## **ANNUAL QUALITY ASSURANCE REPORT**

1st CYCLE

2016-2017



## **ACADEMY OF MARITIME EDUCATION AND TRAINING (AMET)**

DEEMED TO BE UNIVERSITY

135, EAST COAST ROAD, KANATHUR

CHENNAI-603112

**JULY 2017** 

### AMET-AQAR-I: 2016-2017

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### THE ANNUAL QUALITY ASSURANCE REPORT (AQAR) OF THE IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)

PART - A

AQAR for the year 2016-2017			
1. Details of the Institution	·		
1.1 Name of the Institution	Academy of Maritime Education and Training		
	(AMET) deemed to be University		
1.2 Address Line 1	135, East Coast Road		
Address Line 2	Kanathur		
City/Town	Chennai		
State	Tamil Nadu		
Pin Code	603112		
Institution e-mail address	office@ametuniv.ac.in		
Contact Nos.	044- 32577030 / 32577002		
Name of the Head of the Institution:	Col. Dr. G Thiruvasagam		
Tel. No. with STD Code:	044-32575616		
Mobile:	9566112211		
Name of the IQAC Co-ordinator:	Dr. M. Jayaprakashvel		
Mobile:	9840529274		
IQAC e-mail address:	naacssr@ametuniv.ac.in		
<b>1.3 NAAC Track ID</b> (For ex. MHCOGN	TNUNGN11431		
18879)			
1.4 NAAC Executive Committee No. &	EC/71/A&A/15.1 DATED NOVEMBER 16,		
<b>Date:</b> (For Example EC/32/A&A/143 dated	2015		
3-5-2004. This EC no. is available in the			
right corner- bottom of your institution's			
Accreditation Certificate)			
1.5 Website address:	www.ametuniv.ac.in		
Web-link of the AQAR:	http://www.ametuniv.ac.in/IQAC/AMET-		
	<u>AQAR-2016-17.pdf</u>		

### 1.6 Accreditation details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	В	2.42	2015	NOVEMBER 15, 2020

1.7 Date of Establishment of IQAC:	13/05/2013
1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11submitted to NAAC on 12-10-2011)	This is the first submission

1.9 Institutional Status						
Hair ancita	State	(	entral	Deem	ed 1	Private
University				✓		
	Yes			No		
Affiliated College					✓	
Constituent College				✓		
Autonomous college of UGC				<b>√</b>		
Regulatory Agency approved		<b>√</b>				
Institution (eg. AICTE, BCI,	(University Grants					
MCI, PCI, NCI)	Commission-UGC and					
	Directorate General of					
	Shipp		S)			
	Co-	Men	Women	Urban	Rural	Tribal
Type of Institution	education	wien	women	Orvan	Kului	Tribai
	<b>√</b>				✓	

Financial Status	Grant-in- aid	UGC 2(f)	UGC 12B	Grant-in-aid + Self Financing	Totally Self- financing
					✓
	Arts	Science	Commerce	Law	PEI (Phys Edu)
1.10 Type of	✓	<b>√</b>			
Faculty / Programme	TEI (Edu)	Engineering	Health Science	Management	Others (Specify)
		✓		✓	Maritime Studies
1.11 Name of the Affiliating University (for the Colleges)  Not applicable					

1.12 Special status conferred by Central/ State Government				
UGC/CSIR/DST/DBT/ICMR	etc			
Autonomy by State/Central				
Govt. / University	<del></del>			
University with Potential for				
Excellence	<del></del>			
UGC-CPE				
DST Star Scheme				
UGC-CE				
UGC-Special Assistance				
Programme	_ <del>-</del>			
DST-FIST				
UGC-Innovative PG				
programmes	_ <del></del>			
UGC-COP Programmes	<del></del>			
Any other (Specify)	1. The DGS has accredited University with A1			
	outstanding Grade for the past three consecutive years			
	for outstanding maritime education and training			
	2. University is accredited by NAAC with B Grade			
	3. Outstanding Grade in CRISIL rating			
	4. Only maritime University in India to participate in			
	EMSA audit			
	5. Only member from India in the International			
	Association of Maritime Universities			

### 2. IQAC Composition and Activities

2.1 No. of	Teachers				4
2.2 No. of	Administrat	ive/Technical staff	2		
2.3 No. of	students		3		
2.4 No. of	Managemer	nt representatives	2		
2.5 No. of	Alumni				2
-	f any other s representa	takeholder and tives	2		
		Industrialists			2
	other Exter		4		
2.9 Total N	lo. of memb	ers	20		
2.10 No. of	IQAC mee	tings held	12		
2.11 No. of	<sup>f</sup> meetings w	rith various stakeholde	ers:		
No	Faculty	Non-Teaching Staff S	Students	Alumni	Others
10	4	2		2	2
2.12 Has IQAC received any funding from				Yes	No
UGC during the year?			V		
If yes, mention the amount				Not a	pplicable

2.13 Seminars and Conferences (only quality related)						
(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC						
Total Nos	International	National	State	Institution Level		
5		2		3		

#### (ii) Themes

- 1. **Faculty Development Programme** on High Impact Teaching Skills 11-08-2016 to 12-08-2016. This programme has provided intensive training for selected faculty members to enhance the interactive teaching.
- 2. **Faculty development programme** on modern tools for research publications and publication metrics. 09-01-2017. This programme has been organized in collaboration with SCIENCE DIRECT to introduce the modern tools for manuscript preparation and also the importance of publication metrics.
- 3. **Guest lecture** on **Integrated approach for Maritime Research:** Need of the Hour by Mr **Sivagnanam Balasubramani** (capacity builder in integrated maritime research) on 13-04-2017. This programme has been organized to create an awareness about the interdisciplinary approach in maritime research.
- 4. **National Conference** on the Importance of Research Methodology in Doctoral Research: **19-05-2017.** Four lead lectures and interactive sessions on various aspects of research methodology have been organized.
- 5. **National Workshop** on tools and techniques for the scientific and technical writing: **26-05-2017.** Three lectures and interactive session was organized on the tools and techniques for the scientific and technical writing.

