019	Regular	Yes		No
16	Dr.S.V. Saravanan	DFWPS5718K	ME/M. Tech and PhD	18/10/2013	Wireless Communication	22	2	0	Associate Professor	02/07/2018	23/06/2014	Regular	Yes		No
17	R. Sundar	BWFPS8652A	M.E/M.Tech	29/11/2003	Electronics	09	0	0	Assistant Professor		25/08/2003	Regular	Yes		No
18	M. Dheepak	AKZPD0636L	M.E/M.Tech	15/06/2006	VLSI Design	04	0	0	Assistant Professor		15/07/2013	Regular	No	31/05/2019	No
19	T. Dhanya	ASXPT7228G	M.E/M.Tech	05/05/2016	Industrial Automation and Robotics	04	0	0	Assistant Professor		13/10/2016	Regular	Yes		No
20	Dr.M. Rajavelan	AULPR2564D	ME/M. Tech and PhD	29/03/2016	Power Electronics and Drives	03	1	0	Assistant Professor		17/04/2017	Regular	Yes		No
21	S. Sinthuja	JUNPS5834N	M.E/M.Tech	30/06/2014	VLSI Design	03	0	0	Assistant Professor		17/07/2017	Regular	Yes		No
22	P. Sathish Khanna	BPIPS8887K	M.E/M.Tech	30/06/2012	Energy Engineering	04	0	0	Assistant Professor		06/08/2018	Regular	Yes		No
23	J. Aran Glenn	BCVPG7877F	M.E/M.Tech	10/07/2014	Power Systems Engineering	01	0	0	Assistant Professor		19/09/2018	Regular	Yes		No
24	A. Mubashira Anjum	AOVPM2169R	M.E/M.Tech	30/04/2013	Electronics and Instrumentation	02	0	0	Assistant Professor		01/10/2013	Regular	Yes		No
25	Dr.A. Durga Devi	ABCRD1234L	ME/M. Tech and PhD	30/12/2016	Power Electronics	01	0	0	Assistant Professor		17/07/2017	Regular	No	31/05/2018	No
26	Dr.P. Muthukumar	AOAPP3579O	ME/M. Tech and PhD	08/09/2017	Power Electronics	01	0	0	Assistant Professor		21/07/2017	Regular	No	31/05/2018	No
27	Dr.S. Sampathkumar	AVBPS5188F	ME/M. Tech and PhD	08/07/2019	Wireless Sensor Networks	01	0	0	Assistant Professor		16/07/2018	Regular	Yes		No
28	Dr.A. Kalirasu	KXFPA1896M	ME/M. Tech and PhD	30/04/2013	Power Electronics and Drives	01	0	0	Professor	26/09/2016	26/09/2016	Regular	No	31/05/2018	No

5.1 Student-Faculty Ratio (SFR) (20)

Total Marks 20.00

Institute Marks : 20

UG

No. of UG Programs in the Department

Electrical and Electronics Engineering - Marine						
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	60	2	45	3	30	5
3rd Year	45	3	30	5	30	3
4th Year	30	5	30	3	30	1
Sub-Total	135	10	105	11	90	9
Total	145		116		99	
Grand Total		145	116		99	

PG

No. of PG Programs in the Department

Power Systems			
Year of Study	CAY(2019-20)	CAYm1(2018-19)	CAYm2 (2017-18)
	Sanction Intake	Sanction Intake	Sanction Intake
1st Year	18	18	0
2nd Year	18	0	0
Total	36	18	0
Grand Total		36	18
		18	0

SFR

No. of UG Programs in the Department No. of PG Programs in the Department

Description	CAY(2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
Total No. of Students in the Department(S)	181 Sum total of all (UG+PG) students	134 Sum total of all (UG+PG) students	99 Sum total of all (UG+PG) students
Description	CAY(2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
No. of Faculty in the Department(F)	24 F1	19 F2	19 F3
Student Faculty Ratio(SFR)	7.54 SFR1=S1/F1	5.21 SFR2=S2/F2	7.05 SFR3=S3/F3
Average SFR	6.60 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 concerned 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)	24	0
CAYm1(2018-19)	19	0
CAYm2(2017-18)	19	0

Average SFR for three assessment years : 6.60

Assessment SFR : 20

5.2 Faculty Cadre Proportion (20)

Total Marks 20.00

Institute Marks : 20.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2019-20)	1.00	3.00	2.00	4.00	6.00	17.00
CAYm1(2018-19)	1.00	2.00	1.00	2.00	4.00	15.00
CAYm2(2017-18)	1.00	2.00	1.00	1.00	3.00	16.00
Average Numbers	1.00	2.33	1.33	2.33	4.33	16.00

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 10 : 20.00

5.3 Faculty Qualification (20)

Total Marks 20.00

Institute Marks : 20.00

	X	Y	F	FQ = 2 x [(10X + 4Y) / F]]
2019-20(CAY)	10	14	9.00	34.67
2018-19(CAYm1)	6	13	6.00	37.33
2017-18(CAYm2)	6	13	4.00	56.00

Average Assessment : 42.67

5.4 Faculty Retention (10)

Total Marks 8.00

Institute Marks : 8.00

Description	2018-19 (CAYm1)	2019-20 (CAY)
No of Faculty Retained	16	15
Total No of Faculty	19	19
% of Faculty Retained	84	79

Average : 82.00

Assessment Marks : 8.00

5.5 Faculty competencies in correlation to Program Specific Criteria (10)

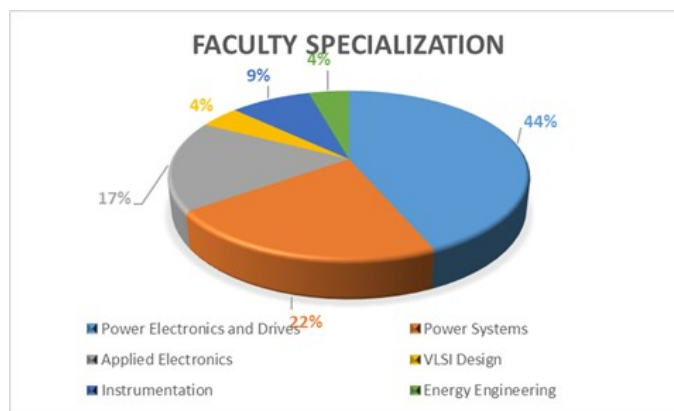
Total Marks 10.00

Institute Marks : 10.00

The program specific criteria have been framed based on the input given by the professional bodies such as IEEE and IET. The professional bodies focus on developing the fundamentals in various concepts or field of discipline. The objective results in bringing out the quality publications which would enhance the research activities. Given below, the list of program specific criteria and its compliance with faculty members and their competencies.

Program Specific Criteria Research Groups:

1. Power Electronics and Drives
2. Power Systems
3. Applied Electronics
4. Instrumentation
5. VLSI Design
6. Energy Engineering



S. No	Name of the Faculty	Engineering Specialization	Research area	No of publications in referred journals	No of Books published	Relevant courses in the curriculum
1	Dr. T. Sasilatha	VLSI Design	Electronics Design, Renewable energy systems	81	05	Electron Devices and Circuits, Embedded Systems, Communication Engineering, Mobile Communication, Digital Systems, Digital Signal Processing
2	Dr. V. Karthikeyan	Power Electronics and Drives	Power Converter for Solar Energy System	21	-	Electric Circuits, Electrical Machines, Power Electronics and Drives, Power Quality, Control and Instrumentation, Microprocessors and Microcontrollers, Renewable Energy Systems, Electric Propulsion system
3	Dr. T. Baldwin Immanuel	Power Electronics and Drives	Power Electronics	08	-	Electric Circuits, Electrical Machines, Power Electronics and Drives, Power System, Control and Instrumentation, Marine Electrical Technology, Renewable Energy Systems
4	Dr. P. Shanthi	Power Electronics and Drives	Hybrid Renewable Energy Sources	02	-	Electric Circuits, Electrical Machines, Power Electronics and Drives, Control and Instrumentation, Microprocessors and Microcontrollers, Renewable Energy Systems, Electric Propulsion system

5	Mr. C. Gnanavel	Power Electronics and Drives	Power Electronics and Renewable Energy Source	06	02	Electric Circuits, Electrical Machines, Power Electronics and Drives, Control and Instrumentation, Microprocessors and Microcontrollers, Renewable Energy Systems, Power Electronics, High Voltage Electric Propulsion system, Embedded System Design, Electro Magnetic Fields, Digital Systems
6	Ms. G. Jegadeeswari	Power Electronics and Drives	Special Machines	26	03	Electric Circuits, Electrical Machines, Power Electronics and Drives, Power System, Control and Instrumentation, Microprocessors and Microcontrollers, Renewable Energy Systems, Embedded System Design
7	Dr. M. Rajavelan	Power Electronics and Drives - Electronics and Instrumentation	Power Electronics and Drives	03	-	Electric Circuits, Marine Electrical Technology, Power Electronics and Drives, Electronic Devices and Circuits, Control and Instrumentation, Industrial Automation, Renewable Energy Systems, Power Electronics, High Voltage Electric Propulsion system.
8	Mrs. R. K. Padmashini	Power Electronics and Drives	Power Electronics	02	-	Electric Circuits, Basic Electrical and Electronics Engineering, Electrical Machines, Electronic Devices and Circuits, Power Electronics and Drives, Electro Magnetic Fields
9	Mr. K. Manikandan	Power Electronics	Power Electronics	02	-	Electric Circuits, Electrical Machines, Electronic Devices and Circuits, Power Electronics and Drives, Control Systems
10	Dr. S. Priya	Power Electronics and Drives	Power Electronics and Drives	25	-	Electric Circuits, Electrical Machines, Power Electronics and Drives, Power System, Microprocessors and Microcontrollers, Renewable Energy Systems, Power Electronics, High Voltage Electric Propulsion system, Electro Magnetic Fields
11	Mr. S. Janarthanan	Electrical Drives and Control	Power Electronics in Power System	10	-	Electric Circuits, Electrical Machines, Power Electronics and Drives, Power System, Control and Instrumentation, Renewable Energy Systems, Power Electronics, High Voltage Electric Propulsion system, Electro Magnetic Fields
12	Dr. D. Lakshmi	Power Systems	Power Systems	30	02	Electric Circuits, Electrical Machines, Power System, Power Electronics and Drives, High Voltage Engineering, Digital Systems, Communication Systems, Renewable Energy Systems
13	Dr. M. Deva Brinda	Power Systems	Power Systems	17	-	Electric Circuits, Power System, Power Electronics and Drives, High Voltage Engineering, Digital Systems, Communication Systems, Renewable Energy Systems
14	Mr. P. Veerakumar	Power Systems	Industrial Automation using IoT	07	-	Electric Circuits, Electro Magnetic Fields, Electrical Machines, Marine Electrical Technology, Power System, Marine Control Engineering and Automation, High Voltage Engineering, Industrial Automation
15	Mr. J. Aran Glenn	Power Systems	Smart Grid	-	01	Electric Circuits, Electro Magnetic Fields, Electrical Machines, Marine Electrical Technology, Power System, Control and Instrumentation, High Voltage Engineering, Industrial Automation, Communication Engineering, Renewable Energy Systems

16	Mr. S. Amirtharaj	Power Systems	Power Systems	05	-	Electric Circuits, Electrical Machines, Power System, Power Electronics and Drives, High Voltage Engineering, Digital Systems, Renewable Energy Systems
17	Dr. G. Themozhi	Applied Electronics	Signal Processing	22	-	Electric Circuits, Electro Magnetic Fields, Electronic Devices and Circuits, Control and Instrumentation, Microprocessors and Microcontrollers, Digital Systems, Communication Engineering, Digital Signal Processing, Renewable Energy Systems, Embedded System Design
18	Mr. R. Sundar	Electronics	Marine Automation	09	-	Electric Circuits, Electrical Machines, Power Electronics and Drives, Control and Instrumentation, Microprocessors and Microcontrollers, Renewable Energy Systems
19	Mrs. R. Elavarasi	Applied Electronics	Special Machines	11	-	Electric Circuits, Electrical Machines, Power Electronics and Drives, Power System, Control and Instrumentation, Microprocessors and Microcontrollers, Renewable Energy Systems, Power Electronics, High Voltage Electric Propulsion system, Embedded System Design
20	Dr. S. V. Saravanan	Wireless Communication	Wireless Communication	22	01	Electric Circuits, Electrical Machines, Electronic Devices and Circuits, Microprocessors and Microcontrollers, Digital Systems, Communication Engineering, Embedded System Design
21	Mr. P. Sathish Khanna	Energy Engineering	power Quality in Grid Integrated Solar PV system	04	-	Electric Circuits, Electrical Machines, Marine Electrical Technology, Power Electronics and Drives, Control and Instrumentation, Renewable Energy Systems
22	Ms. A. Mubashira Anjum	Electronics and instrumentation	Electronics and Instrumentation	02	-	Electric Circuits, Marine Electrical Technology, Control and Instrumentation, Industrial Automation

Course Development:

The following Faculty members have involved in the course content development.

S. No	Name of the Faculty	Name of the Course
1	Mrs. R. Elavarasi Mrs. G. Jegadeeswari	UDEEC01-Basic Electrical Engineering
2	Dr. V. Karthikeyan Mrs. R. Elavarasi	UDEE301- Electric Circuit Analysis UDEEE02- Electrical Power Plant Engineering
3	Dr. T. Sasilatha Mr. S. Janarthanan	UDEE302- Electromagnetic Theory
4	Mr. R. Sundar Mr. S. Janarthanan	UDEE303- Electrical Machines – I UDEE402- Electrical Machines – II
5	Dr. T. Sasilatha	UDEE303-Electron Devices and Circuits
6	Dr. M. Rajavelan Dr. S. V. Saravanan	UDEE401 -Analog Integrated Circuits

7	Dr. T. Baldwin Immanuel Mr. P. Veerakumar	UDEE502 -Marine Electrical Technology
8	Dr. T. Sasilatha Dr. S. V. Saravanan	UDEE403- Digital System Design
9	Mr. P. Veerakumar Dr. P. Shanthi	UDEE404- Transmission and Distribution UDEE602- Power System Analysis
10	Dr. S. V. Saravanan Mr. P. Sathish Khanna	UDEE501- Microprocessors & Microcontrollers
11	Dr. V. Karthikeyan Ms. G. Jagadeeswari	UDEEE13-Special Electrical Machines, Basic Electrical Simulation Laboratory
12	Dr. P. Muthukumar Mr. C. Gnanavel	UDEE601 -Power Electronics
13	Mr. P. Veerakumar Mr. S. Janarthanan	UDEE701- Power System Protection and Switchgear
14	Dr. M. Rajavelan Dr. T. Baldwin Immanuel	UDEE703-Marine Control Engineering and Automation
15	Dr. T. Sasilatha	UDEEE01-Communication Engineering
16	Mr. C. Gnanavel Mrs. R. K. Padmashini	UDEEE25-Power Electronics for Renewable Energy Systems

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

Total Marks 10.00

Institute Marks : 10.00

Table B 5.6.1. Instructional Materials Developed by Faculty

S. No	Topic Covered	Name of the Faculty	Link	Number of Views	Number of Likes
1	Review of Electrical Engineering	Mr. S. Janarthanan	https://www.youtube.com/watch?v=8hSjtF32Mck (https://www.youtube.com/watch?v=8hSjtF32Mck)	718	76
2	DC Circuit Breaker and its applications	Mr. S. Janarthanan	https://www.youtube.com/watch?v=9W2GDN-xsEU (https://www.youtube.com/watch?v=9W2GDN-xsEU)	181	48
2	Electrical drive system	Mr. S. Janarthanan	https://www.youtube.com/watch?v=2ltBNF-y48l&t=27s (https://www.youtube.com/watch?v=2ltBNF-y48l&t=27s)	75	32
3	PSP-Communication Networks	Dr. D. Lakshmi	https://youtu.be/FsV4a2VPokQ (https://youtu.be/FsV4a2VPokQ)	53	29
4	Electrical Power system circuit-distribution and electric supply system and IGBT Working	Dr. M. Deva Brinda	https://youtu.be/XIJZA8qFUoA (https://youtu.be/XIJZA8qFUoA)	48	18
5	Equal area criterion	Dr. M. Deva Brinda	https://youtu.be/Ficzr208AXg (https://youtu.be/Ficzr208AXg)	45	22
6	SCADA	Mr. P. Veerakumar	https://youtu.be/GGEWM8ZQDwY (https://youtu.be/GGEWM8ZQDwY)	43	18
7	Temperature sensors	Mr. P. Veerakumar	https://youtu.be/G6ccCIS6igY (https://youtu.be/G6ccCIS6igY)	42	21
8	Moving iron and Moving Coil Instrument-principle of operation	Dr. G. Themozhi	https://youtu.be/MDzQq4jbr1M (https://youtu.be/MDzQq4jbr1M)	45	17
9	Controllers used in Power systems and power Electronics	Ms. G. Jegadeeswari	https://youtu.be/XYy7zDycTj8 (https://youtu.be/XYy7zDycTj8)	56	15
10	PID controllers and tuning techniques	Ms. G. Jegadeeswari	https://youtu.be/bzVOIsrhVGs (https://youtu.be/bzVOIsrhVGs)	45	14
11	Hysteresis current controllers	Ms. G. Jegadeeswari	https://youtu.be/rBQi-zM3jMY (https://youtu.be/rBQi-zM3jMY)	40	15
12	SCADA applications	Mrs. R. Elavarasi	https://youtu.be/U0nH9KcQBsm (https://youtu.be/U0nH9KcQBsm)	38	9
13	Lecture on Single phase Transformer	Mrs. R. K. Padmashini	https://youtu.be/jDfuWAisTRU (https://youtu.be/jDfuWAisTRU)	36	10
14	Sensors and Transducers	Dr. T. Baldwin Immanuel	https://youtu.be/zqax2YIBC9c (https://youtu.be/zqax2YIBC9c)	40	13
15	Introduction to PMBLDC	Dr. V. Karthikeyan	https://www.youtube.com/watch?v=qy2NatFXBRQ&t=187s (https://www.youtube.com/watch?v=qy2NatFXBRQ&t=187s)	43	9

16	EMF and Torque equation of BLDC	Dr. V. Karthikeyan	https://www.youtube.com/watch?v=V-59hXOj8Xc&t=24s (https://www.youtube.com/watch?v=V-59hXOj8Xc&t=24s)	41	10
17	Digital Electronics	Dr. T. Sasilatha	https://youtu.be/xCcILGBKuFs (https://youtu.be/xCcILGBKuFs)	48	12

Table B 5.6.2. Video Lectures prepared by the faculty

S. No	Name of the Faculty	Name of the Module	Platform on which module is developed
1	Dr. T. Sasilatha	CMOS Design	AMET – LMS
2	Dr. V. Karthikeyan	Closed loop control of Switched Reluctance Motor	AMET – LMS
3	Dr. G. Themozhi	Multiple Access Techniques	AMET – LMS
4	Mrs. R. Elavarasi	Alternators in Ships	AMET – LMS
5	Mr. P. Veerakumar	Motor Starters and Speed Control of Induction Motor.	AMET – LMS
6	Ms. G. Jegadeeswari	Fundamentals of Electric Drives	AMET – LMS
7	Ms. G. Jegadeeswari	Special Electrical machines	AMET - LMS
8	Mrs. R. K. Padmashini	Fundamentals of Induction Motor	AMET – LMS
9	Dr. V. Karthikeyan	Inverters – Types and its control	AMET – LMS
10	Dr. V. Karthikeyan	Introduction to Power Electronics	AMET – LMS

Table B.5.6.3. Details of blog developed by the faculty

Blog developed by the faculty	
Name of the Faculty	Blogspot link
Dr. T. Sasilatha	https://sasilatha.blogspot.com/ (https://sasilatha.blogspot.com/)
Dr. V. Karthikeyan	https://karthisolarpower.blogspot.com/ (https://karthisolarpower.blogspot.com/)
Dr. G. Themozhi	https://gthemozhi.blogspot.com/ (https://gthemozhi.blogspot.com/)
Dr. S. Priya	https://drpriyasakthikumar.wordpress.com/ (https://drpriyasakthikumar.wordpress.com/)
Dr. Baldwin Immanuel	https://baldwinimmanuel.blogspot.com/
Dr. D. Lakshmi	https://dralakshmi.blogspot.com/ (https://dralakshmi.blogspot.com/)
Dr. M. Deva Brindha	https://devabrindha.wixsite.com/profile (https://devabrindha.wixsite.com/profile)

Mr. S. Janarthanan	http://jana-pec.blogspot.com/ (http://jana-pec.blogspot.com/)
Mrs. G. Jegadeeswari	https://gjegadeeswari.blogspot.com/ (https://gjegadeeswari.blogspot.com/)
Dr. C. Gnanavel	https://gnana2007.wixsite.com/gnanaveeducational (https://emails.wix.com/pub/cc/?_ri_=X0Gzc2X%3DAQpglJhJITQGtb7MzbtdzeMAfieLcllhNtzezdorbzc1zfh9vgMieNTzgwEeA9Rev1yRzfr22M7d9FRboiLL66wVXtpKX%3DYWCAUCCT&_ei_=EqNp27QWmuWHDEmRNsxIBGelgmAmqsDvImqMjC_AYq_Huu2gP8UYRRikubPUCpIBCyAiOkeVRLUqygblmwayixko2JjxBnuOoKHJT7tlG3nLHaZG0UlvkRmtOv012JmJ2hEDaGzffbSKjvp05Yr-X3mg3KhGt4de8aSAPYxXUBOzaMLYECXZ5tSorA77ZfBKcpibwivTNKEKGjiWrp9dsv_IzVaZyP5vCkGPJRMZmHazeoyoruCBgVYRBjHBAwc071U6Bjka-XCQbKcQto_TIW016061fc78mqTZpSI4qnHoJ5_fCU0k4X3hN75ur8qTXvNxGKCFGlgugHUX8CE4qkfzBSXpeBQaGKD7p0pqQYSjRvvuxJ-sWSaE_t1Ry892mh9VnMrhoK7S9qWl4c44auz4w2SIVtdGxYnVcwwhoQPGtL62_etFQgoQb6wxL1oM5fJmKuhqYyP5y0jencrsslUeGnNyl5bpeHyjaf45OU7QVNC9ed-pRotLpBo3MMbTSIYKauq5Rfd8akuXyk5W_yECsEokbNcFTRn9_Tm.&_di_=3cp0p466h2e5423do5febbjgln1t8hfkmdudfl5r551cdh6q3in0)
Mr. P. Veerakumar	https://veerakumar-ceg.blogspot.com/
Mrs. R. Elavarasi	https://elavarasi20.blogspot.com/ (https://elavarasi20.blogspot.com/)
Mrs. R. K. Padmashini	https://padmashinirkeee.blogspot.com/ (https://padmashinirkeee.blogspot.com/)

Table B 5.6.4. Lab Manuals Prepared by faculty

S. No	Name of the Lab manual	Name of the Faculty developed
1	Basic Electrical Engineering Laboratory	Dr. D. Lakshmi
2	Electrical Machines – I Laboratory	Dr. V. Karthikeyan
3	Electric Circuit Analysis Laboratory	Mr. K. Manikandan
4	Electrical Workshop Practices	Mr. C. Gnanavel
5	Electrical Machines – II Laboratory	Mrs. R. Elavarasi
6	Integrated Circuits Laboratory	Ms. G. Jegadeeswari
7	Marine Electrical Technology Laboratory	Dr. T. Baldwin Immanuel
8	Microprocessors & Microcontrollers Laboratory	Dr. S. V. Saravanan
9	Power Electronics Lab	Mr. S. Janarthanan
10	Digital Signal Processing Lab	Dr. G. Themozhi
11	High Voltage and Switchgear Laboratory	Mr. P. Veerakumar
12	Marine Control Engineering & Automation Laboratory	Dr. M. Deva Brindha
13	Process Control and Marine Automation Laboratory	Mr. P. Veerakumar
14	Instrumentation and Control Laboratory	Dr. M. Deva Brindha

- The Department of EEE has good laboratory which is equipped with latest machines like special machines drive, process control kits, PLC kits, SCADA kits, HV switchgear kits, Multiprocessor trainer, DSP kits to provide the awareness among the students about the latest technology in industries. This facility helps in getting knowledge to meet the industry demand courses, and also helps in developing the theoretical knowledge for better understanding and analyzing complex engineering problems.
- Flipped classroom was introduced to the students undergoing design, analytical subjects for enabling their higher order cognitive skills.
- AMET offers a restricted and secured platform for faculty and students for planning, monitoring and conduction of online classes.

- CAMU software, a cloud-based platform, which is integrated with Microsoft Teams, is used for delivering online lectures.
- Video Lectures, study materials and other digital contents are available in LMS such as uLektz, CAMU and Google Classroom.
- Teachers and students can be access the contents 24x7 from anywhere from any device.

The details of online platform which is used by the Faculty and students are as follows,

Online Platform Details	Web Link
“MyCAMU” Digital campus tool – Data Management System for course planning and monitoring.	https://camu.in/ (https://camu.in/)
“Microsoft Teams” – For conduction of online classes, Project review meetings and meeting with students and parents in online.	https://www.office.com/ (https://www.office.com/)

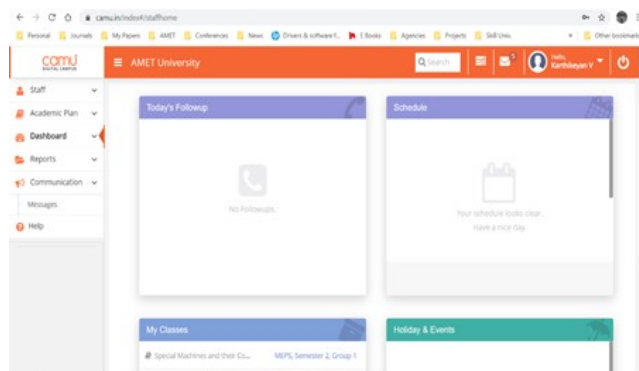


Image of Mycamu Screen

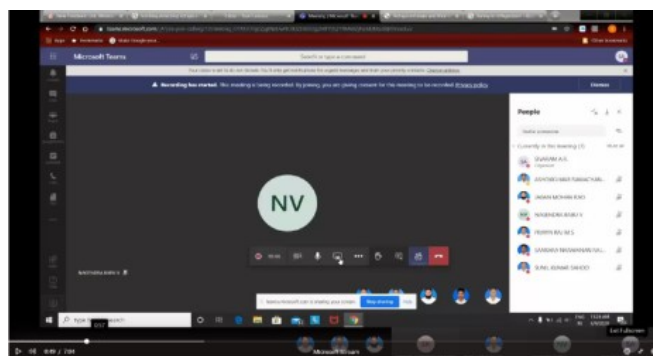


Image of Microsoft Teams Screen

- The following are some of the Active learning methods practiced regularly in the classroom activities with the assessment:
 - **ONE MINUTE PAPER:** This is a highly effective technique for checking student progress, both in understanding the material and in reacting to course material. This is modified to five minutes for some advanced subjects.
 - **Group Discussion:** Provided an efficient structure for class presentations when the subject matter is easily divided into opposing views or ‘Pro’/‘Con’ considerations
 - **THE FISHBOWL:** Students are given index cards and asked to write down one question concerning the course material. They are directed to ask a question of clarification regarding some aspect of the material which they did not fully understand; Or, perhaps students ask questions concerning the application of course material to practical contexts.
 - **BRAIN STORMING SESSIONS:** Students are provided with a nanostructured option of discussing the topic.
 1. The Faculty acts as an observer and divides the class into groups.
 2. Declare the topic and allow five minutes of time for preparation.
 3. Allow the teams to discuss on the topic for 10 minutes.
- **LEADING QUESTION:** A question is framed so as to guide the student questioned to respond with an obvious answer.

5.7 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. T. Sasilatha	5.00	5.00	0.00
Dr. T. Baldwin Immanuel	5.00	5.00	0.00
Dr. S. V. Saravanan	5.00	5.00	3.00
Mr. R. Sundar	5.00	5.00	3.00
Mr. P. Veerakumar	5.00	5.00	3.00
Ms. A. Mubhashira Anjum	5.00	5.00	0.00
Mrs. R. Elavarasi	5.00	5.00	3.00
Mr. S. Janarthanan	3.00	3.00	3.00
Mr. C. Gnanavel	3.00	3.00	0.00
Ms. G. Jegadeeswari	5.00	5.00	0.00
Dr. M. Rajavelan	5.00	3.00	0.00
Dr. V. Karthikeyan	5.00	5.00	3.00
Mr. M. Dheepak	0.00	3.00	3.00
Sum	56.00	57.00	21.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratios as per 5.1	9.00	6.00	4.00
Assessment [$3 \times (\text{Sum} / 0.5\text{RF})$]	37.33	57.00	31.50

Average assessment over 3 years: 41.94

5.8 Research and Development (75)

Total Marks 75.00

5.8.1 Academic Research (20)

Institute Marks : 20.00

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

Table B.5.8.1.1 Details of Articles/ Books/ Patents Published

Academic Year	CAY (2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
No .of Publications	48	52	60
Books published / Chapters authored	11	2	4
No. of Patent Publications	2	-	2

Table 5.8.1.2. Details of books published

Name of the Book/chapter	Author Details	Details of Publications	Year
Internet of Things	Dr. Parameswari Dr. T. Sasilatha Dr. A. Suresh	L Ordine Nuovo Pub ISBN No: 939008404-0	2020
Basic Electrical and Electronics Engineering	Dr. A. Suresh Dr. T. Sasilatha Dr. Baldwin Immanuel	L Ordine Nuovo Pub ISBN No: 939008404-0	2020
Nanotechnology in the Beverage Industry- Fundamentals and Applications - Chapter no: 14	R. Dorothy Dr.T. Sasilatha Dr. Gurmeet Singh	Elsevier Science Publishing Co Inc ISBN: 0128199415 ISBN : 978-0128199411	2020
Circuit Theory	Mr. C. Gnanavel	ISBN: 978-93-80757-66-7	2020
Digital system design using VHDL	Mr. C. Gnanavel	ISBN: 978-81-945156-3-0	2020
High voltage Engineering	Ms. G. Jegadeeswari Mr. C. Gnanavel	ESN Publications, ISBN: 978-81-944871-4-2	2020
Fundamentals of Drives	Ms. G. Jegadeeswari Dr. D. Lakshmi Mr. S. Amirtharaj	ESN Publications, ISBN: 978-81-945156-6-1	2020
Basic Electrical engineering	Ms. G. Jegadeeswari	ESN Publications, ISBN: 978-81-945156-2-3	2020
Load Frequency Control in Deregulated Power System (Book Chapter). Title of the Book: Holistic Research Perspectives	Dr. D. Lakshmi	Bonfring.org ISSN: 2394-9759	2019
Control Techniques for Improving Quality of Power-A Review (Book Chapter). Title of the Book: Holistic Research Perspectives	Dr. D. Lakshmi	Bonfring.org ISSN: 2394-9759	2019

Fundamentals of Data Structures in C	Dr. T. Sasilatha Dr. S. Balaji	Charulatha Publications	2019
Fundamentals & basic Principles of Remote Sensing	Dr. T. Sasilatha	ISBN: 978-81-924764-8-3	2017
Design of Electrical Machines	Dr. A. Kalirasu Mr. R. Sundar	ISBN: 978-93-86636-50-8	2017
Control System	Dr. S.V. Saravanan Ms. T. Dhanya	ISBN: 978-93-86636-51-5	2017

Table 5.8.1.4. Details of patents published

Topic	Author Name	CBR Number / Patent Number	Date of Publication
A Smart suite for assisting the Pregnant women	Dr. T. Sasilatha	202041008057	06.03.2020
A Method and an IoT System for Operating Illumination Control and Fault Detection of the Street Lights	Dr. V. Karthikeyan Mrs. R. Elavarasi	202041003504	07.02.2020
Design of SEA BALL for Maritime Security	Dr. S.V. Saravanan, Mr. M. Dheepak Mr. Jeby Thomas Jacob	201741028764	25.08.2017
Remote Operated Underwater Vehicle for Marine Surveillance	Mr. R. Sundar, Mr. M Dheepak, Mr. P. Veerakumar	201741028769	25.08.2017

Table B.5.8.1.5 (a). Details of Articles published during the assessment period

S. No	Name of the Faculty	Title of the Article	Name of the Journal	Volume/ Issue/ Journals	Year	Impact Factor
2019-20						
1	Dr.T.Sasilatha	Role of Compressed Sensing Based Image Sensor for Smart Surveillance Applications	Test Engineering and Management	ISSN 0193-4120	Jan. 2020	0.1
2	Dr. V. Karthikeyan	Nine Level Symmetrical Modified Multi-Level Cascaded H-Bridge Inverter	International Journal of Advanced Science and Technology	Volume-29, Issue-7s, ISSN: 2005-4238	Apr. 2020	0.41
3	G. Jegadeeswari	Design and Analysis of Annular Combustion Chamber with Different Types of Swirl to Perform Pressure Drop Study	International Journal of Scientific and Technology Research (IJSTR)	Volume-9, Issue-2, ISSN: 2277-8616	Feb. 2020	3.3
4	G. Jegadeeswari	Multi Carrier Based New Random Pulse Width Modulation for Three Phase Inverters	International Journal of Scientific and Technology Research (IJSTR)	Volume-9, Issue-2, ISSN: 2277-8616	Feb. 2020	3.3
5	P. Veerakumar	Automatic Temperature Control System for Ship's Turbine Main Oil Cooler Using PIC Microcontroller	International Journal of Advanced Science and Technology	Volume-29, Issue-4, ISSN(P):2005-4238 ISSN(E):2207-6360	Feb. 2020	0.41

6	S. Amirtharaj	Switching Loss Reduction and Simulation of Quasi Z-Source Inverter System Fed BLDC Motor	International Journal of Advanced Science and Technology	Volume-29, Issue-4, ISSN(P):2005-4238 ISSN(E):2207-6360	Feb. 2020	0.41
7	Dr. T. Baldwin Immanuel	Energy Efficient Light Monitoring and Control Architecture Using Embedded System	International journal of recent technology and engineering	Volume-7, Issue-5S, ISSN(E):2277-3878	Feb. 2020	5.92
8	G. Jegadeeswari	Machining of Aluminum Fly ash Composite Effect of BUE on Surface Roughness	Journal of Xidian University	Volume-14, Issue-5, ISSN: 1001-2400	May. 2020	3.3
9	Dr.T.Sasilatha	Valuable Vitality Remote Perceiving in Cloud IOI	Test Engineering and Management	ISSN 0193-4120	Jan. 2020	0.1
10	Dr. D. Lakshmi	Improvement of Power Quality in Low Voltage Distribution Grids	Test Engineering and Management	Volume-82, ISSN: 0193-4120	Jan-Feb. 2020	0.1
11	Dr. V. Karthikeyan	Yield Analysis of 20kW Grid-Tie Roof-top Solar Photovoltaic Unit in TamilNadu	Test Engineering and Management	Volume-82, ISSN: 0193-4120	Jan-Feb. 2020	0.1
12	R. Elavarasi	Integration of Wind Energy System in Shipboard using Frequency Converter	Test Engineering and Management	Volume-82, ISSN: 0193-4120	Jan-Feb. 2020	0.1
13	Dr. D. Lakshmi	Transitory Control Algorithm of Reactive Current for LSC of BDFIG Based Fuzzy Controller	Test Engineering and Management	Volume-82, ISSN: 0193-4120	Jan-Feb. 2020	0.1
14	Dr. T. Sasilatha	Non-Contact Heart Rate Monitoring using Facial Video	International Journal of Engineering and Advanced Technology (IJEAT)	Volume-9, Issue-2, ISSN: 2249 – 8958	Dec. 2019	0.41
15	Dr. T. Sasilatha	Digital Image Falsification Detection System for Effective Data Communication	International Journal of Engineering and Advanced Technology (IJEAT)	Volume-9 Issue-2, ISSN: 2249 – 8958	Dec. 2019	0.41
16	Dr. T. Sasilatha	Damaged Number Plate Recognition	International Journal of Engineering and Advanced Technology (IJEAT)	Volume-9, Issue-1S2, ISSN: 2249 – 8958	Dec. 2019	0.41
17	Dr. T. Sasilatha	Robot for Under Water Monitoring	International Journal of Engineering and Advanced Technology (IJEAT)	Volume-9, Issue-1S2, ISSN: 2249 – 8958	Dec. 2019	0.41
18	Dr. T. Baldwin Immanuel	PV Fed Seven- Level Inverter Using Fuzzy Control Technique	International Journal of Engineering Advanced Technology	Volume-9, Issue-2, ISSN: 2249-8958	Dec. 2019	0.41
19	Dr. T. Baldwin Immanuel	Modified PMSG System Using Trans Z Source Network for Grid Connected UPFC System	International Journal of Engineering Advanced Technology	Volume-9, Issue-2, ISSN: 2249-8958	Dec. 2019	0.41
20	Dr. T. Baldwin Immanuel	Road Tyre Friction Used to Generation of Electrification	International Journal of Engineering Advanced Technology	Volume-9, Issue-2, ISSN: 2249-8958	Dec. 2019	0.41
21	R. Sundar	A Unique Single Source Nine Level Inverter with Reduced Switching Devices for Single Phase AC Applications	International Journal of Engineering and Advanced Technology	Volume-9, Issue-2, ISSN(E):2249-8958	Dec. 2019	0.41

22	C. Gnanavel	Test Scheduling of Core Based System – on- Chip Using Modified Ant Colony Optimization	Journal Européen des Systèmes Automatisés	Volume-52, Issue-6, ISSN(P):1269-6935 ISSN(E):2116-7087	Dec. 2019	0.353
23	G. Jegadeeswari	Optimization of Gas Turbine Blade Cooling System	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Volume-8, Issue-11, ISSN: 2278-3075	Sep. 2019	5.54
24	G. Jegadeeswari	Port Integration for Enhancing Competitive Advantage	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Volume-8, Issue-11, ISSN: 2278-3075	Sep. 2019	5.54
25	R. Sundar	Operating System Using CAN Bus on Different Process Circulated Technology with High Speed Prime Marine Engine	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Volume-8, Issue-9S2, ISSN: 2278-3075	Jul. 2019	5.54
26	Dr. M. Rajavelan	Wearable ECG Monitoring by Using IoT for Medical Applications	Journal of TEST Engineering & Management	Volume-83, ISSN: 0193-4120	Mar. 2020	0.1
27	Dr. M. Rajavelan	BLDC Drive Speed Control with Quasi Z-Source Inverter Using back EMF Estimation Control	Journal of TEST Engineering & Management	Volume-83, ISSN: 0193-4120	May 2020	0.1
28	R. Sundar	A Unique Single Source Nine Level Inverter with Reduced Switching Devices for Single Phase AC Applications	International Journal of Engineering and Advanced Technology (IJEAT)	Volume-9, Issue-2, ISSN: 2249-8958	Dec. 2019	0.41
29	R. Sundar	Operating System using CAN Bus on Different Process Circulated Technology with High Speed Prime Marine Engine	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Volume-8, Issue-9S2, ISSN: 2278-3075	Jul. 2019	5.54
30	R. Sundar	Research on regenerative and dynamic Braking performance in motor application	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Volume-8, Issue-6S4, ISSN: 2278-3075	Apr. 2019	5.54
31	C. Gnanavel	Experimental Investigation of Hybrid Battery/Super Capacitor Energy Storage System for Electric Vehicles	International Journal of Advanced Science and Technology	Volume-29, Issue-4s, ISSN: 2005-4238	2020	0.41
32	Dr. P. Shanthi	Data Logger for Monitoring and Control of Energy Consumption in Residential Buildings using Programmable Logic Controller	Journal of Green Engineering	Volume-10, Issue-6, ISSN (P): 1904-4720; ISSN (E): 2245-4586	Jun. 2020	0.55
2018-19						
1	Dr. T. Sasilatha	Area-Efficient and High-Speed Hardware Structure of Hybrid Cryptosystem (AES-RC4) for Maximizing Key Lifetime Using Parallel Sub Pipeline Architecture	Concurrency and Computation: Practice and Experience	Online ISSN:1532-0634 Special Issue	Apr. 2019	1.167

2	Dr. T. Sasilatha	A Peer to Peer Botnet Framework for Network Threat Detection in Wireless Networks	International Journal of Recent Technology and Engineering (IJRTE)	Volume-7, Issue-5S2, ISSN: 2277-3878	Jan. 2019	5.92
3	Dr.T. Sasilatha	Extensible Network Lifetime Using Relay Selection Scheme on Wide Area Wireless Sensor Networks	International Journal of Recent Technology and Engineering (IJRTE)	Volume-7, Issue-5S2, ISSN: 2277-3878	Jan. 2019	5.92
4	Dr. T. Sasilatha	Epileptic Seizure Detection Using HWPT Based ANFIS Classifier	International Journal of Recent Technology and Engineering (IJRTE)	Volume-7, Issue-5S2, ISSN: 2277-3878	Jan. 2019	5.92
5	Dr. T. Baldwin Immanuel	Energy Efficient Light Monitoring and Control Architecture Using Embedded System	International Journal of Recent Technology and Engineering (IJRTE)	Volume-7, Issue-5S2, ISSN: 2277-3878	Jan. 2019	5.92
6	Dr. S. V. Saravanan	Miniaturization Using Shorting Posts in C-Shaped and H-Shaped Micro Strip Patch Antennas for GPS Applications	International Journal of Recent Technology and Engineering (IJRTE)	Volume-7, Issue-5S2, ISSN: 2277-3878	Jan. 2019	5.92
7	G. Jegadeeswari	Performance Analysis of Power Quality Improvement Using Shunt Active Power Filter	International Journal of Recent Technology and Engineering (IJRTE)	Volume-7, Issue-5S2, ISSN: 2277-3878	Jan. 2019	5.92
8	G. Jegadeeswari	Implementation of Buck-Boost Chopper Type AC Voltage Regulator	Universal Reviews (UR)	Volume-8, Issue-1, ISSN: 2277-2723	Jan. 2019	5.7
9	Dr. V. Karthikeyan	A Simplified Optimal THD Modulation Algorithm for Multi-Level Inverter with Reduced Components	International Journal of Recent Technology and Engineering (IJRTE)	Volume-7, Issue-5S2, ISSN: 2277-3878	Jan. 2019	5.92
10	Dr. V. Karthikeyan	Performance Study of Multicarrier PWM Based Multi-Level Inverter with Reduced Components	Journal of Advanced Research in Dynamical and Control Systems	Volume-10, Issue-15S, ISSN 1943-023X	Nov. 2018	0.114
11	Dr. T. Sasilatha	Detection of Multi-Layer Attack Using Anticipated Relay Algorithm in the Wireless Sensor Networks	International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)	Volume-8, Special Issue-6 ISSN(P):2249-6890 ISSN(E):2249-8001	Oct. 2018	7.61
12	Dr. T. Sasilatha	The Design and Analysis of Micros trip Patch Antenna with the Metamaterial for High Speed Wireless Network	International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)	Volume-8, Special Issue-6 ISSN(P):2249-6890 ISSN(E):2249-8001	Oct. 2018	7.61
13	Dr. T. Sasilatha	The Performance Improvement Using CEMR Protocol in the Wireless Sensor Network	International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)	Volume-8, Special Issue-6 ISSN(P):2249-6890 ISSN(E):2249-8001	Oct. 2018	7.61
14	Dr. S.V. Saravanan	Secure Secret Communication Using JPEG Double Compression	Journal of Applied Science and Computation	Volume-5, Issue-10, ISSN: 1076-5131	Oct. 2018	5.8
15	G. Jegadeeswari	The Power Factor Correction Improvement for A Single-Phase AC/DC Converter Using an Enabling Window Control	International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)	Volume-8, Issue-5, ISSN: 2249-6890	Oct. 2018	7.612

16	Dr. T. Sasilatha	Survey on Multiprocessor System on Chip with Propagation Antennas for Marine Applications	Communication in Computer and Information Science (CCIS)	CCIS 837 ISSN: 1865-0929	Sep. 2018	0.49
17	Dr. T. Sasilatha	Ship Intrusion Detection System - A Review of the State of the Art	Communication in Computer and Information Science (CCIS)	CCIS 837 ISSN: 1865-0929	Sep. 2018	0.49
18	Dr. T. Sasilatha	High Resolution 3D Image in Marine Exploration Using Neural Networks - A Survey	Communication in Computer and Information Science (CCIS)	CCIS 837 ISSN: 1865-0929	Sep. 2018	0.49
19	Dr. T. Sasilatha	Efficient Energy Management Approach for Tracking Location in Wireless Sensor Networks	EAI Endorsed Transactions on Energy Web and Information Technologies	ISSN: 2032-944X	Sep. 2018	0.25
20	Dr. T. Sasilatha	An Efficient Routing Approach for Detection of Flooding Attacks in Wireless Sensor Networks	EAI Endorsed Transactions on Energy Web and Information Technologies	ISSN: 2032-944X	Sep. 2018	0.25
21	Dr. T. Sasilatha	Secure Data Transfer Using Multi-Layer Security Protocol with Energy Power Consumption AODV in Wireless Sensor Networks	Wireless Personal Communications	ISSN(P):0929-6212 ISSN(E):1572-834X	Sep. 2018	1.20
22	R. Elavarasi	Performance Analysis of Multipurpose Solar Still Employing Nanoparticles	International Journal of Management Technology and Engineering	Volume-8, Issue-9, ISSN: 2249-7455	Sep. 2018	6.3
23	P. Veerakumar	Automatic Collision Avoidance System Using Ultrasonic Sensor for Ship	International Journal of Management Technology and Engineering	Volume-8, Issue-9, ISSN: 2249-7455	Sep. 2018	6.3
24	R. Sundar	Implementation of a Real Time, High Speed Data Logger for Process Control Application	International Journal of Management Technology and Engineering	Volume-8, Issue-9, ISSN: 2249-7455	Sep. 2018	6.3
25	C. Gnanavel	Smart Electric Wheelchair for Physically Handicapped Person	International Journal of Management Technology and Engineering	Volume-8, Issue-8, ISSN: 2249-7455	Aug. 2018	6.3
26	G. Jegadeeswari	Humanoid Robot for Remote Surveillance	International Journal of Mechanical Engineering and Technology (IJMET)	Volume-9, Issue-8, ISSN: 0976 – 6359	Aug. 2018	9.22
27	Dr. S. V. Saravanan	PID Control of Rectilinear Snake Robots	International Journal of Mechanical Engineering and Technology (IJMET)	Volume-9, Issue-8, ISSN: 0976 – 6359	Aug. 2018	9.22
28	Dr.V. Karthikeyan	Unmanned Coastal Monitoring and Electric Propulsion System	Journal of Applied Science and Computations(JASC)	Volume-5, Issue-8, ISSN 0076-5131	Aug. 2018.	5.8
29	G. Jegadeeswari	Performance Investigation of Self-Lift and Re-Lift Luo Converter Topologies	Journal of Applied Science and Computations (JASC)	Volume-5, Special Issue-7, ISSN: 0076-5131	Jul. 2018	5.8
30	G. Jegadeeswari	Performance Analysis of DC – DC Converters with Voltage-Lift Circuits	International Journal of Management, Technology and Engineering (IJMTE)	Volume-8, Special Issue-7, ISSN: 2249-7455	Jul. 2018	6.3
31	G. Jegadeeswari	Three Port Converter in Renewable System	International Journal of Management, Technology and Engineering (IJMTE)	Volume-8, Special Issue-7, ISSN: 2249-7455	Jul. 2018	6.3

32	G. Jegadeeswari	Identification of Vibration on Electrical and Mechanical Components in Marine Machinery	International Journal of Research (IJR)	Volume-7, Special Issue-7, ISSN: 2236-6124	Jul. 2018	5.7
33	G. Jegadeeswari	To Monitor the On-line System for Dissolved Gases in Transformer Oil Using Wireless Data Acquisition	Journal of Applied Science and Computations (JASC)	Volume-5, Special Issue-7, ISSN: 0076-5131	Jul. 2018	5.8
34	S. Janarthanan	Crane Control by Hand Gesture Using Flex Sensor	Journal of Applied Science and Computations (JASC)	Volume-5, Special Issue-7, ISSN: 0076-5131	Jul. 2018	5.8
35	R Elavarasi	Hygiene Water and Sanitary Issues Among the Women	Journal of Applied Science and Computations	Volume-5, Issue-7, ISSN: 1076-5131	Jul. 2018	5.8
36	Dr. S.V. Saravanan	A Review of Clock Control Strategy for Peak Power Using Linear Programming Model	International Journal of Research	Volume-7, Issue-9, ISSN(E):2348-6848	2018	3.54
37	C. Gnanavel	A Performance Investigation of a Single Phase Multilevel Inverter Fed Nonlinear Loads for Solar PV Applications	International Journal of Engineering & Technology	Volume-7, Issue-3.24	2018	0.11
38	Dr. A. Kalirasu	Application of STATCOM for Improved Stability and Voltage Quality In Grid Connected Wind Farms	International Journal of Pure and Applied Mathematics	Volume-120, Issue-6, ISSN (P):1311-8080 ISSN(E):1314-3395	2018	7.19
39	Dr. T. Baldwin Immanuel	An Evaluation of Bidirectional Topologies for UPS Applications	International Journal of Engineering and Technology	Volume-7, Issue-2.33	2018	0.11
40	Dr. T. Baldwin Immanuel	Transformer less 1 Φ Inverter for Grid-Connected PV Systems with an Optimized Control	International Journal of Engineering and Technology	Volume-7, Issue-2.33	2018	0.11
41	Dr. M. Rajavelan	Improved Sensitivity of SPR Instrument Using Multiple Reflection Technique	International Journal of Engineering and Technology	Volume-7, Issue-2.33	2018	0.11
42	Dr. M. Rajavelan	Design and Development of SPR Instrument Based On Θ -2 Θ Mechanical Integration Technique	International Journal of Mechanical and Production Engineering Research and Development	Volume-8, Issue-5	2018	7.61
43	Dr. M. Rajavelan	Signal Acquisition and Processing in Surface Plasmon Resonance Instrument	International Journal for Research in Applied Science & Engineering Technology	Volume-6, Issue-III ISSN: 2321-9653	Mar. 2018	6.887
44	Dr. M. Rajavelan	Performance Analysis of BLDC Motor Drive Using ANFIS Controller	International Journal for Research in Applied Science & Engineering Technology	Volume-6, Issue-III ISSN: 2321-9653	Mar. 2018	6.887
2017-18						
1	Dr. T. Sasilatha	An Efficient Method of Intrusion Detection System in Mobile ADHOC Networks	International Journal of Emerging Technology in Computer Science & Electronics (IJETCSE)	Volume-25, Issue-5 ISSN: 0976-1353	Apr. 2018	4.78
2	Dr. T. Sasilatha	Implementation of Reconfigurable Galois Field Multipliers Over2m Using Primitive Polynomials	International Journal of Engineering and Technology, Science Publications	Volume-7, Issue-2.12	Apr. 2018	2.12