#### 2.14 Significant Activities and contributions made by IOAC

#### Salient initiatives from the IOAC during 2016-17

- 1. The IQAC of AMET played a significant role in getting B grade of Accreditation for the University from the National Assessment and Accreditation Council of UGC, Government of India during October 2015.
- 2. After NAAC accreditation, the IQAC has conducted one comprehensive meeting on 26-02-2016, which discussed the action plan of IQAC, post NAAC strategies and advised on the existing good quality procedures in the University for further Improvements.
- 3. As a post NAAC quality upgradation and sustenance activity, the IQAC has formulated detailed workplans, mode of operations and monitoring mechanisms of quality initiatives.
- 4. The IQAC has also obtained the plan of action on NAAC peer team report for the next one year from all the Departments.
- 5. The IQAC has collected the Self evaluation Reports, Academic Performance Index of the Faculty members.
- 6. Besides, IQAC has conducted Academic and Administrative Audit in the University for the academic year 2016-17 involving External Experts of high academic repute.
- 7. During February 2017, A faculty Self Assessment Proforma based on academic performance to grade the Faculty of AMET was prepared and Faculty are graded based

- on their performance in to any of the three categories A, B and C. IQAC of AMET has prepared the weightage system for assessing the forms.
- 8. The IQAC has contributed to the University in entering into a Memorandum of Understanding in the area of E Learning with Sify Technologies Limited Chennai. MoU was signed on 30<sup>th</sup> March 2016. Through this MoU, a study on introduction of VR based technologies in the Engineering and Technology teaching learning process was done with reference to BE Mechanical Engineering in the University.
- 9. It was proposed to include the IQAC as a functional Unit to take part in the Academic Council meetings and the same has been approved
- 10. A Steering Committee of IQAC for AQAR Preparation has been formed. A meeting of this Committee was held on 16-08-2016 and strategies were prepared for AQAR preparation. A proforma is prepared and circulated to the University departments of preparation of Annual Quality Assurance Report. Gaps were identified and plans are proposed to fill up the gaps.
- 11. IQAC of AMET has formed an Advisory Committee for Quality Initiatives to review the effectiveness of the quality initiatives post NAAC in the University. The first meeting was conducted on 22-07-2016
- 12. An Essay Competition in commemoration of Platinum Jubilee Year for the Quit India Movement was proposed by the IQAC and conducted by the Peace Club during August 2016
- 13. Similarly IQAC has proposed a mass recitation of the National Anthem by all students in the institution at 11 am on Tuesday 23rd August 2016 as part of Azadi 70-Yaad Karo Kurbani (Freedom Fortnight)
- 14. The IQAC has identified few open sources for the free downloading of e books related to various academic fields and were communicated to University departments on 23-09-2016 for effective teaching and learning
- 15. IQAC has organized an Orientation Lecture on Modern Tools for Research Publications and Publication Metrices on 09-01-2017 by Mr Pranav Shukla of Elsevier
- 16. Annual Progress Report of Department during October 2015-December 2016 and Annual Progress Reports of individual Faculty are being collected and reviewed. A report by the compilation of salient features of accomplishments University Departments has been made.
- 17. Faculty Members of the University were oriented to register with ORCID ID
- 18. IQAC has conducted a total of five quality related academic events as listed in serial number 2.13 of this report.
- 19. IQAC has prepared the Annual Quality Assurance Report 2016-17

### 2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality Enhancement and the outcome achieved by the end of the year \*

Plan of Action	Achievements
The IQAC of AMET shall be reorganized as per the suggestions of NAAC Peer Team. The Peer Team suggested to have a relatively lesser number of members in the IQAC	It has been done by reducing the number of IQAC members from 24 to 21 members.
Industrial participation in curriculum design and development; Courses in Core programmes to be updated	Every Board of Studies is now having industry expert as one of the member  A total of 9 Certificate Programmes/Diploma Programmes in collaboration with industries such as Ministry of Small and Medium Enterprises, Govt of India, Electronics Platform Research (EPR) Lab, Yokogawa India Ltd, ORACLE, ABTRI Biotech Private Limited, Chennai and Enervy Enviro Services Private Limited, Chennai were introduced in the academic year 2016-17
Strengthening of CBCS and successful implementation	A structured CBCS system is implemented; CBCS handbook has been prepared
Restructuring of courses with less enrollment	Add-on or value added courses in such programmes were introduced. For example, the M.Sc., Marine Biotechnology programme has been provided with an add an Certificate Programme in Quality Assurance and Quality Control in collaboration with ABTRI Biotech Private Limited, Chennai.
Improving the formats of feedbacks	Feedback formats are improvised and made online; Feedbacks are designed for all stakeholders
Programmes for slow and advanced learners, Organizing Tutorial and remedial classes	Special drives have been made; Significant progress achieved.
	A MoU with Sify Technologies has been made for e learning course modules.
Enhancing teacher quality, teaching	Number of faculty with Ph.D., qualifications

methodology	increased.
	A special two days workshop for improvising teaching skill of AMET faculty was organized
Strengthening ICT resources in the University	A specialized centre for ICT Enabled Education created in addition to the existing ICT related centralized activities through which efforts are made to establish infrastructure for smart class rooms, flipped classes, digitalization of study materials, video capturing of lectures etc
Examination processes needs reformation and wide publicity	Examination processes revised. Changes have been documented as CBCS Regulations
Skill Development Programmes to be enhanced	A specialized Skill Development Centre has been established which has made arrangement for the promotion of professional and specialized skills. Programmes like offering job oriented software such as AutoCAD and Tally; coaching for IELTS, GATE, TOEFL etc were arranged. Besides the Centre has conducted 6 major events to sensitize students for the skill development.
Career Development activities to be promoted	Career Development Centre has been established which in collaboration with Placement Centre has organizing preplacement trainings, interview skills, attitude refinement and personality development etc.
Extension activities and Community Services to be given priority	Every Department has been provided with a Coordinator for Extension and Social Service Activities. The University Departments have organized a total of 90 such events during the past academic year.
	As per the general theme of the University with reference to Community Services, each Department have organized at least two events in a semester on the broader are of HEED – Health, Education and Economic Development of adopted village Kanathur

	Reddikuppan
	NSS Activities are frequent and has conducted 6 major social service events during this academic year of which the Porur Lake clean up and periodical coastal clean up programmes was most acclaimed one.
	University is conducting Extension and Community service events in collaboration with other government and non governmental organizations such as ISRO, INCOIS, Port Trust Chennai and NAESEY
Defining of learning outcomes of courses offered	Under CBCS system every course has definite objectives and outcomes
Structuring the course for PhD	PhD regulations are revised, structured and being implemented as per UGC PhD Regulations 2016
Development programmes for non teaching staff to be increased	Special emphasis was given and programmes were organized
IQAC to be more proactive	IQAC has been proactive in upkeeping the quality initiatives in the University trhough which more than 10 suggestions have been made and implemented.

<sup>\*</sup> Attach the Academic Calendar of the year as Annexure. Annexure I

2.15 Whether the AQAR was placed in	Yes		No
statutory body	✓		
	Management	Syndicate	Any other body
			Academic Council
	✓		and Planning and
			Monitoring Board
Provide the details of the action taken	The above statutory bodies have recommended		
	the AQAR for submission. Suggestions provided		
	by the bodies were incorporated and		
	implemented.		

Part – B
Criterion – I
1. Curricular Aspects

### 1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self- financing programmes	Number of value added / Career Oriented programmes
PhD	15	0	15	15
PG	5	0	5	5
UG	8	0	8	8
PG Diploma	0	0	0	0
Advanced Diploma	1	0	1	1
Diploma	6	1	7	7
Certificate	3	1	4	4
Others	0	0	0	0
Total	38	2	40	40

Interdisciplinary	2 PG programmes
Innovative	University has introduced job oriented Diploma programme specially
	designed and developed for the underprivileged fishermen community. By
	involving community representatives and experts from Government
	Organizations, Private Organizations, Senior Academicians and Technical
	Experts of the University, the programme has been structured.

(M.Tech Marine Engineering Management is interdisciplinary program which involves Department of Marine Engineering and AMET Business School; MBA Oil and Gas Management is an interdisciplinary programme which involves Department of Petroleum Engineering and AMET Business School)

## 1.2 (i) Flexibility of the Curriculum: Core Elective option / Open Elective options are provided through CBCS system

### Academic flexibility

- 1. Curriculum is based on Choice Based Credit System (CBCS)
- 2. Each Curriculum has Core, Elective, Open elective options. Open electives have been introduced, where students can opt any open elective course across Departments hence promotes academic flexibility.

### (ii) Pattern of programmes:

Pattern	Number of programmes	Remarks
Semester	28	CBCS System
Trimester	0	
Annual	0	

1.3 Feedback from stakeholders	Alumni	Parents	Employers	Students
(On all aspects)	✓	✓	✓	✓
Mode of feedback	Online	Manual	Co-operating so	hools (for PEI)
Wode of feedback	✓	✓		
The analysis of student feedback on	Annanyma II is analogad as a Model for feedback in			
course delivery	Annexure II is enclosed as a Model for feedback			jeeavack in
*Please provide an analysis of the	each of the categories			
feedback in the Annexure				

## 1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

**YES**, The curriculum and syllabi of all the Departments were revised / amended with new regulation which was introduced in the Academic Year 2016-2017.

### Salient Features:

Need based revision made to meet the emerging area. Practical aspects and current trends
in Industry are given importance in framing the syllabi. Industrial training and soft skill
practices are introduced as part of the curriculum keeping in view of industry trends. For
examples, the curriculum and syllabus of BE Petroleum Engineering was revised based
on the suggestions from the reviews of of experts from foreign Universities and
industries.

- 2. All the Engineering programmes are having common curriculum and syllabi in the first and second semester to enhance the choices for horizontal mobility across the institutions
- 3. The Mathematics, Physics and Chemistry syllabi of the University Engineering programmes are revised with great care for catering the needs and requirements of the maritime sector and respective disciplines.
- 4. To comply with minimum shipboard operational, the syllabi of few core and elective subjects in B.Sc., Nautical Science were modified to enhance the professional standards.
- 5. Changes were made in the B.E., EEE-Marine curriculum. Certain new core subjects such as Electrical Estimation & Wiring and Electric circuits & Electron Devices were added to meet industrial requirements.
- 6. Departments have the option of conducting Continuous Assessment Test in the following methods
- a. Online Objective test
- b. Open book test
- c. Subjective test
- 7. Options available in few courses for submitting Assignments through blog / on-line.