3	G. Jegadeeswari	Design of SVPWM Inverter for Induction Motor Drive Using Neural Network Predictive Control	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	Volume-6, Issue-IV, ISSN: 2321-9653	Apr. 2018	7.076
4	G. Jegadeeswari	Comparison of THD Reduction for Asymmetrical Cascaded H-Bridge Inverter	International Journal of Creative Research Thoughts (JCRT)	Volume-6, Issue-2, ISSN: 2320-2882	Apr. 2018	5.97
5	C. Gnanavel	Simulation and Investigation of Total Harmonic Distortion of Unified Power Quality Conditioner for Power Quality Improvement	International Journal for Research in Applied Science & Engineering Technology	Volume-6, Issue-3, ISSN: 2321-9653	Mar. 2018	6.887
6	Dr.M Rajavelan	Signal Acquisition and Processing in Surface Plasmon Resonance Instrument	International Journal for Research in Applied Science & Engineering Technology	Volume-6, Issue-3, ISSN: 2321-9653	Mar. 2018	6.887
7	V. Karthikeyan	Novel Multifunctional of Magnesium Ions (Mg++) Incorporated Calcium Phosphate Nanostructures	ELSEVIER's Journal of Alloys and Compounds	Volume-730, ISSN: 0925-8388	Jan. 2018	4.175
8	Dr. T. Sasilatha	Low Power Design of Wakeup Receiver for Wireless Sensor Nodes- Survey	International Journal of Pure and Applied Mathematics	Volume-116, Issue-24, ISSN(P):1311-8080 ISSN(E):1314-3395	2017	7.19
9	Dr. T. Sasilatha	An Area Efficient Low Power FIR filter for ECG Noise Removal Application	International journal of Pure and Applied Mathematics	Volume-116, Issue-24, ISSN(P):1311-8080 ISSN(E):1314-3395	2017	7.19
10	Dr. T. Sasilatha	Defending Web Servers From Denial of Service Attacks by Acknowledgement Based Approach	International Journal of Pure and Applied Mathematics	Volume-116, Issue-24 ISSN(P):1311-8080 ISSN(E):1314-3395	2017	7.19
11	Dr. T. Sasilatha	Detection and Elimination of Black Hole and Grey Hole Attack on MANET	International Journal of Pure and Applied Mathematics	Volume-116, Issue-24 ISSN(P):1311-8080 ISSN(E):1314-3395	2017	7.19
12	R. Sundar	Implementation of Ethernet Based Monitoring and Controlling Systems	International Journal of Pure and Applied Mathematics	Volume-114, Issue-12 ISSN(P):1311-8080 ISSN(E):1314-3395	2017	7.19
13	Dr. T. Sasilatha, R. Dorothy	System on Chip Based RTC in Power Electronics	Bulletin of Electrical Engineering and Informatics	Volume-6, Issue-4	Dec. 2017	1.90
14	Dr. T. Sasilatha, K. R. Anupriya	Wireless Network for Strategic Boundary Supervision System	Bulletin of Electrical Engineering and Informatics	Volume-6, Issue-4	Dec. 2017	1.90
15	Dr. T. Sasilatha, K. R. Anupriya	Transformer Exchanging with Vacuum Electrical Switch	Bulletin of Electrical Engineering and Informatics	Volume-6, Issue-4	Dec. 2017	1.90
16	A. Mubashira Anjum	Super Conductor Motors for High Speed Ship Propulsion	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-13, ISSN: 1943-023X	Dec. 2017	0.114

17	T. Dhanya	Innovative Solution for Pollution Control in Automated Ships	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-11, ISSN: 1943-023X	Nov. 2017	0.114
18	R. Elavarasi	Development of MEMs Vibratory Gyroscope using High Order Continuous Time Band Pass Sigma-Delta Modulator	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-11, ISSN: 1943-023X	Nov. 2017	0.114
19	P. Veerakumar	PLC Controlled Water Pumps for Generator Stator Cooling System	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-11, ISSN: 1943-023X	Nov. 2017	0.114
20	Dr. S.V. Saravanan	Design of Sea Ball for Maritime Security	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-11, ISSN: 1943-023X	Nov. 2017	0.114
21	G. Jegadeeswari	Design and Implementation of THD Reduction for Cascaded Multilevel H-Bridge Inverter	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-11, ISSN: 1943-023X	Nov. 2017	0.114
22	Dr. T. Sasilatha	Malicious Node Detection System Using Hash Chains Approach in IoT Based Sensor Networks	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-2, ISSN: 1943-023X	Nov. 2017	0.114
23	Dr. T. Sasilatha	Progressive Parallel ICI Cancellation Scheme and BER Performance Analysis for MIMO-OFDM	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-2, ISSN: 1943-023X	Nov. 2017	0.114
24	Dr. T. Sasilatha	Performance Analysis of Low Power FIR Filters Using Modified CSA in Biomedical Applications	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-2, ISSN: 1943-023X	Nov. 2017	0.114
25	Dr. T. Sasilatha	Fuzzy Based Energy Efficient Cluster Head Detection in Wireless Sensor Networks	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-2, ISSN: 1943-023X	Nov. 2017	0.114
26	Dr. T. Sasilatha	Design of Advanced Vedic Multiplier Using Ripple Carry Adder	Journal of Advanced Research in Dynamical and Control Systems	Special Issue-2, ISSN: 1943-023X	Nov. 2017	0.114
27	T. Dhanya	A Survey Approach of Differential Face Estimation From A Low Resolution Video Sequence	Indian Journal of Public Health Research and Development	Special Issue-8	Oct. 2017	0.044
28	Dr. T. Sasilatha	An Efficient Strategy Over Brain Tumour Analysis Using Image Processing Techniques	International journal of pharmacy and Technology	Volume-9, Issue-3, ISSN: 0975-766X	Sep. 2017	0.118
29	Dr. T. Sasilatha	Sinkhole Attack Detection in WSN Using Fast Randomized Algorithm	International Journal of Control Theory and Application	Volume-10, Issue-31, ISSN : 0974-5572	2017	0.175
30	Dr. S.V. Saravanan	Design and Simulation of miniaturized Micro Strip Patch Antennas Using Shorting Techniques for GPS Applications	Journal of Advanced Research in Dynamical and Control Systems	Volume-9, Issue-9, ISSN 1943-023X	Sep. 2017	0.114
31	R. Sundar	Challan Filling System in Bank for Visually Impaired and Illiterate People	Journal of Advanced Research in Dynamical and Control Systems	Volume-9, Issue-9, ISSN 1943-023X	Sep. 2017	0.114
32	Dr. V. Karthikeyan	Yield Factor of Grid Connected Solar Photovoltaic System-A Case Study	Journal of Advanced Research in Dynamical and Control Systems	Volume-9, Issue-9, ISSN 1943-023X	Sep. 2017	0.114

33	Dr. T. Sasilatha	Sinkhole Attack Detection in WSN using Pure MD5 Algorithm	Indian Journal of Science and Technology	Volume-10, Issue-24	Jul. 2017	0.60
34	A. Mubashira Anjum	Multifunction Mobile Robot Virtual Human	International Journal of Mechanical Engineering and Technology	Volume-8, Issue-7, ISSN(P):0976 – 6340, ISSN(E):0976 – 6359	Jul. 2017	9.8124
35	V. Karthikeyan	Reduced Switch Reverse Voltage Multi-Level Inverter	International Journal for Scientific Research & Development (IJSRD)	Volume-5, Issue-5, ISSN: 2321-0613	Jul. 2017	4.396
36	Dr. S.V. Saravanan	ATMEL Microcontroller based indoor surveillance robot	International Journal Of Innovative Research In Technology	Volume-4, Issue-2, ISSN: 2349-6002	Jul. 2017	0.68
37	T. Dhanya	Automatic ration Dispensary	International Journal Of Innovative Research In Technology	Volume-4, Issue-2, ISSN: 2349-6002	Jul. 2017	0.68
38	T. Dhanya	Development in multifunctional robotics design and analysis using CATIA/PATRAN	International Journal Of Innovative Research In Technology	Volume-4, Issue-2, ISSN: 2349-6002	Jul. 2017	0.68
39	Dr. T. Sasilatha	Self-Configurable Clustering using FLB to improve Network Lifetime in WSN	Journal of chemistry and pharmaceutical sciences	ISSN:0974-2115	Jul. 2017	0.119
40	Dr. T. Sasilatha	Performance Analysis Of Ad-Hoc on Demand Distance Vector and Energy Power Consumption Aodv in Wireless Sensor Networks	Journal of Advanced Research In Dynamical and Control Systems	Issue-S2, ISSN: 1943-023x	Jun. 2017	0.27
41	Dr. V. Karthikeyan	Multilevel Inverter With Reduced Number of Switches for Solar Energy Generation	International Journal of Latest Technology in Engineering, Management & Applied Science (IJLTEMAS)	Volume-6, Issue-6, ISSN: 2278-2540	Jun. 2017	3.47
42	P. Veerakumar	Review of Energy Management Techniques for Induction Motor Driven Industrial systems	Indian Journal of Science and Technology	Volume-4, Issue-1, ISSN:2349-6002	Jun. 2017	0.60
43	P. Veerakumar	PLC-Based Speed Regulation for Synchronous Motor.	International Journal of Applied Engineering Research (IAER) (International)	Volume-6, Issue-6, ISSN(E):2278-2541	Jun. 2017	0.12
44	P. Veerakumar	Synchronization of Solar Power with Onboard Ship Main Bus Bar Using FPGA Technique	International Journal Of Innovative Research In Technology	Volume-4, Issue-1, ISSN: 2349-6002	Jun. 2017	0.68
45	R. Sundar	PC Based Remote Operated Underwater Vehicle For Marine Surveillance	International Journal of Civil Engineering & Technology	Volume-8, Issue-6, ISSN(P):0976-6308 ISSN(E):0976-6316	Jun. 2017	0.25
46	R. Sundar	Sensor Based Spectacles, Waist-Belt and Footwear for Visually Impaired People	International Journal of Civil Engineering & Technology	Volume-8, Issue-6, ISSN(P):0976-6308 ISSN(E):0976-6316	Jun. 2017	0.25
47	S. Janarthanan	Comparative Analysis of FACTS Controller for IG Based Wind Farms in Grid Connected System	International Journal of Latest Technology in Engineering, Management & Applied Science	Volume-6, Issue-6, ISSN: 2278-2540	Jun. 2017	4.1

48	R. Elavarasi	Smart Car Packing	Indian Journal of Science and Technology,	Volume-10, Issue-9, ISSN(P):0974-6846 ISSN(E):0974-5645	2017	0.60
49	S. Janarthanan	Analysis of Grid Connected DFIG based Wind Farms for Reactive Power Compensation	International Journal of Latest Technology in Engineering, Management & Applied Science	Volume-6, Issue-6, ISSN: 2278-2540	Jun. 2017	4.1
54	S. Janarthanan	Study of DFIG based wind turbine for reactive power generation capability	International Journal of research in applied science & Engineering Technology	Volume-6, Issue-6, ISSN:2321-9653	2017	4.14
55	P. Veerakumar	SCADA Based Generator Stator Water Cooling Pump Control System	International Journal of Advanced Trends in Engineering and Technology	Volume-2, Issue-1, ISSN: 2456-1126	2017	0.685
56	R. Sundar	A Novel Technique for Volt-VAR Control in Substation Using Embedded System	Indian Journal of Science and Technology	Volume-2, Issue-1, ISSN: 0974-6846	2017	0.60
57	R. Sundar	Development of a Real-Time, High-Speed Data Acquisition System for Onboard Ship Application	Indian Journal of Science and Technology (International)	Volume-8, Issue-6 ISSN: 0974-6846	2017	0.60
58	P. Veerakumar	PLC Based Automatic Control For Onboard Ship Gangway	International Journal of Mechanical Engineering & Technology (IJMET)	Volume-8, Issue-3, ISSN: 0976-6359	2017	0.21
59	P. Veerakumar	SCADA Based Generator Stator Water Cooling Pump Control System	International Journal of Advanced Trends in Engineering and Technology	Volume-8, Issue-6, ISSN: 0976-6316	2017	0.685
60	P. Veerakumar	PC Based Remote Operated Underwater Vehicle For Marine Surveillance	International Journal of Civil Engineering & Technology(IJCIET)	Volume-8, Issue-6, ISSN : 0976-6316	2017	0.25

Table B.5.8.1.5 (b). Details of Conference Papers Presented/ Published during the assessment period

S. No	Name of the Faculty	Title of the Article	Name of the Conference/ Event/Publisher	ISBN/ Conference	Year
1	V. Karthikeyan	IoT Based Home Appliances Control	National Conference on Recent Advances in Science, Engineering, and Management	ISBN : 978-81-943033-7-4	Mar. 2020
2	R. Elavarasi	Ship Collision Detection and Prevention System Using Internet of Things	National Conference on Recent Advances in Science, Engineering, and Management	ISBN : 978-81-943033-7-4	Mar. 2020
3	R. Sundar	Hardware implementation of dedicated squaring circuit by passing multipliers	National Conference on Cutting Edge Technologies in Power Conversion and Industrial Drives (PCID 2019)	Proceedings of PCID 2019	Nov. 2019
4	R. Sundar	Modeling and Analysis of Distributed Static Synchronous Compensator for Voltage Mitigation in Distributed System	International Conference on multidisciplinary research, Srilanka.	ISBN: 978 -81-945156-0-9	Feb. 2020

5	R. Sundar	High Voltage generation using SMPS for GAMMA Detector	International Conference on Modern Trends in Engineering and Research, Kanyakumari.	Proceedings of International Conference on Modern Trends in Engineering and Research	Mar. 2020
6	A. Manikandan	Renewable Energy Systems with Integrated Power Systems – Requirement and Functionalities for Ships	National Conference on Recent Advances in Science, Engineering, and Management	ISBN : 978-81-943033-7-4	Mar. 2020
7	Dr. T. Sasilatha	Design and Implementation of Compressed Sensing based Image Sensor for Smart Surveillance applications	4 th ISSE National conference INAC 2019 on System for Transforming India: Challenges and Opportunities	Proceedings of INAC 2019, 4 th ISSE, 2019	Sept 2019
8	Dr. P. Shanthi	“Shore to Ship System”- An DC Concept of network used at Island Network	National Conference on Recent Advances in On-Board Ship Automation (RAOBSA 2019)	ISBN: 978-93-85434-75-4	Sep. 2019
9	Dr. G. Themozhi	Recent Developments in Computer Vision-Based Gait Biometrics System	National Conference on Recent Advances in On-Board Ship Automation (RAOBSA 2019)	ISBN: 978-93-85434-75-4	Sep. 2019
10	Dr. M. Deva Brindha	A Robotic Motion Control Using Finger Gesture Interaction	National Conference on Recent Advances in On-Board Ship Automation (RAOBSA 2019)	ISBN: 978-93-85434-75-4	Sep. 2019
11	C. Gnanavel, P. Sathish Khanna	Real Time Monitoring and Controlling of Boiler Drum Parameters Using Internet of Things (IoT)	National Conference on Recent Advances in On-Board Ship Automation (RAOBSA 2019)	ISBN: 978-93-85434-75-4	Sep. 2019
12	Dr. T. Sasilatha	Performance Analysis of Compressed Sensing Based Image Sensor for Smart Surveillance Applications	National Conference on Recent Advances in On-Board Ship Automation (RAOBSA 2019)	ISBN: 978-93-85434-75-4	Sep. 2019
13	S. Janarthanan	Crane Control by Hand Gesture using Flex Sensor	National Conference on Recent Advances in On-Board Ship Automation (RAOBSA 2019)	ISBN: 978-93-85434-75-4	Sep. 2019
14	J. Aran Glenn	Comparison of Wavelet Based Computational Intelligence Techniques for the Protection of Parallel Transmission Lines and Power Transformers	National Conference on Recent Advances in On-Board Ship Automation (RAOBSA 2019)	ISBN: 978-93-85434-75-4	Sep. 2019
15	S. Amirtharaj	Switching Loss Reduction and Simulation of Quasi Z-Source Inverter System Fed BLDC Motor	National Conference on Recent Advances in On-Board Ship Automation (RAOBSA 2019)	ISBN: 978-93-85434-75-4	Sep. 2019
16	Dr. P. Shanthi	Ship Propulsion Motor of Speed Control Using Marine High Frequency Converter	International Conference on Recent Advances in Communication, Energy and Sensors(RACES-2019)	Proceedings of RACES-2019	Nov. 2019
17	G. Jegadeeswari	A Review of Power Quality Performance Analysis Using Shunt Active Power Filter	International Conference on Sustainability Management of Advanced Renewable energy Technologies	ISBN: 978-93-5361-004-3	Apr. 2019
18	G. Jegadeeswari	Analysis of Dissolved Gases in Transformer Oil Using Wireless Data Acquisition	2nd National Conference on Cutting Edge Innovations in Engineering and Technology – CEIET	Proceedings of CEIET 2019	Mar. 2019
19	G. Jegadeeswari	Design of Space Vector PWM Inverter for Induction Motor Drive Application Using PID Controller	International Conference on Intelligence in Computation, Communication and Robotics (ICICCR 2019)	Proceedings of ICICCR 2019	Feb. 2019

20	Dr. T. Sasilatha	Modelling and Analysis of 45nm CMOS Multiplier for Multimedia Systems	Third National Conference on Emerging Trends in Mathematical Sciences-NCETMS 2018	Proceedings of NCETMS 2018	Dec. 2018
21	G. Jegadeeswari	Performance Analysis of Power Quality Improvement using Shunt Active Power Filter	International Conference on Innovations and Research in Marine Electrical and Electronics Engineering (ICIRMEEE 2018)	ISBN: 978 93 85434 709	Sep. 2018
22	S. Janarthanan	Analysis of Grid Connected DFIG Based Wind Turbine for Reactive Power Compensation	International Conference on Innovations and Research in Marine Electrical and Electronics Engineering (ICIRMEEE 2018)	ISBN: 978 93 85434 709	Sep. 2018
23	Dr. T. Sasilatha	Survey on Multiprocessor System on Chip with Propagation Antennas for Marine Applications	Springer International Conference on Soft Computing Systems	ISBN: 978-981-13-1936-5	Apr. 2018
24	Dr. T. Sasilatha	Ship Intrusion Detection System - A Review of the State of the Art	Springer International Conference on Soft Computing Systems	ISBN: 978-981-13-1936-5	Apr. 2018
25	Dr. T. Sasilatha	High Resolution 3D Image in Marine Exploration Using Neural Networks - A Survey	Springer International Conference on Soft Computing Systems	ISBN: 978-981-13-1936-5	Apr. 2018
26	C. Gnanavel	Single Phase Symmetrical Multilevel Inverter for Solar PV Application Based on Modified Multiple Carrier PWM Techniques	Second National Power Engineering Research Scholars Conference at IIT, Madras.	Second National Power Engineering Research Scholars Conference	Feb. 2018
27	C. Gnanavel	Design and Development of Modular Multilevel DC-AC Inverter for Solar PV Application Based on Multiple Carrier PWM Technique	National Technical Seminar on Future Technologies for Combat Vehicles at CVRD, Avadi, Chennai.	National Technical Seminar on Future Technologies for Combat Vehicles	Mar. 2017

Table B.5.8.1.6 Details of Citation index of the faculty

Citations and h-index details of faculty in SCOPUS/ Google Scholar				
Name of the Faculty	No of Citations	h-index	SCOPUS Author ID	SCOPUS Author page link
Dr. T. Sasilatha	85	4	24823038000	https://www.scopus.com/authid/detail.uri?authorId=24823038000 (https://www.scopus.com/authid/detail.uri?authorId=24823038000)
Dr. V. Karthikeyan	7	1	56428807500	https://www.scopus.com/authid/detail.uri?authorId=56428807500 (https://www.scopus.com/authid/detail.uri?authorId=56428807500)
Dr. T. Baldwin Immanuel	16	3	57192940633	https://www.scopus.com/authid/detail.uri?authorId=57192940633 (https://www.scopus.com/authid/detail.uri?authorId=57192940633)

Dr. S. V. Saravanan	49	4	57215650204	https://www.scopus.com/authid/detail.uri?authorId=57215650204 (https://www.scopus.com/authid/detail.uri?authorId=57215650204)
Dr. D. Lakshmi	24	3	56501803800	https://www.scopus.com/authid/detail.uri?authorId=56501803800 (https://www.scopus.com/authid/detail.uri?authorId=56501803800)
Mr. R. Sundar	5	2	57215872006	https://www.scopus.com/authid/detail.uri?authorId=57215872006 (https://www.scopus.com/authid/detail.uri?authorId=57215872006)
Mr. P. Veerakumar	20	2	57194067958	https://www.scopus.com/authid/detail.uri?authorId=57194067958 (https://www.scopus.com/authid/detail.uri?authorId=57194067958)
Mrs. R. Elavarasi	10	2	56582398600	https://www.scopus.com/authid/detail.uri?authorId=56582398600 (https://www.scopus.com/authid/detail.uri?authorId=56582398600)
Mr. C. Gnanavel	33	4	57201496938	https://www.scopus.com/authid/detail.uri?authorId=57201496938 (https://www.scopus.com/authid/detail.uri?authorId=57201496938)
Ms. G. Jegadeeswari	18	3	57200597022	https://www.scopus.com/authid/detail.uri?authorId=57200597022 (https://www.scopus.com/authid/detail.uri?authorId=57200597022)
Dr. M. Rajavelan	20	3	57203859744	https://www.scopus.com/authid/detail.uri?authorId=57203859744 (https://www.scopus.com/authid/detail.uri?authorId=57203859744)
Dr. M. Deva Brinda	2	1	57201505152	https://www.scopus.com/authid/detail.uri?authorId=57201505152 (https://www.scopus.com/authid/detail.uri?authorId=57201505152)
Dr. G. Themozhi	7	2	52164647700	https://www.scopus.com/authid/detail.uri?authorId=52164647700 (https://www.scopus.com/authid/detail.uri?authorId=52164647700)
Mr. S. Janarthanan	2	1	57194457976	https://www.scopus.com/authid/detail.uri?authorId=57194457976 (https://www.scopus.com/authid/detail.uri?authorId=57194457976)

Ms. T. Dhanya	7	1	57194432351	https://www.scopus.com/authid/detail.uri?authorId=57194432351 (https://www.scopus.com/authid/detail.uri?authorId=57194432351)

Table B.5.8.1.7. List of faculty awarded Ph. D during the assessment period

S. No	Name of the Faculty	Institute/University	Year of Award
1	Dr. C. Gnanavel	Anna University, Chennai.	2020
2	Dr. S. Sampath Kumar	Pondicherry University, Pondicherry.	2019
3	Dr. T. Baldwin Immanuel	St. Peter's Institute of Higher Education & Research, Chennai.	2018
4	Dr. P. Shanthi	Anna University, Chennai.	2018
4	Dr. P. Muthukumar	Anna University, Chennai.	2017
5	Dr. V. Karthikeyan	Anna University, Chennai.	2017

Table B.5.8.1.8. List of Faculty Pursuing PhD

S. No	Name of the faculty	Ph.D Scholar	Registration Number	Date of Registration	Area of Research	University
1	P. Veerakumar	Part Time	2017193202	16.05.2017	Internet of Things	AMET
2	R. Elavarasi	Part Time	2014493129	02.12.2014	Wind Energy Systems	AMET
3	S. Janarthanan	Part Time	1901452	17.04.2015	Power Electronics in Power Systems	Pondicherry University
4	R. Sundar	Part Time	20122493117	14.10.2012	Power Electronics	AMET
5	T. Dhanya	Part Time	2017493101	16.05.2017	Artificial Intelligence for Robotics	AMET
6	G. Jegadeeswari	Part Time	2018193303	11.07.2018	Electric Drives	AMET
7	R. K. Padmashini	Part Time	2019392383	09.01.2019	Power Electronics	AMET
8	P. Sathish Khanna	Part Time	2019392381	13.02.2019	Renewable Energy	AMET
9	J. Aran Glenn	Part Time	17143991121	06.01.2017	Power Systems	Anna University

10	S. Amirtharaj	Part Time	1212399751	27.07.2012	Power Systems	Anna University

Table B.5.8.1.9. Details of Research Scholars awarded Ph. D Degree during the assessment period

S. No	Name of the Supervisor	Name of the Research Scholar	Institute/University	Year of Award
1	Dr. Nagaraj, Karpagam College of Engineering, Coimbatore	Mr. T.K. Sethu Ramalingam	Academy of Maritime Education and Training	2019
2	Dr. Arungalai Vendan, VIT, Vellore	Mr. Kudiarasan	Academy of Maritime Education and Training	2019
3	Dr. Preeta Sharan, Oxford college of Engineering, Bangalore.	Mr. Sandip Kumar Roy	Academy of Maritime Education and Training	2017
4	Dr. T. Sasilatha	Mr. Parameswari M	Anna University	2019
5	Dr. T. Sasilatha	Mr. Balaji S	Anna University	2019
6	Dr. T. Sasilatha	Ms. Mahalakshmi	Anna University	2018
7	Dr. T. Sasilatha	Ms. Anusha N	Anna University	2017
8	Dr. T. Sasilatha	Mr. Suresh N	Anna University	2017

Table B.5.8.1.10. Details of Ph.D Guidance - Faculty as Supervisor

S. No	Name of the faculty/supervisor	Name of the Research Scholar	University	Part Time / Full Time	Year of Registration
1	Dr. T. Sasilatha	Vaijayanthimala	Academy of Maritime Education and Training	FT	2020
2		A. Benjamin Franklin	Academy of Maritime Education and Training	FT	2017
3		K. R. Anupriya	Academy of Maritime Education and Training	FT	2017
4		R. Dorothy	Academy of Maritime Education and Training	FT	2017
5		J. Padmapriya	Academy of Maritime Education and Training	PT	2019
6		R. Karthick Manoj	Academy of Maritime Education and Training	PT	2019
7		T. Dhanya	Academy of Maritime Education and Training	PT	2017
8		P. Veera Kumar	Academy of Maritime Education and Training	PT	2017
9	Dr. S.V. Saravanan	K. Gugan	Academy of Maritime Education and Training	FT	2017
10		M. Dheepak	Academy of Maritime Education and Training	PT	2017
11		S. Sinthuja	Academy of Maritime Education and Training	PT	2018
12	Dr. V. Karthikeyan	G. Jegadeeswari	Academy of Maritime Education and Training	PT	2018

13		R. K. Padmashini	Academy of Maritime Education and Training	PT	2019
14	Dr. M. Rajavelan	P. Sathishkhanna	Academy of Maritime Education and Training	PT	2019
15	Dr. G. Themozhi	T. Arun Srinivas	Anna University	PT	2012
16		A. Prabha	Anna University	PT	2015
17		K. R. Sunil Raj	Anna University	FT	2016
18		I. Jayasukumari	Anna University	PT	2016
19		G. Merlin Linda	Anna University	FT	2016
20		D. Dolphin Kiruba	Anna University	PT	2016
21		P. Radhakrishnan	Anna University	PT	2011

5.8.2 Sponsored Research (20)

Institute Marks : 20.00

2018-19 (CAYm1)

Project Title	Duration	Funding Agency	Amount(in Rupees)
Marine Frequency Conv	3 Years	AICTE-Research Promc	1265000.00
Solar Still Using Nano P	2 Years	TNSCST-S&T Project u	430000.00
MSME-Business Incuba	5 Years	MSME, Delhi, Govt. of I	35000000.00
Skill and Personality De	3 Years	All India Council for Tec	1748000.00
AICTE Grant for Organi:	Completed	AICTE	500000.00
Travel Grant	-	AICTE	76000.00
			Total Amount(X): 39019000.00

2017-18 (CAYm2)

Project Title	Duration	Funding Agency	Amount(in Rupees)
-	-	-	0.00
			Total Amount(Y): 0.00

2016-17 (CAYm3)

Project Title	Duration	Funding Agency	Amount(in Rupees)
-	-	-	0.00
			Total Amount(Z): 0.00

Cumulative Amount(X + Y + Z) = 39019000.00

5.8.3 Development activities (15)

Institute Marks : 15.00

Product Development

Table B.5.8.3 List of Products Developed by Faculty

Name of the Faculty	Name of the Product
Dr. T. Sasilatha, Dr. S.V. Saravanan, Mr. M. Dheepak	Poka Yoka System with Bar Code Automation
Dr. T. Sasilatha, Dr. V. Karthikeyan, Mr. P. Veerakumar	VFD and HMI Drive Panel Using MODBUS Protocol for Three Phase Induction Motor Control
Dr. P. Muthukumar, Dr. T. Baldwin Immanuel	FPGA Based Closed Loop V/F Control of Three Phase Induction Motor
Dr. M. Rajavelan	Development of QCM instrument for the detection of pollution in drinking water
Mr. C. Ganavel	Solar Energy-Efficient Motor Drive with Flywheel Storage System (FESS) based on Multilevel Inverters.
Dr. V. Karthikeyan	Battery Operated Vehicle for Cleaning Solar Module.
Dr. M. Devabrindha	Hardware and software implementation of three phase power quality analyzer.
Dr. G. Themozhi	Prototyping a Smart Intelligent Robot for Surveillance using IoT.

- a. Poka Yoka System with Bar Code Automation for Hyundai Sandro Assembly Section was developed by Dr. T. Sasilatha, Dr. S. V. Saravanan and Final Year B.E EEE-Marine students in association with CDCE School of Automation Pvt. Ltd., Chennai. A total amount of Rs.2.4 Lakhs is received for doing this consultancy project.



Fig 5.8.3 (a). Consultancy Project: Poka Yoka System with Bar Code Automation

- b. VFD and HMI Drive Panel using MODBUS protocol for Three Phase Induction motor control was developed by Dr. T. Sasilatha, Dr. V. Karthikeyan, Mr. P. Veerakumar and the third year students in association with CDCE School of Automation Pvt. Ltd., Chennai. An amount of Rs.1.1Lakh received to develop the product.



Fig: 5.8.3 (b). Consultancy Project: VFD and HMI Drive Panel using MODBUS protocol

C. Development of Economic Farm and Recycling Fishing Nets- The project was submitted to AICTE by Dr. T. Sasilatha, Mr. C. Gnanavel, Mr. R. Manikandan (III Year BE EEEM), Mr. D. Manivannan (III Year BE EEEM) and Mr. S. Vignesh (II Year BE EEEM). This project (Application No. USVA20191059) is shortlisted under AICTE-Utkrisht Sansthan Vishwakarma Awards 2019 and presented the project in AICTE -SRO Chennai.

d. Change Management Project - Technical Leadership Development Program - Dr. T. Sasilatha participated in the AICTE - UKIERI Technical Leadership Development Program to do Change Management Project in association with Duley College of Technology, UK & Chartered Management Institute (CMI) for the Level 5 Certification Program. This program was sponsored and supported by AICTE and British Council.

Seed Money Projects sanctioned for the faculty

The faculty members are requested to submit the research proposals for seed money projects funded by AMET. The following proposals have been examined and considered to sanction the project money to the individual faculty during the academic year 2019-20.

Table B 5.8.3(a). List of Seed Money Projects sanctioned by AMET (2019-20)

S. No	Name of the Faculty	Title of the Project	Duration (Months)	Amount Sanctioned by AMET
1	Dr. T. Sasilatha	High Resolution Image in Marine Exploration using Neural Networks	6	1,80,000/-
2	Dr. V. Karthikeyan	Cogeneration of Electrical Energy from the Waste Heat produced by the process industry	6	1,10,000/-
3	Dr. T. Baldwin Immanuel	Design and development of security system for fishermen crossing frontier enhanced using android applications	6	1,60,000/-
4	Mr. C. Gnanavel	Design and Development of Neuropathy Analyzer for Biomedical applications	6	1,10,000/-
5	Dr. M. Deva Brinda	Efficient Solar powered IOT based buoy for monitoring sea	6	40,000/-
6	Mrs. R. Elavarasi	Integrated power systems in shipboard incorporating frequency converter	6	40,000/-
7	Dr. D. Lakshmi	Development of Hybrid Inverters of Capacity upto 200 VA	6	40,000/-

8	Dr. G. Themozhi	A Smart marine environment monitoring using IOT	6	15,000/-
9	Mr. S. Janarthanan	Torque Enhancement in induction motor using intelligent control in Modular Multilevel inverter	6	40,000/-

Design Projects completed by faculty**Table B 5.8.3(b) Design Projects completed by Faculty along with Students**

Name of the Student	Name of the Faculty Coordinator	Project Title
Aashlyn Mossas Antony Akshai Yaswanth S	Dr. Baldwin Immanuel	Smart Agriculture Monitoring Using Image Processing
Allwin Renold. S Manikandan. N Soundarapandiyan.L. L	Dr. S. V. Saravanan	An Intelligent Method to Control the Float Stability in Ships Using Gyroscopic Sensor.
Ananthan Unni Oswin Sancho. U Bajare Shardul Jayanta	Dr. M. Rajavelan	Energy Budget Analyzer, by Monitoring and controlling of daily consumption of water and electricity
Inbaraj.I. I Vignesh K Gorakavi Lakshmi Prasanna Kumar	Mrs. R. Elavarasi	Automatic Collision Avoidance System Using IoT for Ship
Jaya Krishnan. K Jayakumar. M Joseph Melvin. B	Mr. P. Veerakumar	IoT & GSM Based Integrated Home Security and Electrical Appliances Control System
Rajan Gope Hari Prasath.T	Dr. M. Rajavelan	Design and development of wearable solar cell for military soldiers
Gokulnath. A	Ms. A. Mubashira Anjum	Implementation of Light Fidelity in Marine Safety and Data Transmission System
Rehan Hyder. H Sathish Kumar. B Tamada Santosh Kumar Dhananjayudu	Dr. S. V. Saravanan	A Novel Approach For Automatic Oil Spill detection From Ship and Intimation Using ANN And WMM For The Marine Safety
Naveen. A Deewakar Sourabh Diogo Manuel Antonio	Mr. V. Karthikeyan	Unmanned Coastal Monitoring And Propulsion System

Chozhan. S Varatharajan.R Bharath Kumar. G Vasanth.M	Mr. R. Sundar	PC Controlled Underwater Robot With Surveillance Camera.

Support for Entrepreneurial and Managerial Development of MSMEs through Incubators

Our AMET Deemed to be University is recognized as Host Institute to carry out Business Incubation by students, Faculty and MSME's. Under this MSME scheme the students submitted their business proposal for funding with the help of their mentors. The business proposals are shortlisted by MSME Guindy Office Chennai and are being forwarded by NMIU to MSME Delhi to get approval for funding.

The Table B 5.8.3(c) shows the Business ideas submitted by the II year and III Year EEE Marine students.

Table B 5.8.3(c). List of Business Ideas submitted to MSME

S. No	Application ID	Title of the Idea	Student Member / Incubatee	Faculty Mentor
1	IDEATN001360	Drone Based Plant Disease Detection Technique using Machine Learning	K. Balamurugan, Nirmalkumar Baskaran Pradeep M	Dr. T. Sasilatha
2	IDEATN001898	Role of Cyber Physical System based Secured Video Surveillance (CPS-SVS) system using Wireless Multimedia Sensor Network	Pradeep Kumar R Austin Jebaraj Vengadeshwara Rao S	Dr. T. Sasilatha
3	IDEATN001370	Development of Economic Farm and Recycling Fishing Nets Transformed into Innovative Products	Manivannan DS Dhanasekar P Viknesh S	Mr. C. Gnanavel
4	IDEATN001385	A Cost Effective Dual Solar Energy-Based Module for Insect Pest Trap and irrigation Pump	I Hasheem Shariff Amuthan Arumugam Gokulraj	Dr. G. Themozhi
5	IDEATN001399	Automatic irrigation system using IOT	Mohammed Shuaib K Mohammed Azhair MS Sudarshan K	Dr. D. Lakshmi
6	IDEATN001818	Developing Virtual Reality Based Solution	Viknesh S Dhanasekar P Dinesh Ramalingam	Ms. G. Jegadeeswari
7	IDEATN001880	Generation of Solar Energy and Water Desalination Using Solar Cell	Dinesh Tamil Selvan. D Balaji Murthy	Dr. V. Karthikeyan

Research Laboratories

Table B 5.8.3(d). Research Laboratories established in the Department/ supported by Govt. Funding Agencies/ Industries

S. No	Name of the Lab	Association with	Outcomes
1	Nano PCM Lab	Tamil Nadu State Council for Science and Technology, Govt. of Tamil Nadu, Chennai.	Research article published in journals and Conferences.
2	Centre for Renewable Energy Systems	All India Council for Technical Education, New Delhi.	Research article published in journals and Conferences, Facility utilized by Faculty, PG and Research scholars.

3	SPDP Centre	All India Council for Technical Education, New Delhi.	Skill Development training such as soft skills, personality development program for SC/ST students in AMET.
4	Centre of Excellence on Onboard Ship Automation	CDCE Automation and Robotics Pvt Ltd., Chennai.	Value added training for Students, Faculty Development Program, Consultancy Project, etc.
5	Incubation Centre on Robotics	EPR Labs, Chennai.	Value added training for students, Students participation in different national level competitions with their own ideas

Instructional materials**Table B 5.8.3(e). Instructional Materials Developed by Faculty**

S. No	Topic Covered	Name of the Faculty	Link
1	DC Circuit Breaker and its applications	Mr. S. Janarthanan	https://www.youtube.com/watch?v=9W2GDN-xsEU (https://www.youtube.com/watch?v=9W2GDN-xsEU)
2	Electrical drive system	Mr. S. Janarthanan	https://www.youtube.com/watch?v=2ItBNF-y48I&t=27s (https://www.youtube.com/watch?v=2ItBNF-y48I&t=27s)
3	PSP-Communication Networks	Dr. D. Lakshmi	https://youtu.be/FsV4a2VPokQ (https://youtu.be/FsV4a2VPokQ)
4	Electrical Power system circuit-distribution and electric supply system and IGBT Working	Dr. M. Deva Brinda	https://youtu.be/XIJZA8qFUoA (https://youtu.be/XIJZA8qFUoA)
5	Equal area criterion	Dr. M. Deva Brinda	https://youtu.be/Ficzr208AXg (https://youtu.be/Ficzr208AXg)
6	SCADA	Mr. P. Veerakumar	https://youtu.be/GGEWM8ZQDwY (https://youtu.be/GGEWM8ZQDwY)
7	Temperature sensors	Mr. P. Veerakumar	https://youtu.be/G6ccCIS6igY (https://youtu.be/G6ccCIS6igY)
8	Moving iron and Moving Coil Instrument- principle of operation	Dr. G.Themozhi	https://youtu.be/MDzQq4jbr1M (https://youtu.be/MDzQq4jbr1M)
9	Controllers used in Power systems and power Electronics	Ms. G. Jegadeeswari	https://youtu.be/XYy7zDycTj8 (https://youtu.be/XYy7zDycTj8)
10	PID controllers and tuning techniques	Ms. G. Jegadeeswari	https://youtu.be/bzVOIsrhVGs (https://youtu.be/bzVOIsrhVGs)
11	Hysteresis current controllers	Ms. G. Jegadeeswari	https://youtu.be/rBQi-zM3jMY (https://youtu.be/rBQi-zM3jMY)
12	SCADA applications	Mrs. R. Elavarasi	https://youtu.be/U0nH9KcQBsm (https://youtu.be/U0nH9KcQBsm)
13	Lecture on Single phase Transformer	Mrs. R. K. Padmashini	https://youtu.be/jDfuWAisTRU (https://youtu.be/jDfuWAisTRU)
14	Sensors and Transducers	Dr. T. Baldwin Immanuel	https://youtu.be/zqax2YIBC9c (https://youtu.be/zqax2YIBC9c)
15	Introduction to PMLDC	Dr. V. Karthikeyan	https://www.youtube.com/watch?v=qy2NatFXBRQ&t=187s (https://www.youtube.com/watch?v=qy2NatFXBRQ&t=187s)
16	EMF and Torque equation of BLDC	Dr. V. Karthikeyan	https://www.youtube.com/watch?v=V-59hXOj8Xc&t=24s (https://www.youtube.com/watch?v=V-59hXOj8Xc&t=24s)

17	Digital Electronics	Dr.T.Sasilatha	https://youtu.be/xCcILGBKuFs (https://youtu.be/xCcILGBKuFs)

Table B.5.8.3.6 Details of blog developed by the faculty

Blog developed by the faculty	
Name of the Faculty	Blogspot link
Dr. T. Sasilatha	https://sasilatha.blogspot.com/ (https://sasilatha.blogspot.com/)
Dr. V. Karthikeyan	https://karthisolarpower.blogspot.com/ (https://karthisolarpower.blogspot.com/)
Dr. G. Themozhi	https://gthemozhi.blogspot.com/ (https://gthemozhi.blogspot.com/)
Dr. S. Priya	https://drpriasakthikumar.wordpress.com/ (https://drpriasakthikumar.wordpress.com/)
Dr. Baldwin Immanuel	https://baldwinimmanuel.blogspot.com/
Dr. D. Lakshmi	https://dralakshmi.blogspot.com/ (https://dralakshmi.blogspot.com/)
Dr. M. Deva Brindha	https://devabrindha.wixsite.com/profile (https://devabrindha.wixsite.com/profile)
Mr. S. Janarthanan	http://jana-pec.blogspot.com/ (http://jana-pec.blogspot.com/)
Mrs. G. Jegadeeswari	https://gjegadeeswari.blogspot.com/ (https://gjegadeeswari.blogspot.com/)
Dr. C. Gnanavel	https://gnana2007.wixsite.com/gnanaveleducational (https://emails.wix.com/pub/cc?_ri_=X0Gzc2X%3DAQpglJhJITQGtb7MzbtdeMAfieLcllhNtzezdorbzc1zf9vgMieNTzgwEeA9Rev1yRzfr22M7d9FRboiLL66wVXtpKX%3DYWCAUCCT&_ei_=EqNp27QWMuWHDEmRNxiBGelgmAmqsDvIMqMjC_AYq_Huu2gP8UYRRIkubPUCpiBCyAiOkeVRLUqygblmwayixko2JJxBnuOoKHJT7tlG3nLHaZG0UlvkRmtOv012Jmj2hEDaGzffbSKjvp05Yr-X3mg3KhGt4de8aSAPYxXUBOzaMLYECXZ5tSorA77ZfBKcpibwiwTNKEKGjiWrpg9dsv_IzVaZyP5vCkGPJRMZmHazeoyoruCBgVYRBjHBAwc071U6Bjka-XCQbKcQto_TIW016061fc78mqTZpSI4qnHoJ5_fCU0k4X3hN75ur8qTXvNxxGKCFGigugHUx8CE4qkfzBSXpeBQaGKD7p0pqQYSjRvvuxJ-sWSaE_t1Ry892mh9VnMrhoK7S9qWl4c44auz4w2SIVtdGxYnVcwwhoQPGtL62_etFQgoQb6wxL1oM5fJmKuhqYyP5y0jencrsslUeGnNyL5bpeHyjaf45OU7QVNC9ed-pRoLpBo3MMbTSIYKauq5Rfd8akuXyk5W_yECsEokbNcFTRn9_Tm.&_di_=3cp0p466h2e5423do5febbjgln1t8hfkmqudfl5r551cdh6q3in0)
Mr. P. Veerakumar	https://veerakumar-ceg.blogspot.com/
Mrs. R. Elavarasi	https://elavarasi20.blogspot.com/ (https://elavarasi20.blogspot.com/)
Mrs. R. K. Padmashini	https://padmashinirkeee.blogspot.com/ (https://padmashinirkeee.blogspot.com/)

Table B 5.8.3(f). Video Lectures prepared by the faculty

S. No	Name of the Faculty	Name of the Module	Platform on which module is developed
1	Dr. T. Sasilatha	CMOS Design	AMET – LMS
2	Dr. V. Karthikeyan	Closed loop control of SRM	AMET – LMS
3	Dr. G. Themozhi	Multiple Access Techniques	AMET – LMS
4	Mrs. R. Elavarasi	Alternators in Ships	AMET – LMS
5	Mr. P. Veerakumar	Motor Starters and Speed Control of Induction Motor.	AMET – LMS
6	Ms. G. Jegadeeswari	Fundamentals of Electric Drives	AMET – LMS
7	Ms. G. Jegadeeswari	Special Electrical machines	AMET - LMS
8	Mrs. R. K. Padmashini	Fundamentals of Induction Motor	AMET – LMS
9	Dr. V. Karthikeyan	Inverters – Types and its control	AMET – LMS
10	Dr. V. Karthikeyan	Introduction to Power Electronics	AMET – LMS

Table B 5.8.3(g). Working Models Developed by faculty

S. No	Name of the Model	Name of the Faculty developed
1	Variable Frequency Drive	Mr. P. Veerakumar
2	Humanoid Robot	Dr. G. Themozhi
3	Multi-Level Inverter	Dr. V. Karthikeyan
4	DC-DC Converter for Hybrid Energy Generation	Dr. P. Shanthi

Table B 5.8.3(h). Charts Prepared/ Developed by faculty

S. No	Name of the Chart	Name of the Faculty developed
1	Pulse Width Modulation Control	Mrs. R. Elavarasi
2	Architecture of PLC	Mr. P. Veerakumar
3	Hybrid Energy Generation System	Mr. C. Gnanavel
4	Layout of AMET Solar Power Plants	Dr. V. Karthikeyan
5	Microcontroller – 8051 (Architecture, Pin Diagram)	Mr. S. Janarthanan
6	SMART Grid	Dr. D. Lakshmi
7	MICRO Grid	Dr. M. Deva Brindha
8	Electrical Layout Diagram of Ship	Dr. T. Baldwin Immanuel

Table B 5.8.3(i). Lab Manuals Prepared by faculty

S. No	Name of the Lab manual	Name of the Faculty developed

1	Basic Electrical Engineering Laboratory	Dr. D. Lakshmi
2	Electrical Machines – I Laboratory	Dr. V. Karthikeyan
3	Electric Circuit Analysis Laboratory	Mr. K. Manikandan
4	Electrical Workshop Practices	Mr. C. Gnanavel
5	Electrical Machines – II Laboratory	Mrs. R. Elavarasi
6	Integrated Circuits Laboratory	Ms. G. Jegadeeswari
7	Marine Electrical Technology Laboratory	Dr. T. Baldwin Immanuel
8	Microprocessors & Microcontrollers Laboratory	Dr. S. V. Saravanan
9	Power Electronics Lab	Mr. S. Janarthanan
10	Digital Signal Processing Lab	Dr. G. Themozhi
11	High Voltage and Switchgear Laboratory	Mr. P. Veerakumar
12	Marine Control Engineering & Automation Laboratory	Dr. M. Deva Brindha
13	Process Control and Marine Automation Laboratory	Mr. P. Veerakumar
14	Instrumentation and Control Laboratory	Dr. M. Deva Brindha

Table B.5.8.3 (j). Details of books published

Name of the Book/chapter	Author Details	Details of Publications	Year
Internet of Things	Dr. Parameswari Dr. T. Sasilatha Dr. A. Suresh	L Ordine Nuovo Pub ISBN No: 939008404-0	2020
Basic Electrical and Electronics Engineering	Dr. A. Suresh Dr. T. Sasilatha Dr. Baldwin Immanuel	L Ordine Nuovo Pub ISBN No: 939008404-0	2020
Nanotechnology in the Beverage Industry- Fundamentals and Applications - Chapter no: 14	R. Dorothy Dr.T. Sasilatha Dr. Gurmeet Singh	Elsevier Science Publishing Co Inc ISBN: 0128199415 ISBN : 978-0128199411	2020
Circuit Theory	Mr. C. Gnanavel	ISBN: 978-93-80757-66-7	2020
Digital system design using VHDL	Mr. C. Gnanavel	ISBN: 978-81-945156-3-0	2020
High voltage Engineering	Ms. G. Jegadeeswari Mr. C. Gnanavel	ESN Publications, ISBN: 978-81-944871-4-2	2020
Fundamentals of Drives	Ms. G. Jegadeeswari Dr. D. Lakshmi Mr. S. Amirtharaj	ESN Publications, ISBN: 978-81-945156-6-1	2020

Basic Electrical engineering	Ms. G. Jegadeeswari	ESN Publications, ISBN: 978-81-945156-2-3	2020
Load Frequency Control in Deregulated Power System (Book Chapter). Title of the Book: Holistic Research Perspectives	Dr. D. Lakshmi	Bonfring.org ISSN: 2394-9759	2019
Control Techniques for Improving Quality of Power-A Review (Book Chapter). Title of the Book: Holistic Research Perspectives	Dr. D. Lakshmi	Bonfring.org ISSN: 2394-9759	2019
Fundamentals of Data Structures in C	Dr. T. Sasilatha Dr. S. Balaji	Charulatha Publications	2019
Fundamentals & basic Principles of Remote Sensing	Dr. T. Sasilatha	ISBN: 978-81-924764-8-3	2017
Design of Electrical Machines	Dr. A. Kalirasu Mr.R. Sundar	ISBN: 978-93-86636-50-8	2017
Control System	Dr. S.V. Saravanan Ms. T. Dhanya	ISBN: 978-93-86636-51-5	2017

5.8.4 Consultancy (from Industry) (20)

Institute Marks : 20.00

2018-19 (CAYm1)

Project Title	Duration	Funding Agency	Amount(in Rupees)
Role of AI base	6 Months	Electronics Pla	60000.00
Poka Yoka Sys	6 Months	CDCE Group c	240000.00
VFD and HMI I	6 Months	CDCE Group c	80000.00
Design of smar	6 Months	New Bee Tech	48500.00
			Total Amount(X): 428500.00

2017-18 (CAYm2)

Project Title	Duration	Funding Agency	Amount(in Rupees)
Solar Energy e	6 Months	Lambda Instrur	80000.00
FPGA Based C	6 Months	Lambda Instrur	50000.00
Development c	6 Months	New Venus Ind	40000.00
Crane control t	6 Months	Rithik Rosan R	120000.00
Unmanned Co:	6 Months	VeeEee Tech. :	111000.00
Implementation	6 Months	Signals and Sc	100000.00
A novel approa	6 Months	VeeEee Tech. :	75000.00
			Total Amount(Y): 576000.00

2016-17 (CAYm3)

Project Title	Duration	Funding Agency	Amount(in Rupees)
Advanced Integrated Co	1 Year	VeeEee Tech S	610000.00
New Braking Mechanisr	1 Year	SM Micro Syst	560000.00
			Total Amount(Z): 1170000.00

Cumulative Amount(X + Y + Z) = 2174500.00

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

Total Marks 10.00

Institute Marks : 10.00

Faculty Performance Appraisal and Development System:

The university follows the performance based assessment system as prescribed by the UGC. The system is adopted after a thorough discussion and review. The performance review gives a great opportunity to the concerned faculty and the department to look into the areas for improvement and take necessary remedial steps. The purpose of the evaluation is hereunder:

- a) Assess and promote excellence in the teaching/learning process.
- b) Meet the educational needs of students and community by continually.

Faculty appraisal is organized at the end of each academic year. Evaluation is based on three major parameters as follows. The weightage for each parameter will be different for different category of faculty viz Professor, Associate Professor and Assistant Professor. At the end of each semester, the self-assessment Proforma is collected from the faculty and is evaluated. Awards, Rewards/Incentives are given to the Faculty based on their performance in academics, funded projects from Govt or Industries, publications in national/international journals and conferences etc.