#### Curriculum Enrichment

- 1. Every UG student is required to go for at least one industrial visit every year starting from the second year of the programme.
- 2. In few UG programs, students may undergo industrial training for a period as specified in the curriculum during summer /winter vacation.
- 3. UG students are encouraged to enroll in any one of the following personality and character development programmes; NSS/ YRC/ Sports club/ ECO club/ Yoga club/ Leo club/ Peace club/ Fine arts/ Free Open Source Software (FOSS) Club/ Women Empowerment Cell and Entrepreneurship Development Cell.
- 4. Soft skill courses are part of curriculum in all the UG programs
- 5. Students can assess study materials through authenticated on-line portal for prepreparation of the topic well in advance to make more interactive class room session.
- 6. Question Banks are also available in on-line portal to guide the students for preparation of examination. This will also give an opportunity to the students to suggesting additional questions for interacting in the class room session.

### 1.5 Any new Department/Centre introduced during the year. If yes, give details.

YES, TWO Centre's has been introduced in the academic year 2016-2017

Sl.	Name of the Centre/Lab	Salient features			
No	Name of the Centre/Lab	Salient leatures			
1	Nanophotonics Research	The Laboratory was developed with the fund raised by			
	Laboratory	research projects sanctioned by Department of Science			
		and Technology (DST)-S ERB and Department of			
		Atomic Energy (DAE)-BRNS and seed fund from			
		AMET			
		Projects area:			
		1. Optical and thermal properties of SQDs and MNPs			
		2. Visible light Photo catalysis			
		3. Photo thermal techniques			
2	Centre for Marine	The Centre has been established with the funds raised by			
	Science and Technology	research projects sanctioned by DST SERB and also			
		funds from AMET deemed to be University.			
		The Centre is conducting interdisciplinary research on			
		marine and maritime related science and technology			
		areas such as remote sensing, GIS, oceanography etc.			
		The centre is permitted to register PhD candidates with			
		interdisciplinary background.			
3	Centre for	The Centre has been established with the financial			
	Nanotechnology	support of AMET			
		The Centre is doing advanced research on			
		nanotechnology.			

#### Criterion - II

### 2. Teaching, Learning and Evaluation

### 2.1 Total No. of permanent faculty

Tot	al	Asst. Professors	Associate Professors	Professors	Others
14	1	92	11	38	Adjunct Faculty- 27

2.2 No. of permanent faculty with Ph.D.,	58
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### 2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

	Asst. ofessors		ociate essors	Profes	ssors	Oth	ners	To	otal
R	V	R	V	R	V	R	V	R	V
19	-	3	-	19	-	-	-	41	-

2.4 No. of Guest and Visiting faculty and	Visiting Faculty	Adjunct Faculty
Temporary faculty	17	27

### 2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops	59	150	2
Presented papers	85	82	1
Resource Persons	4	29	2

### 2.6 Innovative processes adopted by the institution in Teaching and Learning:

University has established the following specialized Centers for the establishment, promotion and up-keeping of innovative teaching learning processes.

- 1. Centre for ICT Enabled Education
- 2. Faculty Educational Materials Promotion Centre

Besides, the IQAC of the University, visionary leaders in Management and Administration along with several academic bodies have joined together in adopting innovative processes University in teaching learning.

#### Salient initiatives are

- 1. University Departments are offering Certificate/Diploma programmes in collaboration with Industries which provides the hand on training mode of education for the students
- 2. NPTEL, SWAYAM online programmes are promoted. Special campaign is organized for enhancing the registration for online courses
- 3. Efforts are made to establish smart class rooms
- 4. Infrastructure and required facilities are being made for facilitating the flipped class rooms
- 5. Video capturing of lectures by Faculty are made. Specialized facilities for development of video lectures created. Faculty Educational Materials Promotion Centre has been proactive in digitizing the lectures
- 6. University has uploaded relevant study materials, e books etc for enhancing the learning experience of the students

2.7 Total No. of actual teaching days	190
during this academic year	190

# 2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Ouestions)

- 1. University has formulated a special committee through which CBCS Regulations are framed and approved. These regulations specify about the teaching, learning and evaluation processes. Major Examination/Evaluation reforms initiated by the Institution
  - a. Online Multiple Choice Questions are introduced as a test measure in selected Departments
  - b. Additional Credits are now made possible for advanced learners
  - c. University has made it possible for the students to obtain photocopy of valued answer sheets
- 2. Departments have the option of conducting Continuous Assessment Test in the following methods
  - a. Online Objective test
  - b. Open book test
  - c. Subjective test
- 3. Options available in few courses for submitting Assignments through blog / on-line.

- 4. In case of PhD evaluation practices, evaluation of thesis by foreign examiners is made compulsory.
- 2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop
  - 1. All the University Faculty Members (141 members) are Members in the Board of Studies of their respective Departments.
  - 2. All are participating in (141 members) Faculty Development Programmes and Curriculum Development Programmes

2.10 Average percentage of attendance of students	76%
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### 2.11 Course/Programme wise distribution of pass percentage:

Title of the	Total no. of	f Division				
Programme	students	Distinction	I %	II %	III %	Pass %
	appeared	%				
		UG	Courses			
B.Sc-Nautical Science	123	23.58	59.35	-	1	82.93
B.E Marine Engineering	167	26.35	67.07	-	1	93.41
B.E Naval Architecture and Offshore Engineering	138	5.07	62.32	1.45	-	68.84
B.E Electrical & Electronics Engineering- Marine	20	15	85	-	-	100
B.E Petroleum Engineering	90	10	73.33	2.22	-	85.56
B.E Harbour Engineering & Ocean Engineering	13	7.69	92.31	-	-	100
B.B.M- Shipping	94	12.77	55.32	-	-	68.09
			Courses	<u> </u>		,
MBA -	72	18.06	81.94	-	-	100

AMET-AQAR-I: 2016-2017

Shipping and						
Logistics						
Management						
MBA - Oil and						
Gas	2	100	-	-	-	100
Management						
MSc - Marine	1	100				100
BioTechnology	1	100	-	-	-	100
M.Tech -						
Petroleum	8	100	-	-	-	100
Engineering						
M.Tech -						
Marine	2	100				100
Engineering	2	100	-	-	-	100
Management						
Doctor of	8	NA	NA	NA	NA	100
Philosophy	o	INA	INA	INA	INA	100

#### 2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

IQAC, in synergy with other Departments/Specialized Centres/Clubs, is contributing a prime role in identifying innovative processes for teaching and learning. In each of the IQAC meetings and other subcommittee meetings, processes for teaching learning are discussed, reviewed and monitored.

The IQAC is equally contributes for the monitoring and evaluation of new quality initiatives in the teaching learning process

For example, the following programmes are conceived by the IQAC with reference to Teaching and Learning and are conducted.

- 1. **Faculty Development Programme** on High Impact Teaching Skills 11-08-2016 to 12-08-2016. This programme has provided intensive training for selected faculty members to enhance the interactive teaching.
- 2. **Faculty development programme** on modern tools for research publications and publication metrics. 09-01-2017. This programme has been organized in collaboration with SCIENCE DIRECT to introduce the modern tools for manuscript preparation and also the importance of publication metrics.
- 3. **Guest lecture** on **Integrated approach for Maritime Research: Need of the Hour** by Mr **Sivagnanam Balasubramani** (capacity builder in integrated maritime research) on 13-04-2017. This programme has been organized to create an awareness about the interdisciplinary approach in maritime research.
- 4. **National Conference** on the Importance of Research Methodology in Doctoral Research: **19-05-2017.** Four lead lectures and interactive sessions on various aspects of research methodology have been organized.

5. **National Workshop** on tools and techniques for the scientific and technical writing: **26-05-2017.** Three lectures and interactive session was organized on the tools and techniques for the scientific and technical writing.

All the above programmes are organized as a measure to enhance the teaching learning experience in the University.

The IQAC has contributed for the monitoring of teaching learning experience by following ways

- 1. IQAC is conducting periodical Academic and Administrative Audit to monitor the teaching learning effectiveness in the University. External Experts from premier National Universities reviewing the teaching learning practices and also the effectiveness of the curriculum and syllabus as well.
- 2. The IQAC has identified few open sources for the free downloading of e books related to various academic fields and were communicated to University departments on 23-09-2016 for effective teaching and learning
- 3. Collection and analysis of Self evaluation Reports by Faculty through which they are graded as A, B and C based on their self appraisal
- 4. Student feedback on faculty performance are collected at periodical intervals to assess and monitor the Faculty performance
- 5. The IQAC has contributed to the University in entering into a Memorandum of Understanding in the area of E Learning with Sify Technologies Limited Chennai. MoU was signed on 30<sup>th</sup> March 2016. Through this MoU, a study on introduction of VR based technologies in the Engineering and Technology teaching learning process was done in the University. Now this initiative is further strengthened by the Centre for ICT enabled Education.

### 2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	9
UGC – Faculty Improvement Programme	-
HRD programmes	2
Orientation programmes	34
Faculty exchange programme	-
Staff training conducted by the University	54
Staff training conducted by other Institutions	33
Summer / Winter schools, Workshops, etc.	59

Others	34
Total	225

## 2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	200	-	43	-
Technical Staff	11	-	1	-

#### Criterion - III

### 3. Research, Consultancy and Extension

## 3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

### Salient initiatives from the IQAC during 2016-17

- 1. IQAC has proposed an idea of giving incentives for research publications by the Faculty and also to support manuscript preparation by the Faculty as well. To achieve this, Vice Chancellor has formed a separate Faculty Research Development Centre with a dedicated coordinator. The Coordinator is creating awareness among faculty members by personalized approach. Through this special drive, a total of 59 Faculty have been involved in publishing 126 research articles in SCOPUS indexed journals and 93 research articles in the UGC listed journals. The University has sponsored a total incentive of Rs 7.75 lakhs for this research promotion Activity. This Centre has also organized 2 workshops for writing research grants and 1 workshop for writing research articles.
- 2. The University has made tremendous efforts to increase the centralized research facilities and strengthen the Department Research capacities. University has allotted a total budget of Rs 1.28 crores alone for the purchase of new equipments and creation of research infrastructure and so far equipments worth Rs.0.94 crores have been purchased and made available for research and development activities in the research centers and University Departments.
- 3. The IQAC has recommended through which the University has increased the seed money for in house research projects from Rs 25000 to Rs 50000 and also extended the number of beneficiaries. From each of the major and allied Departments at least one faculty will be provided with seed money every year.
- 4. Based on the recommendations of the IQAC, the University has increased the number of Full Time Research Fellowships and also the number of post doctoral fellowships. Because of this support, a total of 27 full time research scholars are appointed with a monthly stipend of Rs 15000. Besides four Post Doctoral Research Fellows were also appointed with a monthly fellowship of Rs 20000
- 5. The IQAC has collected the Self evaluation Reports, Academic Performance Index of the Faculty members wherein much emphasis was given to the Research. This practice has created awareness among faculty members to concentrate more on research activities and thus it has sensitized the faculty and created a positive research environment in the University.
- 6. IQAC has conducted Academic and Administrative Audit in the University during March-April 2017. Audit was conducted by experts from premier public institutions