Parameter1: Teaching Learning and Evaluation Activities:

In this area, the faculty's foremost duty is on teaching courses, conducting labs and guiding projects. Due importance is also given to responsibilities such as lab-in-charge, contribution towards PAC, Conduction of examination, development of study/instructional material etc.

Parameter2: Co-Curricular, Extension and Professional Development Activities:

This area is for evaluating the faculty's administrative duties undertaken at institution/department level. The duties like arranging field/industrial visits, organizing extension/community activities, academic and administrative responsibilities, seminar and/or conference organized, memberships in professional bodies, student mentoring and external paper evaluation and/or question paper setting are included.

Parameter3: Research and Academic Contributions:

In this area, the faculty's research aptitude is evaluated. The criteria for evaluation includes publication in conferences, journals and books/chapters, citations of publications, patents, research proposals undertaken, consultancy, organizing workshops and conferences. It is also based on the laurels brought to the University by making significant contribution in technical, research, societal events held in national or international level.

Table B.5.9.1. Weightage for each Parameter for different category of faculty

	Professor	Associate Professor	Assistant Professor
Teaching Learning and Evaluation	30	40	50
Co-Curricular, Extension and Professional Development	30	30	30
Research and Academic Contributions	40	30	20

Proforma for appraisal is collected from each faculty at the end of every academic year and is consolidated by the Head of the Department, suitable actions are taken based on the outcome of the report. The faculty those who are performed low, will be counseled by the Head of the Department and motivated to attend Faculty development programmes to improve their Research and academic contribution etc.

Department of Electrical and Electronics Engineering									
Consolidated Faculty Appraisal for the Academic Year 2018-19									
S. No	Name of the Faculty	Designation	Criteria			Weightage			Performance Remark
			A	B	C	A	B	C	
1	Dr. T. Sasitha	Professor	25	21.875	37.5	30	26.25	30	86
2	Dr. V. Karthikeyan	Professor	20	21.875	25	24	26.25	20	70
3	Dr. T. Baldevin Immanuel	Associate Professor	20	21.875	27.5	32	26.25	16.5	75
4	Dr. S. V. Saravanan	Associate Professor	20	21.875	25	32	26.25	15	73
5	Mr. R. Sundar	Assistant Professor	20	12.5	20	40	15	8	63
6	Mr. M. Dheepak	Assistant Professor	15	12.5	12.5	30	15	5	50
7	Mr. P. Veerakumar	Assistant Professor	25	15.625	25	50	18.75	10	79
8	Mrs. A. Mubashira Anjum	Assistant Professor	15	9.375	15	30	11.25	6	47
9	Mrs. P. Shanthi	Assistant Professor	20	12.5	20	40	15	8	63
10	Mrs. R. Elavarasi	Assistant Professor	20	21.875	17.5	40	26.25	7	73
11	Mr. S. Janarthanan	Assistant Professor	25	15.625	17.5	50	18.75	7	76
12	Ms. T. Dhanva	Assistant Professor	20	12.5	15	40	15	6	61
13	Mr. C. Gnanavel	Assistant Professor	20	15.625	20	40	18.75	8	67
14	Ms. G. Jegadeeswari	Assistant Professor	25	21.875	25	50	26.25	10	86
15	Dr. M. Rajavelan	Assistant Professor	20	15.625	20	40	18.75	8	67
16	Ms. S. Sindhuja	Assistant Professor	15	18.75	20	30	22.5	8	61
17	Dr. S. Sampath Kumar	Assistant Professor	15	18.75	27.5	30	22.5	11	64
18	Mrs. R. K. Padmasini	Assistant Professor	20	18.75	15	40	22.5	6	69
19	Mr. P. Sarish Khanna	Assistant Professor	20	15.625	17.5	40	18.75	7	66
20	Mr. K. Manikandan	Assistant Professor	20	12.5	17.5	40	15	7	62
21	Mr. J. Aran Glenn	Assistant Professor	20	15.625	15	40	18.75	6	65

		Weightage					
		Prof.	Asso. Prof	Asst. Prof			
Criteria A	Performance in Teaching, Learning and Evaluation Related Activities	5x5	25	30	40	50	
Criteria B	Co-Curricular, Extension and Professional Development Related Activities	8x3.125	25	30	30	30	
Criteria C	Research and Academic Contributions	20x2.5	50	40	30	20	
Total		100	100	100	100	100	

Fig.5.9.1. Analysis of Faculty Appraisal



AMET
ACADEMY OF MARITIME EDUCATION AND TRAINING
DEEMED TO BE UNIVERSITY
(Under Section 3 of UGC Act 1956)

SELF ASSESSMENT PROFORMA BASED ON ACADEMIC PERFORMANCE

Name of the Applicant	
Designation	
Name of the Department	
Present Pay-band with Annual Grade Pay	
Date of joining at AMET	
Period of appraisal	

Note: Details to be filled in with the details of the past one semester

A. PERFORMANCE IN TEACHING, LEARNING AND EVALUATION RELATED ACTIVITIES

Sl. No.	Nature of Activity	Particulars	Details of documents enclosed
1	Teaching workload (hours per week)		
	a) Lecture		
	b) Tutorials		
	c) Practicals		
	Total		

2	i) Number of study materials prepared and posted in LMS/Google Classroom		
	ii) Number of Video Lectures prepared and posted in Youtube/LMS/EMRDC		
	iii) Number of online classes conducted		
	iv) Syllabus enrichment by providing additional resources to students		
	Total		
3	Use of participatory and innovative teaching – learning methodologies, updating of subject content, course improvement etc		
4	Number of additional/special classes conducted for weaker students per week		
5	Number of examination duties undertaken		

B. CO-CURRICULAR, EXTENSION AND PROFESSIONAL DEVELOPMENT RELATED ACTIVITIES

Sl. No.	Nature of Activity	Particulars	Details of documents enclosed
1	Number of field visits/other visits coordinated		
2	Number of co-curricular and extension activities coordinated such as,		
	Extension work through NSS/NCC and other		
	Education related programmes in Media		
	Cultural activities		
	Advertisement		
	Counseling		
	Total		

2	i) Number of study materials prepared and posted in LMS/Google Classroom		
	ii) Number of Video Lectures prepared and posted in Youtube/LMS/EMRDC		
	iii) Number of online classes conducted		
	iv) Syllabus enrichment by providing additional resources to students		
	Total		
3	Use of participatory and innovative teaching – learning methodologies, updating of subject content, course improvement etc		
4	Number of additional/special classes conducted for weaker students per week		
5	Number of examination duties undertaken		

B. CO-CURRICULAR, EXTENSION AND PROFESSIONAL DEVELOPMENT RELATED ACTIVITIES

Sl. No.	Nature of Activity	Particulars	Details of documents enclosed
1	Number of field visits/other visits coordinated		
2	Number of co-curricular and extension activities coordinated such as,		
	Extension work through NSS/NCC and other		
	Education related programmes in Media		
	Cultural activities		
	Advertisement		
	Counseling		
	Total		

15	Invited lectures/lead lectures/chief guest addresses delivered in academic events-National		
16	Invited lectures/lead lectures/chief guest addresses delivered in academic events-International		
17	Number of awards/recognitions received		
18	Number of research articles reviewed for professional journals		
19	Number of consultancy works undertaken		
20	Number of collaborations established		
Any other relevant information			

Certified that the details mentioned under all categories above are true and are supported by relevant documentary evidences.

Signature of the Faculty
Place :
Date :

Signature and seal of the HOD/Dean/Director

FOR OFFICIAL USE ONLY

Fig: 5.9.1. Sample faculty self-appraisal form

Faculty members are eligible for attractive incentives for the following achievements/ activities.

Publication in SCOPUS indexed journals:

Well-designed staff incentive schemes have positive and powerful effects on the productivity, efficiency and quality of Research. In addition, it is essential that the incentive scheme be perceived as being fair, and thus the goals set out by the scheme are attainable, and better performing staff members are rewarded. So, AMET framed the rule that all the publications in SCOPUS, SCI, and Web of science will be given incentive provided the proper affiliation is mentioned and proof of indexed in appropriate peer reviewed literature database. Our Faculty received the incentive amount of Rs.2,27,000/- towards publication for the academic year 2019-20. Similarly, an amount of Rs.1,82,750/- and Rs.2,17,922/- was received as an incentive for the academic years 2018-19 and 2017-18 respectively.

Participations in International conferences:

Faculty were encouraged to publish papers in IEEE, Elsevier, Springer lecture notes conference proceeding with quality works, and also encouraged to convert their UG/PG project students works as articles in the above said conferences. The registration fees, on-duty, TA/DA to attend the conference was provided to the faculty.

Table B 5.9.1 Incentive Received by the Faculty for Publication

S. No	Name of the Faculty	Amount Received (in Rs.)
2019-20		
1	Dr. T. Sasilatha	58,000/-
2	Dr. S. V. Saravanan	10,000/-
3	Dr. V. Karthikeyan	20,000/-
4	Dr. T. Baldwin Immanuel	44,000/-

5	Dr. D. Lakshmi	20,000/-
6	Mr. R. Sundar	23,000/-
7	Mr. P. Veerakumar	12,000/-
8	Mrs. G. Jegadeeswari	30,000/-
9	Mr. S. Amirtharaj	10,000/-
	Total	2,27,000/-
2018-19		
1.	Dr. T. Sasilatha	50,000/-
2.	Dr. S. V. Saravanan	12,000/-
3.	Dr. V. Karthikeyan	2000/-
4.	Dr. T. Baldwin Immanuel	20,000/-
5.	Mr. R. Sundar	10,000/-
6.	Mr. P. Veerakumar	2000/-
7.	Mrs. G. Jegadeeswari	18,750/-
8.	Mrs. R. Elavarasi	4000/-
9.	Mr. S. Janarthanan	2000/-
10.	Mr. C. Gnanavel	22,000/-
11.	Dr. M. Rajavelan	40,000/-
	Total	1,82,750/-
2017-18		
1	Dr. T. Sasilatha	83,000/-
2	T. Dhanya	18,400/-
3	P. Veerakumar	19,200/-
4	Dr. S. V. Saravanan	19,200/-
5	R. Elavarasi	17,000/-
6	S. Janarthanan	7,122/-
7	V. Karthikeyan	10,000/-
8	R. Sundar	20,000/-
9	A. Mubashira Anjum	16,000/-
10	Mrs. G. Jegadeeswari	8,000/-
	Total	2,17,922/-

Table B 5.9.2 Awards/Recognitions Received by the Faculty

Title of the innovation	Name of the Awardee	Name of the Awarding Agency	Year of Award
Academic Leadership	Dr. T. Sasilatha	International Association of Research and Developed Organization	2019
Best faculty –Project from Government		AMET Deemed to be University	2019
Certificate of Appreciation		IAMU Research Projects In FY 2020	2019
Excellence in Research		DK International Research	2018
Education Leadership		Dewang Mehta National Education Awards	2018
Preeminent Educator Award	Dr. G. Themozhi	Green ThinkerZ	2019
Tech Savvy Academicians in Higher Education	Dr. V. Karthikeyan	The Academic Council of uLektz.	2019
Distinguished Educator Award		International Institute of Organized research I2OR Awards 2019	2019
Recognized as a Member Technical Committee for the IEEE International Conference.		Kings Engineering college	2019
Review Committee Member ICEES-2020		SSN college of Engineering, Chennai.	2018
Best Senior Faculty		DK International Research Foundation	2018
IEEE Senior Member		IEEE	2018
Outstanding Educator Award 2018	Dr. T. Baldwin Immanuel	International Institute of Organized Research Awards	2018
Green ThinkerZ Award	Mrs. R. Elavarasi	Green ThinkerZ	2019
Best Educator		Chennai Equipments and Systems Private Ltd.	2018
Best Technical Consultant		GKR Electrical Solutions	2018
Preeminent Researcher Award	Dr. M. Deva Brinda	Green ThinkerZ	2019
Best paper award		ICCIKE, Dubai	2019
Best project consultant		Shrishti Power Technologies Private Limited	2019
Best designer for power system protection		Shrishti Power Technologies Private Limited	2019
Senior educator and scholar award	Dr. D. Lakshmi	National Foundation for Entrepreneurship Development	2019
Best Project Consultant		RRC MEDI –TECH	2019

Outstanding Educator Award -2018	Dr. M. Rajavelan	International Institute of Organized Research Awards	2018
Bright Educator Award 2019	Mr. P. Veerakumar	International Institute of Organized Research	2019
Bright Researcher Award 2018		Green ThinkerZ	2018
Top 50 Training and Placement Officers in Higher Education Across India	Mr. S. Janarthanan	The Academic Council of uLektz.	2019
Elsevier Reviewer Recognition		Elsevier Publishing Company	2018
Emerging Researcher Award -2018	Mr. C. Gnanavel	International Institute of Organized Research Awards	2018
Best Researchers Association 2020		Puducherry Academic Researchers Association	2020
Outstanding Educator Award	Mr.P.Sathish Khanna	International Institute of Organized Research Awards	2019
Best Paper Award	Ms. G. Jegadeeswari	International Journal of Mechanical and Production Engineering Research and Development	2018
Bright Researchers award		Green ThinkerZ award	2018
Best Paper Award		Best Paper Award in the International Journal of Recent Technology and Engineering (IJRTE)	2019
Recognition received for a role of reviewer		International Journal of Scientific & Technology Research (IJSTR)	2019
Top 50 International Distinguished Young Researcher		Green ThinkerZ award	2020
Outstanding Researcher Award	Mr. R. Sundar	International Institute of Organized Research Awards	2019
Distinguished Professor	Mr. J. Aran Glenn	Gurukul Race India Award	2019

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

Total Marks 10.00

Institute Marks : 10.00

Table B.5.10.1. Visiting/adjunct/emeritus faculty members for the year 2019-20

S. No	Name of the Visiting Faculty and Affiliation	Subjects	Semester	Total Hours
1	Dr. O. Rajanayagam, Rtd. Deputy Chief Engineer, TNEB, Chennai.	Electrical Machines - I	III	18
		Electrical Machines - II	IV	19
2	Dr. C. Kanagaraj, Rtd. SE, TNEB, Chennai.	High Voltage Engineering	V	16

Table 5.10.2. Visiting/adjunct/emeritus faculty members for year 2018-19

S. No	Name of the Visiting Faculty and Affiliation	Subjects	Semester	Total Hours
1	Dr. O. Rajanayagam, Rtd. Deputy Chief Engineer, TNEB, Chennai.	DC and AC Machines	III	15
2	Dr. C. Kanagaraj, Rtd. SE, TNEB, Chennai.	Transmission and Distribution	V	14
3	Dr. C. Kanagaraj, Rtd. SE, TNEB, Chennai.	Electrical Energy Generation and Utilization	VI	12
4	Dr. O. Rajanayagam, Rtd. Deputy Chief Engineer, TNEB, Chennai.	Power Plant Engineering	IV	14

Table 5.10.3. Visiting/adjunct/emeritus faculty members for year 2017-18

S. No	Name of the Visiting Faculty and Affiliation	Subjects	Semester	Total Hours
1	Dr. O. Rajanayagam, Rtd. Deputy Chief Engineer, TNEB, Chennai.	DC and AC Machines	III	14
2	Dr. C. Kanagaraj, Rtd. SE, TNEB, Chennai.	High Voltage Engineering	V	14
3	Dr. O. Rajanayagam, Rtd. Deputy Chief Engineer, TNEB, Chennai.	Protection and Switchgear	IV	14
4	Dr. C. Kanagaraj, Rtd. SE, TNEB, Chennai.	Power Plant Engineering	VI	14

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 80.00

6.1 Adequate and well equipped laboratories, and technical manpower (40)

Total Marks 40.00

Institute Marks : 40.00

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	Electrical Macr	3	DC Shunt Mot	30 Hours	Mr. Srinivasan	Lab Instructor	B-License Holc
2	Electronics Lat	3	Hartley oscillat	30 Hours	Mr.Devaraj.M	Lab Instructor	DECE
3	Marine Electric	3	Drilling machin	30 Hours	Mr.H.Vincent	Lab Instructor	DEEE
4	Marine Automæ	3	PLC (Digital Inj	30 Hours	Mr.S.Karthick	Lab Instructor	DECE
5	Digital Signal F	3	Labview (5 Use	30 Hours	Mr.S.Mohan Ki	Lab Instructor	BE(E&I)
6	High Voltage a	3	Vacuum circuit	30 Hours	Mr.S. Iyyappan	Lab Instructor	BE(EEE)
7	Centre of Exce	3	Variable freque	30 Hours	Mr.Prasanth.A	Lab Instructor	BE(EEE)
8	Incubation Cer	3	Prince Robot,3	30 Hours	Mr.C.Sathish	Lab Instructor	DEEE
9	Project Labora	3	Personal Comç	30 Hours	Mr.A.Francis D	Lab Instructor	ITI – Electronic
10	Research Labc	3	Personal Comç	30 Hours	Mr.G.Balaji	Lab Instructor	DEEE

6.2 Laboratories maintenance and overall ambiance (10)

Total Marks 10.00

Institute Marks : 10.00

Daily maintenance	• Work tables and equipment's are cleaned and working condition of the equipment/system are checked by lab technicians daily. • In order to track the breakage of equipment's and loss of electronic components, the apparatus required form is maintained. • The labs and equipment are kept clean by the housekeeping department of the college. • Student entry register are maintained daily.
Weekly maintenance	• Floor mopping of Labs is done twice a week by the housekeeping department of the college. • Electrical repair work is done by electrician of the college. • The batteries of the UPS are cleaned to remove dust and prevent corrosion • The Periodic Checking the drainage of air in the compressor • Regular checking of air leakage in air pipes. • Regular checking of pressure cut off Switch. • Regular checking and cleaning of air filter of air compressor
Monthly maintenance	• The list of consumables, non-consumables, and equipment are purchased as per requirement once in 6 months. • Complaint register is maintained to file the problems related to work tables. • After checking by CRP (Customer Related Process) committee, the identified problems are rectified. • The earth leakage current of the power cables are checked using megger every month. • Stock verification is done by the inspection committee for every 6 months and the report is submitted to the Principal • All equipments are serviced once in six months. • The Calibrations of equipment's are done every 6 months once.
Yearly maintenance	• Fire Extinguishers are regularly refilled. • Scrap items in the laboratories are identified with the concern of the lab in charges and HOD. After the decision by the HOD, the scrap items are sent to the scrap yard.
Preventive maintenance	• The working conditions of the equipment are periodically checked by laboratory technicians. • The students are given instructions in handling the equipment before doing the experiments. • Lab coat and the shoe is recommended for students to avoid electrical shock. • Faculty in charge give instruction regarding do's and don'ts of handling equipment's in the laboratory. • To avoid excessive heating water is poured into the brake drum and to avoid rusting of machines painted properly. • Connecting Legs are properly connected to the wires to avoid electrical shock. • Fuses are connected with appropriate wires based on the current ratings to avoid malfunctioning of machines. • AC and DC panel boards are checked periodically. • The working condition of the ICs is checked using the IC tester. • UPS back up is provided for all system based Laboratories. • Anti-virus software is updated and run in systems regularly.

Breakdown maintenance	• Service registers are maintained in each Laboratory. • Breakdown maintenance of the personal computer is done by the maintenance department of the College.
UPS Maintenance	• The batteries of the UPS are cleaned regularly by the electrician. • Every month the water level, voltage level, loose connections in battery terminals, and back up of UPS are checked. • When there is a major failure in UPS, service person from industry is called and the fault is rectified

Over all Ambience
• All laboratories are well furnished and spacious with good ventilation with lighting facilities. • All Laboratories are equipped with essential equipment to meet the requirements of the curriculum. • A list of experiments as per the curriculum is maintained in each lab. • Name boards are displayed regarding the rating of the machines in the electrical machines laboratory. • Working models of machines and devices in the form of charts are placed on the walls. • A soft and hard copies of laboratory manuals with measured values are prepared and are available in the laboratory.

6.3 Safety measures in laboratories (10)

Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Electrical Machines Laboratory	• Students are advised to wear rubber-soled shoes, and avoid loose clothing. • Students must avoid loose clothing. • Girl students should have their hair tucked under their uniform or have it in a knot. • Be certain that your hands are dry and that you are not standing on wet floor. • When using connection leads, check for any insulation damage in the leads and avoid such defective leads. • Avoid the brake-drum from getting too hot by pouring enough water into the brake-drum at regular intervals. • To avoid brake-drum from getting too hot enough water should be put into the brake-drum at regular intervals.
2	Electronics Laboratory	• Students if they notice any abnormal conditions in the trainer kit (like insulation heating up, resistor heating up, circuit connection open etc.), immediately switch off the electric supply and inform the faculty member. • Students ensure that connection leads do not have any insulation damage in the leads and must avoid such defective leads
3	Marine Electrical workshop Laboratory	• To avoid the brake-drum from getting too hot enough water should be put into the brake-drum at regular intervals. • Worn out wires must be replaced. • Never overload the circuit or Electrical machines. • All metallic parts of the equipment's must be properly earthed.
4	Marine Automation Laboratory	• Students are instructed to Unplug electrical equipment after use. • students are advised to Unplug cords by pulling the plug and not the chord.

5	Digital Signal Processing and embedded System Laboratory	• Students are instructed to disconnect the plug by pulling the connector body not the cable. • Students are advised to shutdown PCs properly to avoid system failure.
6	High Voltage and Switch gear Laboratory	• High voltage detector is available to detect the high voltage from the safe distance. • High voltage Shoes and gloves must be worn.
7	Center of Excellence On on-board ship Automation•	• Students are instructed to disconnect the plug by pulling the connector body not the cable. • Students are advised to shutdown PCs properly to avoid system failure.
8	Incubation Center on Robotics and Artificial Intelligence	• Students are instructed to Unplug electrical equipment after use. • students are advised to Unplug cords by pulling the plug and not the chord.
9	Project Laboratory	• Students if they notice any abnormal conditions in the trainer kit (like insulation heating up, resistor heating up, circuit connection open etc.), immediately switch off the electric supply and inform the faculty member. • Students ensure that connection leads do not have any insulation damage in the leads and must avoid such defective leads.
10	Research Laboratory	• Students are instructed to Unplug electrical equipment after use. • Students are advised to Unplug cords by pulling the plug and not the chord.
11	Common Safety measures in the Laboratories	• First aid kit is available in all the Laboratory in case of emergency. • Fire Extinguisher and Bucket filled with sand must be available in the laboratory in case of fire. • Students are instructed to avoid direct contact with any line voltages. • Students are instructed to wear leathered shoes without fail. • Students are advised to switch ON the experiments by getting prior permission from the faculty/Laboratory technician. • Students must ensure that the power supply is OFF before start connecting up the circuit. • Electrician must check the earthing of line circuits periodically. • Students are advised not to wear any metal related ornaments while working with machines. • Rubber mats are laid for the safety of the students and faculty members. • Ensure master circuit breaker operated electrical panels which are wired to heavy machines.

6.4 Project laboratory (20)

Total Marks 20.00

Institute Marks : 20.00

- Student innovative corridor and Project/Research laboratory are utilized by the UG students, PG students, Research Scholars and Faculty members for their projects and research activities.
- Discussions and implementations of innovative ideas about mini projects and final year projects are carried out in innovative corridor.
- Project and Research lab is utilised exclusively for the student project work with the hardware and software facilities listed below in the table 6.4 (a) Hardware Facilities and (b) Software Facilities

Table B. 6.4 (a) Hardware Facilities

S.No	Name of the Equipments
1	Prince Robot
2	3D printer
3	Humanoid Robot
4	Robotic Arm
5	Animal Anatomy Robot (3D printer Dog and Cat)
6	Embedded system lab with accessories
7	Switchgear panels , indication lamps, push buttons and limit switches
8	Sensors and controllers panels with Inductive and capacitive sensors, relays, contractors, timers and temp controllers.
9	PLC and HMI training kit with 20 IO Digital and 10 Inches color HMI with USB slot and RS232 and RS485 communications.
10	Variable frequency Drive. 3 phase Input and 3 Phase output, 2 HP capacity, 1.5Kw with MODBUS module.
11	2 HP motor, 3 Phase with Electro braking, Reduction Gearbox 1:29 Ratio.
12	Servo Drive with Motors. 3 phase Input and 3 Phase output, 1Kw with MODBUS module, encoder and all accessories.
13	Transducers kit - LVDT and Load cells with analogue output module and PID controller.
14	Pneumatics Kit with all actuators, control valves and air preparation units.
15	SCADA Supervisory Control and Data Acquisition module. Full version software, Delta make with PLC.
16	Solar PV Module with Stand
17	Wind Turbine with Tower
18	2KW Hybrid DC-DC Boost Converter
19	Battery Bank
20	Bidirectional Buck-Boost Converter
21	Inverter- 2 level
22	FPGA Controller
23	Synchronizing Panel
24	Magnetic Stirrer
25	Sonicator
26	Thermometer
27	Thermocouple
28	Magnetic pellet 7 x 20

Table B. 6.4 (b) Software Facilities

S.No	Software Name	No. of Users

1	Personal Computers	10
2	EMTP Software with License	5 User
3	Lab view Software - with License	5 User
4	KEIL Software -with License	10 User
5	MATLAB (R2014a)with License	10 User
6	Delta PLC	Free User
7	WPL Software	Free User
8	ABB PLC with Control Builder plus Software	Free User
9	DCS- SCADA	I User
10	Process Control Software for Multi process Control System Trainer	I User

Utilization:

1. Utilization for Project labs start from 9.00 A.M-4.00 P.M during working hours and from 4.00 P.M -5.00 P.M after the working hours.
2. Upon prior request and permission from HOD by the students can access the facility during non- working days also.
3. Laboratories are also operated beyond the college hours for the convenience of the students.
4. Students can utilize the project labs for final year projects and mini projects.

Research Facilities:

The Department of Electrical and Electronics Engineering has setup research environment to utilize the knowledge resources to carryout research activities for the societal upliftment. The detailed infrastructural facilities are listed below in the table 6.4 (c)

Table B. 6.4 (c) Research Facilities

S.No	Infrastructural facilities	Configurations	No. of Equipments
1	Personal Computers	Intel Core i3 processors	15
2	Harmonic Analyser With Accessories Fluke	1736 Power Logger	1
3	BLDC Motor with Accessories	(1 HP) And Drives LT 9122	1
4	BLDC Motor Controller	LT – 5160	1
5	SRM Motor with Accessories and Drivers and Controllers	LT – 9126	1
6	Cyclone IV Trainer Kit	(VPTB – 23)	1
7	Cyclone IV Based FPGA Controller	(VPE – Cyclone IV)	1
8	12v DC Motor,0.5 kg Stepper Motor Cylone – IV based FPGA Controller	12V Motor and 0.5 Kg Stepper motor	02
9	3 Phase IPM Based Power Module	(PEC 16DSM01)	1
10	1 HP 3 phase AC Motor with Spring balance setup with QEP Sensor	(PEC 16ACSQ1)	1
11	Keil Software	Pj51-ed10-lc	10 user
	MATLAB Software	R2014a	10 user
12	Solar Panel	30 KW with multi axis tracking	1

7 CONTINUOUS IMPROVEMENT (75)

Total Marks 75.00

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

Total Marks 30.00

Institute Marks : 30.00

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

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.4	2.48	Target is attained and the following courses have possibility for further improvements: UAMT13-Engineering Mathematics I; (1.72/2.67) The level is not attained because students did not perform well during the Model and End Semester Examinations. UAMC1B-Engineering Graphics; (1.59/2.67) The level is not attained due to less practice for the assignment UAEE306- Digital Logic Circuits; (1.57/2.50) The level is not attained because of the poor performance in the Model and End Semester Examinations.
UAMT13-Engineering Mathematics I Action1: Question Banks will be provided to the students for more practice. Action 2: Extra tutorial classes will be conducted for slow learners to clarify their doubts UAMC1B-Engineering Graphics Action 1: More Practise will be given to the students by conducting extra classes for solving Problems. Action 2: Assignments will be given to the students for more practise and 3D models will be shown for better understanding of the isometric views. UAEE306- Digital Logic Circuits Action 1: Students will be given more assignments on Engineering fundamentals to improve their understanding levels. Action 2: Guest Lectures by industry experts will be arranged for the students to improve their learning interest towards the fundamental knowledge.			
PO 2 : Problem Analysis			
PO 2	2.4	2.44	Target is attained and the following courses have possibility for further improvements: UAPH202– Engineering Physics II (1.44/2.2) Target is not attained due to lack of interest in understanding the Engineering fundamentals. UAEE503 – Microprocessor & Microcontroller (1.92/3) Target is not achieved because the programming concepts are new to the students and not able to perform well during the Examinations UAEE802- Flexible AC Transmission Systems (1.83/2.83) The level is not attained because, the students are not performed in Mid Term and End Semester Examinations.
UAPH202– Engineering Physics II Action 1: Students will be given more assignments on Engineering fundamentals to improve their understanding levels. Action 2: Students are provided with Questions Banks for more practice and extra tutorial hours will be conducted. UAEE503 – Microprocessor & Microcontroller Action 1: Guest Lecture by industry expert will be given to understand the programming logics. Action 2: NPTEL videos will be shown in order to improve Engineering fundamentals in Microprocessor and Microcontroller. UAEE802- Flexible AC Transmission Systems Action 1: Guest Lecture by experts from TNEB/ TANGENGO and Industrial visit will be arranged for giving more practical exposure. Action 2: More practice will be given in modern tool usage by conducting value added courses to solve the complex Engineering problems.			
PO 3 : Design/development of Solutions			
PO 3	2.4	2.46	Target is attained and the following courses have possibility for further improvements: UAEECO5- DC and AC Machines (1.88/ 2.83) The level is not attained because, the students found difficulties in Design solutions for complex Engineering problems of Electrical Machines. UAEE403- Electromagnetic Theory (1.77/2.67) The level is not attained due to lack of understanding level of students in solving mathematical expressions. UAEE507- Marine Electrical Technology (1.69/ 2.75) Target is not attained because, few students have not shown any interest in understanding the fundamentals and basic Engineering.
UAEECO5- DC and AC Machines Action 1: Concepts will be explained with the help of Demo/Practical sessions. Action 2: Guest Lectures by Industry Experts will be arranged to the students to enhance the knowledge in Electrical Machines. UAEE403- Electromagnetic Theory Action 1: Students will be given more assignments on Engineering fundamentals to improve their understanding levels. Action 2: Extra Classes will be conducted for the slow learners to give more practise in order to solve derivations. UAEE507- Marine Electrical Technology Action 1: Extra hours will be arranged and activity based learning like quiz and seminar will be given to students for improving their learning interest on basic concepts.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	2.4	2.51	Target is attained and the following courses have possibility for further improvements: UAMT203- Engineering Mathematics II; (1.44/2.2) The level is not attained because students have not performed well during the Model and End Semester Examinations. UAMEC02- Marine Engineering II; (1.73/2.5) The level is not attained, students are not very clear in the concepts of Marine Electrical Equipment

UAMT203- Engineering Mathematics II Action1: Question Banks will be provided to the students for more practice. Action 2: Extra tutorial classes will be conducted for slow learners to clarify their doubts
 UAMEC02- Marine Engineering II Action 1: Extra tutorial classes will be conducted in Theory courses and additional experiments will be conducted in the Marine Electrical Workshop Action 2: Experts from Department of Marine Engineering will be invited for giving lectures to update the students' knowledge in Marine field. Action 3: Students will be taken to Shipping Campus for live demo to update their knowledge in Marine Electrical Equipments

PO 5 : Modern Tool Usage

PO 5	2.4	2.6	Target is attained and the following courses have possibility for further improvements: UAEE601-Design of Electrical Machines; (1.97/2.8) The level is attained but the students found difficulties in analysis and design of Electrical Machines.
Action 1: More practice will be given in special coaching classes to improve the design based knowledge. Action 2: Tutorial classes and quizzes will be conducted to the students to make them understand the fundamental concepts of design of electrical machines. Action 3: Workshop and seminar will be arranged for the students to know about the recent technique and modern tools used in Industrial applications.			

PO 6 : The Engineer and Society

PO 6	2.4	2.6	Target is attained. There is some possibility for improving their responsibilities relevant to their professional career and finding solutions for societal and organizational issues.
Action 1: Students and Faculty together will organize extension activity to create awareness about renewable energy to the nearby village people. Action 2: Faculty and students together will be motivated to take up the critical issues as a project and find better solution. Action 3: Students will be encouraged to take up internship to know about their responsibilities to organization and society. Action 4: Students will be advised to be members in professional societies like IEEE, IEI society etc. to build a rapport with outside world and contribute to the needs of society.			

PO 7 : Environment and Sustainability

PO 7	2.4	2.62	Target is attained, the programme outcome is again strengthened by conducting Guest Lectures, Seminars, and Presentations etc.
Action 1: Students will be engaged in the solar panel PV system maintenance, available in the University campus along with faculty in-charge. Action 2: Students will be encouraged to take up renewable energy based project to safeguard the environment. Action 3: Workshop and motivational talks will be arranged for the students to create awareness on societal and environmental contexts.			

PO 8 : Ethics

PO 8	2.4	2.71	Target is attained But the attribute in understanding the impact of the ethical principles and professional ethics, is not mapped, the programme outcome is strengthened by conducting Guest Lectures, Seminars, and Presentations along with NPTEL videos to motivate the students.
Action 1: Career guidance program, and corporate lectures will be arranged to gain knowledge on professional and ethical responsibilities. Action 2: Students will be encouraged to undergo internships in different industries to know the norms of Engineering practice. Action 3: Workshop, expert lectures will be arranged to enhance professional, ethical responsibilities and norms of Engineering by retired person from Govt sector and industries. Action 4: Students will be advised to take more case studies and presentations to enhance ethical principles and exhibit high degree of professionalism.			

PO 9 : Individual and Team Work

PO 9	2.4	2.64	Target is attained. UAEE8PA- Project Work, UAMPCPY- Minor Project and UAISCPX- Internship. It has reached the target level and it is found that the students have to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
Action 1: Students will be motivated to take up projects in multidisciplinary Engineering fields. Action 2: Students will be motivated to choose internship in multidisciplinary Engineering fields. Action 3: Students will be encouraged to participate in community development programmes, extension activities etc to develop their team spirit. Action 4: Students will be encouraged to organize as well as participate in technical events to improve their leadership skills and team spirit.			

PO 10 : Communication

PO 10	2.4	2.68	Target is attained. UALE1A- Soft skills- I, UALE2PA- Soft Skills-II, UALECPD- Soft Skills- III, UALECPE- Soft Skills- IV. The above said courses help the students to communicate effectively, write effective reports, design documentation, make effective presentations, and able to give and receive clear instructions.
Action 1: Students will be motivated to take up communication development skill courses through IELTS. Action 2: Students will be motivated to give seminars in the regular classes to improve their communication and presentation skills during soft skills courses. Action 3: Students will be trained to make effective Oral presentation for the Internship and Project Viva voce examination Action 4: Students will be motivated to obtain more scores in soft skill I,II,III, and IV courses and teachers will be advised to adopt activity based learning for improving learning interest towards these courses.			

PO 11 : Project Management and Finance

PO 11	2.4	2.59	Target is attained. UABSC01- Total Quality Management. To Analyse and understand the different management techniques are difficult. In order to improve the leadership qualities and to develop project management skills, the following actions are recommended.
Action 1: Special lectures will be arranged to explain about time management, CPM and PERT techniques by MBA faculty. Action 2: Workshop for project management techniques will be arranged before taking up mini project and main project. Action 3: Industrial Guest lectures will be organized to update the real time scenarios happening in multi-disciplinary Engineering fields. Action 4: Group discussions will be organized to improve their team spirit and Personality Development sessions were conducted to get students to practice team work, leadership skills and participative decision making.			

PO 12 : Life-long Learning

PO 12	2.4	2.37	Target is not attained. As life-long learning attribute has significant mapping with university curriculum. It will be achieved by making effective use of library hours and facilitating the students to develop models, kits and prototypes independently.
Action 1: Library hours will be properly utilized by monitoring the students to ensure the effective use of journals, Magazines, Reference Books, NPTEL videos and internet facilities to browse and update the latest technological developments and current happenings in the industries and society. Action 2: Students will be encouraged to read newspapers, magazines, technical and non-technical articles daily to know about societal, health, safety, legal and cultural issues and share the information among other students. Action 3: Students will be motivated to attend the online certification courses like NPTEL, MOOCs, and Webinars etc. Action 4: Alumni Interaction with all students and Faculty will be arranged to know the current practical scenarios in industries. Action 5: Guest Lectures will be arranged to know new technological developmental tools and knowledge of new Products Action 6: Content beyond syllabus will be incorporated to generate self-learning facilities, and availability of materials for learning beyond syllabus. These processes provide the core content objectives and meaningful career applications.			

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

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Apply the knowledge of Electrical Engineering, investigate and solve the complex Marine Electrical Engineering problems to meet the specified needs with appropriate considerations for the society.			
PSO 1	2.4	2.61	Target is attained, still need to improve their knowledge in solving complex Marine Electrical Engineering Problems
Action 1: Value added trainings are provided to the students with the help of industrial experts to investigate and solve the complex Engineering problems. Action 2: Students are encouraged to undertake internships and projects in different Marine industries to understand the real-time applications with appropriate considerations for the society. Action 3: University level Energy Audits are conducted by the Department Faculty and students in association with external certified agency to improve their problem solving skills.			
PSO 2 : Develop solutions for complex Engineering problems in the broad field of power electronics and drives, power systems, high voltage Engineering and Marine Engineering and control.			
PSO 2	2.4	2.49	Target is attained, still need improvement in developing solutions for complex Engineering problems in the broad field of Marine Electrical Engineering
Action 1: Projects are allotted to the students in the broad field of power electronics and high voltages to develop solutions for complex Engineering problems. Action 2: Value added courses and skill based trainings are provided to the students with the help of industrial experts to improve their problem solving skills. Action 3: Industrial visits and Internships are organised to get core industrial exposures and Ship visit are arranged for the students to gain the knowledge of practical applications. Action 4: Training programs and workshops are organised for all students and Faculty in association with the Centre of Excellence on On-board ship Automation. Hands on training on PLC, HMI and VFD gives knowledge on industrial automation and involves the students and Faculty to do consultancy services.			
PSO 3 : Analyze, design and integrate Electrical systems in on board ships and apply modern tools and techniques in marine industries and create passion for life-long learning and research in advanced fields.			
PSO 3	2.4	2.54	Target is attained still need to improve their knowledge in modern tools and techniques in marine industries.
Action 1: Students are encouraged to organize and participate in technical events to improve their knowledge as well as the leadership quality. Action 2: Demonstration of the modern tools to specify fulfilment of requirement in Engineering applications in the new industrial era is implemented. Action 3: Workshops are organised for the students and Faculty in association with the Incubation Centre on Robotics and AI. Hands on training on embedded controllers and Raspberry PI gives clear insight and knowledge on current trends in Robotics and Automation.			

7.2 Academic Audit and actions taken thereof during the period of Assessment (15)

Total Marks 15.00

Institute Marks : 15.00

Academy of Maritime Education and Training (AMET) consider the quality as its prime focus and continuously upgrading its quality system. The quality system was first certified by ISO 9001:1994 in the year 1998. AMET has upgraded its quality management system and was certified by ISO 9001:2000 version in the year 2001 and was re-certified in the years 2004 and 2007. AMET's quality Management System was revised in line with its upgraded status as University and got a revised certificate in December 2008. During 2016, AMET has been re-certified with latest ISO 9001:2015 standards by an exclusive maritime industry classification society, the DNV GL.

Academic audits are carried on periodical basis to ensure academic liability. The scheme of the audit basically comprises audit by both Internal and External committee once in an academic year. The committee functions to monitor whether the teaching- learning process is carried out effectively, thus ensuring improvement in the COs, POs and PSOs attainment.

The internal audit takes place within the department for the verification of documents maintained by the faculty. The internal audit team comprises of representative faculty from other departments. The internal audit is usually conducted at the end of the odd semester (November/December). The audit team generates their audit findings which are submitted to the Head of the Department. Corrective and preventive measures are taken on the basis of the report. External Audit is conducted by an external member during the end of the even semester (March/April) to reassure the quality of the program. This audit process encourages the culture of continuous self-improvement through the best practices of program.

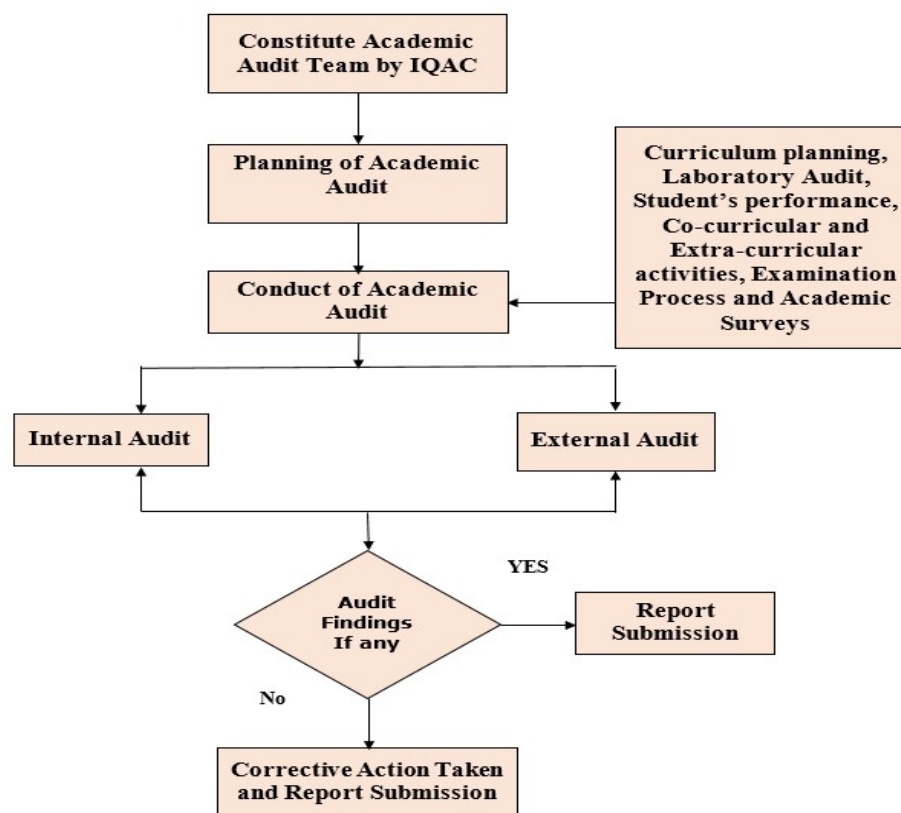


Figure 7.1 Flow Chart for Academic audit

The following Table B 7.1 shows the Academic and Administrative Audit conducted in the Department for the three academic years.

Table B.7.1: External Experts audited AAA activities of Department of EEE

Academic Year	Internal Auditee	External Auditor
2016-17	Dr.T.Sasilatha, Dean and Head Department of EEE AMET Deemed to be University	Dr. Ushaa Eswaran, Principal SMK Fomra Engineering College Chennai

2017-18	Dr.T.Sasilatha, Dean and Head Department of EEE AMET Deemed to be University	Dr.S.Usha, Professor Department of EEE Anna University, Chennai
2018-19	Dr.T.Sasilatha, Dean and Head Department of EEE AMET Deemed to be University	Dr. K.Vijaya Kumar, Professor Head Department of EEE SRM Deemed to be University, Chennai

Outcome of the audit shall be placed before the Internal Quality Assurance Cell (IQAC) and the Governing Bodies of the institution. Plan of action will be prepared to implement the suggestions accepted by IQAC and Governing Bodies.

The following guidelines for practicing Academic Audit for continuous monitoring of all activities is given in the below Table 7.2.

Table B 7.2 (a) List of Audit elements

S. No	Academic Activities	Associated practices	Responsible person to carry out audit	Frequency of Audit
1	Curriculum planning and execution	- Adherence to academic Calendar - Deviations if any and corrective measures	Head of the Department	Once in a semester
2	Course Files	- Lesson Plan and Execution - Lecture materials - List of assignments / Tutorial sessions/Seminar Topics/Active Learning Methods - Attendance Register - Question Papers - Sample assignments / tutorials - Samples of answer scripts for internal Examination - Guest lectures conducted - CO-PO Attainment Document - Overall result analysis for Internal and External Examinations - Identification of slow and advance learners. - Activities for slow and advance learners.	Head of the Department Course File In charge	Once in a Semester
3	Teaching learning pedagogy	- Flipped Class activity - Industrial Visit - Model demonstration - Simulation - Project based learning for laboratory course	Head of the Department	Once in a Semester
4	Laboratory Audit	- Laboratory manuals - Functioning Status of Equipment - Working Status of the Software - Student's laboratory Records	Head of the Department Lab-In-Charges, Senior Faculty	Once in a Semester
5	Outcome based practices	- Question papers as per Cos with Blooms Taxonomy Level. - Timely conduct of Class Committee meeting. - Timely conduct of PAC meeting.	Head of the Department Review Committee/PAC	Once in a Semester

6	Student's performance	• Performance analysis of students in Continuous Assessment Test • Performance analysis and Attendance Reports of each student	Head of the Department Department Coordinator	Twice in a Semester
7	Attendance monitoring	• Communication to parents regarding shortage of attendance. • Actions for improving the attendance of the students.	Class-in-Charge	Once in a month
8	Co-curricular and extra-curricular activities	• Events organized by the Department. • Students participation in (a) Conferences (b) Workshops (c) Seminars. • Industrial visits.	Head of the Department Department Coordinator	Once in a Semester
9	Student Counselling	• Mentoring the students. • Counselling sessions	Mentors	Twice in a semester
10	Academic surveys	• Programme Exit survey • Alumni survey • Employer survey	Head of the Department	Once in a Year/Semester
11	Feedback system	• Collection of feedbacks from the students. • Analysis of the feedback and corrective actions.	Head of the Department	Once in a Semester
12	Good practices	• Program Assessment Committee (PAC) for identifying the gaps between the curriculum and recent trends in the industry and recommends the BoS to make appropriate changes in the curriculum through the Head of the Department	Head of the Department PAC members	Once in a Semester
13	Industry linkage	• Continuous interaction with various industries for Collaborative programs and Value added courses.	Head of the Department	Once in a Year

Table B 7.2(b) List of Audit Reports and Corrective actions

S. No	Academic Activities	Associated practices	Audit Reports	Corrective Actions
1	Curriculum planning and execution	Adherence to academic calendar and Course File preparation. All these files are verified and approved by the Head of the Department.	Course files and lesson plans are prepared before the commencement of the new semester by the respective subject faculty. Quality of assignment, tutorials and quiz programmes are checked by PAC.	Necessary action is taken and re-auditing will be done within a weak time for the faculty members who are not able to comply with standards.
2	Laboratory audit	Lab manuals and Evaluation scheme Student lab records	Laboratory manuals and rubrics based evaluation scheme are prepared prior to the commencement of the semester by respective faculty. All these files are verified PAC and approved by the Head of the Department. Sample records are checked by Audit members	
				It is suggested by Audit members to ensure the faculty to maintain the quality in the lab records.

		Status of Equipment and Software	Laboratory audit is done once in a semester by Audit Team Members and check whether the regular maintenance is done by Lab in-charges and lab technicians periodically and verify any shortfall in equipment/ up gradation of software and also verify the working status of the equipment/software.	Based on the audit report, if shortage of equipment or components are found, audit team members recommends the department to initiate the procurement process. lab in-charge prepares the list and submit the shortage list for purchasing the components and equipment. Equipment damaged and not working properly must be serviced by lab technicians or by service persons from vendors after approval.
3	Student performance	Mark statements are collected from the faculty members and the results are analysed.	Audit team checks the result analysis CO-PO attainment and checks the corrective measures taken.	If any deviations found, that will be brought to the attention of Head of the Department and PAC members to monitor effectively
		Identify the students learning capacity based on previous semester results/assessment test/class performance.	Audit team check the list of slow learners and advance learners and also checks whether the selection criterion is followed properly and also verify whether the remedial classes are conducted properly	
		Improve the performance of slow learners and encourage Advanced learners.	Audit team checks the performance of slow learners and advanced learners in the End Semester Examination	
5	Co-curricular and Extra-curricular activities	The data of students who participated in seminars, workshops, symposiums inside and outside the campus, is recorded.	Audit team checks data provided	Suggested for more participation in the seminars, workshops, conferences and workshops and also suggested to involve students to take part in organising workshops and international conference
		The industrial visits are planned in order to provide exposure on real time industry working environment.		Suggested for more industrial visits
7	Examination Process	After the internal examinations, answer sheets are evaluated and marks are submitted to the Head of the Department by the respective subject faculty. Results are analysed.	Audit team checks the continuous improvement in the performance of the students by comparing the previous academic year results	If found any deviation in the improvement, the particular faculty will be counselled by the Head of the Department and the performance of the particular faculty will be monitored.
		University results are reviewed by Head of the Department.		
8	Academic Surveys	Student exit survey, Alumni survey and Employer survey forms are collected and aggregated by the Head of the Department for PO attainment.	The audit team verify the collected survey and analysis for attainment of PO.	Corrective measures are taken for the improvement of PO attainment analysis for forthcoming batch.

Institute Marks : 10.00

Placement, Higher studies and Entrepreneurship have special focus of students. The Department organizes various events such as Orientation program, lectures, training soft skills, practice tests, mock recruitment drives, Alumni interactions to achieve placement for all students aspiring to join various organizations.

Career guidance program is organized by the Department to help students who pursue higher studies. Entrepreneurship awareness, workshops, Guest lectures are organized by the Department to help students interested to become entrepreneurs.

The following table shows the details of Placements, Higher studies and Entrepreneurship for three consecutive years namely CAYm1, CAYm2 and CAYm3.