- of international repute. Departments have submitted action plan for the audit findings and IQAC has collected and reviewed the Action Taken Reports.
- 7. During February 2017, A faculty Self Assessment Performa based on academic performance to grade the Faculty of AMET was prepared and Faculty are graded based on their performance in to any of the three categories A, B and C. IQAC of AMET has prepared the weightage system for assessing the forms where maximum weightage was given for research. This has positively impacted Faculty members to dedicate more on output oriented research works.
- 8. IQAC has made all the Faculty Members of AMET University to register with ORCID ID. Awareness on SCOPUS database, h index and Citation index are created among Faculty Members by the IQAC

### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	2	2	2	20
Outlay in Rs.	19,04,000	43,85,303	15,23,968	16,51,52,375

### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	-	1	2	-
Outlay in Rs. Lakhs	-	10	1	-

### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	469	8	-
Non-Peer Review Journals	254	4	-
e-Journals	29	-	-
Conference proceedings	68	97	-

### 3.5 Details on Impact factor of publications:

Range	Average	h-index	Nos. in SCOPUS
0.1-9.2	1.37	9	149

## 3.6 Research funds sanctioned and received from various funding agencies, industry and other organizations

Nature of the Project	Duration	Name of the funding Agency	Total grant Sanctioned (Rs)	Received (Rs)
Major projects	Two Projects; 2 years each	DST-SERB,	4385303	1523968
Minor Projects	One project; 2 years	ICSSR	1000000	800000
Interdisciplinary Projects	One Project; 3 years	DAE-BRNS	3388400	2157000
Industry sponsored				
Projects sponsored by the University/ College	4 projects one year each	AMET	200000	200000
Students research projects (other than compulsory by the University)	12 projects one to three months each	AMET	400000	400000
Any other(Specify) Consultancy projects		-1		
Total	20 projects ranging from one month to three years	DST-SERB, ICSSR, DAE- BRNS, AMET	9373703	5080968

### 3.7 No. of books published

i) With ISBN No	133
ii) Chapters in Edited Books	9
iii) Without ISBN No	12

### 3.8 No. of University Departments receiving funds from

UGC-SAP	CAS	DST-FIST	DPE	DBT Scheme/funds

### 3.9 For colleges

Autonomy	СРЕ	DBT Star Scheme	INSPIRE	CE	Any Other (specify)

3.10 Revenue generated through	Rs. 27.7 lakhs
consultancy	RS. 27.7 IdKIIS

### 3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	10	11	-	8	NA
Sponsoring agencies		AMET,SPC,			
	AMET,SPC	TNSTC, DST,	-	-	-
		HiMedia			

3.12 No. of faculty served as experts, chairpersons or resource persons	15		
2.12 No. of collaborations	International	National	Any other
3.13 No. of collaborations	8	19	28
3.14 No. of linkages created during this year	41		
	From	From	
3.15 Total budget for research for	Funding	Management of	Total
current year in lakhs	agency	University/College	
	50,80,968	1,28,30,000	1,79,10,968

### 3.16 No. of patents received this year

Type of Patent		Number
National	Applied	7
National	Granted	-
International	Applied	-
International	Granted	-
Commercialized	Applied	-
Commercianzed	Granted	-

## 3.17 No. of research awards/recognitions received by faculty and research fellows of the institute in the year

Total	International	National	State	University	Dist	College
27	2	16	7	1	-	1

3.18 No. of faculty from the Institution who are Ph. D. Guides and students	31
registered under them	154
3.19 No. of Ph.D. awarded by faculty	Q
from the Institution	O

### 3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF	SRF	Project Fellows	Any other
		4 from DST SERB/ICSSR/DAE- BRNS	27 University Full Time Research Fellowships