Table B 7.3 Improvement in Placement, Higher Studies and Entrepreneurship

Category	CAY m1 (2018-2019)	CAY m2 (2017-2018)	CAY m3 (2016-2017)
Total No. of Final Year Students appeared in final year Examination (N)	24	08	20
No. of students placed in companies or Government sector (X)	18	05	16
No. of students admitted to higher studies with valid qualifying scores (GRE, TOEFL, IELTS, German A1 level etc.) (Y)	04	02	03
No. of students turned entrepreneur in Engineering/ technology (Z)	02	01	01
Total No. of Students Placed + Admitted for Higher Studies + Entrepreneurs	24	08	20
Placement Index: $(X+Y+Z)/N$	1	1	1
Average Placement= $(P1+P2+P3)/3$	100		

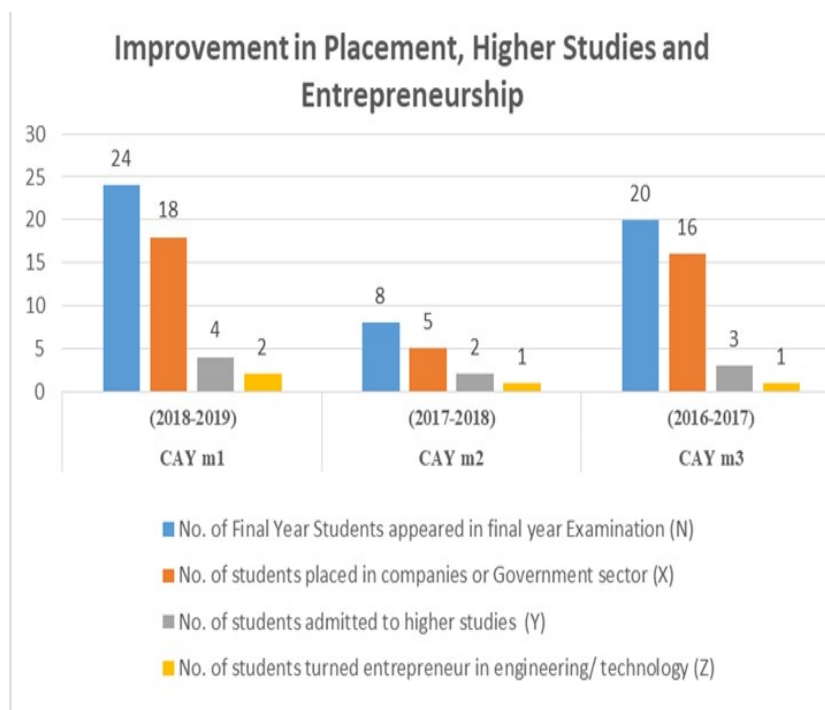


Fig 7.3 Improvement in Placement, Higher Studies and Entrepreneurship**7.4 Improvement in the quality of students admitted to the program (20)**

Total Marks 20.00

Institute Marks : 20.00

Item		2019-20	2018-19	2017-18
National Level Entrance Examination	No of students admitted	0	0	0
	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
State/ University/ Level Entrance Examination/ Others AMET Common Entrance	No of students admitted	35	22	44
	Opening Score/Rank	64.2	62.27	60.5
	Closing Score/Rank	38.2	34.47	32.6
Name of the Entrance Examination for Lateral Entry or lateral entry details AMET Common Entrance	No of students admitted	0	02	03
	Opening Score/Rank	0	93	87.5
	Closing Score/Rank	0	62	80
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		59.34	58.14	54

8 FIRST YEAR ACADEMICS (50)

Total Marks 46.31

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

Total Marks 5.00

Institute Marks : 5.00

Please provide First year faculty information considering load

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
							CAY	CAYm1	CAYm2			
Dr.S.Sampathk	AVBPS5188F	ME/M. Tech and PhD	08/07/2019	Wireless Sensor Networks	Assistant Professor	16/07/2018	100	100	0	Yes	Regular	
Dr.A. Suresh	BDOPS7112P	ME/M. Tech and PhD	12/04/2012	Induction Heating	Professor	01/07/2019	100	0	0	Yes	Regular	
Ms.S.Sinthuja	JUNPS5834N	M.E/M.Tech	30/06/2014	VLSI Design	Assistant Professor	17/07/2017	100	100	100	Yes	Regular	
Ms.M.Selvaran	COYPS2526B	M.E/M.Tech	02/12/2010	Power Electronics and Drives	Assistant Professor	01/07/2019	100	0	0	Yes	Regular	

Dr.Smilee Mat	ASIPS2535E	ME/M. Tech and PhD	07/07/2017	Electrical Engineering	Associate Professor	20/01/2020	100	0	0	Yes	Regular	
Mr.J.Harish Ku	ADRP0394L	M.E/M.Tech	28/5/2013	Manufacturing Systems	Assistant Professor	18/07/2014	100	100	100	Yes	Regular	
Mr.P.Ramesh	AWXPR8154P	M.E/M.Tech	28/04/2014	Industrial Engineering	Assistant Professor	01/07/2019	100	0	0	Yes	Regular	
Mr.D.Kumarav	DGRPK2775Q	M.E/M.Tech	16/04/2013	Manufacturing Engineering	Assistant Professor	16/07/2018	100	100	0	Yes	Regular	
Dr.M.Jayaprak	ALAPJ1134D	M.Sc. and PhD	12/05/2009	Industrial microbiology Quorum sensing Ecology and environmental science	Associate Professor	01/09/2009	0	100	100	Yes	Regular	
Dr. Sylvester F	BPVPS8466R	M.Sc. and PhD	07/03/2014	Antimicrobial studies its Molecular characterization and environmental science	Assistant Professor	15/11/2017	100	100	100	Yes	Regular	
Mr.B.Prabhush	AOHPP4187C	M.E/M.Tech	17/04/2010	Computer Science and Engineering	Assistant Professor	16/08/2018	100	100	0	Yes	Regular	
Dr.P.Kulal Moli	AFDDK3032J	M.A and Ph.D	14/11/2006	African American Literature Indian Writing in English	Professor	09/09/2019	100	0	0	Yes	Regular	
Dr.D.Jaisankar	AJIPJ7831K	M.A and Ph.D	17/10/2018	ELT British Literature	Associate Professor	06/08/2018	100	100	0	Yes	Regular	
Mr.K.Balakum	AYQPB1947F	M.Phil	02/07/2012	ELT	Assistant Professor	16/07/2018	100	100	0	Yes	Regular	
Dr.C.Vairavan	AHJPV8538J	M.A and Ph.D	19/04/2017	ELT Literary Theory and Criticism	Assistant Professor	03/10/2017	100	100	100	Yes	Regular	
Mr.K.Manigand	BXNPM9080M	MA	02/11/2012	Indian Writing in English	Assistant Professor	01/08/2011	100	100	100	Yes	Regular	
Dr.M.Subha	BGZPS7475R	M.A and Ph.D	17/10/2018	Indian Writing in English	Assistant Professor	23/10/2018	100	100	0	Yes	Regular	
Mr. M. Elamar	ABRPE5609B	M.Phil	11/04/2017	Post Colonialism Communicative Language Teaching	Assistant Professor	22/10/2018	100	100	0	Yes	Regular	
Ms.U. Pushpal	AWCPP7334G	M.Phil	05/03/2011	ELT African Literature	Assistant Professor	01/11/2018	100	100	0	Yes	Regular	
Ms.P. Indhuma	AFEPI0418R	M.Phil	02/02/2017	Indian Writing in English Cultural Studies	Assistant Professor	22/10/2018	100	100	0	Yes	Regular	
Mrs .G.Vennila	BJVPV7104F	M.E/M.Tech	12/07/2012	Internet of Things	Assistant Professor	02/09/2009	100	100	100	Yes	Regular	
Mr.K.Dinesh Ki	AKMPD5383K	M.E/M.Tech	30/04/2013	Block chain	Assistant Professor	16/07/2018	100	100	0	Yes	Regular	

Mr E.Subramai	DZDPS5166N	M.E/M.Tech	13/07/2011	Big data	Assistant Professor	08/02/2017	100	100	100	Yes	Regular	
Dr.K.Komathy	AGPPK9366C	ME/M. Tech and PhD	02/12/2008	Computer Network Security	Professor	15/05/2017	100	100	100	Yes	Regular	
Dr.K.Rajesh	CNGPR3372F	M.Sc. and PhD	11/04/2015	Materials science Crystal Growth Nano materials synthesis	Assistant Professor	04/07/2016	100	100	100	Yes	Regular	
Dr.K.Gayathri	BQSPG5031Q	M.Sc. and PhD	14/03/2015	Materials Science Nano Materials Bio Photonics	Assistant Professor	12/07/2017	100	100	100	Yes	Regular	
Dr.K.Anandan	BSUPA4846D	M.Sc. and PhD	17/04/2015	Nano materials	Assistant Professor	14/09/2015	100	100	100	Yes	Regular	
Dr.S.Kalpna	AXFPK2107E	M.Sc. and PhD	24/05/2019	Nano photocatalytic activity DSS	Associate Professor	27/08/2019	100	0	0	Yes	Regular	
Dr.S.Rafi Ahan	AURPA4279J	M.Sc. and PhD	03/10/2017	Crystal Growth and Sensors	Associate Professor	01/07/2019	100	0	0	Yes	Regular	
Dr.A.Mohamed	AWYPM1495R	M.Sc. and PhD	12/06/2017	Material Science and Geo Physics	Associate Professor	01/07/2019	100	0	0	Yes	Regular	
Dr.N.Maheswa	BWJPM7256A	M.Sc. and PhD	05/04/2019	Electrochemistry Energy storage devices	Assistant Professor	24/07/2019	100	0	0	Yes	Regular	
Dr.S.Arjunan	AEGPA0377L	M.Sc. and PhD	02/09/2008	Materials science Crystal Growth and Characterizations	Professor	10/07/2019	100	0	0	Yes	Regular	
Dr.Anita Warrie	ABYPW0832H	M.Sc. and PhD	10/10/2011	Photo thermal technique	Assistant Professor	15/10/2014	100	100	100	Yes	Regular	
Dr.L.Rajendran	ABUPR6656R	M.Sc. and PhD	05/01/2000	Nonlinear differential Equations	Professor	21/05/2018	100	100	0	Yes	Regular	
Mrs.S.Meher T:	GTHPS8759E	M.Phil	04/01/2004	Mathematics	Assistant Professor	09/08/2010	100	100	100	Yes	Regular	
Mrs.G.Jenitha	GTHPS8759J	M.Phil	07/04/2008	Mathematics	Assistant Professor	04/09/2014	100	100	100	Yes	Regular	
Dr.I.Paulraj Jay	BTRPP2139Q	M.Sc. and PhD	09/06/2017	Graph theory	Associate Professor	04/07/2016	100	100	100	Yes	Regular	
Dr.P.Balaganes	AFIPB8703L	M.Sc. and PhD	22/07/2017	Graph theory	Associate Professor	12/07/2017	100	100	100	Yes	Regular	
Ms.T.Dhivya	DYNPD9911F	M.Phil	22/08/2017	Mathematics	Assistant Professor	17/07/2017	100	100	100	Yes	Regular	
Dr.K.K.Siva Ku	ALEPK0825G	M.Sc. and PhD	04/10/2013	Physical Chemistry	Professor	01/07/2019	100	0	0	Yes	Regular	
Dr.T.R. Heera	AIHPH6816Q	M.Sc. and PhD	04/02/2010	Physical Chemistry	Assistant Professor	26/07/2017	100	100	100	Yes	Regular	

Dr. N.Sivakumari	GOOPS5559Q	M.Sc. and PhD	27/07/2012	Organic Chemistry	Assistant Professor	28/10/2014	100	100	100	Yes	Regular	
Mr.G.Vijayagar	AVBPV8049A	M.E/M.Tech	26/06/2013	CAD CAM	Assistant Professor	24/02/2017	0	100	100	No	Regular	30/11/2019
Mr.S. Muthu Bai	BAAPM1989H	M.E/M.Tech	19/05/2011	Production Engineering	Assistant Professor	01/07/2017	100	100	100	Yes	Regular	
Dr.N. Srikumar	FPNPS5946L	M.Sc. and PhD	08/02/2014	Anti fouling of marine microbes bio fouling ascidians biology and Environmental science	Assistant Professor	20/10/2014	0	100	100	No	Regular	31/05/2019
Ms.P.Thulasimani	AZWPT7915Q	M.Phil	14/08/2018	ELT	Assistant Professor	02/11/2018	0	100	0	No	Regular	31/05/2019
Dr.M. Ramesh	EWBPM9569F	M.A and Ph.D	03/07/2018	ELT	Assistant Professor	01/08/2018	0	100	0	No	Regular	31/05/2019
Dr.Z.Justin	AOQPJ7001J	M.A and Ph.D	25/05/2018	American Literature	Assistant Professor	04/08/2018	0	100	0	No	Regular	31/05/2019
Dr.R.Baskaran	BGJPB9090B	M.Sc. and PhD	16/03/2007	Thin film micro batteries Flexible batteries Nanoelectrode and Electrolytes	Associate Professor	25/07/2017	0	100	100	No	Regular	31/05/2019
Mr.M.Suresh K	BBCPS8597Q	M.Phil	01/04/1996	Materials science Crystal Growth	Assistant Professor	01/08/2008	100	100	100	Yes	Regular	
Dr.D.Anitha Re	AQGPA6291D	M.Sc. and PhD	30/08/2014	Material Science Crystal growth	Assistant Professor	13/08/2018	0	100	0	No	Regular	31/05/2019
Dr.A. Durga Devi	ABCRD1234L	ME/M. Tech and PhD	30/12/2016	Power Electronics	Assistant Professor	17/07/2017	0	0	100	No	Regular	31/05/2018
Mr.M.Dheepak	AKZPD0636L	M.E/M.Tech	15/06/2006	VLSI Design	Assistant Professor	15/07/2013	0	100	100	No	Regular	31/05/2019
Dr.P. Muthukumar	AOAPP3579O	ME/M. Tech and PhD	08/09/2017	Power Electronics	Assistant Professor	21/07/2017	0	0	100	No	Regular	31/05/2018
Dr.K.Thanigai /	AJYPT8308B	M.Sc. and PhD	26/05/2016	Energy and Bio materials Materials science	Assistant Professor	09/01/2017	0	0	100	Yes	Regular	
Mrs.S.Gomathi	AIRPG0428M	M.Phil	26/02/2003	ELT	Assistant Professor	18/08/2011	0	0	100	No	Regular	31/05/2018
Dr.T. Kanagam	AAIPT6522C	M.Sc. and PhD	26/05/2009	Chemistry	Associate Professor	29/02/2016	0	100	100	No	Regular	31/05/2019
Mrs.S.Esther F	ABSPE0568Q	M.Phil	26/05/2011	English Literature	Assistant Professor	26/07/2017	0	100	100	No	Regular	31/05/2019
Ms. J. Christali	BJSPC0928F	M.Phil	31/08/2015	ELT	Assistant Professor	28/01/2016	0	100	100	No	Regular	31/05/2019

Mr.S.Veeramar	AUBPV9431B	M.Phil	01/12/2013	Mathematics	Assistant Professor	18/09/2017	0	0	100	No	Regular	31/05/2018
Dr.S.Shenbaga	DEPPS9878A	M.Sc. and PhD	11/12/2013	Operations Research	Associate Professor	09/01/2017	0	0	100	No	Regular	31/05/2018
Mr.P.Palanicha	AAHPP0646E	M.Phil	14/12/1984	Mathematics	Professor	13/07/2009	0	0	100	No	Regular	31/05/2018
Dr.Altaff Kareer	AAEPA4302R	M.Sc. and PhD	10/05/1990	Bio Technology	Professor	13/09/2017	100	100	100	Yes	Regular	
Dr.L. Senthilna	CHZPS6906B	M.Sc. and PhD	26/02/2016	Coral reef ecology Coastal resource mapping remote sensing GIS	Assistant Professor	19/10/2015	100	100	100	Yes	Regular	
Ms. Karthika P	BFAPK7643R	M.Phil	13/08/2009	English	Assistant Professor	18/08/2017	0	100	100	No	Regular	
Dr. NR.Ramkui	AKJPR5949J	M.A and Ph.D	25/07/2012	Sports Training	Professor	17/08/2016	100	100	100	Yes	Regular	
Dr. A.Manraj Ku	CYOPM1400Q	M.A and Ph.D	25/06/2012	Sports Training	Assistant Professor	10/08/2012	100	100	100	Yes	Regular	
Mr. P.Mohameer	APLPM3976K	MS	09/07/2012	Ocean Engineering	Assistant Professor	07/05/2012	100	100	100	Yes	Regular	
Mr.D.Sathish	EJSPS6314G	M.E/M.Tech	20/07/2009	Computer Network	Assistant Professor	24/07/2017	0	0	100	No	Regular	31/05/2018
Mrs.K.Raghavi	CFVPR4162Q	M.E/M.Tech	02/08/2014	Data Mining	Assistant Professor	27/10/2014	0	0	100	No	Regular	31/05/2018
Dr.Suresh Sag	GBGPS0662K	M.Sc. and PhD	12/05/2012	Materials science Crystal Growth Nano materials synthesis	Assistant Professor	20/08/2015	0	0	100	Yes	Regular	

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment=(5*20)/FYSFR(Limited to Max.5)
2017-18(CAYm2)	535	45	12	5
2018-19(CAYm1)	900	50	18	5
2019-20(CAY)	780	48	14	5
Average	738	47	14	5

AverageFYSFR: 0.00

Assessment [(5 * 15) / AverageFYSFR]: 5.00

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	20	20	26	6.00
2018-19	25	20	45	4.00
2019-20	29	21	39	5.00

Average Assessment: 5.00

8.3 First Year Academic Performance (10)

Total Marks 6.31

Institute Marks : 6.31

Academic Performance	CAYm1(2018-19)	CAYm2(2017-18)	CAYm3 (2016-17)
Mean of CGPA or mean percentage of all successful students(X)	6.90	6.31	5.71
Total Number of successful students(Y)	388.00	508.00	481.00
Total Number of students appeared in the examination(Z)	388.00	508.00	481.00
API [X*(Y/Z)]	6.90	6.31	5.71

Average API[(AP1+AP2+AP3)/3] : 6.31

Assessment = Average API : 6.31

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

Total Marks 10.00

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

CO Assessment Processes**A) Assessment process**

In the Outcome Based Education, evaluation of Course Outcome is done through internal and external assessment processes such as CAT1, CAT2, Model Examination, End Semester Examination, Assignments and Seminar or any Activity Learning Methods. Direct assessment includes evaluation of the student's knowledge and skills based on their performance in the internal and external assessments and indirect assessment is done through Course End Survey.

B) Assessment Tools:-

The Direct assessment tools which are used for evaluation is shown in Table B 8.4.1 (a) and the Indirect assessment tool of evaluation is shown in Table B 8.4.1 (b).

Table: 8.4.1 (a) DIRECT ASSESSMENT TOOLS

Assessment Process	Frequency	Process
DIRECT ASSESSMENT TOOLS		
THEORY COURSES		
Continuous Assessment Test (CAT)	Two per semester	The internal assessments are carried out in a centralized manner in the department level and are so designed to facilitate the assessment of the attainments of the outcome.
Model Exam	One per semester	The Model examination is of three hour duration and covers the entire syllabus of the course and satisfies all course outcomes for the particular course
End Semester Examination	As per the End Semester Exam schedule	The end-semester examination is of three hour duration and covers the entire syllabus of the course and satisfies all course outcomes for the particular course.
Assignments	Two/three Assignments per course	To develop the critical and analytical skills of the students, assignments are given and is also taken as a criterion to assess the attainment of Cos
Seminar/ALM	One per Course	In view of improving communication skills, gaining expert knowledge, networking with others and renewing motivation and confidence, seminars are presented by students and is also taken as a criterion to assess the attainment of COs
LABORATORY COURSES		
Performance Evaluation	Continuous Monitoring	Continuous evaluation of laboratory courses as per rubrics
End Semester Exam	As per the End Semester Examination schedule	The end-semester examination is of three hours duration and covers all the experiments of the course and satisfies all course outcomes.
Communicative and Soft Skills Laboratory/English Laboratory	Throughout the semester	Assessment process includes interactions with questions structured properly and analyzing student's communication and writing abilities
PT/Parade/Games	Continuous Monitoring	Student assessment is done in alignment with University Standards and Rubrics.

Table B: 8.4.1 (b) INDIRECT ASSESSMENT TOOL

S.No	Assessment Tool	Frequency	Method Description

1	Course End Survey	End of semester	To enhance the Teaching Learning Process, Students are provided with an opportunity to reflect and provide feedback based on their understanding level.

CO Assessment Process For Theory Courses:**Table B 8.4.1.(C) CO ASSESSMENT PROCESS FOR THEORY COURSES**

Assessment		CO1	CO2	CO3	CO4	CO5	CO6
	Internal Assessment (IA) (CAT-I, CAT-II, Model exam, Assignments and Seminar/ALM)	40%	40%	40%	40%	40%	40%
	End Semester Examination (ESE)	60%	60%	60%	60%	60%	60%
	Total Direct assessment (TDA) = IA+ESE	100%	100%	100%	100%	100%	100%
DA (90%) = TDA x 0.9		90%	90%	90%	90%	90%	90%
INDA (10%) = CES x 0.1		10%	10%	10%	10%	10%	10%
CO attainment % = DA + INDA		100%	100%	100%	100%	100%	100%
CAT I : Continuous Assessment Test -I ; CAT II : Continuous Assessment Test II; DA : Direct Assessment ; INDA: Indirect Assessment; CES :Course End Survey							
ALM : Activity Learning Method							

CO Assessment Process For Laboratory Courses:**Table B 8.4.1 (D) CO ASSESSMENT FOR LABORATORY COURSES**

Assessment		CO1	CO2	CO3	CO4	CO5	CO6
	Internal Assessment (IA)	40%	40%	40%	40%	40%	40%
	(Observation+ Performance Evaluation+ Record)						
	End Semester Examination (ESE)	60%	60%	60%	60%	60%	60%
Total Direct Assessment (TDA) = IA+ESE		100%	100%	100%	100%	100%	100%
DA (90%) = TDA x 0.9		90%	90%	90%	90%	90%	90%
INDA (10%) = CES x 0.1		10%	10%	10%	10%	10%	10%

CO attainment % = DA + INDA	100%	100%	100%	100%	100%	100%
CES : Course End Survey ; DA : Direct Assessment ; INDA : Indirect Assessment						

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

Institute Marks : 5.00

Criteria for Attainment Level of Course Outcomes:**Table B: 8.4.2 (a) THE CRITERIA FOR ATTAINMENT LEVELS OF COURSE OUTCOMES.**

ATTAINMENT LEVEL FOR COURSE OUTCOMES	
Theory Courses & Laboratory Courses	
Overall Attainment Level (Direct assessment + Indirect Assessment)	Level
50% - 60% students scoring more than the subject threshold	1
>60% - 70% students scoring more than the subject threshold	2
> 70% of students scoring more than the subject threshold	3

Indirect Assessment Process For Course Outcomes:

Course end survey is an integral part of assessment process. Surveys are conducted for all courses as a step towards quality measure. The survey includes a questionnaire set for each course outcome. This system gives a measure of the program outcomes attained indirectly which forms an essential element to improvise on course goals. The strategy by which indirect assessment is carried out is shown in Table 8.4.2 (b) and the Overall Assessment Process in Table 8.4.2 (c) for a sample course 'Engineering Chemistry (C105)'. The average of the course end survey in the overall attainment calculation of course outcomes is 10%.

Table B: 8.4.2 (b): Indirect Assessment Process for Course Outcomes.(Engineering Chemitsry-C105)

Indirect Course Outcomes	CO1	CO1	CO2	CO2	CO3	CO3	CO4	CO4	CO5	CO5	CO6	CO6
Number of Students Answered - 1 (Low)	11	13	10	12	13	16	12	13	11	11	12	13
Number of Students Answered - 2 (Medium)	108	105	121	130	105	112	101	107	95	95	124	128
Number of Students Answered - 3 (High)	269	270	257	246	270	260	275	268	282	282	252	247
Total Number of Students Participated	388	388	388	388	388	388	388	388	388	388	388	388
Total Number of Students Answered 2 & 3	377	375	378	376	375	372	376	375	377	377	376	375
	97.16%	96.65%	97.42%	96.91%	96.65%	95.88%	96.91%	96.65%	97.16%	97.16%	96.91%	96.65%
Indirect CO Attainment Percentage	96.91%		97.16%		96.26%		96.78%		97.16%		96.78%	

Table B: 8.4.2 (c): The Overall CO Attainment Process for the Course 'Engineering Chemistry-(C105)'

Process for CO attainment	CO attainment					
	CO1	CO2	CO3	CO4	CO5	CO6
% Of Direct Attainment Through Internal Exams(CAT I & II, Model exam, Assignment I,II & ALM)	89.69%	82.99%	59.28%	67.01%	65.72%	75.52%
40% From Direct Attainment Through Internal Exams	35.88%	33.20%	23.71%	26.80%	26.29%	30.21%
% Of Direct Attainment Through End Semester Exam	79.64%	76.55%	73.45%	70.88%	69.59%	82.99%
60% From Direct Attainment Through End Semester Exam	47.78%	45.93%	44.07%	42.53%	41.75%	49.79%
40% + 60% Of Direct Attainment	83.66%	79.12%	67.78%	69.33%	68.04%	80.00%
90% From Direct Attainment	75.29%	71.21%	61.01%	62.40%	61.24%	72.00%
% Of Indirect Attainment Through Course End Survey	96.91%	97.16%	96.26%	96.78%	97.16%	96.78%
10% From Indirect Attainment Through Course End Survey	9.69%	9.72%	9.63%	9.68%	9.72%	9.68%

90% From Direct + 10% From Indirect For Co Attainment	84.98%	80.93%	70.63%	72.07%	70.95%	81.68%
Attainment Level	3	3	3	3	3	3

CO Attainment for First Year Courses (Academic Year: 2018-2019).

Based on the tools and processes described in section 8.4.1, the assessment of COs is carried out for all the courses. Table 8.4.2(d) gives the attainment of course outcomes of first year courses for the academic year 2018-19..

Table B: 8.4.2. (d) : The CO Attainment of First Year Courses

FIRST YEAR	Theory Courses (% of students crossing threshold)														
Course Outcomes	CIO1	C102	CIO3	CIO4	C105	C106	C107	C108	C109	C110	C111	C112	C113	C114	C115
CO1	87.09%	81.50%	73.41%	73.41%	84.98%	96.03%	75.01%	74.17%	74.94%	86.23%	83.95%	75.54%	59.14%	71.00%	74.72%
CO2	90.10%	82.45%	71.79%	71.79%	80.93%	97.79%	77.74%	70.69%	72.35%	81.91%	80.20%	79.40%	54.95%	70.00%	68.05%
CO3	62.88%	82.77%	76.10%	76.10%	70.63%	96.95%	80.00%	71.63%	65.02%	77.35%	70.58%	76.77%	49.86%	72.00%	71.25%
CO4	73.28%	79.22%	70.41%	70.41%	72.07%	94.88%	77.76%	66.64%	66.83%	78.79%	67.88%	78.18%	45.81%	71.00%	68.63%
CO5	63.88%	79.68%	69.65%	69.65%	70.95%	97.66%	79.41%	71.39%	74.15%	82.74%	75.26%	72.87%	54.04%	68.00%	65.91%
CO6	76.12%	81.34%	78.26%	78.26%	81.68%	97.79%	83.69%	82%	66.74%	82.80%	80.40%	82.87%	71.22%	73.00%	81.17%
Overall CO attainment	75.56%	81.16%	73.27%	73.27%	76.87%	96.85%	78.94%	72.67%	70.01%	81.64%	76.38%	77.61%	55.84%	70.83%	71.62%
ATT LEVEL	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3

FIRST YEAR	Laboratory Courses (% of students crossing threshold)																
Course Outcomes	C116	C117	C118	C119	C120	C121	C122	C123	C124	C125	C126	C127	C128	C129	C130	C131	C132
CO1	86.89%	91.17%	70.16%	53.60%	90.45%	83.75%	98.42%	69.10%	89.31%	96%	96.62%	79.24%	99.22%	92.21%	90.10%	85.63%	81.52%
CO2	85.21%	96.46%	73.24%	54.97%	91.74%	82.62%	100.00%	66.22%	89.32%	96%	96.91%	81.21%	99.30%	94.97%	90.56%	86.09%	94.73%
CO3	77.88%	88.99%	64.96%	51.26%	88.26%	78.56%	99.73%	68.05%	86.52%	96%	66.83%	81.05%	99.52%	93.77%	83.96%	82.43%	87.15%
CO4	75.58%	77.05%	59.82%	51.49%	82.52%	63.53%	95.88%	69.71%	81.53%	96%	57.06%	79.51%	99.52%	78.32%	80.76%	83.44%	89.20%
CO5	75.43%	96.63%	73.63%	53.87%	90.78%	66.75%	99.92%	67.86%	77.64%	96%	49.84%	76.50%	99.52%	91.59%	89.16%	87.45%	85.26%
CO6	77.63%	94.20%	73.63%	53.74%	92.27%	66.05%	100.00%	49.91%	84.49%	96%	68.61%	84.21%	99.52%	87.96%	89.16%	85.34%	94.09%
Overall CO attainment	79.77%	90.75%	69.24%	53.16%	89.34%	73.55%	98.99%	65.14%	84.80%	96.26%	72.65%	80.29%	99.43%	89.80%	87.28%	85.07%	88.66%
ATT LEVEL	3	3	2	1	3	3	3	2	3	3	3	3	3	3	3	3	3

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

Total Marks 20.00

8.5.1 Indicate results of evaluation of each relevant PO and/or PSO if applicable (10)

Institute Marks : 10.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	PO1	PO2	PO3	PO4	PO5	2.32	2.32	PO8	2.26	2.26	PO11	2.29

C102	2.43	2.43	2.43	2.43	2.90	PO6	PO7	PO8	PO9	PO10	PO11	2.78
C103	2.21	2.22	2.22	2.20	2.21	PO6	PO7	PO8	PO9	PO10	PO11	2.20
C104	2.42	2.69	2.65	2.71	2.42	PO6	PO7	PO8	PO9	PO10	PO11	2.41
C105	2.30	2.31	2.45	PO4	2.45	PO6	2.29	PO8	PO9	PO10	PO11	2.31
C106	2.91	2.90	2.90	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.91
C107	2.37	2.37	2.37	2.36	2.37	PO6	PO7	PO8	PO9	PO10	PO11	2.37
C108	2.19	2.19	2.20	2.18	2.18	PO6	PO7	PO8	PO9	PO10	PO11	2.16
C109	PO1	PO2	PO3	PO4	PO5	2.11	2.10	2.10	2.54	PO10	PO11	2.10
C110	2.46	2.44	2.45	2.45	2.45	PO6	PO7	PO8	PO9	PO10	PO11	2.46
C111	2.30	2.28	2.30	2.29	2.29	PO6	PO7	PO8	PO9	PO10	PO11	2.30
C112	2.33	2.33	2.59	2.33	2.38	PO6	PO7	PO8	PO9	PO10	PO11	2.33
C113	1.77	1.67	1.43	1.69	0.64	PO6	PO7	PO8	PO9	PO10	PO11	1.68
C114	2.13	2.13	2.13	2.12	2.12	PO6	PO7	PO8	PO9	PO10	PO11	2.13
C115	2.15	2.16	2.15	2.16	2.15	PO6	PO7	PO8	PO9	PO10	PO11	2.15
C116	2.39	2.39	2.40	2.41	2.38	PO6	PO7	PO8	PO9	PO10	PO11	2.41
C117	PO1	PO2	PO3	PO4	PO5	2.73	2.72	2.72	2.72	2.72	PO11	2.72
C118	2.13	2.07	2.11	1.87	2.08	PO6	PO7	PO8	2.08	2.08	PO11	2.11
C119	1.60	1.59	1.59	1.59	1.59	PO6	PO7	PO8	1.60	1.60	PO11	1.61
C120	2.69	2.68	2.77	2.67	2.67	PO6	2.67	PO8	2.67	2.68	PO11	2.71
C121	2.21	2.21	2.21	2.21	2.19	PO6	PO7	PO8	2.18	2.18	PO11	2.20
C122	2.98	2.95	2.95	2.95	2.97	PO6	PO7	PO8	2.97	3	PO11	2.97
C123	1.93	1.93	1.93	2.15	1.95	PO6	PO7	PO8	1.94	1.95	PO11	2.10
C124	2.54	PO2	PO3	PO4	2.54	PO6	PO7	PO8	2.54	2.53	PO11	2.52
C125	2.87	2.87	2.87	2.87	2.87	PO6	PO7	PO8	PO9	2.87	PO11	2.87
C126	2.32	2.18	2.18	2.32	2.67	PO6	PO7	PO8	2.12	2.12	PO11	2.50
C127	2.30	2.28	2.30	2.29	2.29	PO6	PO7	PO8	PO9	PO10	PO11	2.30
C128	PO1	PO2	PO3	PO4	PO5	2.96	2.96	2.78	2.96	2.96	PO11	2.96
C129	PO1	PO2	PO3	PO4	PO5	2.71	2.69	2.69	2.69	2.69	PO11	2.69
C130	2.62	PO2	PO3	PO4	2.62	PO6	PO7	PO8	2.64	2.62	PO11	2.34
C131	2.55	PO2	PO3	PO4	2.55	PO6	PO7	PO8	2.56	2.56	PO11	2.52
C132	PO1	PO2	PO3	PO4	PO5	2.63	2.83	2.59	2.66	PO10	PO11	2.49

PO Attainment Level**PSOs Attainment:**

Course	PSO1	PSO2	PSO3
C101	PSO1	PSO2	PSO3
C102	2.71	2.71	2.71
C103	1.94	2.24	1.84
C105	2.02	PSO2	PSO3
C107	2.59	2.31	2.33
C108	2.17	2.20	2.24
C109	PSO1	PSO2	PSO3
C114	1.66	1.66	1.66
C115	2.20	1.96	1.96
C117	PSO1	PSO2	PSO3
C119	1.70	1.70	1.62
C120	2.02	PSO2	PSO3
C121	1.28	1.28	1.55
C123	2.17	2.20	2.24
C125	PSO1	PSO2	PSO3
C129	PSO1	PSO2	PSO3
C131	PSO1	PSO2	PSO3

PSO Attainment Level

Course	PO1	PO2	PO3
Direct Attainment	2.04	2.03	2.02
PSO Attainment	2.04	2.03	2.02

8.5.2 Actions taken based on the results of evaluation of relevant POs and PSOs (10)

Institute Marks : 10.00

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

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.4	2.35	C113-1.77 Material science and Metallurgy Attainment level is moderately attained since the students did not perform well in end semester examination C114-2.13 Engineering Physics -II has contributed moderately as the students were not clear with basic concepts C115-2.15 Engineering Mathematics –II has contributed moderately as students found it difficult to retain the concepts learnt.
Action 1 : ALM teaching methods will be continued to improve the clarity on basic concepts for Material Science & Metallurgy Action 2: Video lectures are shown to gain mastery and increase knowledge retention which will be continued further. Action 3: More problems are solved to gain knowledge on basic concepts.			
PO 2 : Problem Analysis			
PO 2	2.4	2.32	C108-2.19 Programing for problem solving subject has not reached the attainment level as student's expertise in reviewing a problem and writing a program was moderate C115-2.16 In Engineering Mathematics -II student's performance in solving complex mathematical problems was average, and so has contributed moderately to the attainment
Action 1: Group exercises are encouraged for more practice and knowledge sharing . Action 2: Tutorial classes are conducted to familiarize the concepts			
PO 3 : Design/development of Solutions			
PO 3	2.4	2.33	C115-2.15 Engineering Mathematics -II has contributed moderately as students found difficulty in solving complex mathematical problems.
Action 1: ALM techniques are followed to realize effective learning practices .			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	2.4	2.30	C119-1.59 Engineering Physics Laboratory -1has not attained since the students are not able to interpret theoretical concepts with experiments
Action 1: Introduction classes are conducted and viva questions are asked for every experiments which will be continued further.			
PO 5 : Modern Tool Usage			
PO 5	2.4	2.32	C123-1.95 The Problem Solving and Programming Laboratory contributed moderately as the students are new to programming techniques.
Action 1: Assignment programs are given to widen the creative knowledge and get updated with recent technologies which will be continued further.			
PO 6 : The Engineer and Society			
PO 6	2.4	2.58	This attribute has reached the set attainment level and will be further strengthened in higher semesters.
This attribute has reached the set attainment level and will be further strengthened in higher semesters.			
PO 7 : Environment and Sustainability			
PO 7	2.4	2.57	This attribute has reached the set attainment level which will be further strengthened in higher semesters.
This attribute has reached the set attainment level which will be further strengthened in higher semesters.			
PO 8 : Ethics			
PO 8	2.4	2.58	This attribute as reached the set attainment level and will be further strengthened in higher semesters

This attribute as reached the set attainment level and will be further strengthened in higher semesters

PO 9 : Individual and Team Work

PO 9	2.4	2.45	This attribute has reached the set attainment level which will be further strengthened in higher semesters.

This attribute has reached the set attainment level which will be further strengthened in higher semesters.

PO 10 : Communication

PO 10	2.4	2.45	This attribute was substantially contributed by subjects like C101-Technical English-I, C117-English Language Laboratory-I, C128- Communicative and soft skills laboratory & C129-English Language Laboratory- II and will be further strengthened in higher semesters.

This attribute has reached the set attainment level which will be further strengthened in higher semesters

PO 11 : Project Management and Finance

PO 11	0	0	This attribute will be strengthened in higher semesters

This attribute will be strengthened in higher semesters

PO 12 : Life-long Learning

PO 12	2.4	2.39	This attribute has reached the set attainment level and will be further strengthened by emphasizing on learning goals, improving personal and professional skills and keeping the student's well educated with the latest technological advancements.

This attribute has reached the set attainment level which will be further strengthened in higher semesters

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

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Apply the knowledge of Electrical Engineering, investigate and solve the complex Marine Electrical Engineering problems to meet the specified needs with appropriate considerations for the society.			
PSO 1	2.4	2.04	C-103 -1.94: Engineering Physics -I has contributed moderately to the attainment as the students are not clear with basic concepts. C121- 1.28 Basic Electrical Engineering Laboratory has contributed weakly to the attainment as the students were not able to integrate theoretical concepts with experiments
Action 1: Video Lectures are shown to increase the clarity of concepts and this will be continued Action 2:Introduction classes are given before every experiments and this will be continued further			
PSO 2 : Develop solutions for complex Engineering problems in the broad field of power electronics and drives, power systems, high voltage Engineering and Marine Engineering and control.			
PSO 2	2.4	2.03	C115-1.96 Engineering Mathematics -II has contributed moderately as the students found difficulty in solving complex problems
Action 1: Tutorial classes are conducted and more assignment problems are given for practice.			
PSO 3 : Analyze, design and integrate Electrical systems in on board ships and apply modern tools and techniques in marine industries and create passion for life-long learning and research in advanced fields.			
PSO 3	2.4	2.02	C119-1.62 Engineering Physics Laboratory has not attained as the students are new to engineering concepts.
Action 1:Introductory classes are conducted in all laboratory classes and the students are encouraged to participate in vivavoce sessions.			

9 STUDENT SUPPORT SYSTEMS (50)

Total Marks 50.00

9.1 Mentoring system to help at individual level (5)

Total Marks 5.00

Institute Marks : 5.00

An effective mentoring relationship is characterized by mutual respect, trust, understanding, and empathy. Our mentors are able to share life experiences and wisdom, as well as technical expertise with the students. They are good listeners, good observers, and good problem-solvers. They make an effort to know, accept, and respect the goals and interests of a student. In the end, they establish an environment in which the students accomplishment is limited only by the extent of his or her talent.

In AMET, we follow the best possible mentoring system (i.e.) Total Development Mentoring System for the benefit of the students. The student mentor ratio is 15:1 to 20:1 which greatly helps the mentor to focuses not only on the issues rose by the students but enables them to communicate the desired and constructive outcomes of the students. The mentors meet the students once in a week and discuss a range of topics from academics to personal life and other beneficiary topics.

Table B 9.1. (a) Frequency of Meetings

Mentoring System	Yes
Type of Mentoring	All Round Development
Number of Faculty Mentors	130
Number of Students per Mentor	15 to 20
Frequency of Meeting	Weekly

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 counselled before and after conducting internal assessment examinations. Marks scored, attendance percentage with respect to every subject is analysed and remarks are listed in the mentor file. 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 ERP for sharing the pertinent information like attendance, academic performance, feedback etc. All Faculty 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.

All Round Development:

- Pre motivation for all students taking part in sports activities, cultural activities, symposium, conferences, mini project, internship and seminar, will be given by class in charges, mentors and professional body coordinator.
- Students are also motivated by extracurricular activities and co-curricular activity coordinator to participate in co-curricular as well as extracurricular activities.
- Mentoring is also provided for the students who participate in various activities organized by other institutions.
- Counselling for Extra Curricular and Co-Curricular Activities will help the student to become all-rounder and OD is also provided for the same.

Professional Guidance

- Professional counsellor is available in the campus on all working days during the college working hours.
- The counsellor counsels the aggressive students and students with health issues in a private confidential environment.
- The Institution provides Professional counselling and psychological assistance for all students and to ensure healthy environment and emotional wellbeing.

Career Advancement

- Pre motivation for all students taking part in personality development program, English reasoning and technical training will be given by placement training coordinator of the concerned Department and the IELTS training officer.
- Pre motivation for all students taking part in campus drive, placements will be given by placement officer.
- Placement cell coordinator plays an important role in this regard they frequently visit each and every class to motivate and counsel students in the career aspect.
- Career based counselling is also provided on the various companies visiting the campus and kind of skill sets and preparation required for each company.
- Mentors and alumni counsel students on the opportunities for higher studies and the preparations required for the same.

Course Work Specific

- The student's personal detail along with their academic performance and progress is updated in 'Green card' maintained by the mentor.
- The counsellor whose primary activity is to monitor the academic progress of the students under their care and to take corrective measures for any aberration in their progress in academic pursuits.
- The students can acquire the uploaded course material from LMS/ERP uploaded by the faculty.
- Faculty members while giving the evaluated answer sheets to students for checking, discuss about the general weakness and improvements to be done in the course. Later on weak students are individually called upon to discuss about the ways to improve their performance by identifying areas of weakness.

- These students are counselled by the faculty during the Library/counselling hour and improvement at the end of semester is also recorded in Mentoring efficacy.
- Any discrepancy found in counselling is taken to the HOD.

Laboratory Specific

- Students those who all are not attending Lab sessions due to Leave, O.D are monitored by the mentors. They are motivated to complete their experiments in the evening within a week.
- These students are asked to meet the faculty in person during the extra hours such as Library/Counselling /Break and will be given the importance of Lab Experiments.
- Faculty members encourage students to give seminar on the course topics to improve their technical communication and presentation.

Objectives of Mentoring Program:

- To interact with students about their need, problems, difficulties and address them effectively.
- To mentor students to participate in various technical and cultural events for their overall development.
- The mentor regularly observes the overall growth of student and provides counselling whenever required.
- To guide the students to ease the transition from school to work.
- To gain access to the professional community.
- To help students develop skills and dispositions such as resilience, perseverance and determination.
- To ensure that they can solve problems and work through challenges as well as take ownership of their learning and decisions
- To gain access to the professional community.

Responsibilities of Mentor

- Professional and Personal Guidance
- Internships, Industrial Trainings & Industry Readiness
- Higher studies exposure
- Guiding in project works
- Participation in co-curricular and extra-curricular activities. Special attention on students with learning difficulties.
- Facilitate career exploration and professional growth
- Developing self-confidence and peer relationships

Issues to be discussed with the students by mentor

- Personal study timetable
- Attendance in the Theory and Practical classes
- Economic status
- Area of Interest
- Hostel / Food issues
- Confidence level
- Personal, Family, social and academic issues.
- Vision and goals of Career plans

Frequency of Meeting:

The mentors meet the students every week Thursday 4.00 - 4.40 pm and discuss a range of topics from academics to personal life and other beneficiary topics. The students can meet the mentors every working day after 4.00pm.

Effective mentoring system is followed in our university to create healthy relationship between faculty members and students.

Mentor ward meetings are conducted regularly to ensure good academic performance as well as to address personal grievances of the students. Mentors maintain a separate WhatsApp group with their wards and their parents to keep them updated about their academic performance, daily tasks, upcoming technical events organized by premier Institutions, quote of the day etc.

Green Card:

AMET has Green card system to monitor the student's academic progress. This green card contains the academic performance of an individual which includes marks obtained in internal assessment for all the eight semesters and also about the end semester examinations. It also contains the personal information of the student so that the parents will be contacted as and when required. Also, during every parent teacher's meeting this green card will be shown to the parents and discuss with them about their ward's performance in studies. A Sample Green Card is given below in Fig.9.1.(a).


AMET
 UNIVERSITY
 Karanthur Chennai-603 112

B.E (EEE) Marine DEPARTMENT

1. Students Name : R. Hemanth Raj

2. Course / Branch : B.E (EEE) Marine

3. Class : I Year II Year III Year IV Year
 (2017-2018) (2018-2019) (2019-2020) (2020-2021)

4. Roll No : EE346

5. Date of Birth : 22/01/2000

6. Category & Caste / Religion : BC / Hindu

7. Father Name : R. Ramash Kumar

8. Occupation of Father : Business (oil Vendor)
 Phone No : 944764803
 Email ID : _____

9. Address for Communication : No: 274, Indira Nagar (Kangas
Durga Nagar), Guntur City,
Andhra Pradesh - 52.
 Phone No : 9444 54 3826

10. Local Guardian Address : _____
 Phone No : _____
 Student Phone No : 9176 14 6012
 Email ID : hemanth22raj@gmail.com

11. Introduced by Class Teacher (Mentor)
 Name : T. Sathish T. Sathish T. Sathish
 Signature : T. Sathish T. Sathish T. Sathish
 (I Year) (II Year) (III Year) (IV Year)

Signature of HOD : [Signature] Signature of Registrar : _____


 Student's Signature : [Signature]

 Signature : R. Ramash Kumar

14 Day Scholar :
 Come to college by
 Cycle : ☐
 Motor Cycle : ☐
 MTC Bus : ☐
 College Bus : ☒
 Hostler : ☐
 Name of the Hostel:
 Ist YR :
 IInd YR :
 IIIrd YR :
 IVth YR :

Fig.9.1. (a) Sample Green Card of B.E EEE Marine Student


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 (Under Section 3 of UGC Act 1956)

Department of Electrical and Electronics Engineering

Student's Counselling Report

Name of the Mentor :
 Designation :

Year / Group :
 Semester :

Sl No	Roll No	Name of the Student	Counseling date	Remarks	Signature
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Fig.9.1. (b) Sample Format of Student Counseling Report

Professional Counselor:

Apart from effective counselling sessions by the faculty members, Our University has a professional Counsellor Dr. Sujatha Narayanan M.Sc., Psychology, to provide personal and professional counselling for our students. Having more than 14 years of professional experience, associating with the student's community in different roles, she helps students to identify goals and potential solutions to problems which cause emotional turmoil; seek to improve communication and coping skills; strengthen self-esteem; and promote behaviour change and optimal mental health.

Full time Counselor



Mrs. Sujatha Narayanan, M.Sc., (Psy)
 Counselling Psychologist,
 Psychotherapist, Career counsellor,
 Special Educator,
 Hypnosis and Hypnotherapist.

S.No	Sl No	Name	G	Dept	Date	Age	Degree	Year	Course	Issues/Reason
1	10410	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
2	10411	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
3	10412	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
4	10413	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
5	10414	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
6	10415	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
7	10416	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
8	10417	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
9	10418	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
10	10419	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
11	10420	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
12	10421	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
13	10422	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
14	10423	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
15	10424	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
16	10425	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
17	10426	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
18	10427	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
19	10428	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
20	10429	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
21	10430	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
22	10431	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
23	10432	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
24	10433	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
25	10434	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
26	10435	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
27	10436	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
28	10437	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
29	10438	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
30	10439	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
31	10440	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
32	10441	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
33	10442	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
34	10443	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
35	10444	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
36	10445	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
37	10446	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
38	10447	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
39	10448	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
40	10449	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
41	10450	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
42	10451	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
43	10452	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
44	10453	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
45	10454	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
46	10455	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
47	10456	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
48	10457	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
49	10458	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
50	10459	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
51	10460	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
52	10461	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
53	10462	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
54	10463	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
55	10464	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
56	10465	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
57	10466	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
58	10467	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
59	10468	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
60	10469	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
61	10470	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
62	10471	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
63	10472	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
64	10473	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
65	10474	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
66	10475	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
67	10476	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
68	10477	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
69	10478	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
70	10479	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
71	10480	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
72	10481	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
73	10482	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
74	10483	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
75	10484	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
76	10485	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
77	10486	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
78	10487	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
79	10488	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
80	10489	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
81	10490	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
82	10491	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
83	10492	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
84	10493	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
85	10494	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
86	10495	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
87	10496	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
88	10497	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
89	10498	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
90	10499	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
91	10500	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
92	10501	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
93	10502	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
94	10503	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
95	10504	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
96	10505	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
97	10506	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
98	10507	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
99	10508	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason
100	10509	MR	2	22/2/2020	23	BT	BT	BT	BT	Problems/Reason

Fig: 9.1 (c) Sample Counseling Report by the professional Counselor

Efficacy of Mentoring System:

Establishment of the above stated mentoring system helps us in the following ways,

1. Enhanced the teaching- learning process to be more student centric
2. Created a positive work environment helped the students learn to take better control of his or her career
3. Provided impartial advice and encouragement to students
4. Developed a supportive relationship between students and staff
5. Assisted with problem solving and Improved self-confidence of students
6. Obtained gradual improvement in attendance percentage of students
7. Enables to provide individual and personal care to the students with the help of mentors
8. Information gathering and dissemination is easy.



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Mentoring Efficacy

Academic Year / sem :

Class :

Name of the Mentor:

Date:

S.no	Name of the Student with Register Number	Counseling I (Purpose of Counseling)	Counseling II (Purpose of Counseling along with Follow up Counseling)	Counseling III (Purpose of Counseling along with Follow up Counseling II)	Overall Improvement Through Counseling
1					
2					
3					
4					
5					

Counseling Criteria for Enhancing Student's Participating:

1 Punctuality/class room attendance	5 Motivation towards Higher studies/Entrepreneurship
2 Performance in end semester exam	6 Motivation towards ECA & CCA
3 Dress code, Cleanliness & Obedience	7 Motivation towards Internship/ In plant Training
4 Performance in Internal Assessment	8 Motivation towards Innovation / Projects

Signature of the Mentor

*** Note: This has to be followed along with counseling Book

Fig 9.1. (d). Efficacy of Mentoring System

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

Total Marks 10.00

Institute Marks : 10.00

The feedback is collected from the students through online at the end of every semester. Different kinds of feedbacks are received from the stakeholders. They are feedback on curriculum, teaching learning process, faculty and facilities.

Feedback collected for all courses: **YES**

Specify the feedback collection process: **Through software**

Average Percentage of students who participate: **100%**.

Feedback Process:

Methodology being followed for feedback collection, analysis and corrective action taken

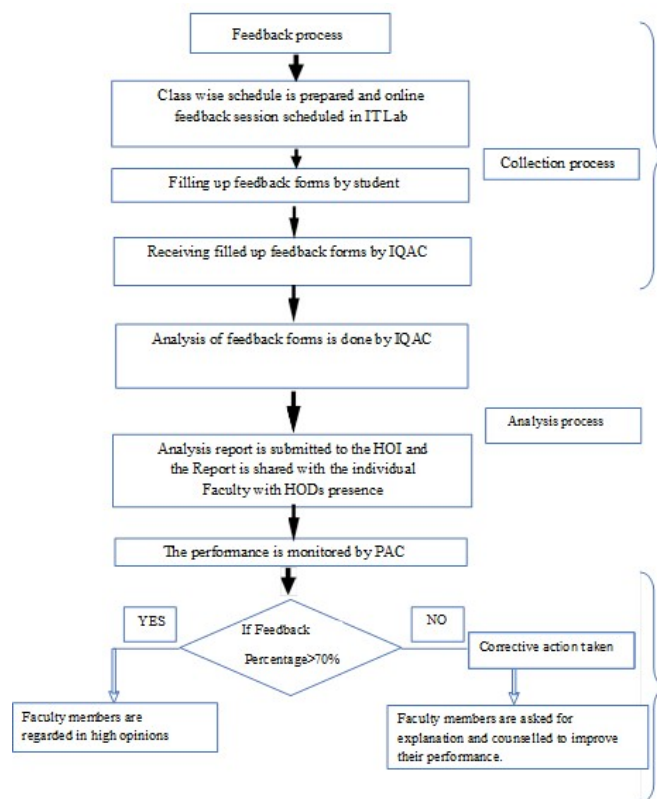


Fig: 9.2. (a) Feedback process methodology

• Feedback collection process

Feedback is collected in Online. Software with the parameters to be considered, the name of the Faculty handling the subjects for each class is prepared. A class wise schedule is prepared and the same is circulated to all the students in all Departments. The students of each class go to the laboratories assigned for them and give confidential feedback for each faculty handling classes for them based on a standard questionnaire.

Percentage of students who participated: 100%.

• Feedback assessment process

The feedback collected from students is first analyzed by the Internal Quality Assurance cell headed by the IQAC Coordinator.

- The contents of the feedback are shared with each faculty member individually by the Vice Chancellor with the presence of the concerned Head of the Department.
- Performance of each individual faculty is monitored by the Program Assessment Committee and Quality Improvement Committee.

• Feedback analysis process

The software is so designed that the rating for each parameter is cumulatively calculated for a total of 5 points. Based on the average points accrued for all the questions the faculty performance level is assessed. The performance of the teacher is graded as below:

More than 4.5 points	:	Excellent
From 4 to 4.4	:	Good
From 3.5 to 4	:	Average
Below 3.5	:	The Teacher is subjected for any corrective measures as decided by Head of the Department.

If the faculty receives good performance feedback from the students, he is appreciated by the Vice Chancellor and HOD in the Department meetings and also rewarded with monetary benefits. If the Faculty receives average or below average performance, he/she gets counseling by the authorities and improve their performances.

Metrics:

- Teaching Methodology
- Communication Skill
- Technical Skill
- Punctuality
- Class control
- Student Evaluation process

Inferred from the metrics:

- Faculty Performance
- Attitude of Faculty
- Course Delivery
- Interactive learning of students
- Interpersonal Skills
- Student satisfaction

Basis of reward:

- Performance is recorded in the Faculty appraisal.
- Performance rating of Faculty through student feedback system is one of the factors in evaluating the annual performance of the Faculty. Based on the annual performance of the Faculty the annual increments are released.

Corrective actions taken:

- The feedback on the teaching practices and methods are assessed with due attention and the reports are sent to the respective HODs. Based on the report, the HOD counsels the faculty members accordingly. The quality of teaching shall be observed periodically by the Head of the Department and the Registrar and further guidance are given to the faculty members in person.
- The motivation and encouragement of the Head of the Department enables the Faculty to perform better. Explanation from the Faculty will be demanded for the inappropriate result and subsequent action will be processed. Counselling will be given to the concerned faculty by HOD.

• Effectiveness

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

• Record of corrective action taken

The following necessary corrective actions are initiated for Faculty members having Performance Index less than the university standards:

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

3. Advise the Faculty through counsellors / Improve the domain knowledge by Subject Experts.

Interactive Feedback:

Student's Council meetings are conducted as and when required by the Vice Chancellor and the Registrar along with the HODs to share their feedback among the Faculty handling classes and facilities. Student representatives from each year will attend to give feedback and suggestions regarding academic and co-curricular activities directly. This feedback is then shared with concerned faculty members for remedial actions.

Department level feedback collection:

Students are invited to express their view on subjects and other grievances in the department level class committee meetings by PAC Committee and the findings are communicated to the HOD for further actions. Apart from this, feedback is collected from all students for all subjects as and when required to improve teaching learning methods and to address grievances of students. A Sample Feedback as shown in Fig.9.2.2

Metrics for Course evaluation:

- The course objectives, content and methods of evaluation are clearly explained at the beginning of the semester.
- Class activities include a variety of methods to hold students, maintain interest in the course and to understand the course materials.
- The assignments and activity based learning help students understand the course materials.
- The course content and notes/handouts appeared appropriate and well structured, neatly prepared and readily understood.
- The library resources are adequate.
- Timetable, class grouping and classroom information are clearly stated sufficiently in advance.
- Percentage level of understanding that achieved for all the units in a course

Metrics based on which faculty evaluation is made:

- Methodology of teaching
- Interest in well-being and progress of the student and courses.
- Firm in evaluating the students
- Open mind discussion with the student
- Good presentation and highly Interactive teaching
- Relationship and interaction in and out of the class
- Concern for student attendance
- Timely assignments, quizzes and assessments
- Encouraging students to improve their independent level of exploration
- Clarity in explanation
- Encouraging students to ask question and giving them appropriate answers
- Competency of faculty
- Punctuality for the classes
- Concern for student discipline and appearance
- Understanding the concepts

Indices used for measuring quality of teaching and learning:

- [5] Strongly Agree
- [4] Agree
- [3] Neutral
- [2] Disagree
- [1] Strongly Disagree

Inferred from the metrics:

- Faculty Performance
- Attitude of Faculty
- Course Delivery
- Interactive learning of students
- Interpersonal Skills
- Student satisfaction

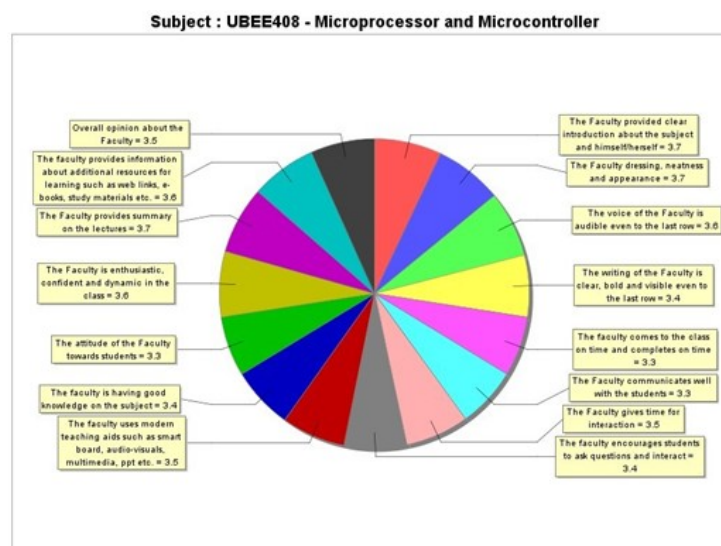
Sample Feedback:

Fig: 9.2. (b1) Feedback Analysis of UBEE408/B.E (Marine Engineering)/G6/4th Sem



Course	B.E. - Marine Engineering - SEM-VI-17
Semester	Fourth
Group Number	6

Feedback Analysis - Table

Sl.No	Subject Code	Subject Name	Faculty	Feedback Parameters													Avg
				The Faculty provided clear instructions on about the subject and the last half	The Faculty's voice is audible even to the last row	The Faculty's writing is clear, bold and even to the last row	The Faculty comes to the class on time and completes the task on time	The Faculty interacts well with the students	The Faculty provides questions to ask and interact	The Faculty uses modern teaching aids such as board, audio-visuals, multimedia, etc.	The Faculty is having good knowledge of the subject	The Faculty is confident and provides answers to the students in the class	The Faculty provides summary on the lectures	The Faculty provides additional resources for learning such as video, e-books, study materials etc.			
1	UBEE404	Fluid Mechanics	MR.P.PRATHEEN KUMAR	4.4	4.0	4.2	4.0	4.1	4.0	4.2	4.1	3.9	4.0	4.1	3.8	4.1	4.0
2	UBEE408	Microprocessor and Microcontroller	MR.S.SAMPATH KUMAR	3.7	3.7	3.6	3.4	3.3	3.5	3.4	3.5	3.4	3.3	3.6	3.5	3.5	3.5
3	UBEE402	Ship Construction	PROF.BHODADITYA RAMANUJAMS	4.2	3.8	4.1	4.1	4.1	4.0	4.0	4.2	4.2	4.2	4.1	4.1	4.1	4.1
4	UBEE401	Thermal Engineering	RAMANUJAMS	4.2	4.2	4.2	4.3	4.2	4.2	4.3	4.2	4.1	4.2	4.2	4.2	4.2	4.2
5	UBEE404	Thermal Engineering	D.KUMARAVEL	4.2	4.1	4.2	4.2	4.2	4.3	4.3	4.5	4.4	4.2	4.3	4.0	4.3	4.4
6	UBEE404	Fuel & Lubrication Technology	MR.P.RAMANATHAN	4.2	4.1	4.1	4.1	3.9	4.1	3.8	4.0	4.1	3.8	3.9	4.0	4.1	4.0
7	UBEE403	Instrumentation and Control	DR.P.SHANTHI	3.8	4.0	3.9	3.9	3.9	3.8	3.8	3.8	3.8	4.1	3.9	3.8	4.0	3.9
8	UBEE403	Microprocessor and Microcontroller	SATHISH KUNNA	4.1	4.0	3.8	3.8	4.0	3.8	4.0	3.7	3.7	3.8	3.9	3.8	3.7	4.1
9	UBEE404	Basic Fire Fighting	MR.V.RAMACHANDRAN	4.1	3.8	4.1	3.9	4.1	4.0	3.8	4.0	3.9	3.8	3.9	4.0	4.1	4.0
10	UBEE404	Thermal and Fluid Engineering	D.KUMARAVEL	4.1	4.0	3.9	3.9	3.9	3.8	4.0	4.1	3.9	4.0	3.9	4.0	3.9	4.1
11	UBEE404	Engineering Practice	SAMPATH K	4.1	4.0	4.1	4.0	4.1	4.2	4.2	4.0	3.9	4.0	4.1	3.9	4.1	4.0
12	UBEE405	Librarianship - IV	T.P.RAMMATHALAH	4.1	4.2	4.2	4.1	4.2	4.2	4.4	4.2	4.2	4.2	4.2	4.1	4.3	4.2
13	UBEE405	Simulation and P/T/Trade		4.0	3.9	3.9	4.1	3.9	3.8	3.8	4.0	3.8	3.9	3.8	3.8	3.8	3.9

Fig: 9.2. (b2) Feedback Analysis of B.E (Marine Engineering)/G6/4th Sem**Corrective Actions taken based on Feedback:**

The teachers who secure a grade less than 3.5 are counseled by the HOD on how to improve the teaching-learning process. Both study the metrics and the method for effective teaching is charted out, for improvement.

In the above feedback analysis the faculty handling UBEE408-Microprocessor and Microcontroller has scored an overall average of 3.5 but he has shortcomings in some of the aspects. So that the following faculty was counseled by the Head of the Department and gave him the following suggestions.

- Black Board Management(3.4) - Advised the faculty to split the board in to divisions and to write legibly and was periodically monitored while conducting class and enquired with students periodically.
- Punctuality to the class (3.3) - Advised the faculty to come 5-minutes before the commencement of class and it was monitored by the class advisor.
- Student Interaction(3.3) - Advised the faculty to conduct the class more interactive.
- Clarification of Doubts(3.4) - Asked the faculty to clarify doubts then and there.
- Subject Knowledge(3.4) - The faculty is encouraged to attend FDP in this subject by subject expert.
-
- Attitude of faculty(3.3) - Advised the faculty to improve personel bonding with students.

The counseling has a strong positive influence on teacher and in his work. His teaching become more interactive and he came to class in time.

Class Committee Meeting:

Each class shall have a Class Committee which is constituted by a Chairperson, Class Counsellors, Faculty members teaching the courses for the classes, and student representatives. Three subsequent meetings are held in a semester at suitable intervals. The Chairperson is required to conduct meetings and the concern HOD shall address the issues raised by the students and the same shall be brought to the notice of the higher authorities if needed. A format for Minutes of Meeting is given below in the Fig.9.2. (c).


AMET
ACADEMY OF MARITIME EDUCATION AND TRAINING
ESTD. 1983 BY THE GOVT. OF INDIA
Department of Electrical and Electronics Engineering
Minutes of Class committee meeting – B.EEEE-Marine
 Date: _____

Feedback from the students regarding academics are collected orally in the meeting based on the following criteria 1. Quality of teaching 2. Syllabus coverage 3. Slow learners classes 4. Student interaction 5. Text Books/ Reference materials provided etc.

Sl. No	Name of the Course	Name of the Faculty	Quality of teaching	Text Books/ Reference materials	Student Name	Student Signature

Academic Issues:

1. _____
2. _____
3. _____
4. _____

Non Academic Issues:

1. _____
2. _____
3. _____
4. _____

Chair Person _____

Dean/EEE _____

Fig 9.2. (c) Sample Format for Class Committee Meeting

9.3 Feedback on facilities (5)

Total Marks 5.00

Institute Marks : 5.00

The University provides a conducive learning environment to the students with effective support on co-curricular and extracurricular activities to elicit the apparent and latent talents. The students are assisted throughout their course of study in the campus through the Director- Student Affairs, Proctor, Student Union Leader, activity Cells, activity Centres and Committees. Every student in the University campus is given an equal opportunity to participate in various events of their choice. The University takes special care of the SC/ST, minority students. The students are motivated to participate in National / International Conferences/Workshops with financial assistance. Every academic department has a mentoring system to counsel and support students through Green Card System, Student's Resource Centre, Career Development Centre and Remedial Coaching for slow learners. The students are offered various facilities in the University campus such as Student's Scholarship, Student's Insurance, ATM facility inside the campus, Swimming Pool facility, Cafeteria facility, Yoga Centre, Uninterrupted Power Supply Facility for comfortable learning, Internet facility, WIFI facility and well-equipped library facility. The University offers effective coaching to students in shaping their career through soft skills training and career development programs. The University maintains strict discipline in the campus because of the diversity of the student community. Having established as a Deemed to be University under de-novo category, AMET has developed its own unique strategy for students support and progression.



AMET
ACADEMY OF MARITIME EDUCATION AND TRAINING
DEEMED TO BE UNIVERSITY
(Under Section 3 of UGC Act 1956)

INTERNAL QUALITY ASSURANCE CELL (IQAC) AMET
STUDENT FEEDBACK ON CURRICULUM, TEACHING-LEARNING PROCESS AND RESOURCES

Academic year:.....

Name of Student (optional):	Department:
Programme Name:	Year & Semester:

Note: Please give your valuable feedback on curriculum to improve quality of the programme. Select your ranking on the scale of 0 to 4 (where 0 is strongly disagree and 4 is strongly agree) for each of the following parameters.

S.NO.	PARAMETER	Feedback				
		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
1.	Punctuality to the class					
2.	Subject Knowledge of the Faculty					
3.	Clarity and Audibility					
4.	Writing Legibility					
5.	Understanding level of the subjects					
6.	Faculty- student interaction					
7.	Syllabus coverage					
8.	Technical assistance to students by providing Question Bank and study materials					
9.	Doubt Clarification					
10.	Class interaction with students promoted					
11.	Students ideas are considered and addressed					
12.	Prescribed text books and reference books are adequate and appropriate					
13.	Value added courses are well structured and effective					
14.	The courses provided by the university supports career guidance and attend competitive examination					
15.	Online courses platform like NPTEL, SWAYAM etc., useful for knowledge enrichment					
16.	AMET library is enriched with adequate facilities					
17.	Information and communication technology tools are effectively used in teaching learning process					
18.	Student support services (sports, recreation, accommodation, transport etc.) are adequate					
19.	Opportunities available for doing extension activity and community service					
20.	Overall, AMET has very good learning environment					
Remarks if any:						

Signature of the Student (Optional)

Date:.....

Fig: 9.3(a) Sample Student Feedback Teaching Learning Process and Resources

Feedback collection process:

Feedback is collected from the students on the facilities available in the University. Based on the suggestions, actions will be taken to improve the facility and the same is presented to the Management review meeting.

Table B 9.3. (a): Details of feedback collection process

Items	Description
Feedback collected on all facilities provided by the University	YES
Feedback collection process	Computerized
Feedback received	IQAC
Frequency of feedback collection	Once in an academic year
Metrics used for calculation	5-Excellent, 4-Very good, 3-Good 2-Satisfactory ,1-Below average
Purpose of comments	For improving the quality of facilities.

Feedback analysis process:

Feedback is collected from the Final year students on the facilities available in the University such as class room, infrastructure, library, labs, canteen, playground, internet facility, medical facility etc. The feedback is analysed by IQAC and the necessary corrective measures are implemented after discussions with the authorities.

Table B. 9.3. (b) Analysis of Feedback on Facilities

Particulars	Attributes	Average
Assessment of Learning Environment		
Learning Environment	Standard of class room facilities	4.29
	Lighting and Ventilation of Classrooms.	
	Quality of teaching aids	
	Toilet Facilities	
	Availability of drinking water	
Assessment of Infrastructure Facilities		
Library	Adequacy of books	4.17
	Library arrangements (Reading room facilities, adequacy of journals, books stacking & identification)	
Recreational Facilities	Adequacy	3.67
	Encouragement for sports	
	Facilities for Extra-Curricular Activities.	
Swimming pool	Cleanliness	3.67
	Arrangements (Availability of adequate life jackets, etc.,)	
Medical Facilities	Regular hours	3.33
	After hours	Action taken :based on student feedback

Particulars	Attributes	Average
Canteen	Quality of food/ Quality of drinking water	3.8
	Adhering to Menu/ Adhering to scheduled time	
	Ventilation/Dining Seat arrangements	
	Hygiene/ Cleanliness of staff	
	Wash area	
Hostel Facilities	Quality of cabins	3.97
	Cabin ventilation	
	Toilet/ Bathroom/ Wash basins – Cleanliness	
	Availability of water	
	Availability of drinking water	
	Availability & Internet facilities	
	Facilities for Sports & Entertainments at Hostel	
Transport Facilities	Timeliness	4.5
	Safety	
	Condition of the Vehicles	

Action Taken for Medical Facility:

- **Dr. Vijayalakshmi**, a full time Doctor is appointed in the University. She is available on all working days from morning 8:00 A.M to evening 6:00 P.M.
- From evening 6:00 P.M to morning 8:00 A.M Duty Doctor is visiting our campus and is supported by Chettinad Hospitals at any emergency situation.
- Well trained and qualified Nurse is available for 24X7
- Ambulance with first aid facility is available for 24X7. Complete care is provided to the students with fully equipped campus clinic.

Feedback received from the final year students to gather their suggestions on the various facilities provided to them in their four-year degree program. Recommendations and Suggestions are suitably incorporated for the development of next batch students. A sample feedback analysis chart is shown below in Fig. 9.3.2.

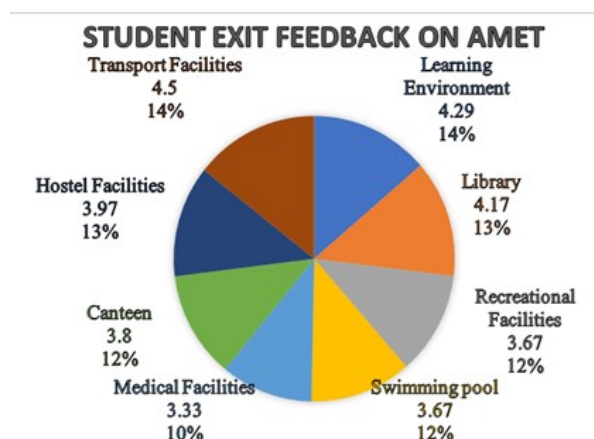


Fig. 9.3. (b) Analysis of Student Exit Feedback on AMET

Feedback analysis and Corrective measures taken on facilities:

Feedback obtained from the students, alumni, industrial experts, parents are analysed and the outcome is used for enriching the system.

- Value added courses and contents beyond the syllabus are conducted on the basis of feedback from stakeholders for the betterment of the students.
- The transport coordinator takes care of the facilities related to transport.
- The Hostel facilities are improved by Proctor and Hostel Warden with the help of concerned authorities based on the feedback.
- Canteen facilities are improved and maintained with high hygiene and quality of food.
- Medical Facilities are improved and maintained with high quality of medicines.

9.4 Self-Learning (5)

Total Marks 5.00

Institute Marks : 5.00

Scope of Self Learning:

- Web based teaching and learning (teaching a course online through My CAMU)
- Learning through MOOCs, NPTEL, edX, Coursera, Webinars, YouTube etc
- Library and Digital Library
- CDs, Videos and Digital books
- Learning activities around collaborative projects (Project Based Learning)
- Learning around case descriptions (Case Study)
- Tutorials/Assignments/ Seminars/ Activity based learning
- Club activities
- Adapting to industrial needs through inplant training and industrial visits. Acquiring managerial skills and information through symposiums conducted annually.
- Participation in activities through Professional bodies, EDC, Innovation and Incubation cell.

Web based learning	The university has created Internet facility with 1000 Mbps (BSNL), 100MBps (TIC/Fibre) leased line and 1000 computer terminals facility to promote and motivate students to self-learning. Various sources of information, media and materials such as texts, images, Video integrate as self- learning content for the students.
Library/Digital Library	Availability of course material on intranet, digital library facility, availability of video lectures in CD form as well as captured videos through Lecture Capture System. LCD projectors for presentations have been facilitated by the University. University library equips students with learning skills and latest subject knowledge. Availability of NPTEL Videos and books E-Shodh Sindhu
Professional Bodies	Joining a professional association like IEEE, IEI, SAE, MTS etc. gives all the valuable information and resources to the students for the career enhancement and self learning. Activities conducted under these professional chapters give good learning experiences
Club activities	Various club activities are organized to enhance team work and inter-personal skills of the students
Tutorials/Assignments/activity based learning	It enables students to go through the topics in a more elaborate manner in order to explore the academic topic and enhances higher order thinking.

Resources for Self-Learning:

Every week an hour in the time table is provided as Library hour and students are requested to be in library under the supervision of a faculty member for self-learning. Besides regular tutorial classes to enrich curriculum, additional topics/courses are designed as content beyond syllabus to motivate the students towards new engineering and technology fields. Special laboratories under centre of excellence, web based and multimedia learning are the other facilities established for students to enhance them for sophisticated self-learning. The below flowchart Fig.9.4.1 will explain about the various modes, availability of using the resources for self-learning along with its efficacy.

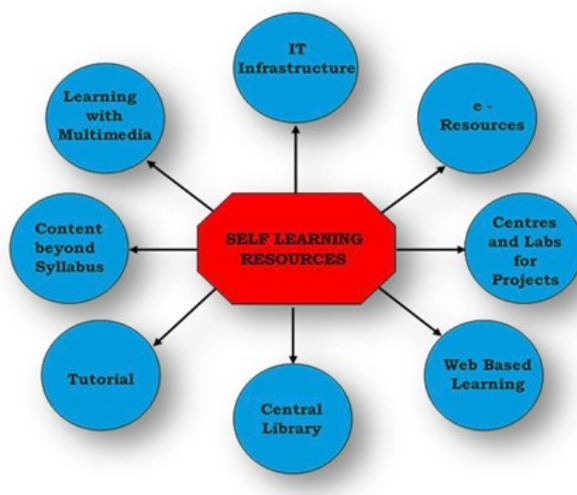


Fig. 9.4. (a) Resources of Self learning

Central Library:

The Central Library has been functioning in a separate building and the total area of the library is 2936.38 Sq.m.

- Total No. of Books : 71376
- Total No. of Titles : 18687
- Total No. of Print Journal : 140
- Total No. of E-Journal : 18,000
- Total No. of E-Books : 50,0000
- Total No. of database : 2
- Total No. of Back Volumes : 2461
- NPTEL Video and web courses : 31780
- SWAYAM PRABHA32 DTH Channels of High Quality Educational Programs
- Well protected with fire alarms and CCTV security systems.
- Separate Audio-Visual Section
- Wi-Fi enabled with library building
- Equipped with reading halls in two floors with reference section
- Organization of Book Review / Book Talk Sessions
- Organization of Book Exhibitions/Displays of new books.
- Proper system of obtaining, analysis and action pertaining to feedback from the Users of library services.

Users can submit their suggestions/grievances through library web Portal which are forwarded to the Library Committee for necessary action. Users can also submit their suggestions/ grievances through general interaction, making an application, and through e-mail.

E-Journals:

- IEEE : 183 e-Journals + Back file to 1998
- ELSEVIER : 340 e-journals (SCOPUS + Science Direct)
- ASME : 31 e-journals
- ASCE : 38 e-journals
- J-GATE Engineering : 4285 e-journals
- EBSCO : 1079 e-journals
- J-GATE Management & Social Science : 4538 e-journals
- DELNET E-JOURNALS : 5000 e-journals

USE OF PLASMA TV

As awareness the events of AMET are displayed through plasma TV. Power point slides denoting the various resources available in the library are displayed to enlight the user community.

Web OPAC (Online Public Access Catalogue)

In-house resource list can be accessed through website of AMET. Central Library has online access facility to search the availability of the required resources for the user community. The search option is unique and can be made through Author-wise, Title-wise, Subject-wise indexes using keywords and can be accessed from on and off the campus. The advanced search provides with more specific search for a title with Boolean operators.

ACCESS CARDS

AMET provides Identity card with Barcode Technology, for all students and staff members, which can be utilized for registering GATE Entry as well as for borrowing the library resources.

Facilities / Value Added Services:

In order to meet the contemporary needs of the library users, the Central Library offers the following facilities and value-added services through Information and Communication Technologies (ICT).

Information and Communication Technology (ICT)

Preamble:

The objective of the Network and system administration is to Plan and implement the ICT (Information and Communication Technology) in AMET .The following infrastructure is implemented in order to enable the ICT.

Objective:

1. Desktops to be provided to the department staffs
2. High speed networking of the systems
3. Internet facilities for the staffs
4. Mail IDs for the staffs
5. Data center architecture implementation
6. Security of the data
7. Firewall configuration and implementation
8. Wireless Internet access for the cadets (24*7)
9. Wireless access for top management
10. Content filtering for the internet
11. Providing teaching aids
12. Video conferencing facility
13. NPTEL
14. SMART CLASS ROOMS

Progress Planned:

Planning to setup LAB and provide branded desktops to Staffs

Planning to provide data center to deploy servers and switches

Planning to provide high speed internet line

Provided dedicated internet with wifi for hostels

Provide High speed connectivity with OFC for different blocks

Implement domain controller with DHCP,DNS and additional domain controller

Progress executed:

Planning to setup LAB and provide branded desktops to Staffs-completed

Planning to provide data center to deploy servers and switches -completed

Planning to provide high speed internet line-BSNL and TATA high speed provided

Provided dedicated internet with wifi for hostels –Dedicated line for hostels

Provide High speed connectivity with OFC for different blocks- Fiber connectivity provided

Implement domain controller with DHCP,DNS and additional domain controller-Implemented

Network and system administration activities

The main function of the Network and system administration department is to ensure that the following facilities are provided to staffs and students.

- The staffs are given desktops with Internet facility
- Email IDs are provided to teaching and non-teaching staffs on need basis.
- Maintenance of data center with Switches and Servers.
- All the campus are networked through OFC cabling with redundancy
- The departments are provided with sufficient Laptops and Projectors for teaching purpose
- Helpdesk management
- On need basis the teaching halls are provided with Smart class rooms
- SMS are sent to staffs and parents
- Backup space provided to departments in a server and required credentials are given to staffs to ensure there is no single point failures
- Internet facility for the staffs with redundancy
- All the hostels are provided with Ruckus WIFI access points with dedicated leased line . The maintenance of the same with intelligent wireless access controller. Ensure that 24*7 Wireless Internet access is provided to all the students
- Installation and maintenance of Video conferencing equipment
- Installation and administration of Domain controller, Additional Domain controller ,Configuration of Dynamic Host Configuration Server , Domain Name server
- Preventive maintenance of the systems on monthly basis
- Palo Alto Firewall administration and content filtering ,load balancing between TATA and BSNL Leased line
- Installation and management of Surveillance cameras
- Maintenance of hardware and software assets
- Thin Clients in the digital Library for Internet access

Library Web Portal:

Library Portal is an interface to the Library resources and services to access e-question bank. Open source e-journals and magazines, open source e-books, e-news papers etc., are also made available. Link: <https://ametlibrary.wordpress.com/> (<https://ametlibrary.wordpress.com/>)

Digital Knowledge Centre:

Library has a separate section for digital library, which consists of 50 computer systems with an internet speed of 1 GBPS of National Knowledge Network and 100 Mbps of Tata Communications. Access of Internet in Digital Knowledge Centre enhances the facility to explore the electronic databases such as DELNET E-Journals and E-books subscribed by the Central Library.

Learning beyond Syllabus:

Content beyond syllabus is taught by each and every Faculty and is made available in the AMET LMS portal. Video conferencing lectures are organised by various Departments on content beyond the syllabus to get updated with the latest technology. The materials for content beyond syllabus, video lectures prepared by Faculty are made available in the You Tube Channels and AMET website. The viva presentation made by Research Scholars, PG students is also available in the AMET LMS portal/My CAMU platform.

Credit allocation/ Self Study courses:

As per the AMET CBCS regulations 2018, students are permitted to earn maximum of six credits through online courses/self study courses with the approval of Dean Academic and Head of the Department. Online courses completed with certificates issued by recognized agencies will be considered for credit allocation as given as,

4 weeks course = 1 credit

8 weeks course = 2credit

12 weeks course = 3 credit

Webinars/ Online Workshops:

AMET has the practice of organising many training programs for the students and Faculty. Various Departments have organized many webinars on Intellectual Property rights Pedagogical Initiatives and Outcome based Education etc during the lock down period.

MOOC/NPTEL/ Coursera Certification course:

Each Faculty member and student is informed to register for at least one online course in platforms such as Coursera, Edx and NPTEL, etc. per year. This enables them to enrich their subject knowledge with current trends, and also to equip themselves with multi disciplinary domain knowledge.

National Program on Technology Enhanced Learning (NPTEL), funded by Ministry of Human Resource Development (MHRD), Government of India provides E-learning through online video courses in Engineering, Science and Humanities and Management streams. The mission of NPTEL is to enhance the quality of engineering education in the country by providing free online courseware. The collection consists of 31780 video courses.

S.No.	SWAYAM DETAILS	2018-19 (ODD)	2018-19 (EVEN)	2019-20 (ODD)	2019-20 (EVEN)
1	Students Registered in SWAYAM courses	166	905	149	250
2	Students appeared in examination for SWAYAM courses	16	22	6	7
3	No of students passed in SWAYAM courses	16	16	3	7

Seminar by Students on Innovative Topics:

Students give extramural lecture once in a week on any innovative topic of their own interest in front of all students to demonstrate their communication and presentation skills. Students who presents extramural lecture are appreciated with certificates of participation by the Departments.

9.5 Career Guidance, Training, Placement (10)**Total Marks 10.00**

Institute Marks : 10.00

Career Guidance and Training:

The University has a separate cell namely “Centre for Career Development” to guide the students to choose their right career. Career guidance provides a substantial understanding about the career that the student is considering or needs help in choosing the right career. This is useful because the students might not have an overall knowledge of careers and the kind of expectation that is put by employers on the incumbents who are opting for that career. To understand their own strengths and weaknesses and know what careers they would be best suited for, and how to pursue them, our University has a Centre for Career Guidance cell for providing Career guidance and skill development trainings. The Centre organizes various training programs and activities for the students of all Departments.

Table B.9.5. (a) Activities conducted by the Centre for Career Development (2019-2020)

Sl.No	Name of the Programme	Year	Resource person	No. of the Participants
1	Communicative English-I	2019-20	Internal Faculty	274
2	Communicative English-II	2019-20	Internal Faculty	274
3	Technical English	2019-20	Internal Faculty	480
4	Communication Skills Lab-I	2019-20	Internal Faculty	480
5	Communication Skills Lab-II	2019-20	Internal Faculty	480
6	Business English-I	2019-20	Internal Faculty	130
7	Business English-II	2019-20	Internal Faculty	130
8	IELTS GENERAL	2019-20	Internal Faculty	430
9	IELTS GENERAL	2019-20	Internal Faculty	430
10	Communicative English	2019-20	Internal Faculty	30
11	Placement Training	2019-20	Internal Faculty	20
12	IELTS UKVI (Foundation Course)	2019-20	Internal Faculty	8
13	IELTS UKVI	2019-20	Internal Faculty	8
14	English communication, Aptitude, Employability skills	2019-20	SCALE UP	448
15	English communication, Aptitude, Employability skills	2019-20	SCALE UP	448
16	Communicative English	2019-20	EBEK	300
17	Placement Training	2019-20	EBEK	300
18	There days Short Term Course on Quantitative Aptitude Tricks and Techniques	2019-20	Internal Faculty	116
19	Project Management using Primavera	2019-20	Ms.Suganya, Trainer, Infinity PMC Pvt. Ltd.	77

Table B.9.5. (b) Activities conducted by the Centre for Career Development (2018-2019)

Sl.No	Name of the Programme	year	Resource person	No. of the Participants
1	Communication Skills - Advanced	2018-19	Internal Faculty	890
2	Leadership, Team work	2018-19	Internal Faculty	890
3	English communication, Aptitude, Employability skills	2018-19	SCALE UP	392
4	English communication, Aptitude, Employability skills	2018-19	SCALE UP	392
5	English and Communication Skills-I	2018-19	Internal Faculty	326
6	Guidance for competitive examinations	2018-19	Internal Faculty	120
7	English and Communication Skills-II	2018-19	Internal Faculty	326
8	Communication Skills Lab-I	2018-19	Internal Faculty	326
9	Communication Skills Lab-II	2018-19	Internal Faculty	326
10	Technical English	2018-19	Internal Faculty	620
11	Communication Skills Lab-I	2018-19	Internal Faculty	620
12	Communication Skills Lab-II	2018-19	Internal Faculty	620
13	Personality Development Programme-I	2018-19	Internal Faculty	600
14	Personality Development Programme-II	2018-19	Internal Faculty	600
15	Communication For Managers	2018-19	Internal Faculty	84
16	English Proficiency Skills	2018-19	Internal Faculty	120

Table B.9.5. (c) Activities Conducted by the Centre for Career Development (2017-2018)

Sl.No	Name of the Programme	year	Resource person	No. of the Participants
1	English and Communication Skills-I	2017-18	Internal Faculty	196

2	Grammar and Foundation	2017-18	Internal Faculty	890
3	Communication Skills - Basic	2017-18	Internal Faculty	890
4	English and Communication Skills-II	2017-18	Internal Faculty	196
5	Technical English-I	2017-18	Internal Faculty	580
6	Technical English-II	2017-18	Internal Faculty	580
7	Communication Skills - Basic	2017-18	Internal Faculty	890
8	English Proficiency Skills	2017-18	Internal Faculty	120
9	Soft Skills - I	2017-18	EBEK	890
10	Soft Skills - II	2017-18	EBEK	890
11	Career Development Centre Program "Introduction to Tally"	2017-18	CDC , Chennai	125
12	Guidance for competitive examinations	2017-18	Internal Faculty	250

Placement Training:

The Placement Cell is headed by the Placement Director. The Placement Department nominates a placement coordinator for every department of the University. The placement coordinators assist the placement cell by inviting the companies to the University and also prepare the students for the recruitment process in an efficient manner. The following placement services are provided to the students:

- Personality Development Program
- Communication skill development and soft skills Training
- Technical Training
- Value Added Training Programme
- Group Discussion
- Mock Interview

Pre-Placement and Placement Trainings are offered to the students by the Placement Cell to face interviews confidently and secure the job. Here students are guided in the following activities:

- Resume scrutiny
- Public speaking
- Written test
- Group discussion
- Personal interview
- Learning corporate culture
- Team Building etc.

The pre-placement training is given to students on a regular basis throughout the academic year and also placement training is given before the arrival of a company to the University campus.

Details of Campus Placement:**Table B 9.5. (d) Details of Placement and Higher Studies**

Name of the Program	Name of the Department	Total no of Students	No of students placed	No of Companies Visited AMET	No. of Students turned Entrepreneurs	No. of Students admitted to Higher studies
Academic Year 2017-2018						
BE (Marine Engg)	Marine Engineering	189	171	10	10	-
BSc(NS)	Nautical Science	180	154	9	12	-
BE (NA&OE)	Naval Architecture &Offshore Engineering	85	56	10	22	1
BE(Petroleum Engg)	Petroleum Engineering	124	79	10	27	1
BE (Mechanical Engg)	Mechanical Engineering	48	20	4	1	14
BE (EEE Marine)	Electrical and Electronics Engineering	9	5	4	1	2
MBA(Shipping and Logistics Management)	Master of Business Administration	67	63	12	0	-
BBA(Shipping)	Bachelor of Business Administration	83	69	11	8	-
Academic Year 2018-2019						
BE (Marine Engg)	Marine Engineering	197	168	12	9	-
BSc (NS)	Nautical Science	195	169	12	-	-
BE(NA&OE)	Naval Architecture &Offshore Engineering	89	65	14	7	5
BE(Petroleum Engg)	Petroleum Engineering	129	86	10	30	-
BE (Mechanical Engg)	Mechanical Engineering	43	15	7	1	20
BE(EEE Marine)	Electrical and Electronics Engineering	24	18	7	2	4
MBA(Shipping and Logistics Management)	Master of Business Administration	72	64	14	0	-
BBA(Shipping)	Bachelor of Business Administration	91	66	10	-	14
B.Com	Maritime Commerce	5	3	3	2	-

Centre for Higher Studies:

Centre for Higher Studies is constituted exclusively to cater to the needs of the students. Students are encouraged to write competitive exams. All the Departments offer coaching classes for Competitive Examinations such as GATE, IELTS, GMAT, GRE, TOEFL etc. The IELTS Centre has been established in AMET. This centre provides the orientation and coaching for examinations like IELTS and TOEFL.

AMET Centre for IELTS:

The AMET Centre for IELTS aims at enrichment of the language and providing in depth knowledge in communicative English and the fervour to appreciate the language in its originality. The course is designed for the students who come from different cultures and

speak different languages. English for International Communication course helps the students with the necessary skills, knowledge and understanding of the language which enables them to use and apply English in everyday life effectively.

• **Sample Report of IELTS Training imparted during 2019-2020.**

The students from various streams and disciplines attended and found the significance of IELTS to be of utmost importance. The students of all branches of Engineering, Nautical Science, HND (NS) liked International English Language Testing System to a great extent.

The students knew the need and importance of English language and understood well the benefits thereof. These students were very much motivated, decided to take up IELTS test. They understood the need of assessment of their standard of English language with respect to listening, speaking, reading and writing skills.

Students were trained by Mr. Johnson, Mrs. Maria and Mr.T. P. Rahmathullah. The students found the training much more beneficial and they were ready to undergo a good English communication training by way of IELTS.

The students understood that his course was initiated with an objective to enable them to be expert in all the four aspects of communication namely LSRW, Listening Speaking, Reading and Writing.

Precisely speaking the students who were trained International Schools, Army Schools, International Boards found the training quite easy gave importance for deep knowledge of grammar.

Needless to say that the Students, did not have English environment at all expressed their need for deep knowledge of English grammar. They were given assurance that grammar will also be taught with utmost importance.

Centre for Institute Industry Interaction (CIII):

The institution makes all efforts to connect the industry with the institute by organizing visits, guest lectures, inviting the industry personnel as chief guests, arranging faculty visits to the industry, tie-up with bodies such as CIII, ICTACT, etc., and signing of MOUs with industries. The institution invariably strains to connect the academic earn and Industrial needs through several activities and ensures the industrial readiness of students. The industry interaction is headed by experienced

Value Added Programmes:

The students are trained with recent technologies in various courses through Value Added Programs. Value added and audit courses by the internal faculty members and Value-added certificate programs from collaborative organizations in relevant fields are provided by the University for making the student industry ready candidates.

Table B. 9.5. (e) Shows the Value added courses conducted in AMET

S.No	Name of the value added courses offered at AMET
Academic Year (2018-2019)	
1	Basic Safety Training (BST)
2	Security Training for Sea Farers with Designated Security Duties (STSDSD)
3	High Voltage Operational Level
4	Engine Room Simulator Course
5	Wellness at Sea
6	Specialized Welding
7	Electrical Machines and Control
8	Data Analytics with Python
9	Computer Aided Design with CREO
10	Computer Numerical Control Programming for Turning and Milling
11	Latest Technology on Raspberry pi with IOT using Python
12	Data Analytics with Python
13	Data Analytics with Python
14	Data Analytics with Python
15	Basic Safety Training (BST)
16	Security Training for Sea Farers with Designated Security Duties (STSDSD)
17	Wellness at Sea

18	Solar Based Renewable Energy Technology
19	On-Board Ship Automation
20	Product Development and Basic Robotics using MCU
21	Robotics & its application
22	Branding and Marketing
23	FoSTAC
24	ISO 22000-2018 and HACCP
25	EXIM Trade and Customs Documentation
26	Export procedure and ICEGATE Training
27	Customes and ICEGATE Training
28	EXIM Trade
29	Customs Procedure and Operations
30	SWAYAM
Academic Year (2017-2018)	
1	Basic Safety Training (BST)
2	Security Training for Sea Farers with Designated Security Duties (STSDSD)
3	High Voltage Operational Level
4	Engine Room Simulator Course
5	Wellness at Sea
6	Specialized Welding
7	Primavera-Project Management
8	Primavera-Project Management
9	Computer Aided Design with CREO
10	Computer Numerical Control Programming for Turning and Milling
11	Primavera-Project Management
12	ISO 22000-2018 and HACCP Internal Auditor
13	Branding and Marketing
14	Basic Safety Training (BST)
15	Security Training for Sea Farers with Designated Security Duties (STSDSD)
16	Primavera-Project Management

Memorandum of Understanding (MOU)

With a view to impart training and inculcate technical knowledge through hands on training / real time situations to the students, more than 30 Memoranda of Understanding have been signed with industries. The faculty members and students regularly undergo training in these companies. A MOU has been signed with Asia Pacific University of Technology Innovation, Malaysia for interacting with overseas experts.

- **In-plant Training**

In-plant training offers a brief period of time in an industry to gain the knowledge of the work culture in industries. It is beneficial for students to gain knowledge when they work in the company after graduation. They will be familiar with the industry and help them to work better in the surroundings. The alumni coordinator constantly interacts with alumni those who are working in the industries and they also supports for their junior's internship.

- **Industrial Visit**

The department organizes industrial visits for students once in a semester to relevant organizations/companies to enable the students to experience the practical implementation of theoretical knowledge in real world. This gives them an insight of exposure to the industrial environment and the work culture ethics in Industries.

9.6 Entrepreneurship Cell

Total Marks 5.00

Institute Marks : 5.00

The Entrepreneurship Development Cell (EDC) continuously guide and support students to participate in various activities and motivates them to become entrepreneurs. The EDC of AMET Deemed to be University was enrolled under the Academic Innovation and Entrepreneurship Development Programme (AIEDP) of Entrepreneurship Development and Innovation Institute – Tamil Nadu (EDII-TN) with effect from 26/10/2018. AMET Deemed to be University is attached as a SPOC institution with Centre for Entrepreneurship Development - CED ANNA University. Based on this, EDC students attend programmes organised by CED ANNA University. EDC organizes Entrepreneurship Awareness Camps sponsored by National Science & Technology Entrepreneurship Development Board (NSTEDB) and Department of Science & Technology (DST-NIMAT), National Entrepreneurship development centre (NEDC), National Institute of Entrepreneurship and Small Business Development (NIESBUD).

Funding from MSME – Development Centre under DC – MSME:

As the innovation ecosystem was development over a period with various activities among the students and faculty, the University is approved as Host Institution to carry out Business Incubation (HI/ BI) from DC MSME – Micro, Small, Medium, Enterprises, New Delhi, and Government of India and is entitled to undertake innovative and entrepreneurial development activities. Under this scheme AMET is approved to undertake projects and nurture them to become start-ups by incubating them in our campus. This scheme provides Rs.3.5 crore as financial assistance, which includes up to 15 Lakh for nurturing 10 ideas (Rs.15lac x 10 ideas = 1.5 crores) to HI, Rs. 1.00 crore. as Capital Support to HI for Plant and Machines, Rs. 1.00 crore as SEED capital support to deserving idea, awareness and workshop programme.

The Incubation centre is approved as Design Centres under Incubation Scheme of DC MSME with effect from April 2020 and the centre have already tapped the opportunity, by submitting various proposals to organise awareness programmes, workshops, seminars and student design projects to a tune of Rs.3.11 Crore. This is approved under the MSME Credit Link Capital Subsidy – Technology Up gradation Scheme (CLCS-TUS). The AMET Innovation and Incubation centre facility is equipped to accommodate incubates and have accommodated 8 external incubates over a period since 2016. Under MSME scheme 15 project ideas and Business proposal from students/ faculty are submitted and are awaiting approval in addition to 4 projects submitted by external members.

Institution Innovation Council (IIC):

In November 2018 AMET formed the Institution Innovation Council, and inaugurated the same with 16 student members, 3 faculty members and 5 external members. The University allotted department coordinators for each core departments and the IIC activities were conducted as per schedule to bring awareness about innovation/entrepreneurship and AMET Deemed to be University received the maximum 4 STAR certificate for the academic year 2018-19. In the academic year 2019-20 we have 24 faculty members and 135 student members enrolled in IIC and have so far received 2 STAR recognition for the quarter 1 and quarter 2 performance indexes with a maximum cumulative score of 37.45/50. Students of AMET participated in SMART INDIA HACKATHON (SIH -2019) organised by MHRD innovation cell (MIC). 44 team (5-software, 39-hardware) participated by submitting innovative ideas and 4 teams were selected for round 2 video presentation of the working model. 15 innovative problem-solving ideas were submitted by the students for SIH 2020. The University organised an internal Hackathon as per the norms and submitted 3- software ideas and 2-hardware ideas after internal scrutiny. AMET participated in ARIIA 2019 and in ARIIA 2020. In ARIIA 2020, AMET ranked between 26-50 under Band B among private Universities in India.



Fig 9.6 : Certification of Appreciation in ARIIA 2020

Participation of AMET students in SMART INDIA HACKATHON (SIH-2020)

Table B. 9.6.(a) Student's participation in Smart India Hackathon

S. No	Nature of talent – (Problem statement)	Problem stmt No.	Hardware /software	Name of the Team leader

1	Plant disease detection using machine learning.	NM372	Software	Balamurugan K
2	To Predict the Optimum Vessel Turnaround Time	SM320	Software	S. Monisa
3	Reconstruction of missing data in Satellite Imagery	NM391	Software	S. L. Akshaya
4	Artificial intelligence enabled robotic trash boat to drive & harvest floating trash from urban drain.	PG175	Hardware	K.M. Mohammed Rahman Sherif
5	Smart Vehicles	IC485	Hardware	Milan Mahato
6	Artificial reefs- Blorock- Tamil Nadu.	IC487	Hardware	Cadet. Gurukeswar Sreedharan
7	Portal for Farmers to sell the produce at a better rate	RA27	Software	Rajkhumar Billva. C
8	Energy/Renewable energy	IC478	Hardware	Aswin S Nair
9	Artificial intelligence enabled robotic trash boat to drive & harvest floating trash from urban drain.	PG175	Hardware	Ashil Antony
10	Smart Management of Food Storage and Waste Reduction	AG50	Software	Doddapaneni Venkata Chandra Shashank
11	Smart management of street lights for energy conservation	AG51	Hardware	Albert
12	Clean Water Technology	VS19	Hardware	Roobesh
13	Robotics arm for instruction, cleaning and painting of tanks on ships to save time cost & avoid Accidents	AN418	Hardware	Athira Unnikrishnan
14	Robotics arm for instruction, cleaning and painting of tanks on ships to save time cost & avoid Accidents	AN418	Hardware	Santhosh
15	Sustainable Environment	Bc73	Hardware	Athira Unnikrishnan

Details of Programmes organised by AMET on innovation/entrepreneurship:

Table B. 9.6.(b) Details of Programs organised on innovation/entrepreneurship

S.No	Name of the programme	Date	Number of participants
1	Certificate Programme on 'Empowerment of Entrepreneurship and Skill – Government of India Initiative conducted by NIESBUD	30-08-2017	90
2	Special lecture on "Innovation to incubation"	27-02-2018	55
3	Certificate Programme on 'EXIM Business' in collaboration with the National Entrepreneurship Development Centre (NEDC)	01-10-2018	112
4	Workshop on Cognitive skill, design thinking and critical thinking	27-11-2018	52
5	Intellectual property rights(Patent and innovation)	03-12-2018	120
6	MHRD's Innovation cell (Institution Innovation Council – IIC) -webinar titled "India First Leadership Talk Series" by Sri Anand Mahindra, Chairman, Mahindra Group	08-01-2019	302
7	MHRD's Innovation cell (Institution Innovation Council – IIC) -webinar titled "India First Leadership Talk Series" by Dr. Anand Deshpande , Founder, Chairman & Managing Director Persistent Systems Ltd., on the title "Planning for Career, Future industry trends and Startup"	22-01-2019	300
8	Workshop on IPR for students and faculty two-hour Offline session by Dr. A. Yamuna, Senior Associate, K&S Partners - Intellectual Property Attorneys. 10.30 8am to 12.30 pm	10-01-2019	140

S.No	Name of the programme	Date	Number of participants
9	MHRD's Innovation cell (Institution Innovation Council – IIC) -Workshop on IPR for students and faculty by Ms. Swatasree, Principal, Fidus Law Chamber (Online session live from MIC 2.30 to 3.30 pm)	10-01-2019	200
10	One day Workshop on Patent drafting for beginners	08-03-2019	90
11	Business Game Module 'Leading to Excellence-An experiential learning programme'	20-03-2019	28
12	Special Lecture on Vistas of growth for entrepreneurs through Digital Marketing	25-03-2019	60
13	One day workshop on Innovation to Entrepreneurship organized by Innovation and Incubation Centre	26-03-2019	180
14	Entrepreneurship Awareness Camp sponsored by National Science & Technology Entrepreneurship Development Board (NSTEDB) and Department of Science & Technology (DST-NIMAT) Govt. of India, New Delhi	26-09-2019 to 28-09-2019	150
15	Innovation Day program	15-10-2019	200
16	Innovative Idea and Design competition	15-10-2019	240
17	Exhibition on innovative prototypes	15-10-2019	120
18	outreach program for School students from the neighbourhood	15-10-2019	90
19	Entrepreneurship Awareness Camp sponsored by National Science & Technology Entrepreneurship Development Board (NSTEDB) and Department of Science & Technology (DST-NIMAT) Govt. of India, New Delhi	23-10-2019 to 25-10-2019	150
20	Internal Hackathon – 2020	22-01-2020	150
21	"We Pitch Chengalpattu" Organized by WOMENNOVATOR in association with AMET University	05-02-2020	180
22	AMET Ideathon-2020	24-02- 2020 to 25-02-2020	350
23	Workshop on Business plan Writing	13-03-2020	60

List of companies incubated in AMET campus:

Table B. 9.6.(c) List of Companies incubated in AMET

S.No	Date of incorporation	Name of the company	Name	Website details
1	22-04-2016	Cognatio Techno Solutions Pvt Ltd	L. V. Nagalakshmi	www.cognatiots.com (http://www.cognatiots.com/)
2	01-06 2017	City Delivers -	Mr. Venkat	www.citydeliveries.com (http://www.citydeliveries.com/)
3	22-06- 2018	Vetbiotic Animal care Pvt Ltd	Dr. Karthick ramachandran	http://vetbiotics.in (http://vetbiotics.in/)

4	04-01-2019	Aran Cyber Security Pvt Ltd	Mr. Aran	www.arancybersecurity.com (http://www.arancybersecurity.com/)
5	05-01-2019	Sensigo Technologies Pvt Ltd	Mr. Prem	www.sensigotechnologies.com (http://www.sensigotechnologies.com/)
6	20 -11- 2019	CE2020 Technologies Pvt Ltd	Mr.Praveen Padmanabhan	www.cetech.com (http://www.cetech.com/)
7	31-01- 2020	Aquatics Victory Sphere	Yukesh	Nil
8	22 -02- 2020	Mamallan farmers Producer Company Limited	Dilli vignesh	Nil

List of student start- up registered under UDHYOG ADHAR:

Table B. 9.6.(d) List of student start- up registered under UDHYOG ADHAR

S.No	Name of the student	Name of the Startup	Date of registration
1	Afreeth S	Tritons	25-02-2019
2	Suraj Rajshekhar Nair	Greenzit	09-09-2019
3	Mohamed Akil Saleem Khan	Rapid	02-12-2019
4	Doddap Aneni Venkata Chandra Shashank	O App	16-09-2019
5	Vikramslevaganesh	Women Safety	24-08-2019
6	Roobesh Balasubramani	Hackoholics	03-11-2019

Details of Alumni entrepreneurs:

Table B. 9.6.(e) List of Alumni entrepreneurs

S.No	Name of the Entrepreneur	Name & Address of the Company	Year of Starting
1	Dr. Karthick Ramachandran	Vetbiotic Animal care Pvt Ltd	22-06-2018
2	Mr.Giri	Flux Board for All shops	14-05-2017

9.7 Co-curricular and Extra-curricular Activities

Total Marks 10.00

Institute Marks : 10.00

Co-Curricular Activities:

AMET motivates the students to take part in various co-curricular activities. Students are actively participating in the co-curricular activities such as symposia, conferences, project expo, technical events and competitions conducted by various institutions. AMET encourages the students to take part in co-curricular activities along with their regular academic commitments to keep them exposed to recent developments in the field of interest and to share their experiences among peer groups. The students are encouraged to associate themselves with the technical societies like ISTE, IEEE, SAE, MTS, etc., to present their work in conferences and to publish in reputed National and International Journals. Participation in workshops and design contests is encouraged to sharpen their knowledge. Each department has separate Technical Association through which students organize National and International level technical events under the supervision of faculty members every year.