### 3.21 No. of students Participated in NSS events:

University level	State level	International level	National level
174			

### 3.22 No. of students participated in NCC events:

University level	State level	International level	National level

### 3.23 No. of Awards won in NSS:

University level	State level	International level	National level

### 3.24 No. of Awards won in NCC:

University level	State level	International level	National level

### 3.25 No. of Extension activities organized

University forum	College forum	NCC	NSS	Any other
90			6	12

## 3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility (ISR)

- Every Department on an average conducts two extension programs per semester. A
  Coordinator in each Department is orienting students to involve in extension
  activities. A total of 90 extension and ISR activities are organized by the
  University Departments in this academic year. Selected important programmes are
  provided below
  - i. Training on Troubleshooting & maintenance of Fishing Boat Engines for fishermen 20.09.2016
  - ii. Familiarization Training on preparation of fish amino acids from fish wastes held on 08-03-2017
  - iii. Awareness Programme on Ocean Pollution and its Mitigation measures on 06-10-2016
  - iv. Awareness Programme on Rip currents and its Mitigation measures on 06-10-2016
  - v. Awareness Programme on Cyclone and Rip currents and their Mitigation measures on 02-03-2017
  - vi. Ennore Port Oil Spill Cleanup. 02-02-2017 and 09-02-2017
  - vii. Public awareness programme on "Need for Solid Waste Management in Coastal Area on 25-10-2016
  - viii. Sensitization of Primary School Students on the simple Marine Biology Experiments on 25-10-2016
  - ix. Yoga Special Programme for School Students on 28-03-2016
  - x. Awareness Programme on Electrical Safety for school students on 18-05-2017
- 2. The University conducted a mega survey on the socioeconomic status of the **adopted village Kanathur Reddikuppam** which is a fishing hamlet nearby the University
- 3. This survey has necessitated the University to design a unique wing called **HEED** (Health, Education and Economic Development) Programme
- 4. This survey has further prompted the University to design innovative, job oriented and industry relevant certificate and diploma programmes exclusively for the fishermen community. As a humble start, the University has developed a **Diploma** in **Fisheries Engineering**, exclusively for the unemployed youth of the adopted village.

- 5. Similarly as identified through the survey, the University has conducted awareness programmes and training programmes in identified areas
- 6. Under these HEED programme, each of the University Departments have organized at least two programmes per semester on the general objective of HEED. Hence our extension activities are centred towards the Health, Education and Economic Development of the adopted village.
- 7. University has received funds from ISRO, INCOIS and Port Trust Chennai for joint training programmes for fishermen community, enhancing awareness about the Government schemes and programmes and also to extend the immense intellectual contribution of the Faculty Members of AMET to the Community.

## Criterion – IV 4. Infrastructure and Learning Resources

### 4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	10.10 <sup>3</sup> / <sub>4</sub> acres	11/2 acres	AMET	12.10 <sup>3</sup> / <sub>4</sub> acres
Class rooms	80	29	AMET	109
Laboratories	48	4	AMET	52
Seminar Halls	3	-	AMET	3
No. of important equipments purchased (≥ 1-0 lakh) during the current year.	87	16	AMET	103
Value of the equipment purchased during the year (Rs. in Lakhs)	669.9	194	AMET	863.9
Others- New research centers and Centre for Excellence	3	2 Research Centers one Specialized Lab and 2 Centre for Excellence	DST- SERB & AMET	8

### 4.2 Computerization of administration and library

### Computerization of Administration

- 1. All the administrative procedures are done through computers
- 2. University disburses salary of Faculty and Staff through netbanking
- 3. Payment of tuition fee/other University fee can be paid online through netbanking
- 4. University circulars and notices are being communicated through emails
- 5. Information from the Administration to the students are also sent by SMS
- 6. All University Department activities are administered through computers
- 7. Finance Department is fully computerized

### Computerization of Library

- 1. **Library Automation:** The library uses the popular "AUTOLIB" software on windows environment capable of handling of records. It facilitates online Public Access Catalogue (OPAC).
- 2. **OPAC** (**Online Public Access Catalogue**): In house resource list can be accessed through WEBOPAC. Search can be made through Author-wise, Title-wise, Subject-wise indexes using keywords. The Advance Search provides with more specific search for a title with Boolean operators.
- 3. **Digital Knowledge Centre:** Library has a separate section for digital library to facilitate the access of electronic databases subscribed by the institution. The university subscribes to the following electronic databases apart from the journals available on open access platform.

### 4. Electronic Resource Management Package for E -Journals

- a. IEEE:169 Journals plus Back file to 2000
- b. Science Direct 360 E journals
- c. DELNET: Online Journals

#### 5. AMET Study Materials/ Online Educational Resources

- a. AMET study materials are available through library web portal link: www.ametonline.com/studymaterial/ https://ametlibrary.wordpress.com/
- b. Open Access Knowledge(OAK) Resources Materials (DOAJ, DOAB,) are available in digital library URL link: https://doaj.org/http://www.doabooks.org/
- c. Online Educational Resources (OER) Learning Materials' like NPTEL, couresera, MIT and Open courseware consortium.
- d. https://ametlibrary.wordpress.com/ through Access to E-Journals / E-Books / E-News Papers / E-Question Bank/E-Proceeding
- **6. Access Card:** The University provides with bar-coded identity card for all students and staff members which can be utilized for borrowing library documents.
- 7. **DELNET Online** is being subscribed and journals are being accessed
- 8. **Inter Library Loan Facility:** University library offers Inter Library Loan Facility digitially through the network with following libraries such as British Council Library (BCL), IIT, Chennai, American Council Library, Anna university

- 9. **Scanning, Printing and photocopy service:** The computerized printing and scanning facilty along with photocopying is made available to the users
- 10. **Use of plasma TV :** The library events are made known to users through plasma TV.
- 11. **Audio visual room facility:** Audio and video courses on various disciplines are viewed by the users. Options are available for download
- 12. **Selective dissemination of information service (SDI):** User profile and document profile are prepared through computers. User profile and document profile are matched and hit articles are being sent to the individual users through e-mail.
- 13. **Current Awareness Service (CAS):** Current awareness system alerts the user to the latest publications in specified field(s) of interest. A user registers at such a system with keywords representing his or her fields of interest, called a search profile. When new publications matching the search profile appear, the system informs the user of them instantly, periodically or upon request.
- 14. **Article Alert Service:** Contents of the latest relevant journal articles on various subjects are also informed to the Users through e-mail, especially for the faculty members who are involved in research
- 15. **Institutional Repository Services:** Faculty publications are scanned and uploaded in institutional repository.
- 16. **Question Bank Services:** Previous question paper are scanned and uploaded in library portal.
- 17. **Online Newspapers:** The Library subscribes 23 print newspapers and about 10000 online newspapers and maintains an archive of newspapers published in the last 12 months.
- 18. **Digital Conference Alert Services:** E mail alerts are made to the intended users about the Conferences or other academic events in their chosen area
- 19. Cartographic Section and Services: Our university library keeps separate section of nautical tables, ship weather code, admiralty charts, tide tables, steam tables with mollier diagram ,world atlas ,world maps, mapping india, world atlas of the ocean, tsnami book, nautical almanac, International Maritime organisation