Air-conditioned auditorium and seminar hall for organizing the guest lecture, conference, symposia, Workshops etc are available in the campus.

The following tables show the participation of B.E (EEE –Marine), B.E (Mech) and MBA students in co-curricular activities for the academic year 2019-2020. (Sample enclosed)

Table B. 9.7.(a) Participation of B.E (EEE-Marine) Students in Workshop/Seminar/Symposium/Other training Program for the Academic Year2019-20

S. No	Name of the Student	Prize/ Participation	Title	Event place
1	R Pradeep Kumar	Participation	International Workshop on Ocean Technology	National Institute of Ocean Technology, Chennai
2	M Balaji	Participation	International Workshop on Ocean Technology	National Institute of Ocean Technology, Chennai
3	M Balaji	Participation	Training Program on Realization of 26Internet of Things for27 Smart Cities	Anand Institute of Higher Technology, Chennai
4	R Pradeep Kumar	Participation	Train28ing Program on Realization of Internet of Things for Smart Cities	Anand Institute of Higher Technology, Chennai
5	S Vengadeshwara Rao	Participation	Internship (Power System)	RETECH Solutions PVT LTD, Chennai
6	R Pradeep Kumar	Participation	Internship, (Power System)	RETECH Solutions PVT LTD, Chennai
7	S Viknesh	Participation	Seminar (Artificial Intelligence for Embedded System)	Jerusalem College of Engineering, Chennai
8	S Viknesh	Participation	International Workshop on Ocean Technology	National Institute of Ocean Technology, Chennai
9	S Viknesh	Participation	Hands on Training (110/33-11KV)	TamilNadu Generation & Distribution Corporation Limited, Chennai
10	R Hemanth Raj	Participation	Hands on Training (110/33-11KV)	Tamil Nadu Generation & Distribution Corporation Limited, Chennai
11	B Nirmal Kumar	Participation	Workshop (Internet of things Workshop)	Vellore Institute of Technology, Chennai

12	B Nirmal Kumar	Participation	Workshop (Industry 4.0)	Sarada Technologies Training & Development, Chennai
13	P Dhanasekar	Participation	Hands on Training (110/33-11KV)	Tamil Nadu Generation & Distribution Corporation Limited, Chennai
14	B Nirmal Kumar	Participation	Workshop (Hybrid & Electric Vehicle)	Madras Institute of Technology, Anna University
15	S Voms	Participation	Internship (Power System)	RETECH Solutions PVT LTD, Chennai
16	ADHARSH B A	Participation/ Tech Quiz	Technical Symposium Inventa 4.0 2019	SSN College of Engineering, Chennai
17	AKASH P SANTOSH	Participation/Project Presentation	Technical Symposium Inventa 4.0 2019	SSN College of Engineering, Chennai
18	AUSTIN JEBARAJ S	Participation/ Tech Quiz	Technical Symposium Inventa 4.0 2019	SSN College of Engineering, Chennai
19	BALAJI M	Participation/ Think-D	Technical Symposium Inventa 4.0 2019	SSN College of Engineering, Chennai
20	AKASH P SANTOSH	Participation/Project Presentation	Technical Symposium Inventa 4.0 2019	SSN College of Engineering, Chennai
21	AUSTIN JEBARAJ S	Participation/ Think-D	Technical Symposium Inventa 4.0 2019	SSN College of Engineering, Chennai
22	BALAJI M	Participation/ Tech Quiz	Technical Symposium Inventa 4.0 2019	SSN College of Engineering, Chennai
23	AKASH P SANTOSH	Participation/ Tech Quiz	Technical Symposium Inventa 4.0 2019	SSN College of Engineering, Chennai
24	AUSTIN JEBARAJ S	Participation/Project Presentation	Technical Symposium Inventa 4.0 2019	SSN College of Engineering, Chennai

25	GOKULRAJ R	Participation/TECH JAM	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering
26	JAYALAL J	Participation/ PAPER PRESENTATION	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering, Chennai
27	ANANDU K	Participation/ PROJECT EXPO	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering, Chennai
28	MANOJ V	Participation/PAPER PRESENTATION	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering, Chennai
29	PRABHUL B	Participation/PROJECT EXPO	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering, Chennai
30	PRADEEP KUMAR R	Participation/PROJECT EXPO	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering, Chennai
31	TAMILSELVAN D	Participation/PAPER PRESENTATION	Symposium ELECTRO-FEST 4.0 2019	Mohamed Sathak AJ College of Engineering, Chennai
32	S SAI HARI	Participation/FACE TO FACE	Symposium Pinnacle 2k19	SRM Easwari Engineering College, Chennai
33	SETHU SUNDAR V	Participation/Bob The Builder (Web Designing)	Symposium Pinnacle 2k19	SRM Easwari Engineering College, Chennai
34	TAMILSELVAN D	Participation/ Paper Presentation	Symposium Pinnacle 2k19	SRM Easwari Engineering College, Chennai
35	VENGADESHWARA RAO S	Participation/ Decode (Coding)	Symposium Pinnacle 2k19	SRM Easwari Engineering College, Chennai
36	VINU DHARMENDAR P	Participation/ Paper Presentation	Symposium Pinnacle 2k19	SRM Easwari Engineering College, Chennai
37	S VOMSI	Participation/ Bob The Builder (Web Designing)	Symposium Pinnacle 2k19	SRM Easwari Engineering College, Chennai

38	JAIN JAMES	Participation/ Prototype Presentation	Information Technology Festival Stithapragya 2k19	KCG College of Technology, Chennai
39	AMUTHAN.A	Participation/ Paper Presentation	Information Technology Festival Stithapragya 2k19	KCG College of Technology, Chennai
40	AMUTHAN.A	Participation/ Technical Quiz	Information Technology Festival Stithapragya 2k19	KCG College of Technology, Chennai
41	ABHINAV V	Participation/ Hackeract (UIUX Hackathon)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
42	Aditya	Participation/ Hackeract (UIUX Hackathon)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
43	AJAY G	Participation/ Project Presentation)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
44	AJAY KANNAN	Participation/ (Coding Contest)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
45	Aditya	Participation/ Debugging Contest)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
46	AJAY G	Participation/ Project Presentation)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
47	ABHINAV V	Participation/ (Coding Contest)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
48	ABHINAV V	Participation/ Debugging Contest)	Design Thinking Summit 2k19	Rajalakshmi Engineering College, Chennai
49	ANITOSH MONDAL	Participation/ HACKATHON	Technical Festival Ignitor 2019	CGC Technical Campus, Mohali, Punjab

Table B.9.7. (b) Participation of B.E (EEE Marine) students in National/ International Conferences

Academic Year 2019-2020

S. No	Name of the Student	Prize/ Participation	Title	Event place
1	A Duraipandi	Participation	International Conference (PV Powered Standardized Irrigation System using Soil Moisture Sensor)	Chennai Institute of Technology, Kundrathur, Chennai

2	I Hasheem Shariff	Participation	International Conference (A case study on 20KW Grid Connected Roof Top Solar Photovoltaic System in Tamilnadu)	SSN College of Engineering, Chennai
3	I Hasheem Shariff	Participation	International Conference (Smart Switch for Three Phase Supply)	The New College, Royapettai, Chennai
4	N Mohammed Yaseer	Participation	International Conference (PV Powered Standardized Irrigation System using Soil Moisture Sensor)	Chennai Institute of Technology, Kundrathur, Chennai
5	P. Dhanasekar	Participation	3rd International Conference on Advance Scientific Innovation in Science, Engineering and Technology (ICASISSET-2020)	Bharath Institute of Higher Education and Research (Deemed to be University), Chennai
6	S. Viknesh	Participation	3rd International Conference on Advance Scientific Innovation in Science, Engineering and Technology (ICASISSET-2020)	Bharath Institute of Higher Education and Research (Deemed to be University), Chennai
7	R. Dinesh	Participation	3rd International Conference on Advance Scientific Innovation in Science, Engineering and Technology (ICASISSET-2020)	Bharath Institute of Higher Education and Research (Deemed to be University), Chennai
8	C.K. Manoj	Participation	International Conference on Power Engineering Computing and Control" (PECCON 2019)	Vellore Institute of Technology (Deemed to be University), Chennai
9	G. Aagash	Participation	International Conference on Power Engineering Computing and Control" (PECCON 2019)	Vellore Institute of Technology (Deemed to be University), Chennai
10	P. Dhanasekar	Participation	International Conference on Power Engineering Computing and Control" (PECCON 2019)	Vellore Institute of Technology (Deemed to be University), Chennai
11	Hemanth raj R	Participation	National Conference on Cutting Edge Technologies in Power Conversion and Industrial Drives PCID 2019	Bannari Amman Institute of Technology, Erode

12	Jaya surya G	Participation	National Conference on Cutting Edge Technologies in Power Conversion and Industrial Drives PCID 2019	Bannari Amman Institute of Technology, Erode
13	Karthick R	Participation	National Conference on Cutting Edge Technologies in Power Conversion and Industrial Drives PCID 2019	Bannari Amman Institute of Technology, Erode
14	P. Dhanasekar	Participation	CSIR Sponsored National Conference on New- Generation Materials for Energy Applications-2019	B.S. Abdur Rahman Crescent Institute of Science & Technology, Chennai
15	S. Viknesh	Participation	CSIR Sponsored National Conference on New- Generation Materials for Energy Applications-2019	B.S. Abdur Rahman Crescent Institute of Science & Technology, Chennai
16	R. Dinesh	Participation	CSIR Sponsored National Conference on New- Generation Materials for Energy Applications-2019	B.S. Abdur Rahman Crescent Institute of Science & Technology, Chennai
17	G. Aagash	Participation	Technical Student Conference Kagada 19	University Visvesvaraya College of Engineering, Bengaluru
18	C.K. Manoj	Participation	Technical Student Conference Kagada 19	University Visvesvaraya College of Engineering, Bengaluru

Table B. 9.7. (c) Participation of B.E (Mechanical) Students in Workshop/Seminar/Symposium/Other training Program for the Academic Year 2019-20

S.No	Name of the Student	Prize/ Participation	Title	Event place
1	Prabin Raj. A	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
2	Rahul. P	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
3	Ram Prasanth. A	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai

4	Rathesh. J	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
5	Rishi Kumar	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
6	Rithish Kumar	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
7	Robin. M	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
8	Ryvan P. S	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
9	Santhosh. R	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
10	Sudharson	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
11	Vishal	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
12	Yogeshwaran. P	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
13	Parthasarathi. K	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
14	Parthiban. S	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
15	Sanjay. S	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
16	Yuvaraj. S	Participation	Invente 4.0, A Technical Symposium	SSN College of Engineering, Chennai
17	Sivabalan	Prize (1 st Prize)	Engineering for Change, Essay Writing Competition	IGCAR, Kalpakkam
18	Prabhsimran S. Garcha	Participation	Architecture, Oxford Summer Courses	Somerville College, UK
19	Sobhit Swarnamaya	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
20	Nair Suraj Rajshekhar	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
21	Prathiush. P	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
22	Milan Mahato	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai

23	Sai datha singh	Participation	Design Contest 2019	Indian Insitute of Management, Bengaluru
24	Jay R Kothare	Participation	Design Contest 2019	Indian Insitute of Management, Bengaluru
25	Sudharsan J	Participation	Design Contest 2019	Indian Insitute of Management, Bengaluru
26	Kapil Raj.M	Participation	Design Contest 2019	Indian Insitute of Management, Bengaluru
27	Jay R Kothare	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
28	Albert gnana micheal. A	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
29	Arjun.N	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
30	Gokulnath. S. H	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
31	Infant agnel.J	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
32	Jenish. G	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
33	John stanely. D	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
34	Lokesh I	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
35	Mohamed tharik S	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
36	Monish raghav P	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
37	Nair Ahmad	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
38	Panneer selvam S	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
39	Petchi muthu.N	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
40	Praveen D	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
41	Praveen V	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
42	Raghul. U	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai

43	Ramki A	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
44	Ram kumar.S	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
45	Sai abinеш A	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
46	Sanjay.R	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
47	Sarveshwaran.N	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
48	Sheik dawood ibrahim.T	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
49	Shiva prakash. M	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
50	Siva sakthi velan S	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
51	Sourabh sunil	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
52	Sudharsan.J	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
53	Tamilselvan S	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
54	Thanuj poojary	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
55	Velmurugan.V	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
56	Vignesh.E	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
57	Vignesh. V	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
58	Vishnu valsan	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
59	Abin doss D	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
60	Kathiravan P	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
61	Kapil raj M	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai
62	Deshmukh arvind dilip	Participation	E- Vehicles and Hybrid Vehicles	SSN College of Engineering, Chennai

63	Vignesh S	Participation	Challenges and opportunities of virtual reality and augmented reality integrated with AI	Hindusthan Insitute of Technology, Coimbatore

Table B.9.7.(d) Participation of MBA students in Workshop/Seminar/Symposium/ Other Training Program for the Academic Year 2019-2020

S.No.	Name of the Student	Recognition/Award Details	Awarding authority	Year of Award
1	Harish.C.	Desafio	SRM Institute of Science & Technology - Vadapalani Campus	2020
2	C.P.Richerd	Action to Auction	Indian Maritime University – ESTUARY 2020	2020
3	Harish.C.	Action to Auction	Indian Maritime University – ESTUARY 2020	2020
4	D.GuruRajan	Action to Auction	Indian Maritime University - ESTUARY 2020	2020
5	G.Chinnadurai	Action to Auction	Indian Maritime University - ESTUARY 2020	2020
6	Karan	Seminar on E-Commerce & Digital Strategies	Indian Maritime University – ESTUARY 2020	2020
7	R.Shashidhar Naik	Seminar on E-Commerce & Digital Strategies	Indian Maritime University – ESTUARY 2020	2020
8	Joel Abraham John	Seminar on E-Commerce & Digital Strategies	Indian Maritime University – ESTUARY 2020	2020
9	Jeswin Raphael	Seminar on E-Commerce & Digital Strategies	Indian Maritime University - ESTUARY 2020	2020
10	Desai Karan	Biz- King (Best Manager)	Indian Maritime University - ESTUARY 2020	2020
11	S.S.Arshad Nissath	Shutter, Shot	Indian Maritime University – ESTUARY 2020	2020
12	Chinnadurai.G	War of Thumbs	Indian Maritime University – ESTUARY 2020	2020

13	Joel Abraham John	Quizophile (Business Quiz)	Indian Maritime University – ESTUARY 2020	2020
14	Shashidhar Naik.R	Quizophile (Business Quiz)	Indian Maritime University - ESTUARY 2020	2020
15	Jeswin Raphel	Quizophile (Business Quiz)	Indian Maritime University - ESTUARY 2020	2020
16	V.Hari	War of Thumbs (FIFA)	Indian Maritime University - ESTUARY 2020	2020
17	T.Shanmuganathan	War of Thumbs (FIFA)	Indian Maritime University - ESTUARY 2020	2020
18	Lokesh.D	Seminar on E-Commerce & Digital Strategies	Indian Maritime University - ESTUARY 2020	2020
19	PushPesh Prabhu	Seminar on E-Commerce & Digital Strategies	Indian Maritime University - ESTUARY 2020	2020
20	Lokesh.D First Prize	Shutter, Shot	Indian Maritime University – ESTUARY 2020	2020
21	Lokesh.D	"Extension Programme- Session on Interpersonal Skill Development and marketability of SHG products"	AMET Deemed to be University	2020
23	Naveen Kumar.N.	"Extension Programme- Session on Interpersonal Skill Development and marketability of SHG products"	AMET Deemed to be University	2020
24	Pushpesh Prabhu	"Extension Programme- Session on Interpersonal Skill Development and marketability of SHG products"	AMET Deemed to be University	2020
25	Lokesh.D	Seminar on E-Commerce & Digital Strategies	Indian Maritime University - ESTUARY 2020	2020
26	Pushpesh Prabhu	Seminar on E-Commerce & Digital Strategies	Indian Maritime University - ESTUARY 2020	2020
27	Ebenezer Jebaseelan	"Blue Economy & Challenges to overcome"	The Institute of Chartered Ship Brokers	2019
28	Sharon.D	"Blue Economy & Challenges to overcome"	The Institute of Chartered Ship Brokers	2019
29	G.Hariharan	"Blue Economy & Challenges to overcome"	The Institute of Chartered Ship Brokers	2019

30	Sachin Saravan..N.	"Blue Economy & Challenges to overcome"	The Institute of Chartered Ship Brokers	2019
31	Irfana M.K	Gold medal – National Sports	Sr. National Fifth Ball championship	2019
32	Bilal	Football	Vellore Institute of Technology	2019

Extra-Curricular Activities:

Sports and Games being an integral part of AMETs total educational programme, the following Indoor and Outdoor facilities are developed and maintained for the students.

Table B.9.7.(e) Sports Facilities in AMET

S.No	Details	Location	Area in Sq. Mtrs
Outdoor			
1.	Multi-Purpose 200 Mtrs Mud Track / Cricket Field / Football Field	Ship In Campus	4225
2.	Hand Ball Court	Ship In Campus	800
3.	Kabaddi Court	Ship In Campus	360
4.	Volley Ball Court	Opposite to D Block	600
5.	Basket Ball Court	Parade Ground	405
6.	Beach Volleyball	Ship In Campus	200
7.	Futsal Court	Ship In Campus	675
8.	Long Jump Pit	Ship In Campus	175
9.	Cricket Nets	Ship In Campus	520
10.	Swimming Pool with Gallery	Opposite to C Block	875
Indoor			
11.	Table Tennis	C Block	48
12.	Badminton Court	Yamuna Hostel	294
13.	Chess	C Block	100
14.	Carrom	C Block	100
15.	Snooker	C Block	42
Gymnasium			
16.	Boys Gym I & II	C Block & Ganga Hostel	780
17.	Girls Gym	Girls Hostel	24

Our students actively participate in the zonal, district, state and national level sports competitions and bring laurels to the University. Certificates and championships are being honored for the achievers. Travel allowances are provided to the students to participate in the Sports Meet held at various places. Sports day is conducted every year an exclusive department headed by Physical Education Director takes care of the sports activities. Students are permitted to participate in various tournaments after getting permission from the Registrar and

Vice Chancellor, respective Head of Department. Physical Director accompanies the students for inter/intra/zonal/state level tournaments. The participants are provided with travelling assistance, sports kit, T-shirts, etc.

Table B. 9.7.(f) Availability of Sports Facilities

S.No	Game	Particulars
1.	Badminton	3 Courts with cement floors
2.	Basketball	1 Basketball court with standard marking
3.	Beach Volleyball	1 Standard Court
4.	Carrom	10 Carrom Boards
5.	Chess	15 Chess Boards
6.	Cricket	2 Cricket Nets with cement concrete
7.	Football / 200 Mtrs Athletics Track / Cricket	Multipurpose facilities
8.	Handball Court	2 Standard Courts
9.	Futsal Court	2 Nos.
10.	Gym	3 Gyms, Two Gym for Boys and 1 for Girls, all the gyms having 11 Multi Session Machines with all weight training equipments
11.	Kabaddi	2 Standard Courts
12.	Snooker	1 Snooker Board
13.	Swimming Pool	One Standard Swimming Pool is available with proper safety measures
14.	Table tennis	6 Table tennis boards
15.	Volleyball	2 Volleyball courts protected with fencing.

The following tables show the number of awards/medals won by the students for the outstanding performance in sports activities at national/international level during the last three years.

Table B.9.7.(g) Student Participation in Sports (2019-2020)

Name of the award/medal	National /International	Sports/cultural	No of the students
First place	International Level Sports Festival – RIVIERA Organized by VIT, Vellore from 12 th Feb to 15 th Feb 2020	Body Building	1
Second place	Tamil Nadu State Body Building Association, Thiruvallur	Body Building	1
First Place in 400 meters	Open National Level Athletics organized by Shivaji college, sports complex, New Delhi	Athletics	1
Second Place in 200 meters	Open National Level Athletics organized by Shivaji college, sports complex, New Delhi	Athletics	1
Fourth Place	SSN Trophy-2020 - National level Inter collegiate Tournament Organized by SSN College of Engineering, Chennai from 24 th to 27 th Feb 2020.	Basketball	12
First Place	Ponnaiyah Ramajayam Memorial State level Tournament (Men) 2020 Organized by PRIST University, Thanjavur on 3 rd & 4 th March 2020.	Basketball	08

First Place	Takshashila 2020 National Football Tournament Organized by Chennai Institute of Technology on 28 th & 29 th Feb 2020	Football	6

Table B.9.7.(h) Student Participation in Sports (2018-2019)

Name of the award/medal	National /international	Sports	Number of students
First Place	2 nd Senior National Fistball Championship from 29 th to 31 st March 2019	Fistball	1
Third Place	National Level Sports Fest organized by VIT Chennai	Football	16
Overall Runner Mr.Riviera 1 st place (Gold) 1 st place (Gold) 2 nd place (Silver)	Riviera 2019- International Sports Fest.	Body Building 70-80kg category	3
Gold Medal		50-60kg Category	
Bronze Medal		50-60kg Category	
Bronze Medal		Swimming Event (100m&50m Breast Stroke) 50m Free Style	2
Winner	5 th National Level Inter Maritime Institutions Sports Meet at AMET University held at March 2019	Athletic event	4
Winner		Kabaddi	12
WINNER		Football	16
Winner		Basketball	10
Winner		Handball	12
Winner		Cricket	16
Winner		Badminton	5
Overall winner		Body building	4
Overall winner		Swimming	5
Winner		Volleyball	11
Winner		Chess	5
Winner		Table Tennis	5
Winner		Snooker	4

Table B.9.7.(i) Student Participation in Sports (2017-2018)

Name of the award/medal	National /international	Sports	Name of the student

Second Place	11 th Senior National Fistball Championship from 26 th to 28 th January 2018	Fistball	1
Third Place	28 th Federation Cup Throwball Championship from 10 th to 12 th November 2017	Throwball	1
<i>Winner</i>	4th National Level Inter Maritime Institutions Sports Meet at AMET University on 13th to 15th March 2018	Basketball	13
<i>Overall Winner</i>		Body Building	5
<i>Winner</i>		Table Tennis	3
<i>Overall Runner</i>		Swimming	4
<i>Winner</i>		Volleyball	12
<i>Winner</i>		Kabaddi	10
<i>Winner</i>		Cricket	15
<i>Winner</i>		Beach Volleyball	2
<i>Winner</i>		Football	11
<i>Winner</i>		Handball	12

Sports day:

AMET celebrates Sport Day 'AMETUNISPO' every year. In the academic year 2017- 18, the event was organized at AMET on 19th April 2018. The function starts with the Inaugural Address by Mrs. Sangeetha Albin, Director - Administration. The Chief Guest of the day was Mr. C.P. Senthil Kumar, Managing Director, Brizo Global Logistics Pvt. Ltd., who delivers the Chief Guest address, and the Guest of Honor was Ms. Tamilarasi Srinivasan, Paralympics State Champion. The presence of the Chief Guest and the Guest of Honors steals the student's attention. Mrs. Sangeetha Albin, Director Administration, give away the prizes for the winners and runners for the Intramural competitions. The program ends with the National anthem.



Fig.9.7.(a) Sports Day Function at AMET (Sample)

Tournaments:

The following table list the various tournaments participated by our AMET students

Table B.9.7.(j) Student's Participation in various tournaments

S.No	Student's Participation in various tournaments
1	SSN Trophy 2019
2	Vibrance Sports Fest 2019
3	Riviera 2019
4	6 th LICET Tournament
5	CIT Parathasarathy Memorial Trophy
6	Dr.MGR Memorial T20 Cricket Tournament, organized by Sathyabama University Chennai.

7	TNPESU- SDAT Tamil Nadu State Inter University Badminton Tournament 2018-2019 for Men & Women
8	SDAT – Tamil Nadu State Inter University Volleyball Tournament for Men & Women organized by Tamil Nadu Veterinary and Animal Sciences University
9	SDAT – Tamil Nadu State Inter University Swimming Tournament for Men & Women organized by Kalasalingam University
10	State level Inter Collegiate Handball Tournament for Men – HADZANA 2018 Organized by Jeppiaar SRR Engineering College
11	State level Inter Collegiate Handball Tournament for Men & Women organized by Nazareth College of Arts and Science
12	Buck Memorial Sports Festival – 2018 State level Inter collegiate tournament organized by YMCA College of Physical Education

Cultural Activities:

The cultural talents of students are identified and encouraged to participate in the cultural programs conducted by our university and other institutions. Traditional festivals like Pongal, Onam, and Saraswathi Pooja are celebrated in our campus. The students work as a team to make all needful arrangements for the celebrations.

The University conducts special drives / campaigns through

- Pongal Celebration
- Onam Celebration
- Holi Celebration
- Raksha-Bandan Celebration
- Christmas Celebration
- Pooja Festival
- Eid Celebration
- Guru Nanak Gurpurab
- Maritime Day



Table B.9.7.(b) Pongal Celebrations at AMET

Teacher's day:

The Teacher's day is celebrated on the 5th of September. The Management appreciates the faculty members and honours the good performers. The students extend their gratitude to the faculty members.

Children's Day:

AMET Students Council organized Photography Competition in the Childrens Day Celebration function, on 14 Nov 2018.

NCC Activities:

AMET is committed to social and national responsibilities; bearing this in mind, we have raised the NCC Signal Coy for boys and army wing for girls from 2004-05 onwards. We believe that an individual will come to possess an adoring personality only by involving himself / herself in activities like NCC, NSS, etc. AMET is equipped with several infrastructure facilities like short-range firing and offers obstacle courses for NCC training program. The NCC program provides ample opportunities to the students/cadets by conducting firing camps, drill practices, personality development and voluntary service program. The mission and vision of our NCC wing is to create awareness about its importance and role in nation building among the student community.

Academic Year	2017-2018	2018-2019	2019-2020
No.of Activities	10	8	14

Table B.9.7.(k) NCC Activities Report 2018-2019 (Sample)

Name of the Activity	Organizing Unit/ collaboration Agency	Year of activity	No of student Participation
Costal Clean up-Planet's largest coastal cleanup	NCC and Tamil Nadu Fisheries development board	2018-2019	25
Plastic bag/material Cleaning, Muttukadu	NCC	2018-2019	22
Swatch Bharat-Tiger cave	NCC	2018-2019	15
Plastic bag/material Cleaning – Thiruvudanthai temple	NCC	2018-2019	15
All faith Memorial Service Programme	NCC	2018-2019	20
RUN for Unity To commemorate birth anniversary of Sardar Vallabhai Patel	NCC	2018-2019	20
Blood donation to celebrate 70 th NCC day	NCC	2018-2019	10
Awareness campaign to obey traffic rules and to motivate digital transaction	NCC	2018-2019	25

National Service Scheme (NSS):

The University envisages among its students the values of democratic living and upholds the need for selfless service to the society by exactly following the motto of NSS namely **Not Me But You**.

NSS Activities

Academic Year	2017-2018	2018-2019	2019-2020
No.of Activities	8	8	4

Table B.9.7.(I) NSS Overall Events List

Sl. No.	Name of the Activity	Organizing Agency	Year	No of Students Participated
1.	Coastal clean-up programme	NSS	2017	55
2.	Health promotion in modern era awareness programme	NSS	2017	80
3.	Tree plantation drive	NSS	2017	75
4.	Clean hostel day celebration	NSS	2017	350
5.	Clean mess day celebration	NSS	2017	250
6.	Seed balls preparation and dispersal event	NSS	2017	100
7.	Cleanest hostel room day celebration	NSS	2017	75
8.	International coastal clean-up in Kanathur area	NSS	2017	100
9.	Rally regarding helmet and cctv cameras awareness	NSS	2018	300
10.	Blood donation camp	NSS	2018	75
11.	Tsunami awareness in Kanathur	NSS	2018	50
12.	Rally regarding helmet and cctv cameras awareness	NSS	2018	45
13.	International coastal clean-up programme	NSS	2018	100
14.	Beach cleaning	NSS	2018	75
15.	Swacch bharath abhiyan	NSS	2018	110
16.	Quiz programme	NSS	2018	150
17.	Volunteer provision for marathon race	NSS	2019	100
18.	Kanathur pond cleaning camp	NSS	2019	300
19.	Voting awareness campaign	NSS	2019	250
20.	Blood donation camp	NSS	2019	85

Club Activities:**ECO Club**

The University's Eco Club is an initiative taken by staff and students to create awareness about environmental issues. The Eco Club conducts various programs every year to address the challenges faced by the environment. The objectives of Eco Club are as follows:

- To sensitize the students about the environmental issues
- To create clean and green awareness among students through various pioneering methods
- To mobilize students towards scientific enquiry into environmental crisis and solutions
- To involve them in efforts to conserve the environment
- To motivate students to imbibe the knowledge and life style for minimizing waste generation

The University has formed Leo Club to promote service activities for the community which will develop the individual qualities of leadership, experience and opportunity. Leo Club focuses on the spotlight on children projects with a view to enrich the lives of children through:

- Blood donation camp
- Collecting food and clothes for local street children
- Repairing playgrounds
- Implementing after school tutoring programs

- Visiting children admitted in hospitals
- Raising funds for immunization programs

Through these service activities, Leo club brings hope and laughter to the needy children, especially on December 5, the International Leo Day.

Rotaract Club

Rotaract club brings together people ages 18-30 to exchange ideas with leaders in the community, develop leadership and professional skills, and have fun through service. With the support of our University Rotaract members work side by side to take action through various services.

- World Water Day Awareness
- Healthy Lifestyle Awareness
- Orientation Programme
- Rotaract Club Orientation Programme
- Tree Sapling Project – One Student One Tree
- Vigilance Awareness Programme – Integrity – A Way Of Life
- Vigilance Awareness Programme – Integrity – A Way Of Life In Kovalam School

Peace Club

The University has a joint initiative with Universal Peace Federation of Japan. The Peace Club functions with the aim of spreading peace and family welfare among people. It organizes events to bring harmony and hail humanity among the citizens.

Name of the Club	LEO CLUB	ECO CLUB	RORACT CLUB	NSS/NCC/YRC
No.of Activities	11	22	12	16

Extension Activities:

Number of extension and outreach Programmes conducted in collaboration with industries, Non. Government Organisations, NSS/NCC/Red cross/YRC Club etc., during the last three years for the benefit of Society.

Table B.9.7. (m) Extension Activities (Sample)

S. No	Name of the activity	Organising unit/ agency/ collaborating agency	Year of the activity	Number of students participated in such activities	Dept/Club
1	Kanathur pond cleaning program	Kanathur Village	03-03-2019	60	Eco Club
2	vote awareness campaign	Kanathur Village	08-04-2019	450	NSS
3	Food Products Development to empower Self Help Group Women of Coastal Districts in Tamil Nadu	Tamil Nadu Dr.J.Jayalalitha Fisheries University	2019	30	FPT/ ROTRACT Club
4	Kanathur pond cleaning program	Kanathur Village	03-03-2019	60	AMET Business School/LEO Club
5	vote awareness campaign	Kanathur Village	08-04-2019	450	AMET Business School/ ROTRACT Club
6	First Aid Training	Youth Red Cross	10-07-2019	200	AMET Business School/ ROTRACT Club
7	Organ Donation	Youth Red Cross	10-07-2019	120	AMET Business School/ ROTRACT Club
8	Mega Swatchta Pakwada "Awareness on ground water pollution"	Amet Eco - Club and NCC Unit	2019-2020	95	NCC & Eco Club
9	Rally on Rain Water Harvesting, Kanathur	NCC & Eco club	2019-2020	150	NCC & Eco Club

10	Awareness Programme on organ donation and donor registration	NCC Collaboration with Transten	2019-2020	163	NCC & Eco Club
11	Rally on Importance of Organ donation	NCC Collaboration with Transten	2019-2020	200	NCC & Eco Club
12	Participation in the Exclusive Job Fair for Persons with Disabilities	We are your voice and NCC	2019-2020	25	NCC & Eco Club
13	Coastal Clean-up Programme	MBT / Eco Club	16-02-19	10	Eco Club
14	Training programme on modern science techniques to the school students	MBT	28-02-19	5	ROTRACT Club/MBT
15	Tree Plantation As a mark of world Environmental day 2018, Tree plantation at University campus was undertaken	Eco Club	05-06-18	30	Eco Club
16	Outreach Activity : Awareness Programme on Water Conservation in Coastal Villages	ABTRI Biotech Pvt Ltd.	05-06-2018	100	Petroleum Engg// ROTRACT Club
20	TALLY Course for Rural Women of Kanathur Village	AMET	(17/02/2018 . 31/05/2018)60 days	25	AMET Business School/ ROTRACT Club
21	Tsunami Awareness, PLACE : East Coast Road , Kanathur, Chennai ,Tamil Nadu	Kanathur Village	05-09-2018	20	AMET Business School/LEO Club
22	Nilavembu Kashayam Camp	AMET University	31-10-2018	100	AMET Business School/ ROTRACT Club
23	Helmet and CCTV Awareness	Kanathur Traffic Police	01-09-2018	80	AMET Business School/ ROTRACT Club
24	Blood Donation Camp" at Janakiraman Auditorium, AMET University.	KMC Hospital Blood Bank, Chennai and Madras Egmore Linons Blood Bank, Egmore, Chennai	12-09-2018	500	AMET Business School/LEO Club
25	Beach Cleaning PROGRAM	Juhu Beach , East Coast Road , Chennai ,Tamil Nadu	15-09-2018	60	AMET Business School/LEO Club
26	Awareness Programme on Conservation of Water and Water Pollution and its Mitigation measures	Department of Harbour and Ocean Engineering, AMET University with Panaiyur Panchayat Union Primary School, Panaiyur, Chennai.	15-03-2018	27	Harbour and Ocean Engineering/LEO Club
27	Coastal CLEANUP -Planets Largest Coastal Clean-up	NCC and Tamil Nadu Fisheries Development Board	2018-2019	25	NCC & Eco Club
28	Plastic bag/material cleaning, Muttukadu	NCC	2018-2019	22	NCC & Eco Club
29	Swatch Bharat Tiger cave	NCC	2018-2019	15	NCC & Eco Club
30	Plastic bag/material cleaning ,Thiruvidanthai temple	NCC	2018-2019	15	NCC & Eco Club
31	Run for unity to commemorate birth anniversary of sardar vallabhai Patel	NCC	2018-2019	20	NCC & Eco Club
32	Awareness Campaign to obey traffic rules and to motivate digital transaction	NCC	2018-2019	25	NCC & Eco Club

33	Coastal Clean-up Programme	NSS	2017-2018	30	NSS
34	Leo sports tour	LEO club	05-01-2018	25	LEO CLUB
35	Leo Club Reconstitution	LEO club	10-09-18	12	LEO CLUB
36	Beach Cleaning PROGRAM	LEO club	13-9-18	12	LEO CLUB
37	Awareness Programme On Gender Sensitization	DNV HALL .2,AMET	11-09-2017	40 students	NSS
38	Programme On Promotion Of Health And Hygiene Under Swachh Bharat Abhiyan Youth Red Cross unit of AMET has organized programme on Promotion of Health and	Nithya KalyanaPerumal Temple, Thiruvidanthai, Kanchipuram, Tamil Nadu and Tiger Cave Mahabalipuram, Tamil Nadu	05-09-2017.	60 students	ECO Club
39	Tree Plantation Drive	AMET Eco. Club with Nss	01-08-2017	100	ECO Club
40	Clean hostel day	AMET Hostel	02-09-2017	300students	ECO Club
41	Clean mess day	AMET Mess	04-09-2017	250 students	ECO Club
42	Cleanest hostel room"	AMET Hostel	13-09-2017	100 students	ECO Club
43	WORLD HEALTH DAY, Health Promotion in the Modern Era	AMET	07-04-2017	50 students	ECO Club
44	Seed Ball development and deployment in selected water resource	AMET Eco. Club with Nss	01-08-2017	250	ECO Club
45	Coastal Clean-up programme	NAESEY	25-03-2017	65 Students	ECO Club
46	AMET MISSION GREEN, Tree Plantation Drive	ARTHSMILES Trust, Chennai (Regreen Chennai Project).	11-08-2017,	50 Students	ECO Club
48	Seed ball preparation and dispersal event, (PART OF AMET MISSION GREEN)	he dried seed balls dispersed near to the lake of Ilalur and Thiruporur on 16.09.2017.	06-09-2017	150 Students	ECO Club
49	International Coastal Cleanup Program 2017	Kovalam to Vada Nemmeli in ECR Chennai	17-09-2017	126 student volunteers	ECO Club
50	Swatch Bharat Abhiyan Held in Nithya Kalyana Perumal Temple, Thiruvidanthai , Kancheipuram	Nithya Kalyana Perumal Temple, Thiruvidanthai , Kancheipuram	17-09-2017	150 Students	NSS/LEO Club
51	Blood Donation Camp	Youth Red Cross	28-10-2017	496	NSS/YRC
52	Awareness Program For Fisherman's Safety	AMET	28-10-2017	7	NSS
53	Awareness Programme On Gender Sensitization	DNV HALL .2,AMET	11-09-2017	40 students	EEE/ ROTRACT Club
54	Programme On Promotion Of Health And Hygiene Under Swachh Bharat Abhiyan Youth Red Cross unit of AMET has organized programme on Promotion of Health and	Nithya KalyanaPerumal Temple, Thiruvidanthai, Kanchipuram, Tamil Nadu and Tiger Cave Mahabalipuram, Tamil Nadu	05-09-2017.	60	EEE/ ROTRACT Club
55	Awareness Programme on Cyclone and Rip currents and their Mitigation measures	Department of Harbour and Ocean Engineering, AMET University with Blue star School, Chennai.	02-03-2017	20	NSS

AMET Student's Band:

The Band is divided into three sections namely the wood wing, the brass wing and the percussion. The band performs in the Morning parades, Colour ceremonies, Sunset, VIP visits, Passing-out parades, National day celebrations and Inaugural functions.



Fig. 9.7.(c) AMET Student's Band

Swimming Pool Facility:

- The University has a standardized swimming pool to practice swimming as and when required.
- The primary purpose of the swimming pool is to provide training in swimming for the cadets / students and also for the sports activities.
- The University maintains and operates the swimming pool in a safe and secured manner.
- The students are provided with life jacket during training.
- Experienced swimming coaches and life guards monitor the students keenly during the swimming classes.



Fig. 9.7.(d) AMET Swimming Pool**Centre for Yoga and Meditation (CYM):**

- The University has a Yoga Centre to keep the health and soul fit for the students.
- The University has created exclusive premises for the Yoga Centre.
- The Yoga and Meditation programs are conducted in the Yoga Centre between 3pm and 5pm.
- The University has appointed an exclusive yoga master and also invites outside yoga experts to train the students.

Yoga and meditation are the two important aspects for a perfect body and mind. The Centre for Yoga and Meditation at AMET is providing training for the students and staff for yoga and meditation by certified trainers. It offers a good ambience, technical support and easy accessibility for all. Focus areas: Yoga for Health, Yoga for Stress Management and Yoga for Personality Development

**Fig.9.7.(e) Yoga Centre**

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120)
Total Marks 120.00**10.1 Organization, Governance and Transparency (55)****Total Marks 55.00**

10.1.1 State the Vision and Mission of the Institute (5)

Institute Marks : 5.00

Vision

To sustain identity as a World Class Leader in Maritime Education and empower learners with wholesome knowledge through progressive innovation in training, research and development which will render students a unique learning experience and a transformation impact on the Global Society.

Mission

AMET will strive continuously to

- Impart value-based higher education and technical knowledge with uncompromising strides of an outstanding quality.
- Emerge as a Centre of Excellence inculcating skill development in recent technologies in accordance with industrial trends.
- Create World class research capabilities on par with the finest in the world and broaden student's horizons beyond classroom education.
- Nurture talent and entrepreneurship and enable all round personality development in students.
- Empower students across socio economic strata.
- Make a positive difference to society through technical education.

10.1.2 Availability of the Institutional Strategic Plan and its Effective Implementation and Monitoring (25)

Institute Marks : 25.00

AMET has a very ambitious Vision 2025 plan wherein it aims to be a one stop solution for all marine related activities happening around the World and has clearly charted out an action plan to gauge its growth towards its 2025 milestone. The Strategy document process has created a participatory process for involving stakeholders in the visioning and planning process of the University. Strategic goals were finalized keeping in view vision and mission of statements, quality policy, core values, SWOC (Strengths, Weaknesses, Opportunities and Challenges) analysis, current environmental, social, technological and competitive factors.

The Board of Management, Planning and Monitoring Board, Board of Research, Finance Committee and Academic Council, which have representatives from different organisations and Industries shall ensure effective planning and implementation of academic and non-academic programmes.

Availability of the Institutional Strategic Plan

AMET is progressively marching towards getting established as an **International Maritime Knowledge Hub** by expanding its all-academic, research and outreach activities in the chosen fields. The following priorities outlined in the Vision 2025 plan would help the University to achieve excellence in all facets of higher education. The AMET Vision 2025 plan is publicized through various means including hosting the same in the University website (Link: https://www.ametuniv.ac.in/mandatory_disclosure.html (https://www.ametuniv.ac.in/mandatory_disclosure.html))

- To receive and sustain the highest ranks and recognitions in all applicable accreditation and ranking frameworks such as National Assessment and Accreditation Council (NAAC), National Board of Accreditation (NBA), Common Inspection Programme (CIP) of the Directorate General of Shipping (DGS), Performance Indicators in Maritime Education and Training (PIMET) Ranking by the International Association of Maritime Universities (IAMU) and National Institutional Ranking Framework (NIRF) of Ministry of Human Resource Development (MHRD), Government of India, etc.
- To attract highly qualified and experienced personnel for Faculty positions, for imparting quality education and skills and motivating them to do research with excellent financial compensation in a congenial working environment.
- To enhance laboratory facilities with state-of-the-art equipment and advanced technological tools for teaching and research purposes.
- To reach out to industries, research laboratories and academic institutions around the world for collaboration, consultancy and joint research programmes for identifying and finding solutions to technical and technological problems.
- To concentrate on the environmental concerns plaguing the Earth due to industrial activities and deliver mitigation efforts.
- To reach out to the community through various outreach programmes for awareness, involvement and participation for the betterment of the neighbour community in particular and the entire Nation in general.

As per the AMET Vision 2025, the following are the strategic plans with identified action plans to implement

Table 10.1. Strategic plan and action plan of the University towards AMET Vision 2025

Sl. No.	Strategic Plan	Action Plan
Goal 1: Provide a quality maritime and associated professional education and acquire the stature as one of the top ranking maritime Universities		
1.1	Continuous improvement in Teaching - Learning process	• Adopting Outcome Based Assessment in OBE as per the new reforms suggested by the AICTE. • Revision of curriculum on need basis and to incorporate the recent advancements such as IOT (Internet of things), Artificial intelligence (AI) and Machine learning (ML). • Encouraging faculty to attend a greater number of FDP/ Conferences/Workshops/MOOCs. • Enhancing the teaching and learning experience by the use of ICT, Industry experts, mentoring system, and adopting interactive pedagogy with Active Learning Methods.
1.2	Improvement in students skills and industry readiness	• Inculcating lifelong learning skills by introducing self-learning components in the form of seminars, MOOCs, etc. • Enhancing the Digital Resources in the campus, both online and offline • Incorporating project-based learning for all the core courses in the curriculum • Imparting skill enhancement with competency certification to all the students • Enhancing the industry exposure to the students as part of curricular needs. • Soft Skill Training, Language Coaching, Coaching for competitive examinations, career guidance, placement, training and assistance, value added courses, industry certified courses are provided to the students.
1.3	Centre of Excellence in core programs	• Establishing MoUs with Industry to set up Centre of Excellence in core Departments. • Improving existing laboratories / establishing state of art laboratories in various departments as Centre of excellence in core programs with related industry support. • Facilitating the lab availability beyond working hours.

1.4	Enhancement of Research Academic, Sponsored and Consultancy Research; Innovation of students) accomplishments	- Formulating procedures to improve Internationalisation for developing good research accomplishments - Academic Research shall be promoted by providing University Research Fellowship for Full time scholars - Faculty members shall be provided with fee waiver and work load reduction to promote them to do Ph.D - Seed Money shall be provided to the Faculty to promote their research activities - Incentives shall be given for Faculty with funded projects and those who publish research articles. - Promoting consultancy services in each Department by encouraging Faculty and also by appointing competent faculty with proven records earlier - Encouraging the young faculty for collaborative research with IITs and NITs and reputed foreign universities for publishing papers, international patents - Encouraging students to participate in National and International conferences to present and publish papers, insisting research scholars and Post Graduate students to publish in SCI/SCOPUS indexed journals. - Innovative ideas of students shall be encouraged to be translated into commercial products for the benefit of society by funding the student's projects through MSME and other funding agencies. - Encouraging all the students to participate, in the talent events such as Hackathons to encourage their innovations - The Institution Innovation Council shall promote the innovative ideas of students to develop in to business ideas and support their start-up ventures through Incubation Centre
1.5	Overall improvement through good governance practices	- Policies, forms and procedures shall be defined and transparently known to all stakeholders - Enhancing the performance of Governance through adoption of modern technologies - Promotion of participative management - A well-defined decentralized governance system is in practice for the improved transparency and speedy decision making. - Well structured, active grievance redressal mechanism is in place for students, Faculty and staff.
Key Indicators of Attainment for Goal 1 - Adopted Outcome Based Assessment in all the Engineering and Management Programs which leads to 100% implementation by the year 2025. - Incorporating revisions in Curriculum based on the recent advancements and needs of the employer. - Regular consistency in all the Engineering and Management programs which leads to 90% admissions and 100% placement in all the Programs (Our Premier Placement Partners as on 2020 -Maersk Shipping Solutions, Flototech, Sembcorb Marine Limited, Albion Engineering India Pvt Ltd, Seateam Management India Pvt Ltd, Mediterranean Shipping Company, Vik Sandvik Ship Design and Off Shore Engineering India Pvt Ltd). - Enhanced digital resources for Education and Research (LMS, ERP, Digital Library, E Learning portals, Digital Repositories, Software etc.) leading towards 20% improvement in good quality and innovative projects every year. 100% ICT enabled class rooms. - Fully Wi-Fi enabled Campus (hostel and classrooms). - Enhanced Research Accomplishments leads to 50% improvement in R&D in the year 2025 (As on 2020, total Publications-3124; SCOPUS Publications:1472; h-index-22; Citations-3496; Books-221;Patents-45;MoUs-96; Faculty with PhD-69; Faculty doing PhD-49; PhDs produced-67; Completed Projects: 6) - Enhancing the revenue to the University by 20% through Research, Consultancy etc. (Ongoing Government Funded-25 projects; Consultancy, Seed Money and Industry sponsored projects-276; Mega Projects-4; Total worth of Grants: Rs.18.40 Crores) - Improvement in Faculty retention ratio.		
Goal 2: Enhance Interaction with Society and Industry		

2.1	Enhancing Interactions with the Society and Community	- Selecting project topics based on societal needs like energy saving, green energy vehicles, remote sensing security systems, rain water harvesting, smart irrigation system, drone-modelling, retrofitting in suitable appliances and equipment. - Engaging into Village Adoption Programme to promote Government Schemes and National Missions - Expanding the interactions with Society and Community by engaging extension, social outreach and community service events - Offering short term programmes for the benefit of the community
2.2	Enhancing Interactions with the Industry	- Establishing MoUs and formal collaborations with Industry in Academic, Research and Extension Activities - Consulting Industry Experts in various activities of the University, including design and development of curriculum, course delivery, value added courses, guest lectures, Workshops, Seminars and joint conferences etc. - Mandatory Internships, Industrial Visits and Inplant training shall enhance industry interactions. - Addressing the needs of Industry through research proposals, thereby getting industry sponsored and consultancy projects. - Institutionalized enhanced interactions with industry through various forums such as - Industry Institution Collaboration Cell - Entrepreneurship Development Cell - AMET Incubation Centre - Business Incubator - Institution Innovation Cell - AMET Alumni Association - Career Development Centre
Key indicators of Attainment for Goal 2: - Upliftment of adopted villages by incorporating sustainable technological solutions which leads to good improvement in employment opportunities. - More than 100 MoUs with various industries are active both at Institutional and Departmental level leading to 10% of the students turned to be Entrepreneurs. (As of 2020, No. of Business entities incubated: 17; No. of Start Ups Promoted: 11; No. of products available with Proof of Concept: 12; No. of innovative products developed with prototypes: 17; AMET has funded 71 student innovations with overall expenditure of Rs.46 lakhs during the past three years). - Encouraging the students on innovation and start-up leads to improvement in the Ranking of ARIIA (Atal Ranking of Institutions on Innovation Achievements). - Enhancing the consultancy and industry sponsored projects based on the demands of industries/organization. (As on 2020, No. of Industry Sponsored Projects-74; No. of Consultancy Projects-85; No. of Faculty Minor Projects-Seed Money Projects-117).		
Goal 3: Generating Revenue to the University through Research, Consultancy and Collaborative initiatives		
3.1	Identifying and improvising the various avenues to generate revenue to the University through Research, Consultancy and Collaborative initiatives	- Promotion of Faculty to propose major and minor projects for grants/funding from Government and Private agencies for Research, Development and Consultancy in core areas - Consultancy projects for cargo ships, cruise ship propulsion system conversion, retrofitting, etc. With talented pool of experienced faculty in Marine, Electrical, Mechanical Engineering and MBA departments - Corporate training: setting up corporate training or career enhancement training with local companies provides additional funds and increases our reach to non-traditional students.
Key Indicators of Attainment for Goal 3: Improvement in good quality funded projects through appropriate research and retrofitting solutions from various Government funding Agencies (As on 2020, Sagarmala Project-Skill Development in Maritime Sector with a grant of Rs 814.34 Lakhs; MSME Project- Business Incubator Establishment with a grant of Rs 350.00 Lakhs; ISRO project-Capacity Building in Marine Sciences with a grant of Rs 28.42 Lakhs and DST Projects-Digital Restoration of Poompuhar with a grant of Rs 81.51 Lakhs, No. of Ongoing Government Projects-25, A total amount of Rs.18.40 Crores sanctioned through R&D).		
Goal 4: Enhance the interaction with Alumni		

4.1	Networking with alumni	- Intensifying the activities of the AMET Alumni Association-AAA (Reg No: 135/2015; 28-09-205; Chengelpet Registrar Office, Tamil Nadu; with more than 12208 registered alumni registered; https://www.ametuniv.ac.in/alumni/Registration_Form_2016.aspx (https://www.ametuniv.ac.in/alumni/Registration_Form_2016.aspx)). - Conducting University level Alumni Association meeting in various Cities all over the World and Department Level Alumni Chapter Meetings in University Campus. - Alumni Representations in decision making bodies such as Board of Studies, IQAC etc. - Establishment of Alumni Sponsored Indoor Stadium in Yamuna Hostel. - Extending monitory support for the scheme 'Earn While you learn' beneficial to students of AMET. - Providing fund for establishing Media Lab.
Key indicators of Attainment for Goal 4: - Alumni Association functioning proactively for the holistic development of the University (AAA sponsors every Department for Alumni Chapter Meeting, Alumni Guest Lecture; Besides, the AAA has contributed Rs 61 lakhs towards the establishment of a new hostel in the campus). - Regular Alumni meetings leading to good Industrial exposure and better support to training and placement. - Enhancement in the frequency of alumni lectures through online/offline meetings.		
Goal 5: Development and maintenance of state of the art infrastructure		
5.1	Maintenance of the existing Infrastructure, identification of areas for improvement	- Establishment of Cells/Centers for the effective implementation, monitoring and promotion of ICT Infrastructure in the University. - Establishing a good AI and Robotics Laboratory - Strengthening of Indoor and outdoor sports and recreation facilities. - Providing facilities for Yoga and other Life Skills in the campus. - Enhancing the features of the automated AMET Talking Library
5.2	Improvising the Sustainable Development	- Encouraging faculty and students to maintain green campus through periodic awareness programmes. - Promoting the motto 'Clean and Green Campus' through various activities involving Faculty and Students both in Campus and Hostel. - Tree Plantation and Greenery Development activities. - Maintenance of Green House with medicinal plants. - Improvising the sustainable development practices such as Rainwater harvesting, wastewater recycling and solid waste management including biogas plant and composting pit etc. - Recycle of paper wastes, safe disposal of e-wastes. - Enhancing the renewable energy capacity by promoting the solar panels, windmills etc. - Conducting Energy Audits, Environmental Audits and Green Audits.
Key indicators of Attainment for Goal 5: 100% ICT enabled class rooms. - Effective implementation of University policy for allocation of funds in the promotion of green energy and waste management (It is proposed to build additional 100 KW solar power plant in Yamuna hostel along with the existing 30kW solar plant in Rabindranath Tagore Block). - University implementing sustainable development practices. (A project on rainwater and wastewater harvesting for water conservation is taken up). - Every year Energy Audits and Environmental Audits are conducted and the suggested outcomes are implemented.		

Effective Implementation and Monitoring of Institutional Strategic Plan

The University has Strategic planning and Steering Committee for the effective implementation of AMET Vision 2020, a strategic plan of the University for achieving greater heights and sustaining the legacy.

Table 10.2. Strategic planning and Steering Committee

S.No.	Name of the Member	Designation	Position
1	Col.Dr.G.Thiruvassagam	Vice Chancellor	Chairman

2	Dr. V.Ramachandran	Former Vice Chancellor, Anna University of Technology, Trichy	External Member
3	Dr.S.Baskar	Dean (R&D), Thiagarajar College of Engineering, Madurai.	External Member
4	Prof. Dr. S. Sathikh	Former Vice Chancellor, University of Madras, Chennai	External Member
5	Dr.R.Srinivasan	Member Secretary, Tamilnadu State Council for Science and Technology, Chennai	External Member
6	Dr. P. Devadas Manoharan	Former Vice Chancellor, Anna University of Technology, Trichy	External Member
7	Dr.M.Jayaprakashvel	Registrar i/c	Secretary

Table 10.3. Institutional Strategic planning and monitoring Committee

S.No.	Name of the Member	Designation	Position
1	Col.Dr.G.Thiruvassagam	Vice Chancellor	Chairman
2	Dr. N. Manoharan	Pro Vice Chancellor	Internal Member
3	Dr. M. Jayaprakashvel	Registrar i/c	Secretary
4	Dr. R. Rajavel	HOD - Mechanical Engineering	Internal Member
5	Prof. Bhoopathy Bhaskaran	Principal, Director General of Shipping Programme.	Internal Member
6	Dr.T. Sasilatha	Dean Academic	Internal Member

The function of Strategic planning Committee is

1. To Provide strategic advice on global trends in marine and allied industries to help the University to design and revise its strategic plan.
2. To Provide strategic plan and monitor the development of the University with the objective of implementing major goals.
3. To Monitoring and implementing of various developmental programmes of the University, including academics, administration, infrastructure and quality culture.

Frequency of Meetings, Attendance and Membership details of Strategic planning Committee

Regular meetings of the Strategic plan and Steering Committee with stipulated attendance are held and details are presented as below.

Table 10.4 Frequency of Meetings, Attendance and Membership details of Strategic planning Committee

S.No	Name of the Committee	Frequency of Meetings	Attendance Requirement/Minimum quorum
1	Strategic planning and Steering Committee.	1 meeting in a year	Two Third of all Members
2	Institutional Strategic planning and monitoring Committee.	3 meetings in a year	Two Third of all Members

10.1.3 Governing body, administrative setup, functions of various bodies, service rules, procedures, recruitment and promotional policies (10)

Institute Marks : 10.00

Governing body, administrative setup and functions of various bodies

AMET Deemed to be University dedicated itself to becoming a World Class University by all virtue. The Management, administrative and executive authorities and committees like Board of Management, Academic Council, and Vice Chancellorship etc. are formed and practiced as per the requirements of the Statutory and Regulatory bodies such as the Ministry of Human Resource Development (Government of India), All India Council for Technical Education (AICTE), University Grants Commission (UGC), and Directorate General of Shipping (DGS) etc. The University is committed to follow the participatory governance to implement and upkeep new and existing systems, respectively.

Following are the major Governing Bodies of the University

1. Board of Management
2. Board of International Advisors
3. Planning and Monitoring Board
4. Academic Council
5. Board of Studies
6. Finance Committee
7. Management Review Committee

Board of Management

The Board of Management is the highest governing body of the University, which is headed by the Vice Chancellor. The Board of Management is consisting of eminent persons capable of contributing to and upholding University ideals and traditions. All the policy matters, developmental activities, regulatory activities are reviewed by the Board of Management. Hence, The Board of Management is the apex body for the effective implementation and monitoring of institutional strategic plan of the University.

The Board of Management draws its powers and functions from the Memorandum of Agreement (MoA) which is prepared and updated in consonance with the UGC Deemed to be University Regulations (2019) and its amendments issued from time to time. The Board of Management, delegates its powers to other committees/officers, chiefly to Vice Chancellor, who will be reporting to the Board of Management about the decisions taken thereupon.

Table 10.5: Members of the Board of Management

S.No.	Member of the Board of Management	Designation
1	Col. Dr. G. Thiruvasagam Vice-Chancellor	Chairperson
2	Dr. N. Manoharan Pro Vice Chancellor	Member
3	Prof. Tulsi Ram, Jawaharlal Nehru University, New Delhi	Member
4	Dr. M. S. Palanichamy Former Vice-Chancellor, Tamil Nadu Open University	Member
5	Dr. P. Devadas Manoharan, Former Vice Chancellor, Anna University, Tiruchirappalli	Member
6	Dr. R. K. Chauhan, Vice-Chancellor, Lingaya's University, Faridabad, Haryana	Member
7	Dr. Mamta Rani Agarwal Additional Secretary, Association of Indian Universities	Member
8	Prof. K. Seyadu, Chief Executive Officer, AMET	Member
9	Mr. Bhoopathy Bhaskaran, Principal - DGS Courses	Member
10	Prof. Dr. T. Sasilatha, Dean, EEE and Dean Academic	Member
11	Prof. Dr. J. Rengamani, Director, AMET Business School	Member
12	Dr. Anita R. Warriar Associate Professor – Physics	Member

S.No.	Member of the Board of Management	Designation
13	Dr. M. Jayaprakashvel Registrar i/c	Secretary

The Board of Management shall meet usually twice in a semester. The Board functions as both advisory and decision making bodies. It provides strategical plans for the University, implements the same through various Committees, Programmes and Procedures. Moreover, the Board also monitors and reviews the strategic plan at periodical intervals to ensure its effective implementation.

Powers and Functions of the Board of Management

- The Board of Management is the principal organ of Management and the apex executive body of the University, with powers to make rules and regulations
- The Board of Management is the final decision making body of the University in respect of every matter, including the academic, administrative, personnel, and financial, developmental matters.
- The Board of Management usually will not infringe upon the powers of the respective authorities provided under the Regulations; and where any authority has been given advisory/recommendatory powers, the Board of Management will obtain advice/recommendations from such authority, before deciding on any matter before it.
- The Board of Management may delegate its powers to the Vice-Chancellor or any other Officer/Faculty or to a Committee of Officers/Faculty Members of the University. However, such powers are subject to the condition that the action taken by them shall be reported at the next meeting of the Board of Management.

Board of International Advisors

AMET is a maritime and marine specialized University which has to cope up with International Standards prescribed by apex bodies such as the International Maritime Organization (IMO- A United Nation's Body) and International Association of Maritime Universities (IAMU). In this regard, the Board of International Advisors established by AMET as an Advisory Body which consists of top management officials from World's leading shipping and allied industries, provide strategic advice on global trends marine and allied industries to help the University to design and revise its strategic plan. The Board is providing advice to the Top Management Officials of AMET (Chancellor and Vice Chancellor) both in formal meetings such as International Conferences conducted by AMET, Alumni Meetings held in Abroad and also through other electronic mode such as video conferencing.

Table 10.6. Composition of the Board of International Advisors

Sl.No.	Name	Affiliation
1	Capt.Ib Fruergaard	Managing Director, Mari-time solutions (Singapore) Pte Ltd
2	Mr.Satoru Kuboshima	President, K-Line Ship Management, Japan
3	Paulino Baiona	Manning Director, Sonangol Shipping, Angol
4	Capt.G.Ramaswamy	Chief Executive Officer, Sea Team Management (India) Pvt. Ltd., (Front Line Group, Norway) India
5	Capt.Rajesh Tandon	Managing Director V Ships, India
6	Mr.Rajaish Bajpae	COO, Bernhard Schulte Ship Management, Hong Kong
7	Capt.Abhijit Chattopadhyay	Director & CEO, Mitsui OSK Lines Marine (I) (p) Ltd., India
8	Mr.Lars Modin	President & CEO, International Tanker Management, UAE
9	Captain Ajay Wagle	Head Global Cadet Administration, Maersk Line Crewing, Singapore
10	Capt.Navin Passey	Managing Director, Wallem Ship Management India

Major Milestones reached by AMET through the advice from Board of International Advisors

1. International Association of Maritime Universities (IAMU) head quartered in Tokyo, Japan has conducted PIMET (Performance Indicators in Maritime Education and Training) Ranking and listed AMET as one of the top 7 maritime Institutions in the World in Teaching, Research and Overall grading for the past two consecutive years.
2. Likewise, AMET has received A1 Outstanding Grade in Maritime Disciplines for the past five consecutive years in the Common Inspection Programme of the Directorate General of Shipping (the regulatory and approving body for maritime programmes).
3. The First and only Institute in the World to offer Industry Sponsored Poly Valent Programme B.E., Marine Technology with AP Moller Maersk; more than 650 students (2005-06,2006-07,2007-08) have been placed as dual cadets (can work both on Engine aspects and Navigational aspects)
4. Again, in 2019, for the first time in the World, AMET has established AP Moller Maersk Centre of Excellence with an invest over Rs 70 crores. Students educated in this Centre (160 students each in Engine, Navigation and Electrical Sectors) will be fully sponsored by AP Moller Maersk along with the appoint order during admission itself.
5. AMET is in the advanced stages of establishing Centre of Excellence with following shipping companies as well
 1. Centre of Excellence with Norwegian Shipping Company

2. Centre of Excellence with V Ships

Planning and Monitoring Board

The Planning & Monitoring Board is the principal Planning Body of the University and is responsible for the monitoring of the development programmes of the University. The Vice-Chancellor and the Registrar is the Chairman and Secretary, respectively, of the Planning and Monitoring Board, which includes both internal members of the University and Experts of eminence from outside the Institution.

The Planning and Monitoring Board shall has the right to advise the Board of Management and the Academic Council on any matter which it considers necessary for the fulfillment of the objectives and strategic plan of the University. The Planning and Monitoring Board ensures the equitable distribution and optimal utilization of physical resources. The recommendations of the Planning and Monitoring Board will be placed before the Board of Management for consideration and approval.

Table 10.7. Composition of Planning and Monitoring Board

S.No.	Name of the Member	Designation	Position
1	Col.Dr.G.Thiruvassagam	Vice Chancellor	Chairman
2	Dr. N. Manoharan	Pro Vice Chancellor	Internal Member
3	Prof. Jaywant Hanumappa Arakeri	Department of Mechanical Engineering, Indian Institute of Science, Bangalore	UGC Nominee
4	Dr. T. Balakrishnan	Former Vice-Chancellor, Periyar University	Outside Eminent Expert
5	Dr. S. Karunanidhi	Prof. & Head, Dept. of Psychology, University of Madras	Outside Eminent Expert
6	Prof. Bhoopathy Bhaskaran	Principal, DSG Courses	Internal Member
7	Capt.K.Karthik	Dean - Nautical Science	Internal Member
8	Dr.T. Komathy	Professor and Head of the Department of Information Technology	Internal Member
9	Dr.T. Sasilatha	Professor and Dean –Department of EEE	Internal Member
10	Dr.R.Rajavel	Professor and Head of the Department of Mechanical Engineering	Internal Member
11	Dr.J. Rengamani	Professor and Director, AMET Business School	Internal Member
12	Dr. M. Jayaprakashvel	Registrar i/c	Secretary

Powers and Functions of the Planning and Monitoring Board

- The Planning and Monitoring Board is the principal Planning Body of the University and is responsible for the monitoring of the developmental programmes of the University.
- The Planning & Monitoring Board is having the right to advise the Board of Management and the Academic Council on any matter which it considers necessary for the fulfillment of the objectives of the developmental plans of the University.
- The recommendations of the Planning & Monitoring Board will be placed before the Board of Management for consideration and approval

Academic Council

Powers and Functions of the Academic Council:

The Academic Council (AC) will consider matters of academic interest either on its own initiative or at the instance of the Board of Management or those proposed by the Departments / Faculty Members and to take appropriate action thereon.

- The Council usually exercise general supervision over all academic work of the University
- The AC gives direction regarding methods of instruction, evaluation, and improvements in academic standards
- The Academic Council is the apex body for the matters concerned to research, degree programmes, examinations, providing equivalence to courses/degrees, appoint examiners etc.
- The Academic Council will also pass recommendations to the Board of Management on aspects such as measures for improvement of standards of teaching, research and training, institution of Fellowships/awards/medals, starting of new programmes/Departments /Centers etc.
- The Academic Council will frame rules covering the academic functioning of the University, admissions, examinations, award of fellowships and studentships, free-ships, concessions, attendance, discipline, residence etc.
- The Academic Council has the powers to appoint sub-committees to advise on such specific matters as may be referred to it by the Board of Management and consider the recommendations of the sub-committees and to take appropriate action.
- The Council may also take periodical review of the activities of the Departments / Centers and to take appropriate action with a view to maintaining and improving standards of education.

Table 10.8. Members of the Academic Council

S.No.	Name of the Member	Designation
I	Col. Dr. G. Thiruvagam (Chairman)	Vice Chancellor
	Dr. N. Manoharan	Pro Vice Chancellor
The Registrar, who shall be the secretary of the Academic Council		
II	Dr M Jayaprakashvel (Secretary)	Registrar i/c
III Dean(S) of Faculties		
1	Prof. Bhoopathy Bhaskaran	Principal, DSG Courses
2	Capt. K. Karthik	Dean-Nautical Science
3	Dr. D. Arivazhagan	Dean-Curriculum Development
4	Dr. T. Sasilatha	Dean-Academic
5	Mr. Mani Ramachandran	Director-Placement
IV Heads of the Departments		
1	Dr. R. Rajavel	Dept. of Mechanical Engineering
2	Mr. MSP Raju	Dept. of Naval Architecture
3	Dr. J. Rengamani	AMET Business School
4	Dr L Senthil Nathan	Dept. of Marine Biotechnology
5	Dr T Nagalakshmi	Dept. of Petroleum Engineering
6	Dr. K.S. Siva Subramanian	Dept. of Mining Engineering
7	Mr. R. Theertham	Dept. of HND-NS
8	Mrs. K.SasiPraba	Dept. of Food Processing Technology
9	Capt. I.V.S. Ramakrishna	Pre-Sea Modular Courses
10	Dr. K. Duraipandian	Dept. of Maritime Commerce
11	Dr. KK. Sivakumar	Dept. of Chemistry
12	Dr. L. Rajendran	Dept. of Mathematics
13	Dr. S. Arjunan	Dept. of Physics
14	Dr. P. Kulalmolial	Dept. of English
15	Dr. K. Komathy	Dept. of Information Technology
16	Dr. A. Manoj Kumar	Dept. of Physical Education
17	Dr. K. Sekar	Librarian
V Professors other than the Heads of the Departments (By Rotation of Seniority)		
1	Dr. V. Karthikeyan	Department of Electrical and Electronics Engineering
2	Dr. J. Rajaraman	Dept. of Civil and Ocean Engineering
3	Dr. A. Shameem	AMET Business School
4	Dr. C. Manoharan	AMET Business School
5	Dr. D. Rajasekar	AMET Business School

S.No.	Name of the Member	Designation
6	Dr. S. Prabhakaran	Mechanical Engineering
VI Two Associate Professors from the Departments other than the Heads of the Departments by Rotation of Seniority		
1	Dr. Annie Sam	AMET Business School
2	Capt. C. Rajendran	Nautical Science
VII Two Assistant Professors from the Departments by Rotation of Seniority		
1	Mr. R. Sundar	Department of Electrical and Electronics Engineering
2	Dr. B.M. Shameem	Naval Architecture and Offshore Engineering
VIII Eminent educationist from other field related to the activities of the Institution / Deemed to be University who are not in the service of the Institution / Deemed to be University, nominated by the Vice - Chancellor		
1	Dr. B. Swaminathan	Asst. Professor, School of Maritime Management, Indian Maritime University
2	Dr. R. Velraj	Professor & Director, Institute for Energy Studies, College of Engineering, Guindy
IX Three persons who are not members of the Teaching staff, co-opted by the Academic Council for their specialised knowledge		
1	Capt. Saurabh Mahesh	Head Crew Sourcing & Global Cadet Administration, Maersk Line, Singapore
2	Capt. Rohan Sabnis	Manager (Fleet Personnel & Training), Goodwood Ship Management Pte. Ltd.
3	Mr.J.ShyamSundar	Director & Chief Operating Officer Flyjac Logistics Pvt. Ltd.
Student Representatives		
1	Mr. Guruprasand C.B.	Roll No.L2415B- 4 th year B.E. Marine Engineering
2	Ms. Prananya Praveen	3 rd year B.Sc. Nautical Science
3	Mr. K. Abhiroop	Roll No.NA959, 4 th year B.E. Naval Architecture & Offshore Engineering
4	Ms. Chandini C Kanth	Roll No.MBA 1062, 2 nd year, MBA AMET Business School

Board of Studies

Composition of the Board of Studies

- Head of the Department – Chairperson
- All Professors of the Department-Members
- Two Associate Professors of the Department by rotation on seniority
- Two Assistant Professors of the Department by rotation on seniority
- One or Two Students of the Department
- External Experts/External Members
 - a. Industry Representative
 - b. Academic Expert
 - c. Alumni

Table 10.9 Membership of Board of Studies (Department of EEE)

S.No	Name	Membership category
1	Dr.T. Sasilatha	Chairperson , Dean & HOD, Department of EEE
2	Dr.V.Karthikeyan	Professor
3	Dr.T. Baldwin Immanuel	Associate Professor

S.No	Name	Membership category
4	Dr.S.V.Saravanan	Assistant Professor
5	Mr.P.Veerakumar	Assistant Professor
6	Mrs.R.Elavarasi	Assistant Professor
7	Mr.S.Janarthanan	Assistant Professor
8	Dr.Sreedevi. V.T	External Expert-Academics (Professor & Dean , School of Electrical Engineering (SELECT), VIT University, Chennai)
9	Dr.Santhosh Annadurai	External Expert-Industry (Deputy General Manager, GE T&D Ltd, Chennai).
10	Mr. N. Manikandan	Student (Final year student – B.E(EEE-Marine))
11	Mr.S.Vinoth	Alumni
Special Invitees		
12	Mr.Bhoopathy Bhaskaran	Principal , DGS Courses.
13	Dr.R.Rajavel	HoD, Department of Mechanical Engineering
14	Dr.D.Arivazhagan	Dean – Curriculum and Development

Powers and Functions of the Board of Studies

Board of Studies is one of the most important body of the University, which reviews the design, development and revision of curriculum and syllabus of all the programmes. There will be a separate Board of Studies in each Department of the University. The Board of Studies usually consists both internal and external members with a representation of all stakeholders.

Finance Committee

Finance Committee is a mandatory Committee as per the regulatory bodies of the University. The Committee plans, monitors and reviews the financial resources of the University. The Committee will consider the annual accounts and financial estimates of the University and submit them to the Board of the Management for its approval. The Committee also recommends the annual budget and revised estimates to the Board of Management. Finance Committee has the powers to fix limits of the total recurring expenditure and the total non-recurring expenditure of the year based on the income and resources of the University. The Finance Committee will meet at least twice a year to examine the accounts and to scrutinize proposals for expenditure.

Table 10.10. Members of the Finance Committee

S.No.	Name of the Member	Position
1	Col.Dr.G. Thiruvassagam Vice Chancellor	Chairperson
2	Mr.S. Karikalan	Nominee of the Trust
3	Dr. Rajesh Ramachandran	Member, Board of Management
4	Ms. V. Sangeetha Albin	Nominee of the Board of Management
5	Mr. K. Narayan Singh Joint Secretary, UGC	UGC Nominee
6	Mrs. K. Jayabharathi Finance Officer	Secretary

Powers and Functions of the Finance Committee

- The Finance Committee review and reports the annual accounts and financial estimates of the University and submit them to the Board of the Management for its approval
- The Annual Budget prepared and submitted by each Department and functional areas. The budget proposals are reviewed in the Finance Committee and based on the merit and requirement it recommends sanction and releases of funds by the Board of Management
- The Finance Committee fix limits of the total recurring expenditure and the total non-recurring expenditure of the year based on the income and resources of the University

Management Review Committee

AMET is certified with ISO 9001-2015 by the World renowned classification society, Det Norske Veritas (Norway) and Germanischer Lloyd (Germany)-DNV GL. As per the ISO 9001-2015, AMET has a Quality Management System (QMS) which is having detailed forms and procedure for quality sustenance. As per the QMS, the Management Review Committee consisting of Internal Members alone, monitors the quality related academic, administrative and support service activities. The system has strong Internal Audit Mechanism by which minimum two internal audits are conducted every year by qualified and trained internal auditors, while the reports are presented in the Management Review Committee Meeting. In Management Review Committee Meeting, the outcome and action taken reports of all the

internal audits, academic practices and administrative processes are presented and reviewed.

Functions of the Management Review (MR) Meeting

Through the Management Review Meeting, regular meetings are conducted as per a formal agenda consisting of:

- a) The status of actions from previous management reviews
- b) Changes in external and internal issues that are relevant to the quality management system
- c) Information on the performance and effectiveness of the quality management system, including trends in:
 - i. Audit results - first party, second party and third-party audits
 - ii. The extent to which quality objectives have been met
 - iii. Process performance - result analysis
- iv. Non-conformities and corrective actions other than the audit points
- v. Monitoring and measurement results (course monitoring review)
- vi. Stakeholders feedback, complaints and concerns from students and relevant interested parties
- vii. The performance of external service providers
 - d) The adequacy of resources
 - e) The effectiveness of actions taken to address risks and opportunities
 - f) Opportunities for improvement - recommendations from participants
 - g) Any other issues related to QMS

The members shall come prepared for the review meetings with necessary inputs from their areas of responsibility. The decision taken and time bound action plans drawn at the review meetings are recorded and circulated by Management Coordinator to all members for necessary action and feedback. These decisions include resolutions made at MR Meeting for improvement of effectiveness of QMS, satisfaction of interested parties and sanction of new resources to realize above objectives. Management Coordinator maintains records of management reviews and related correspondence.

Table 10.11. Members of the Management Review Committee

Sl. No.	Name of the Member	Designation	Position
1	Col.Dr.G.Thiruvasagam	Chairperson	Vice Chancellor
2	Dr. M. Jayaprakashvel	Secretary	Registrar i/c
3	D.Immanuel Thiagarajan	Convener	Management Coordinator
4	Members	Ex Officio Heads of all Academic, Administrative and Support Service Departments	Members

Frequency of Meetings, Attendance and Membership details of Governing Bodies

Regular meetings of the governing bodies as per the UGC Regulations with stipulated attendance are held and details are presented as below.

Table 10.12 Frequency of Meetings, Attendance and Membership details of Governing Bodies

Name of the Governing Body	Frequency of Meetings	Attendance Requirement/Minimum quorum
Board of Management	4 meetings in a year	Two Third of all Members
Finance Committee	2 meetings in a year	Two Third of all Members
Planning and Monitoring Board	2 meetings in a year	Two Third of all Members
Academic Council	3 meetings in a year	Two Third of all Members
Board of Studies	As and when required; Mostly once in an year	Two Third of all Members

Name of the Governing Body	Frequency of Meetings	Attendance Requirement/Minimum quorum
Management Review Committee	2 meetings in a year	Two Third of all Members

Sample meeting notice, attendance, minutes of the meeting and action taken reports of the Governing/Administrative bodies

Few sample meeting notice, attendance, minutes of the meeting and action taken reports of the Governing/Administrative bodies are given as Annexure as per the following table

Table 10.13 List of annexure for the Governing Bodies and Administrative Bodies.

Sl.No.	Name of the Governing /Administrative Body	Annexure No	Annexure Details (Selected sample)	Annexure URL
1	Board of Management	10.1	1. Meeting Notice - Enclosed 2. Meeting attendance -Enclosed 3. Minutes of the Meeting- Enclosed	Annexure for the Board of Management (https://drive.google.com/file/d/1oisTHX2BdUYz0A4iuCGI5RSFbykJrwwO/view?usp=sharing)
2	Planning and Monitoring Board	10.2	1. Meeting Notice -Enclosed 2. Meeting attendance - Enclosed 3. Minutes of the Meeting - Enclosed	Annexure for the Planning and Monitoring Board (https://drive.google.com/file/d/18ugQGFKb5mp8pyxUyqrOID73fqOF3grz/view?usp=sharing)
3	Board of Studies	10.3	Sample from one Department Board of Studies - Enclosed	Annexure for the Board of Studies (https://drive.google.com/file/d/1UMQZTgyuH5mx0NFD0HwNz6DITBnb9qKh/view?usp=sharing)
4	Finance Committee	10.4	1. Meeting Notice -Enclosed 2. Meeting attendance – Enclosed 3. Minutes of the Meeting - Enclosed	Annexure for the Finance Committee (https://drive.google.com/file/d/1SBEGkKZ5-99aJZReivEhTAGGuFO3LXrK/view?usp=sharing)

Organisational Structure and Administrative Set Up

Being a Deemed to be University, AMET is having well established organization structure by following the guidelines of the University Grants Commission. Salient feature of the Organizational Structure/Administrative set up of the University are as follows:

- Board of Management is the apex body for the University; The Vice Chancellor is the Chairperson of the Board of Management; The Board of Management shall delegate its powers to Vice Chancellor
- The Board of Management consists of both Internal Members and eminent external experts as Members
- The Vice Chancellor takes the recommendations of the various governing bodies and committees for taking decisions and there by strengthen the Participatory Management
- The Board of Management and the Vice Chancellor has the powers to form various Committees and Boards, including sub committees for the effective functioning of the University through which the decentralization of powers is practiced in the University.
- The Pro Vice Chancellor, the Registrar, Controller of Examinations and Finance Officer are the officers of the University who reports to the Board of Management through the Vice Chancellor.
- Apart from these governing bodies and officers of the University, the Institution is having several mandatory committees/cells for the effective functioning of the University. Few such selected Committees/Cells are as follows
 - Committee Against Sexual Harassment
 - Anti-Ragging Committee
 - Grievance Redressal Committee
- The University is also having many advisory Committee for the proposal, implementation and monitoring of academic and administrative improvement activities. Few of them are listed below
 - Internal Quality Assurance Cell (IQAC)

- b. Research Monitoring Committee
- c. Research Ethics Committee
- d. Student Council
- e. Staff Welfare Committee
- f. Library Committee
- g. Women Empowerment Cell

The overall University organizational structure and administrative set up is summarized in Figure 10.1

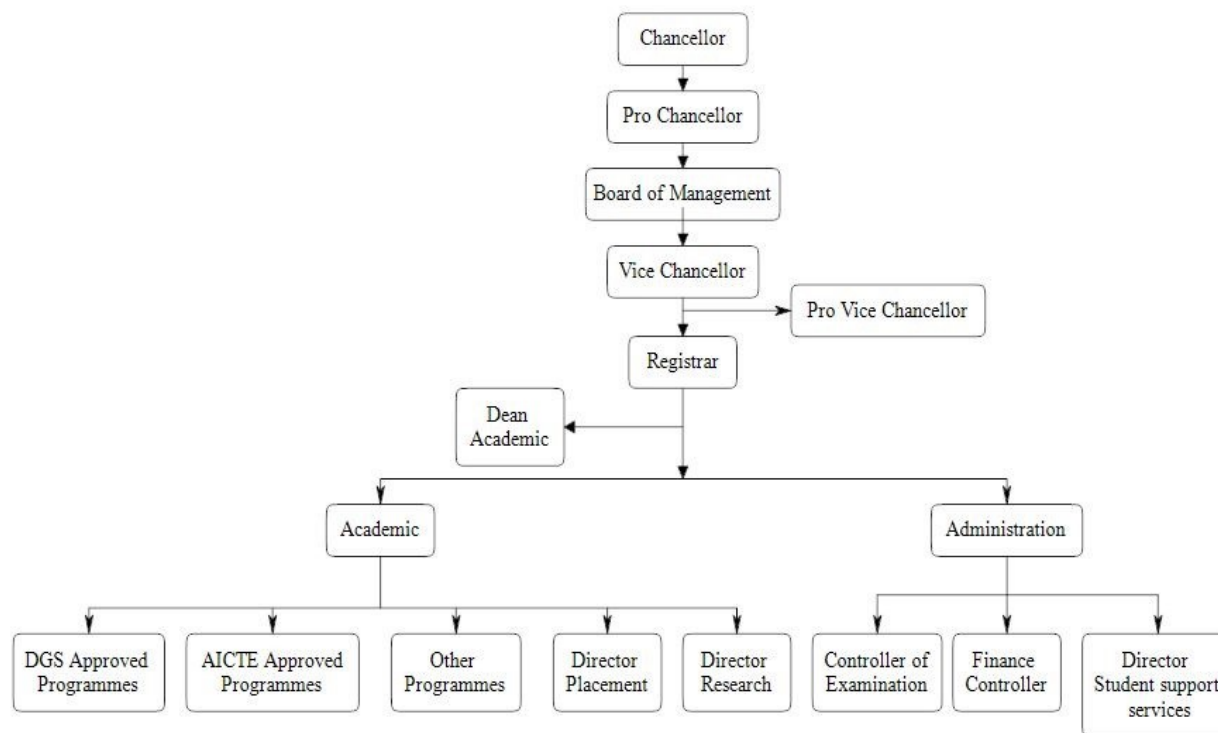


Figure. 10.1 Organization Structure

Other Support Services/Administrative Committees

Table 10.14. Frequency of Meetings, Attendance, Membership details and Support Services/Administrative Committees

Name of the Support Service/Administrative body	Frequency of Meetings	Attendance Requirement /Minimum quorum	Membership Details
Internal Quality Assurance Cell (IQAC) of AMET	Minimum two meetings per year	Two Third of all Members	Given in Table 10.15
Anti Ragging Committee- Key functions are to maintain AMET a ragging-free campus by creating awareness and attending ragging related complaints	As per the mandate of the UGC; As and when required; Minimum two meetings per year	Two Third of all Members	Given in Table 10.16 (Internal and External members)
Women Empowerment Committee-Creates awareness about women empowerment in campus by organizing events	Twice in an Year; However, Committee conducts regular awareness events	Two Third of all Members	Given in Table 10.18

Grievance Redressal Committee –frames the policy and procedures for the Grievance Redressal; Monitors the same	As and when required; Minimum two meetings per year	Two Third of all Members	Given in Table 10.19
Research Monitoring Committee-frames the policies and procedures for the operation academic, funded and consultancy research in the University	As and when required; Minimum two meetings per year	Two Third of all Members	Given in Table 10.20
Research Ethics Committee-ensures the ethical conduct of research in all fronts	As and when required; Minimum two meetings per year	Two Third of all Members	Given in Table 10.21
Library Committee - providing necessary inputs for the purchase of library resources	Minimum two meetings per year	Two Third of all Members	Given in Table 10.22

Internal Quality Assurance Cell (IQAC) of AMET

Quality enhancement is a continuous process; the IQAC shall become a part of the institution's system and work towards realization of the goals of quality enhancement and sustenance. The prime task of the IQAC is to develop a system for conscious, consistent and catalytic improvement in the overall performance of institutions.

Broad functions of the AMET IQAC are as follows:

- Ensuring timely, efficient and progressive performance of academic and administrative tasks
- Enhancing the quality of academic and research programmes
- Making the University environment and academic programmes accessible for all sections of the society
- Enhance the Institutional Social Responsibilities
- Advice upon the modern methods of teaching and learning
- Creation of credible feedback mechanisms
- Ensuring secure and transparent evaluation system
- Advice upon the enhancement of physical infrastructure
- Making the Green Campus by inculcating the environmental consciousness
- Ensuring the availability and maintenance of support structure and services
- Enhance the collaborations with Industry, Academia and other spheres of the society
- Development of quality benchmarks for various academic and administrative activities of the Institution
- Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes
- Dissemination of information on various quality parameters of higher education
- Organization of inter and intra institutional workshops, seminars on quality related themes
- Documentation of the various programmes/activities leading to quality improvement
- Acting as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of best practices;

Table 10.15 : Members of the AMET IQAC

S.No.	Name of the Member	Designation	Position
1	Col.Dr.G.Thiruvasagam	Vice Chancellor	Chairman
2	Dr N Manoharan	Pro-Vice Chancellor (Research)	Member
3	Mr S Karikalan	Senior Vice President-AMET	Member (Management)
4	Dr.M.Jayaprakashvel	Registrar i/c	Member
5	Prof S Sathik	Former Vice Chancellor, University of Madras, Chennai	Member
6	Dr V Ramachandran	Former Vice Chancellor, Anna University, Trichy	Member
7	Prof Dr Chitra Krishnan	Former Director, University Centre for Foreign Students, University of Madras, Chennai	Member

8	Dr A Jaffar Hussain	Former Professor and Head-Botany, Presidency College & Former Special Officer, AMET, Chennai	Member
9	Dr Geetha Swaminathanm	Former Vice Principal, IQAC Coordinator and Controller of Examinations, Stella Mary's College, Chennai	Member
10	Dr A Brindha Therese	Deputy Director, Ranking and Accreditation, VIT University	Member
11	Prof Dr Sasilatha,	Dean, EEE & Dean - Academic	Member
12	Dr S Prabhakaran,	Professor, Marine Engineering	Member
13	Capt K Karthik,	Associate Professor & Dean-Nautical Science	Member
14	Mr R Sundar	Assistant Professor, Dept. EEE	Member
15	Chairperson of the Student Council AMET	Student	(Student – Member)
16	Mr B Dinesh	Crew Operator, Mearsk, Chennai	(Employer - Member)
17	Mr Arumugam	President, Fishermen Association, Kanathur	(Local Society – Member)
18	Dr S Rajadurai	Head-R&D, Sharada Motors	(Industrialist - Member)
19	Muralitharan K	Manager, NRR Finance, Trichy	(Parent-Member)
20	Dr R Karthik	Regional Business Manager, Provect Pharma Private Limited, Chennai	(Alumni - Member)
21	Dr D.Arivazhagan	Professor, AMET Business School	Member - Coordinator

Anti-Ragging Committee

Broad functions of the Anti-Ragging Committee are as follows:

1. To ensure compliance with the regulations as well as the provisions of any law currently in force concerning ragging and directions of the Honble Supreme Court.
2. To monitor and oversee the performance of the Anti-Ragging Squad in the prevention of ragging in the University.
3. To publicize to all students and prevalent directives and the actions that can be taken against those indulging in ragging;
4. To consider the complaints received from the students and conduct enquiry and submit a report to the Anti- Ragging Committee along with punishment recommended for the offenders;
5. Oversee the procedure of obtaining an undertaking from the students in accordance with the provisions;
6. To take all necessary measures for prevention of ragging inside the Campus/ Hostels

Table 10.16 : Members of the Anti Ragging Committee

Chairman	
Col.Dr.G.Thiruvassagam	Vice-Chancellor
Members	
Dr. M. Jayaprakashvel	Registrar i/c (9840529274)
Prof K. Seyadu	Director - Student Affairs (94449 26307)
Prof Bhoopathi Bhaskaran	Principal DGS Courses (9840157954)
Dr. A. Shameem	Professor, AMET Business School ()
Dr. R. Rajavel	HOD - Mechanical Engineering (98656 68650)
Dr. N.R. Ramkumar	Proctor (9381080111)
Mr.P. Rama Krishnan	Advisor (Security and Vigilance) (94449 52565)
Mr.S. Pansy Chitty	Assistant Warden (98403 93972)
Mr. R. Saravanan	F/o, Mr. S.Premkumar- Roll No: 1089 NA (I YEAR)
Mr. Mahesh Henry	Advocate

Chairman	
Inspector of Police	Kanathur (044 - 2747 2182)

Table 10.17 : Members of the Anti Ragging Squad committee

Name	Designation at AMET	Contact Details
Prof Boopathy Basakaran	HOD- Marine Engineering	9840157594 bhoopathy@ametuniv.ac.in
Mr.P.Ramakrishnan	Advisor (Security & Vigilance)	8007385318
Capt.K.Karthik	Dean-Nautical Science	9444952565 karthik.k@ametuiv.ac.in
Dr.N.R.Ramkumar	Proctor	9381080111 proctor@ametuniv.ac.in

Women Empowerment Committee

AMET, which is unique in offering maritime courses where girl students also get trained for shipping and maritime jobs. The WEC was established with the aim of supporting and providing resources for women (Students, Staff, Research Scholars and Supporting Staff) to make them empowered, economically independent and socially active. WEC organizes various workshops, seminars, extension activities centred towards empowering women of AMET and in the society as well.

Table 10.18 Members of the Women Empowerment Committee

S. No.	Name	Category / Roll in the Committee	Designation
1	Col.Dr.G.Thiruvassagam	Chairman	Vice Chancellor
2	Ms. Sangeetha Albin	Member	Joint Registrar
3	Ms.Shanthi H.J	Member	Assistant Professor, AMET Business School
4	Dr. Anitha Warriar	Member	Associate Professor, Department of Physics
5	Ms.Diviyaranjani R	Member	Assistant Professor, AMET Business School
Students office bearers:			
6	Ms.Vardha Sadas	Secretary	B.E-Naval Architecture and Offshore Engineering
7	Ms. Pooja Unnikrishnan	Member	BBA
8	Ms.Minu Rajiv	Member	B.Sc (Nautical Science)
9	Ms. Getsy Aishwarya	Member	B.E (FPT)

Table 10.19. Members of the Grievance Redressal Committee.

S.No	Name	Designation
1	Capt.K.Karthik	Dean, Nautical Science
2	Prof. R.Rajavel	Professor, Mechanical Engineering
3	Dr.T.Sasilatha	Professor, Electrical and Electronics Engineering

Online Grievance Redressal System

University has also made the provision to receive and attend various grievances of students online through University website portal ametuniv.edugrievance.com (<http://ametuniv.edugrievance.com/>). Students can register and login using their email ID /mobile number and post their grievance which will be addressed by the concerned Grievance Redressal Committee officials.

Table 10.20 Members of the Research Monitoring Committee

Sl.No.	Member	Designation
1	Dr T Sasilatha	Dean Academic - Member
2	Dr S Prabhakaran	Professor-Mechanical Engineering-Member
3	Dr D Rajasekar	Director Projects and Publications-Member
4	Dr A Rajesh Kanna	Associate Professor, Department of Petroleum Engineering - Member
5	Dr Anita R Warriar	Assistant Professor, Department of Physics-Member
6	Dr R Muthazhilan	COE-Special Invitee
7	Director Research	Ex-Officio (Member-Convener)

Table 10.21 Members of the Research Ethics Committee

Sl.No.	Member	Designation
1	Registrar	Ex Officio Member
2	Dr D Arivazhagan	Dean Curriculum Development
3	Dr. D.Rajasekar	Director, Research projects, IPR and Publications
4	Dr S Prabhakaran	Professor-Mechanical Engineering
5	Dr. Anita R Warriar	Associate Professor –Physics
6	Dr. M. Jayaprakashvel	Director Research (Convener)

Library Committee

The Prof VBS Rajan Library is the Central Library of University in a separate building with a total area of 30,000 Sq.ft. The Library has a large collection of books with updated editions in different titles and volumes. The Library has a Digital Knowledge Centre in which research and publication databases, software etc. are available and updated every year. The Library is fully automated with RFID and Barcoding system. The Library Committee of the University is providing necessary inputs for the purchase of library resources.

Table 10.22 Members of the Library Committee

Sl.No	Name of the Members	Designation
1	The Registrar	Chairman (Ex Officio)
2	Capt. Karthick, HoD, Nautical Science	Member
3	Dr.T Nagalakshmi, HoD, Petroleum Engineering	Member
4	Dr.S.V.Saravanan, Asst. Professor – EEE	Member
5	Ms.K.Jayabharathi Finance Controller	Member
6	Dr.K.Sekar, Librarian	Member Secretary (Ex Officio)

Service rules, Procedures, Recruitment and promotional policies.

Service Rules for the Key Leadership and Officials of the University

The Chancellor

The Chancellor will preside over the convocations of the University but shall not be the Chief Executive Officer. The Chancellor is appointed by the AMET Trust and the duration and tenure of appointment are given in the MoA. Where power is conferred upon the Chancellor to nominate persons to authorities, he/she shall, to the extent necessary, nominate persons to represent the various interests for the furtherance of the objectives of the University.

The Pro Chancellor

The Pro Chancellor is also appointed by the AMET Trust. The role of Pro Chancellor is limited to carrying out the tasks assigned to the Chancellor, when the latter is not available for carrying out the same.

The Vice-Chancellor

The Vice-Chancellor is a whole time salaried Officer of the University and has been appointed by the Chancellor from a panel of three names suggested by the Search-cum-Selection Committee. The Vice-Chancellor is the Principal Executive Officer of the University and will exercise general supervision and control over the affairs, and will be mainly responsible for implementation of the decisions of all its Authorities.

The Vice-Chancellor is the Ex-officio Chairperson of the Board of Management, the Academic Council, the Finance Committee, the Planning & Monitoring Board, and Selection Committees. The Vice-Chancellor is having the powers to convene or cause to be convened meeting of the various authorities of the University. As per the Regulations and Rules of the University, the Vice-Chancellor is empowered to exercise any power conferred upon any authority of the University and to take action and then report to the authority concerned on the action taken by him / her on such matter. However, if the relevant authority is of the opinion that such action ought not to have been taken, it may refer the matter to the Chancellor whose decision thereon will be final.

If any person in the service of the University is aggrieved by the action taken by the Vice –Chancellor, he / she shall have the right to appeal against such decision to the Board of Management within 30 days where the Board of Management can confirm, modify or reverse the action taken by the Vice-Chancellor.

The Vice-Chancellor can exercise all other powers delegated by the Board of Management. The Vice-Chancellor is also having the power to re-delegate some of his/her powers to any of his/her sub-ordinate Officers with the concurrence and approval of the Board of Management. It is the duty of the Vice-Chancellor to ensure that Regulations and Rules of the University are duly observed and implemented. All powers relating to the proper maintenance and discipline of the University are vested in the Vice-Chancellor.

The Pro Vice-Chancellor

The Pro Vice-Chancellor is appointed by the Board of Management on the recommendations of the Vice-Chancellor. The Pro Vice-Chancellor will hold Office co-terminus with the Office of the Vice-Chancellor. The Pro Vice-Chancellor is having the powers and duties as prescribed by the Rules of the University.

The Registrar

The Registrar is a whole time salaried Officer of the University and is appointed by the Board of Management on the recommendations of the Selection Committee.

The Registrar is the ex-officio Secretary of the Board of Management, the Academic Council and the Planning and Monitoring Board. However, The Registrar is not a member of any of these authorities.

The Registrar is directly responsible and working under the orders of the Vice-Chancellor.

The following are the duties of the Registrar: -

1. To be the custodian of the records and the funds and such other property of the University as the Board of Management may commit to his / her charge
2. To conduct the official correspondence on behalf of the authorities of the University
3. To issue notices convening meetings of the authorities of the University and all Committees and sub-Committees appointed by any of these authorities
4. To maintain the minutes of the meetings of all the authorities of the University and of all the Committees and sub-Committees appointed by any of these authorities
5. To make arrangements for the examinations conducted by the University
6. To represent the University in suits or proceedings by or against the University, sign powers of attorney and perform leadings or depute his / her representatives for this purpose
7. To enter into an agreement, sign documents and authenticate records on behalf of the University
8. To make arrangements to safeguard and maintain the buildings, gardens, office, canteen, cars and other vehicles, laboratories, libraries, reading rooms, equipment and other properties of the University
9. To perform such other duties as may be specified in the Rules of the University, or as may be assigned by the Board of Management or the Vice-Chancellor from time to time

The Finance Officer/Financial Controller

The Finance Officer is a whole time salaried officer of the University appointed by the Board of Management. The Finance Officer will work under the direction of the Vice-Chancellor and shall be responsible to the Board of Management through the Vice-Chancellor. He/she is responsible for the preparation of annual budget, estimates and statements of account for submission to the Finance Committee and the Board of Management. He/she is responsible for the management of funds and investments of the University, subject to the control of Board of Management.

The Controller of Examinations

The Controller of Examinations (COE) is appointed by the Board of Management. The COE ensure that all the specific directions of the Board of Management, Academic Council and Vice-Chancellor in respect of examination and evaluation are complied with. The Controller of Examinations is the permanent invitee to the Academic Council.

Chairpersons, Deans, Directors and Coordinators

In each of the schools of the University, a Chairperson is appointed by the Vice Chancellor who is responsible for the overall guidance of the Departments in the school. The Vice Chancellor appoints Deans and Directors for specialized functions. The Deans of different schools or specialized functions will work under the orders of the Vice Chancellors. Faculty members of the University are given additional responsibility as the Directors of various Centers and Coordinators of various Cells. They carry out the specialized functions of the Cells/Centers and report to the Vice Chancellor

The Head of the Department

There will be a Head of the Department for each of the Departments in the University who shall be appointed by the Vice-Chancellor from amongst the Professors of the Department. Provided that if there is no Professor in the Department or there is only one Professor in the Department whose term as Head of the Department is ending, the Vice-Chancellor may appoint an Associate Professor as Head of the Department. The powers and functions of the Head of Department are prescribed by the Rules of the University.

Miscellaneous matters pertaining to authorities of the University

If any question arises, as to whether any person has been duly nominated or appointed as, or is entitled to be a member of any authority or any committee of the University, the matter shall be referred to the Chancellor, whose decision thereon shall be final and binding.

Any member, other than an ex-officio member of any authority, may resign by a letter addressed to the Registrar and the resignation shall take effect as soon as it is accepted by the Chancellor or the Chairperson of the Board of Management, as the case may be.

Sudden vacancies among the members of any authority or any Committee of the University shall be filled by the respective authority, as soon as may be, and within a period of six months.

A person shall be disqualified for being chosen as, and for being a member of any of the authorities of the University;

- a. If he/she is of unsound mind
- b. If he/she is an un-discharged insolvent
- c. If he/she has been convicted by a court of law for an offense involving moral turpitude
- d. If he/she has not been appointed as per the provisions of these Regulations

General Services Rules

1. Hours of Work

The working hours for the teaching faculty are between 9.00 A.M and 4.30 P.M for the non-teaching and administrative staff, the hours are from 9.00 A.M to 5.00 P.M. An Employee is expected to put around 48 hours of work every week.

2. Attendance and Punctuality

Regular attendance is essential to the efficient functioning of the institution and is a necessary condition of employment. Employees are expected to report to work as scheduled and on time.

3. Identification Card

Identification cards are issued to all staff members and they are expected to wear them while they are in the campus.

4. Code of conduct

a. Dress code / Foot wear

The Institute observes a formal dress code. All Male and Female employees should use discretion in wearing attire that is appropriate for the work in the institute.

b. Foot wear

Staff members are requested to wear slip-on shoes (Cut shoes or Pump shoes) or regular slippers with normal heels.

c. Prohibited Activities

The institute prohibits the consumption of alcohol and drugs, and gambling inside the premises. In addition, any damage caused to the institute's property or cases of dishonesty and harassment or indulging in violent behaviour with students, visitors or other staff, etc. will lead to disciplinary action, which may also lead to suspension or termination for failure to comply with institute policy.

d. Use of Telephone, Internet and Computer

The institute understands that when employees work during the week it is occasionally necessary to conduct personal business during office hours. However employees should limit their personal use of the telephone, computer and internet during office hours.

e. Library

The library will be kept opened from 9 a.m. to 9 p.m. on all working days and from 9 a.m. to 5 p.m. on Sundays. Staff and students can make use of this facility. The Library can also be accessed from anywhere using INFED supported remote access facility.

Policies and Procedures

AMET is keen on developing and improvising various policies and proposals for the smooth functioning of the University. The Policies define the scope, aims and objectives, procedures, authorities concerned etc. These policies and procedures are uploaded in the University website (Link: <https://www.ametuniv.ac.in/policies.html> (<https://www.ametuniv.ac.in/policies.html>))

Table 10.23 Policies and Procedures of the University

Name of the Policy	Year of Implementation and publication
Admission Policy	2013
AMET Academic Integrity and Plagiarism Policy	2017
Fee Fixation Policy	2013

Governance Policy	2013
Infrastructure Policy	2013
Policy for Preventing Alcohol and Drug Abuses	2013
Policy for the Prevention, Prohibition and Punishment of Sexual Harassment of Women	2013
Policy on Curbing the Menace of Ragging	2013
Policy on Curriculum Design and Development	2013
Policy on Ethics in Research	2013
Quality Policy of AMET Deemed to be University	2013
Code of Conduct Handbook	2007
Vision 2025	2019
Recruitment and Promotional Policy	2007

Recruitment and Promotional Policies

AMET adheres the guidelines and regulations of the Regulatory and Statutory bodies such as University Grants Commission (UGC), All India Council of Technical Education (AICTE) and Directorate General of Shipping (DGS). The qualifications, emoluments and promotional avenues are also fixed based on the guidelines of UGC/AICTE/DGS.

The Recruitment and Selection process is by and large as per the guidelines of the University Grants Commission. The generalized procedure of recruitment and promotion are summarized below.

1. The Departments and Functional Areas identify the requirement of recruitment well in advance and bring it to the knowledge of Board of Management through Vice Chancellor
2. The Vice Chancellor/Board of Management reviews the recruitment requirement and process for notification of vacancy.
3. For all the teaching and key administrative positions, appropriate notification of vacancy is made by following necessary publicity measures
4. The applications are scrutinized by the University either with the help of Internal/External experts or both based on the need. The eligible applications are scrutinized for further selection process
5. Appropriate Selection Committee are formed by the Vice Chancellor for each recruitment process. The Vice Chancellor is the default Chairperson of the Selection Committee which contain both internal and external subject experts
6. The appointments are made based on the Personal Interview by the Selection Committee. Necessary wait lists are also prepared
7. Newly appointed Faculty/Staff are required to produce necessary educational qualification certificates and other documents for verification
8. The Promotion is based on Performance Based Appraisal System (PBAS) with due consideration to Academic Performance Indications (API) in case of Teaching Faculty and Appraisal Forms in case of Non Teaching Staff.
9. Promotional avenues based on Career Advancement Scheme is also available for the exemplary performers.
10. At appropriate sessions, University notifies the Faculty for Career Advancement Scheme in which applications are scrutinized by Scrutiny Committee and eligible applicants are interviewed by the Selection Committee (with External Experts as Members). Based on the recommendations of the Selection Committee Board of Management/Vice Chancellor promotes the Faculty to the eligible level.
11. University reserves the rights to cancel/revoke the appointment and promotions or terminate the probationary period of any employee for valid reasons that may deem fit to the Management.

Probationary period:

A new employee will be on probation for a period of One year from the date of joining. Employee's performance during the probationary period will be at the discretion of the management and thoroughly assessed, and only on satisfactory completion of initial or extended period of probation, new employee will be confirmed in the regular service of the University.

Resignation

Employees who wish to leave the services of AMET, he/she will be relieved only at the end of a semester, provided they have to tender three months' notice or surrender three month's salary. However, it is left to the discretion of the Management, to relieve earlier. Likewise, if employee's service is not satisfactory / required by the Management, it has the discretion to terminate the services at any point of time, with a formal notice.

Policy on Employee Welfare

1. University has established a full time medical centre for the healthcare of Employee and students
2. The Management is keen on extending the benefits of "Employees Provident Fund" to the employees of AMET. Eligible regular employees (Teaching, Non-Teaching and Supporting) are registered under the EPF scheme.
3. As per the E.S.I. scheme, Staff has to contribute an amount of 12% of their total earnings every month. The Employer (AMET Management) in turn, shall contribute a sum of 12% of the total earnings of the employee Gratuity.
4. All Employees completing 2 years of service in our Institution are eligible to cover under the Group insurance scheme with applicable benefits (Accidental hospitalization for Rs.1,00,000/- per staff ; Accidental death claim for Rs.1,00,000/- per staff; Hospitalization expenses up to Rs. 25000)
5. Teaching Faculty are eligible for getting Financial Assistance to attend events for their professional developments ((National level – Max. limit : Rs. 3,000; International – Max. limit : Rs.10,000)
6. University extends financial assistance to Faculty for research publications (50% Publication cost in "Journals" from Scopus Indexed, SCI Indexed) (Max. limit :- Rs. 10,000)
7. University provides full fee waiver for Faculty who do part time PhD at AMET
8. University provide incentives for paper publications, book publications, revenue generation through funded projects and consultancy.

9. University extends financial supports for Faculty who organize curricular, co-curricular and extracurricular events both in campus and outside the campus

10. University financially supports faculty for the development of educational materials such as E contents (video lectures, short term courses, MOOCs etc.)

11. All Teaching and Non Teaching are eligible for applicable leave benefits as given in Table.

Table 10.24 Leave benefits to the Employee of AMET

Leave	Numbers of Days	Eligibility
Casual Leave	12 days with pay	All staff
Medical Leave	15 days per year with pay	All the staff who completed probationary period
Maternity Leave	3 months with full pay (for first 2 children only)	All the staff who completed probationary period
Paternity Leave	15 days with full pay	All the staff who completed probationary period
Vacation Leave	Summer and Winter vacations as notified by the University	All Teaching Faculty (Non teaching staff can avail vacation leave on rotational basis with prior approval from the Authorities)
On Other Duty Leaves	As approved by the Authorities considering case by case and merit of the request	All the staff who completed probationary period

10.1.4 Decentralization in working and grievance redressal mechanism (5)

Institute Marks : 5.00

Decentralization in working

1. AMET follows decentralisation in the working system by delegating financial powers to the respective Heads of the Departments in case of Academics and to the Functional Heads in case of Administration. They are to make out the Academic and departmental expenses that are incurred by the Department at the Head of Department level for expenses up to a given value that is manageable within the funds allocated to the Department and close the accounts every month with the approval from the higher authorities.
2. Though Vice Chancellor is the principal authority of the University who is empowered to take decisions and implement the same as given by the Board of Management, Vice Chancellor usually constitutes various committee/cells/centre to provide recommendations, execute the decisions of the Vice Chancellor etc. This provision allows the participatory governance in the University
3. By virtue, all recommendations and resolutions pertaining to academic and administrative decisions are taken in a collective, collaborative and consultative manner through formal bodies such as Academic Council, Planning and Monitoring Board, Finance Committee, Board of Studies etc. and are approved by the Vice Chancellor/Board of Management based on merits
4. Heads of Academic Departments are given financial autonomy to operate separate Bank account for Department expenses to the limit allowed by the University.
5. Heads of Academic Departments are empowered to convene Department meetings, Board of Studies and other OBE Committees.
6. Students are empowered to be a part of decision making bodies such as Academic Council, Board of Studies besides representatives in other committees such as Cultural Club, Sports Club, Student Council, Mess Committee etc.
7. There have been several committees, which takes up decentralization of administration and academic activities. Some of the Committees are:
 - a. Research is being administered by Board of Research, Research Monitoring Committee, Department Research Committee
 - b. Library activities are administered by the Library Committee
 - c. Mess and canteen activities by Mess Committee
 - d. Disciplinary committee
 - e. Committee Against Sexual Harassment
 - f. Anti Ragging Committee
 - g. Student Council

Table 10.25 : List of the faculty members (selected) who have been delegated powers for taking administrative decisions

Sl. No.	Name of the Faculty	Functional Area	Role
1	Prof Bhoopathy Bhaskaran HoD-Dept of Marine Engineering	Principal-DGS Programs	Governing academic and administrative aspects of the DGS approved programmes
2	Dr T Sasilatha Dean- EEE	Principal-Engineering & Technology Programs	Governing academic and administrative aspects of the AICTE approved programmes
3	Prof K Seyadu	Chief Executive Officer	Operational aspects of infrastructure, student affairs and external affairs related to legal and regulatory aspects
4	Dr D Rajasekar	Director Research	Administration of PhD Programme, funded research, consultancy projects, IPR etc.
5	Mr Mani GR	Director Placement	Organizing Placement Training and On campus placement interviews
6	Dr. D.Arivazhagan	IQAC Coordinator	Forms, procedures and documentation of quality initiatives in the University
7	Dr K Komathy	Director, ICT Enabled Education	Maintenance and enhancement of ICT Infrastructure, Training of Faculty in ICT
8	Dr NR Ramkumar	Proctor	Hostel Administration
9	Mr P Ramakrishnan	Advisor (Security and Vigilance)	Campus security and vigilance
10	Dr. Annie Sam	Director Innovation and Incubation Centre	AMET Innovation, Start-up and Entrepreneurship Development activities
11	Dr S Poongavanam	Director HRDC	Training and faculty empowerment
12	Mr R Sundar	Coordinator, Educational Materials Resource Development Centre	Facilitation of Faculty to prepare e contents
13	Mr J Balasubramanian	System Manager	Maintenance and enhancement of IT facilities and networking in campus
14	Mr Kannan	Transport Manager	Management of Transport Needs and transportation
15	Mr Ramanan	Public Relations Officer	Maintenance of Public Relations, Event Management and Hospitality

Grievance Redressal Mechanism

AMET has formed Grievance Redressal Committee, Committee Against Sexual Harassment and Anti-ragging Committee as per UGC regulations to obtain, analyze, resolve and recommend solutions when there are grievances of any sort and also to impose punishment on the offenders. The above committees are working as per UGC guidelines.

AMET the also made provision for online grievance representing mechanism through website.

1. Harassment/Discrimination Complaint:

<http://www.ametuniv.ac.in/harassment-discrimination-complaint.html> (<http://www.ametuniv.ac.in/harassment-discrimination-complaint.html>)

2. Information for Students about Grievance Redressal:

<http://www.ametuniv.ac.in/Students-grievance-redressal-mechanism.html> (<http://www.ametuniv.ac.in/Students-grievance-redressal-mechanism.html>)

Besides these Committees, AMET addresses the student grievances posted in the UGC Online Grievances Redressal Portal. AMET popularizes these online grievance portals by displaying boards and notifying through circulars among the stake holders. The web link for UGC online grievance portals is posted on AMET website.

Apart from these, AMET has the following unique mechanisms with reference to grievances from stakeholders

1. Green Box for General Grievances
2. Black Box for ragging related Grievances

Director Student Affairs is a specialized nodal officer for channelling all kinds of student grievances and also acts as a facilitator for students to register their requests and grievances.

Students Grievance Redressal Committee

This committee has been constituted as per the UGC notification published in the Gazette on 23rd March 2013.

1. Management

- The Vice Chancellor
- The Registrar
- The Director, Student Affairs

2. Heads of the Core Departments**3. Controlling Officers**

- The Controller of Examination
- The Proctor
- The Director, Physical Education
- The Librarian
- The Public Relations Officer

Grievance Redressal Committee

The Grievance Redressal Committee has been formed to analyse, examine and conduct inquiries if needed on the grievances and recommend the decisions to the Authorities for appropriate redressal measures. The details and function of this committee is given in Table 10.19.

Online Grievance Redressal System

University has also made the provision to receive and attend various grievances of students online through University website portal ametuniv.edugrievance.com (<http://ametuniv.edugrievance.com/>). Students can register and login using their email ID /mobile number and post their grievance which will be addressed by the concerned Grievance Redressal Committee officials.

Registration Process for Grievance Redressal

- Students can register their grievance through the website ametuniv.edugrievance.com (<http://ametuniv.edugrievance.com/>)
- Click Students Icon.
- Click “New User Registration”.
- Enter your details such as Name, Course, Batch, Mobile No., Email and click Register.
- Once your registration is approved, you can post a grievance.

To Post a Grievance in Online Grievance Redressal Portal

- Use Email ID or Mobile Number to Login.
- Click Post a Grievance to register your grievance.
- Select the Grievance Type - If the grievance is department related, select your department name. If not, select the appropriate grievance type listed.
- Enter the grievance subject with brief description. If there is any proof or documents, it can be attached.
- Click Create to submit your grievance.

To view the Status of Grievance Redressal in online portal

- Students can view the status of grievance in My Grievances section.
- To view the details of the action taken on the grievance, click the View button.
- If the student is not satisfied with the reply, they can reopen the grievance and submit it with their queries again.
- To reopen the grievance, click Reopen button and type your grievance and post it.

Other Grievance Redressal Mechanisms

Besides these generalized grievance redressal mechanisms, the University is having the following Committees for the specialized grievances.

1. Anti Ragging Committee
2. Anti Ragging squad committee
3. Committee Against Sexual Harassment
4. Student Grievance Cell

The summary of activities, membership details of the above committee are given in the following Table

Table 10.26 summary of activities, membership details of the Grievance Redressal Committees at AMET

SL.No.	Name of the Committee	Composition	Major functions
1	Grievance Redressal Committee	Three Senior Professors of AMET as internal Members; Details given in Table 10.19	Analyse, examine and conduct inquiries if needed on the grievances and recommend the decisions to the Authorities for appropriate redressal measures
2	Anti Ragging Committee	Given in Table 10.16 (Internal and External members)	Key functions are to maintain AMET a a ragging-free campus by creating awareness and attending ragging related complaints
3	Anti Ragging squad committee	Given in Table 10.17 (Internal Members)	Key functions are to organize periodic and surprise monitoring of the campus to curb ragging
4	Committee Against Sexual Harassment	Internal and External Members; Details are given in Table 10.27	Receive grievances on sexual harassment from both Faculty and students Conduct inquiry and recommend action/punishment etc. Conduct events to create awareness against sexual harassment.
5	Student Grievance Cell	Internal Members; Details are given in Table 10.28	In the event of difficulties based on COVID 19 pandemic, and also guidelines from the UGC, the University has formed a Student Grievance Cell, for Academic and Examination related grievances from students. However, the committee will continue its function after the pandemic too. Students are given special e mail ID to lodge their grievances on examinations and other academic issues (egrievances@ametuniv.ac.in)

Table 10.27. Members of the Committee Against Sexual Harassment

S.No	Name	Designation
1	Dr. A. Shameem	Professor, AMET Business School
2	Ms. Sandhya Rani Ramadass	Lady Member of NGO and Psychologist
3	Dr. M. Bina Celine Dorathy	Associate Professor, AMET Business School
4	Dr. K. Komathy	Head of the Department, Information Technology
5	Mrs. Pansy Chitty	Residential Warden
6	Ms. Atulya K.L.	II Year B.Sc. NS. (ANS16030)
7	Ms. Tejaswini Shrikant Vaidya	IV Year BE NA (ANA14426)

Table 10.28. Members of the Students Grievance Cell

S.No	Name	Designation
1	Capt. K. Karthik	Vice Principal, DGS Courses
2	Dr.R. Rajavel	Professor & Head, Department of Mechanical Engineering

3	Dr.J.Rengamani	Director, AMET Business School
4	Dr. S. Arjunan	Professor & Head, Department of Physics

10.1.5 Delegation of financial powers (5)

Institute Marks : 5.00

Since AMET is following the participatory governance and decentralization of administrative powers, various authorities of the University are provided with Financial Powers. Academic Departments are provided with separate bank accounts through which they can spend amounts not exceeding Rs. 50000.

AMET has permitted the Principal Investigators of the funded projects to have a separate bank account for each of the Government funded projects. They are empowered to get advance payments from the project accounts. They can make their own purchase for amounts not exceeding Rs. 50000 whereas beyond that they need to take permission of the University Authorities. They need to provide statement of expenditure to prepare the Utilization Certificate for the purpose of reporting funding agencies.

The Faculty Members provided with seed money are empowered to utilize the full project amount at their own discretion and then to give statement of expenditure to the University

Table 10.29. Details of selected Officers/Faculty of AMET who have been provided with financial powers

Sl. No.	Position	Financial Powers
1	Registrar	Up to Rs. 2 lakh
2	Principal	Up to Rs. 1 lakh
3	Deans	Up to Rs. 50000
4	Heads of Departments	Up to Rs. 50000
5	Public Relations Officer	Up to Rs. 50000
6	Director Research	• Approve the Honorarium for PhD Related Meetings • Empowered to receive payments on behalf of University through formal manner
7	Controller of Examination	• Empowered to Receive Penalties and Fine amounts related to examination processes • Approve honorarium for Examiners and Evaluators
8	Proctor	Up to Rs. 50000
9	Duty Officers	Up to Rs. 10000

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

Institute Marks : 5.00

Transparency in University functioning

AMET maintains transparency in all its operations and working. At the beginning of every semester, AMET brings out calendar of events that contains information of semester activities and the same is sent to all Departments. Information on policies, rules, processes and its dissemination of this information is made available to Stakeholders on the AMET website. The required information about the Institution is made available on the AMET website www.ametuniv.ac.in (<http://www.ametuniv.ac.in/>).

Annual Reports

In every Annual Convocation, Vice Chancellor presents the Annual Report of the University comprising all the activities pertaining of entire functioning of the University. The Annual Reports are printed and distributed to all the stakeholders.

AMET Website

A website by the URL www.ametuniv.ac.in (<http://www.ametuniv.ac.in/>) is available from which the latest information and activities of the University can be accessed from anywhere anytime. University has uploaded all mandatory documents such as course approval, ranking and accreditation documents, approval by statutory bodies, honours and awards, compliance reports to statutory body review reports and rules and regulations of the University.

The norms, procedures, circulars & all other updated relevant information are available on the Management Information Systems. Apart from this, Mission and Vision is disseminated to all the stakeholders of the programs through faculty meetings, workshops, student induction programs, and parent meetings.

Transparent fee

The prospectus of AMET contains transparent information about the fees and charges payable. The same is also made available in AMET website which is updated periodically.

AMET follows its own declared policy (Admission Policy and Fee Fixation Policy) in collecting any fees or charges.

AMET collects only the fee that is transparently notified in the website and prospectus may be in full or in instalments. Besides, AMET does not charge/ collect any fee or other charges which are not publically stated /notified in the Prospectus.

Transparency in Appointments and Admissions

University maintains complete transparency in Employee appointments where details of all vacancy notifications are hosted in the website. During admission, the details of eligible applicants, merit/rank list etc. are publicly displayed in the notice board and University website

Transparency in Financial Transactions

AMET conducts both internal and external financial audits in every financial year. The audited account statements certified by the qualified Chartered Accountants is hosted publicly at AMET Website. The Annual Report of the University contains information about statement of income and expenditure.

Transparency in Accomplishments

University maintains all publications, funded projects, research facilities, details of research scholars and facilities for research in the University website. Besides, University maintains all necessary documents and reports submitted to regulatory, statutory and ranking bodies. The documents include Self Study Report and Annual Quality Assurance Report (AQAR) for NAAC, NIRF Ranking documents, DSIR certification, NBA related documents etc.

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (15)**Total Marks 15.00**

:

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 2019-2020

Total Income 11478.75				Actual expenditure(till...): 10339.10			Total No. Of Students 3649
Fee	Govt.	Grants	Other sources(specify) include (a) Inte	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify (a) R&D expen	Expenditure per student
9982.28	814.34	73.34	608.79	8701.10	1013.39	624.61	2.83

Table 2 - CFYm1 2018-2019

Total Income 10859.35				Actual expenditure(till...): 10305.45			Total No. Of Students 3667
Fee	Govt.	Grants	Other sources(specify) (a) Interest on	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify (a) R&D expen	Expenditure per student
10496.92	0	95.24	267.19	8487.18	1195.22	623.05	2.81

Table 3 - CFYm2 2017-2018

Total Income 9780.65				Actual expenditure(till...): 9664.76			Total No. Of Students 3365
Fee	Govt.	Grants	Other sources(specify) (a) Interest on	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify (a) R&D expen	Expenditure per student
9457.13	0	121.0	202.52	7977.21	1122.21	565.34	2.87

Table 4 - CFYm3 2016-2017

Total Income 9078.55				Actual expenditure(till...): 8419.58			Total No. Of Students 2914
Fee	Govt.	Grants	Other sources(specify) (a) Interest on	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify (a) R&D expen	Expenditure per student
8778.83	0	73.15	226.57	7268.31	589.93	561.34	2.89

Items	Budgeted in 2019-2020	Actual Expenses in 2019-2020 till	Budgeted in 2018-2019	Actual Expenses in 2018-2019 till	Budgeted in 2017-2018	Actual Expenses in 2017-2018 till	Budgeted in 2016-2017	Actual Expenses in 2016-2017 till
Training and Travel	2162.80	2062.81	2342.75	2437.69	2093.80	2168.43	1576.30	1652.58

10.2.1 Adequacy of budget allocation (5)

Institute Marks : 5.00

The Annual budget for the Year is prepared in accordance with the needs & requirements of the concerned Departments after taking into consideration the annual student's intake, lab and infrastructure upgradation, faculty and staff requirements and adopting the latest technologies. The Budget so prepared by each Department shall be reviewed in HOD's meeting with the participation of Vice Chancellor, Registrar, Finance Controller and Principal.

After making required amendments and corrections based on the discussions and deliberations a formal budget shall be prepared and the same is being sent to the Principal. The Registrar shall present the draft budget to the Board of Management for approval and sanctioned in the Finance Committee. The budget allocation and utilization for the last three years is found to be adequate.

Table 10.30.Adequacy of budget allocation for the last four financial years

S.No	Financial Year	Budget Allocation (Rs in Lakhs INR)	Actual Expenditure (Rs in Lakhs INR)	Adequacy Status
1	CFY = 2019 - 20	10,602.10	10,339.09	Yes
2	CFY m1 = 2018 - 19	10,528.07	10,305.47	Yes
3	CFY m2 = 2017 -18	9,718.50	9,664.77	Yes
4	CFY m3 = 2016 -17	8,334.20	8,419.56	Yes

10.2.2 Utilization of allocated funds (5)

Institute Marks : 5.00

Process of Utilisation of Funds started with allocation from Management to the University. Department Heads / Section-in-charges are intimated of the extent of funds allocated against their budget proposals.

Major works like Construction, Up-gradation of Existing Infrastructure, Procurement and Maintenance of Common utilities, House-keeping, Procurement of furniture etc. are controlled directly by the Finance Controller. Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc. are initiated from the respective Departments through Purchase Department and the funds are released on a case to case basis by the Finance and Accounts section of the University after obtaining approval from the Management.

University forms Technical Committee and Purchase Committee for all the expenditure worth beyond Rs 50000.

During the last three years, the budget was utilized to meet expenses such as Staff salary, Infrastructure development, Equipment purchases, Expenses towards consumables and contingencies, travel etc. Almost 98% of the allocated budget provided by the Management was effectively utilized by the University in the last four financial years.

Table 10.31.Details of Funds Utilization percentage (%) in the last four financial years

S.No	Financial Year	Budget Allocation (Rs in Lakhs)	Actual Allocation (Rs in Lakhs)	Utilisation (%)
1	CFY = 2019 - 20	10,602.10	10,339.09	97.52%
2	CFY m1 = 2018 - 19	10,528.07	10,305.47	97.89%
3	CFY m2 = 2017 -18	9,718.50	9,664.77	99.45%
4	CFY m3 = 2016 -17	8,334.20	8,419.56	101.02%

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

Institute Marks : 5.00

AMET Deemed to be University conducts financial audits both by internal and external auditors. Besides, during Academic and Administrative Audits and ISO Audits, account statements are audited.

The audited statement of accounts certified by the qualified chartered accountants are made available publicly in the University website. These statements are also submitted to the Statutory and Regulatory Authorities of the University along with various reports.

Hence, the University is engaging internal and external audits for financial statements which are also publicly displayed.

AMET Deemed to be University also made provision for online Audited statement through website.

https://www.ametuniv.ac.in/attachment/audited_statementsof_accounts.pdf (https://www.ametuniv.ac.in/attachment/audited_statementsof_accounts.pdf)

10.3 Program Specific Budget Allocation, Utilization (30)

Total Marks 30.00

:

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 2019-2020

Total Budget 170.26		Actual expenditure (till...): 165.00		Total No. Of Students 135
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
22.75	147.51	23.11	141.89	1.22

Table 2 :: CFYm1 2018-2019

Total Budget 168.87		Actual expenditure (till...): 165.88		Total No. Of Students 120
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
28.28	140.59	27.81	138.07	1.38

Table 3 :: CFYm2 2017-2018

Total Budget 168.13		Actual expenditure (till...): 169.61		Total No. Of Students 107
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
42.11	126.02	42.63	126.98	1.59

Table 4 :: CFYm3 2016-2017

Total Budget 102.06		Actual expenditure (till...): 107.92		Total No. Of Students 80
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
15.37	86.69	15.41	92.51	1.35

Items	Budgeted in 2019-2020	Actual Expenses in 2019-2020 till	Budgeted in 2018-2019	Actual Expenses in 2018-2019 till	Budgeted in 2017-2018	Actual Expenses in 2017-2018 till	Budgeted in 2016-2017	Actual Expenses in 2016-2017 till
Laboratory equipment	0	0	7.50	7.42	15	15.15	0	0

10.3.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

The allocated budget was used to meet the new facilities for Equipment, Replacement of outdated Equipment and setting up of new labs due to Revision in syllabi. Budget requirements under recurring and non-recurring heads are collected from each department and section before the commencement of the financial year. Allocations are made as per the availability of funds.

Expenditure is monitored by the Finance and Accounts section of the Institute. The University carefully monitors the expenses so that the requirements are met for smooth working of the Departments. The Management has been very efficiently doing this over the past several years and the institution never had any serious Budget Crunch that affected the function of the University.

The details of adequacy of budget allocation for the current financial year and for the last three years for the Program of Electrical and Electronics Engineering- Marine is provided in the following table.

Table 10.32 Adequacy of Budget Allocation - BE Electrical and Electronics Engineering -Marine

S.No	Financial Year	Budget Allocation (Rs in Lakhs)	Actual Allocation (Rs in Lakhs)	Adequacy Status
1	CFY - 2019 - 20	170.26	165.00	Yes
2	CFY m1 2018 - 19	168.87	165.88	Yes
3	CFY m2 2017 -18	168.13	169.61	Yes
4	CFY m3 2016 -17	102.07	107.92	Yes

10.3.2 Utilization of allocated funds (20)

Institute Marks : 20.00

10.3.2 Utilization of Allocated Funds

Funds are allocated by the Management of the University. Department Heads are intimated of the extent of funds allocated against their budget proposals. Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables, etc. are initiated from the department through Purchase Department and the funds are released on case to case basis from the accounts office of the college on approval by the Management. During the last three years, the budget was utilized to meet expenses like purchase of equipment, expenses towards consumables and contingencies, etc.

The percentage of funds utilization for the current financial year and also for the last three years in respect of the Program of Electrical and Electronics Engineering- Marine is provided in the following table.

Table 10.33. Utilisation of Allocated Funds (Percentage) - (BE EEE -Marine)

S.No	Financial Year	Budget Allocation (Rs in Lakhs)	Actual Allocation (Rs in Lakhs)	Utilisation (%)
1	CFY = 2019 - 20	170.26	165.00	96.91%
2	CFY m1 = 2018 - 19	168.87	165.88	98.23%
3	CFY m2 = 2017 -18	168.13	169.61	100.88%
4	CFY m3 = 2016 -17	102.07	107.92	105.73%

10.4 Library and Internet (20)

Total Marks 20.00

10.4.1 Quality of learning resources (hard/soft) (10)

Institute Marks : 10.00

AMET Deemed to be University has adequate library and internet facilities. In all the previous assessment years, the University has recorded nil deficiency with reference to library resources and internet facilities.

Quality of learning resources (hard/soft)

Prof VBS Rajan Library is the Central Library of the University named after Prof. V.B.S. Rajan which is functioning in a newly built Library Block inaugurated by Mr. Efthimios E. Mitropoulos, Secretary General Emeritus, International Maritime Organization (IMO) on 4th September, 2014.

The University has attained Deemed to be University status in the year 2007. Since then, the Central Library of the University (Prof VBS Rajan Library) has purchased and made access for a huge volume of books, journals, magazines, e books, e journals, databases, software, technical reports, dissertations and Theses, rare books etc. The Library has a Digital Knowledge Centre in which research and publication databases, software etc. are available and updated every year. The Library is fully automated with RFID and Barcoding system. The Library Committee of the University is providing necessary inputs for the purchase of library resources.

Table 10.34. Members of the Library Committee

SLNo	Name of the Members	Designation
1	The Registrar	Chairman (Ex Officio)
2	Capt. Karthick, HoD, Nautical Science	Member
3	Dr.T Nagalakshmi, HoD, Petroleum Engineering	Member
4	Dr.S.V.Saravanan, Asst. Professor – EEE	Member
5	Ms.K.Jayabharathi Finance Controller	Member
6	Dr.K.Sekar, Librarian	Member Secretary (Ex Officio)

University Library has given equal importance for both hard and soft copy of different category of learning resources. Besides Prof VBS Rajan Library (Central Library), all the University Departments have Department Library with more specialized books, journals, magazines and technical reports both in electronic and conventional forms.

Relevance of available learning resources including e-resources

The University is having a Library Committee which recommends the up keeping and strengthening of the learning resources both in hard and soft copy formats. The Library consists of large collection of books with updated editions in various titles and volumes. The book collections are available in the field of Engineering, Science and Technology and Management including Marine Engineering, Nautical Science, Management Studies, Marine Biotechnology, Naval Architecture, Petroleum Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Food Processing & Technology and Mining Engineering, Mathematics, Physics, Chemistry, English, Career Information & Guidance, Literature, Books in Regional Languages and other General Areas of study. The general details of physical structure and functional areas of the Prof VBS Rajan Library are given in Table 10.35

Table 10.35. Brief about the Library Facilities

S.No.	Category	Availability/Value
1	Carpet Area of Library (in m ²)	2160.52(2342 Plinth Area)
2	Reading Space (in m ²)	1171 Total 2342
3	Number of Seats in Reading Space	First Floor: 200 Second Floor: 200 Digital Knowledge Centre: 40 Audio Visual Room: 40 Total: 480
4	Average No. of Users (Issue book) per Day	152
5	Average No of users (Reading space) Per Day	520
6	Working Hours in Timings:	Working Days 09 am to 09 pm; During Examination 9 am to 10 pm; Holiday 09 am to 05 pm
7	Number of Library Staff	9
8	Number of Library Staff with a Degree in Library Science	5
9	Library Management	Yes – AUTOLIB with RFID
10	Computerization for Search, Indexing	Yes

11	Issue/Return Records Bar Coding used	Yes
12	Library Services on Internet/Intranet INFLIBNET, SHODHGANGA, DELNET or other similar membership archives	Yes
13	Remote Access (INFED)	Yes
14	Dissertation/Theses Section	Yes
15	Rare Books Collection	Yes

Prof VBS Rajan Library is having over 71412 books, more than 60000 E-books (stored version besides access to several lakhs number of e books) and 123 print journals. The overall collection of library resources are provided in Table 10.36.

Table 10.36. Library Resource Collection

Resources	Numbers
Books	71412
E - Books	60000 (subscribed E-Books)
E-Books	50000 (downloaded E-books with CD format are available at digital library)
E- Journals	33171
Current Journals on Subscription	132
Book Bank	1224
Thesis/Project	2641
CDs & Videos	2793
Bound Volumes of Journals	2461
Reports/Standards/Proceeding	62
NPTEL Video and web courses	41780
Number of Newspaper	23
Total Collection	265699

Besides the above library collection, Prof VBS Rajan Library is equipped with

- Swayam Prabha- 32 DTH Channels of High Quality Educational Programmes
- Well protected with fire alarms and CCTV security systems.
- Separate Audio-Visual Section
- Rare Books Collection
- Wi-Fi enabled with library building
- Equipped with reading halls in two floors with reference section
- Organization of Book Review / Book Talk Sessions
- Organization of Book Exhibitions/Displays of new books.
- Proper system of obtaining, analysis and action pertaining to feedback from the Users of library services.

Availability of E-Journals at Prof VBS Rajan Library

Prof VBS Rajan Library at AMET has subscribed e-journals from various service providers or journal aggregators such as IEEE, Elsevier, Scopus, Science Direct, ASME, ASCE, J-Gate (Engineering and Management), EBSCO, DELNET, INFLIBNET etc. Details are provided in the following tables.

Table 10.37. Details of E-Journals available for the Student and Faculty access at Prof VBS Rajan Library

Sl. No.	Journal Database	Subject Coverage	No. of Journals

1	IEEE	Engineering and Technology (Access from 1998-current issues)	183
2	Elsevier Including SCOPUS and Science Direct	Science, Engineering, Technology, Management, Arts, Social Sciences etc.	340
3	ASME-The American Society of Mechanical Engineers	Mechanical Engineering	31
4	ProQuest E-journals	Engineering and technology	5000
5	J-GATE Engineering	All the Disciplines of Engineering and Technology	17000
6	EBSCO	Science, Engineering, Technology, Management, Arts, Social Sciences etc.	1079
7	J-GATE Management and Social Science	Management and Social Science	4538
8	DELNET	Science, Engineering, Technology, Management, Arts, Social Sciences etc.	5000
Total			33171

Table 10.38. Details of E-Journals access Links available for the Student and Faculty

Sl.No	DATABASE	LINKS
1	EBSCO (E-Journals)	https://search.ebscohost.com/login.aspx?authtype=ip,shib&custid=ns221283&groupid=main (https://search.ebscohost.com/login.aspx?authtype=ip,shib&custid=ns221283&groupid=main)
2	IEEE (E-Journals)	https://ieeexplore.ieee.org/servlet/wayf.jsp?entityId=https://idp.ametuniv.ac.in/idp/shibboleth&url=https%3A%2F%2Fieeexplore.ieee.org%2FXplore%2Fhome.jsp (https://ieeexplore.ieee.org/servlet/wayf.jsp?entityId=https://idp.ametuniv.ac.in/idp/shibboleth&url=https%3A%2F%2Fieeexplore.ieee.org%2FXplore%2Fhome.jsp)
3	ProQuest (E-Books & E-Journal)	https://search.proquest.com/shibbolethlogin (https://search.proquest.com/shibbolethlogin) or http://infed.inflibnet.ac.in/fetchsp.php?id=118 (http://infed.inflibnet.ac.in/fetchsp.php?id=118)
4	DELNET (E-Books & E-Journal)	http://delnet.in/ (http://delnet.in/) or http://164.100.247.26/ (http://164.100.247.26/)
5	ASME(E-Journals)	Database accessed with in the AMET campus only
6	J-Gate (E-Journals)	Database accessed with in the AMET campus only
7	RFID	For 10,000 Books

Incremental increase in Library Resources (Hard and Soft Copies)

Since the University is keep on expanding the number of programmes offered and increase in intake, Prof VBS Rajan Library has adequately enhanced the Library resources both physical and digital forms. The details of year wise incremental increase in the Library Resources, increase in print and online journals and details of library expenditure on books, magazines/journals, and miscellaneous content are given in Tables 10.39, 10.40 and 10.41, respectively.

Table 10.39 Year wise incremental increase in the Library Resources

Year	Total No. of new volumes added	Total No. of New titles added
2014 – 2015	20595	4745
2015 – 2016	8039	772
2016 – 2017	421	315
2017 – 2018	1279	547
2018 – 2019	1459	266
2019 – 2020	848	411

Table 10.40 Details of E Journals and Print Journals available at the Library over the past six years

Details		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Engineering, Technology and Management	As soft copy (E-Journal)	6706	4596	169	10149	10494	22000
	As hard copy (Print Journals)	84	72	84	198	122	110

Table 10.41 Details of library expenditure on books, magazines/journals, and miscellaneous content

Year / Category of Resource	Expenditure (Rs)			
	Books	Magazines/Print Journals (for hard copy subscription)	E-Journals (for soft copy subscription)	Miscellaneous contents
2014-15	2000000	1962168	777218	31000
2015-16	100000	1083161	1038915	31000
2016-17	321660	319669	476800	31000
2017-18	1593531	573343	2826697	31000
2018-19	103269	118850	13570	46000
2019-20	577153	483822	1004648	46000

Support Services at Prof VBS Rajan Library

a. Theses/Dissertations Facility

The Library holds all UG, PG Dissertations and Doctoral theses, of various academic departments of AMET to which they were submitted. 2018 hard copies of the Theses / Dissertations are available in the Central Library.

b. Selective Dissemination of Information Service (SDI)

User profile and document profile are prepared. User profile contains name of the user, class / department, area of interest and topic of the research. Document profile includes bibliographic information about the books and journals required by the user. User profile and document profile are matched and the required resources will be sent to the individuals either in the form of soft copy or print.

c. Current Awareness Service (CAS)

Current awareness system alerts the user community about each and every new arrivals of the library. When new publication of any format reaches the library, the user community will be intimated about the new arrivals instantly, periodically or upon request. List of latest additions of books are displayed in the New Arrival Rack and subsequently the intimation will be displayed in the Notice Board so as to enable the user about the current awareness.

d. Article Alert Service

Contents of the latest relevant journal articles on request are scanned and sent through e-mail to the concerned faculty members.

e. News Paper-Clippings Service

Information related to Higher Education, research oriented information clippings are preserved and kept intact for ready reference.

f. Reprography Services and Scanning Facilities

Photocopier is provided for users in the Central Library. Students can make photocopy of restricted number of pages not violating the copyright rules from the book, articles from periodicals and newspapers and question papers. Library strictly follows copyright laws while providing this service. A scanner, photo copier cum printer and a printer are available in the library for the users.

g. Library as a space for Knowledge Events

The Audio Visual Hall of Prof VBS Rajan Library (fully air conditioned, audio and video projection facility including smart board; Having a seating capacity of 50) is open to all library users (students and Faculty) to organize knowledge promotion events such as Book Talks, Quiz, Student Contests, debates etc.

Details of Digital Resources at Prof VBS Rajan Library

In order to meet the contemporary needs of the library users, the Prof VBS Rajan Library offers the following facilities and value-added services through conventional methods and by using Information and Communication Technologies (ICT).

a. Digital Knowledge Centre

Library has a separate section for digital library. This facility helps the users to explore the electronic databases such as E-Journals, E-books, databases and software subscribed by the Central Library. Access of Internet in Digital Knowledge Centre is enabled through 50 computer systems with an internet speed of 1 GBPS from National Knowledge Network and 100 Mbps from Tata Communications. The computer configurations are as follows

- THIN CLIENT DELL THIN CLIENT WYSE 3030 4GB FLASH/2GB RAM;
- DELL OPTIPLEX 3010 I3-3220 3.30GHZ/2GB/500GB/18.5LCD;
- LENOVA THINK CENTER/i3-4170/3.70GHZ/4GB/500GB/19 LED LENOVA;
- DELL OPTIPLEX330/CORE2DUO 2.53GHZ/2GB/160GH HDD/18.5 LCD DELL

b. E Journals from IEEE

The Institute of Electrical and Electronics Engineers (IEEE) is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. It has highly cited publications of Journals to support Engineering professionals. The subscribed IEEE All Society Periodical Package consists of 183 e-Journals related to all the Engineering disciplines with access to back documents since 1998.

c. Elsevier Package: SCOPUS and SCIENCE DIRECT

SCOPUS is the largest abstract and citation database of peer-reviewed literature: scientific journals, books and conference proceedings. The subscribed package of Elsevier SCOPUS – Science Direct consists of 340 e-journals with enormous full-text articles related to various Science, Technology, Engineering and Management studies.

d. E Journals from ASME

The American Society of Mechanical Engineers (ASME) is the premier professional membership organization for Mechanical Engineering. AMET has subscribed ASME with access to 31 most prestigious electronic journals in the area of Mechanical Engineering with an access to back documents since 1960 along with available conference proceedings.

d. E Journals from ASCE

The American Society of Civil Engineers (ASCE) is a leading provider of electronic material to Civil Engineering and related disciplines. AMET has subscribed 31 e-journals from ASCE

e. E-Journals from J-GATE

J-Gate is an important electronic gateway to global e-journal literature which seamless access to millions of online journal articles offered by a variety of Publishers. AMET has subscribed the two modules from ASME such as Engineering and Technology (with 4285 e-journals) and Management and Social Sciences (with 4538 e-journals).

f. E-Journals and electronic resources from EBSCO

AMET has subscription to EBSCO Business Source Elite, a database, which consists of 1079 full text electronic journals related to all the branches of Management studies. The database consists of the contributions from world renowned publishers in the form of peer reviewed academic journal articles, magazines, abstracts and trade publications.

g. E-Journals and electronic resources from DELNET

The Central Library of AMET has continuous annual institutional membership subscription with the Developing Library Network (DELNET) DELNET, through which access to more than 5000 e-journals and enormous e-books and Theses/Dissertations are made available. Apart from electronic database, the Central Library of AMET is privileged to access the Union Catalogue of Books to explore Inter-Library Loan facility. DELNET E-resources can be accessed both in Library and also from remotely (from anywhere anytime), through the Remote Access Facility powered by INFED of INFLIBNET.

h. E Books from ProQuest

The subscription package of AMET with ProQuest consists of 40758 e-books covering various disciplines. ProQuest E-resources can be accessed both in Library and also from remotely (from anywhere anytime), through the Remote Access Facility powered by INFED of INFLIBNET.

i. Software

The Library is having following licenced software besides several free and open access software for the student usage

1. URKUND-Plagiarism Detection Software
2. SPSS-Statistical Software

Accessibility to students

a. Access Cards

AMET provides Identity card with Barcode Technology, for all students and staff members, which can be utilized for registering GATE Entry as well as for borrowing the library resources. In addition, the issue of books and return of books are electronically recorded using the OPAC system of the Library through the Library Cards.

b. Remote Access

AMET has also made the Library Resources to be accessed remotely through INFED system of the INFLIBNET. The NFLIBNET Access Management Federation (INFED) has adopted Shibboleth, a standard-based open source software, for authenticating authorized users from institutions and provide them seamless access to e-resources from anywhere, anytime.

c. BARCODE and RFID Systems

The University has adopted barcoding system for recording of issue and return of books. The University has also implemented the Radio-frequency identification (RFID) system to enhance the fidelity in the Library Access process.

d. Library Web portal

Library Portal is an interface to the Library resources and services to access e-question bank. Open source e-journals and magazines, open source e-books, e-news papers etc., are also made available. Link :<https://ametlibrary.wordpress.com/> (<https://ametlibrary.wordpress.com/>)

e. Institutional Membership & Inter Library Loan (ILL)

To enhance the Library Access coverage, Prof VBS Rajan Library has made collaborations with to explore Inter library Loan (ILL) to provide articles, books, and other materials to faculty members, researchers, students, through Institutional Membership. Prof VBS Rajan Library has the Institutional Members with the following institutions from where AMET students can borrow books and access the library resources.

- Anna University
- MALIBNET
- American Council Library
- British Council Library
- DELNET
- National digital Library (NDL)

f. Library Automation for enhanced Access Experience

The library uses the popular “AUTOLIB” software on windows environment capable of handling of records. It facilitates the students and Faculty to have trouble free access with online Public Access Catalogue (OPAC) and also consists of various modules such as Gate Entry, Acquisition Cataloguing, Circulation, Serial Control and possibility of generating various reports.

g. Web OPAC (Online Public Access Catalogue)

The in-house resource list can be accessed through website of AMET. Central Library has online access facility to search the availability of the required resources for the user community. The search option through OPAC system is unique and can be made through Author-wise, Title-wise, Subject-wise indexes using keywords and can be accessed from on and off the campus. The advanced search provides with more specific search for a title with Boolean operators.

h. Reference services and referral services

Library provides right information to the right person at the right time through Reference Service. Reference sources such as dictionaries, encyclopaedias, almanacs, atlases, etc. are research tools that can help for writing a project. Reference sources provide answers to specific questions, such as brief facts, statistics, and technical instructions and also provide background information. Referral Service includes guiding the users to approach the right institution for the information required.

i. Grievances online

Users can submit their suggestions/grievances through Online Grievance Portal of AMET or through Prof VBS Rajan Library Web Portal which are forwarded to the Library Committee for necessary action. Users can also submit their suggestions/ grievances through general interaction, making an application, and through e-mail.

Support to students for self-learning activities

The Digital Knowledge Centre of Prof VBS Rajan Library and other digital resources as explained above are supporting the students for their self learning activities.

a. List of digital resources available for students to enhance their self learning activities

1. IEEE
2. Elsevier: Including SCOPUS and Science Direct
3. ASME-The American Society of Mechanical Engineers
4. ProQuest E-journals
5. J-GATE Engineering
6. EBSCO
7. J-GATE Management and Social Science
8. DELNET
9. URKUND –Plagiarism Detection Software
10. SPSS-Statistical Software

b. Audio Visual Section (AV Hall)

Audio-Visual Section of the Library is equipped with a computer system well supported by multimedia accessories for enhancing the self learning experiences by the following ways

1. Effective and efficient utilization of National Programme on Technology Enhanced Learning (NPTEL) courses with the available technical videos, CD ROMS etc._The AV Hall of the Prof VBS Rajan Library is having more than 40000 video lectures (in Engineering, Science and Humanities and Management streams) stored in portable storage device (hard disc) and it is also loaded in the Library Portal Served.
2. Prof VBS Rajan Library has also a collection of locally stored version of more than 50000 books in CD format (more than 3200 CDs). Students can access these materials in the AV Hall to enhance their self learning
3. Besides, students are using the AV Hall for their self learning activities such as Club Meetings, Student Organized Weekly Seminars and Research Meetings at the AV Hall.

c. MOOC- Online certification courses

The University has made it mandatory that every student shall undergo minimum one Massive Open Online Course in MOOC platforms such as Coursera, Edx, SWAYAM and NPTEL, etc. per semester. In this regard, students in small groups can access the MOOC courses in AV Hall with state of the art projection, audio and video facility. This enables them to enrich their self learning experience with current trends, and also to equip themselves with inter-domain subjects.

d. Swayam Prabha

Swayam Prabha is an initiative of Ministry of Human Resource Development (MHRD). It is facilitates access to high quality educational programmes of 32 DTH Channels on 24x7 basis. Every, day, there will be new content for at least four hours which would be repeated 5 times a day, allowing the students to choose the time of their convenience and learn quality online education at their own pace.

e. Institutional Repository

Prof VBS Rajan Library supports the students for self-learning activities through Institutional Repository which is an archives, where each and every administrative and research valuable records in any format can be preserved and accessed anytime. DSpace Institutional Repository software has been installed in AMET and the repository can be accessed through library web portal. DSpace is open source software for building digital repositories. DSpace preserves and enables easy and open access to all types of digital content including text, images, moving images, mpegs and data sets. Born digital records can be catalogued and uploaded into the DSpace Repository to retrieve the right information at the right time to the user community.

10.4.2 Internet (10)**Institute Marks : 10.00**

AMET has a total number of Computers 973 for student usage and 251 for Faculty usage. All these Computers/Laptops are provided with broad band internet connectivity. The campus and hostels are fully covered with internet connectivity though Wi-Fi. AMET has 110 Wi-Fi Hot Spots using Dlink in campus and 100 Hot Spots using Ruckus Networks in AMET hostels.

Table 10.42 Details of Internet Provider, Available Bandwidth, Wi-Fi Facility etc.

Particular	Response
Name of the Internet provider	BSNL and TIC FIBER
Available bandwidth	• LAN of 1 GBPS (from BSNL) connectivity under National Knowledge Network (NKN) is provided throughout the campus • TIC Fiber (Thamizhagha Internet Communications)– 100 MBPS • TATA – 100 MBPS (This is the default connection for Administration and Management) • In case of one line failure, each line can be switched to other line at optimized speed to have continuity in connection
Wi- Fi availability	The campus and hostels are fully (100%) covered with internet connectivity though Wi-Fi. AMET has 110 Wi-Fi Hot Spots using Dlink in campus and 100 Hot Spots using Ruckus Networks in AMET hostels.
Access speed	Average 75 Mbps for workstation and desktops
Availability of Internet in Labs	YES. • All the computers in the Labs are provided with Internet Connectivity. • All the Labs are having cat6 Cabling and D link Giga byte switches. • Moreover, all the labs are connected with WiFi also.
Availability of Internet in computing lab	YES • The Computing Labs are provided with Internet Connectivity. • All the Labs are having cat6 Cabling and D link Giga byte switches. • Moreover, all the labs are connected with WiFi also.
Availability in Departments and other units	YES • All the Departments and other functional Units are provided with Internet Connectivity. • They are having cat6 Cabling and D link Giga byte switches. • Moreover, all the Departments and other Units are connected with WiFi also.
Availability in Faculty rooms	YES • All the Faculty Rooms Units are provided with Internet Connectivity. • They are having cat6 Cabling and D link Giga byte switches. • Moreover, all the Faculty Rooms are connected with WiFi also.
Institute own e-mail facility to faculty/students	YES AMET has domain specific mail ID to the stakeholders (username@ametuniv.ac.in)
Security/privacy of e-mail/internet users	YES • Separate firewall for Campus and Hostel are installed with Gateway Content Filtering and IPS/IDS Protection. • Gate way Security –Firewall – Palo Alto 810 for Campus and Class rooms • Antivirus software is installed in all the Desktops and Laptops being used in the campus • Sonic firewall is installed for hostel internet connectivity. • The University is having exclusive IT Support Team which takes care of the security and privacy issues if any.

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)
Program should specify 2-4 program specific outcomes.

PSO1	Apply the knowledge of Electrical Engineering, investigate and solve the complex Marine Electrical Engineering problems to meet the specified needs with appropriate considerations for the society.
PSO2	Develop solutions for complex Engineering problems in the broad field of power electronics and drives, power systems, high voltage Engineering and Marine Engineering and control.
PSO3	Analyze, design and integrate Electrical systems in on board ships and apply modern tools and techniques in marine industries and create passion for life-long learning and research in advanced fields.

Declaration

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

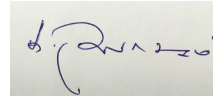
- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institutes shall fully abide by them.
- It is submitted that information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

Head of the Institute

Name : Col.Dr.G.Thiruvassagam

Designation : Vice-Chancellor

Signature :



Seal of The Institution :

COL. Dr. G. Thiruvassagam
Vice-Chancellor
ACADEMY OF MARITIME EDUCATION AND TRAINING
(Granted to be University via 3 of UGC Act 1956)
#135, East Coast Road,
Kandhar - 605 115, Chennai, INDIA

Place : Chennai-603112

Date : 31-08-2020 16:53:01