- (IMO) model course, ports towns cities, collision avoidance rules, marine archaeology, ship and water, rule of the road, register of ships, port guide, globe, admiralty catalogue, magnetic compass, gyro campass, guide to port entry, encyclopedia of ships, the marine sextant, marine stores guide etc.
- 20. **Orientation Programs:** Orientation programs are conducted to familiarize library members with the library services, procedures and resources to the freshers. The students are of the effective use of library resources (print and online).
- 21. Search engine and job vacancy web links: Library has a pool of web links for job vacancies in various deciplines such as Marine Engineering, Nautical Science, Petroleum Engineering, Naval Architecture, Harbour Engineering, Marine Electrical Engineering, Marine Bio-Technology and management studies. The centre provides such information to the needy AMET members
- 22. **E-News clipping service:** The E-News Clipping Service currently are available in the digital form. All the documents would be copied to the server and homepage for news clipping service and allow access to users as and when required.

### 23. **Digital Library Services**

- i. The users search the library catalogue mainly to locate books and other materials available in the library.
- ii. The Library has Online Public Access Catalogue (OPAC) is an online database of materials held in the library.
- iii. Search can be made of Author-wise, Title-wise, Subject-wise indexes and using keywords.
- iv. It also has facilities to view new arrival of books in the library in various categories.
- v. This listing can be done by specifying the month of new arrivasl of books.

### 24. National Program on Technology Enhanced Learning (NPTEL) and SWAYAM

- i. NPTEL and SWAYAM provides E-learning through online Web and Video courses in Engineering, Science & Technology and Humanities streams.
- ii. NPTEL and SWAYAM course lectures are made available to the users

- 25. **Audio Visual Centre:** Audio-Visual Centre of the university library equipped with Multimedia facilities to listen to NPTEL/SWAYAM courses and CD ROMs with Overhead LCD projector with home theatre facility for better sound effects.
- 26. **National Knowledge Network (NKN):** AMET University is having MOU with NKN through which 100 Mbps internet connectivity is provided by BSNL and NIC together NKN. This has mainly been allocated for internet browsing. NKN band width has also been used for global multimedia connectivity, like video conferencing through internet.
- 27. **Wi-Fi Connection:** The entire library is Wi-Fi enabled.
- 28. **Library Web Portal:** Library portals have been created recently (April 2015) in order to view our e-resources and other library details available in the library so that person from outside campus can also know our E-Resources through our university webside. Viz.www.ametuniv.ac.in-These resources can be seen 24x7.

### 4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	60477	6413845	580	3,16,306	60998	6,46,04,75 9
Reference Books	7000	150000	100	1,53,284	7022	3,03,284
e-Books	40037	15,000	50731	10000	46037	25,000
Journals	125	8,50,00	125	5,00,000	125	13,50,000
e-Journals	15703	7,65,712	15703	4,85,000	15703	12,50,712
Digital Database	5	-	5	-	10	-
CD & Video	13673	10,000	3800	50,000	13673	60,000
Others (specify)	-	-	-	-	-	-

### 4.4 Technology up gradation (overall)

To	tal	Compute	Internet	Browsin	Computer	Offic	Depart	Others
	pute s	rs Labs		g Centre	Centre	e	ments	
Exi stin g	597	1.IT Lab-I 2.IT Lab-II 3.Digital Library 4.Harbou r Lab 5.Naval Lab 6.DSP Lab (Total- 253 systems)	1.BSNL-1 Gbps  2.TATA(Hos tel WIFI) - 100 Mbps  3.TATA(Ca mpus) -100 Mbps	1 no (in Library with 36 systems)	1 no (for IELTS With 50 systems)	154 syste ms	104 systems	
Add ed	32	20	2Mbps bandwidth AIRCEL (Chancellor Office)	7	0	0	5	
Tot al	629	273		43	50	154	109	

## 4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

### Computer & Internet:

- University website www.ametuniv.ac.in is updated to include the information required for the stakeholders of the University and the Public to access
- For Wifi access, the bandwidth is increased from 50 Mbps to 100 Mbps and Campus bandwidth is increased from 30 Mbps to 100 Mbps
- State of art Videoconferencing facility 2 Mbps link capacity is provided
- 25 systems are added to the Labs --- systems are upgraded
- 10 projectors are upgraded to higher configuration
- Content Filtering Firewall namely Sonic Firewall is installed to make the Internet bandwidth available uninterrupted

- Surveillance cameras 32 Nos are installed at strategic points and storage is increased to 12 TB to store two months data
- Backup Storage is increased by 1 TB
- Wifi coverage is increased by additional 25 access points in the Hostels
- Learning Management System (LMS) software package is installed for teachers and students towards E-learning content development, content distribution and Learning assessment

#### Training to Teachers:

Training to teaching faculty is given on ICT enabled E-Learning Tools against ICT digital initiatives. The tools in practice are i) A-View, a MHRD supported and Collaborative E-learning tool; ii) LMS for effective teaching and learning content management; iii) Education Resource Planning (ERP) for managing the teaching and learning resources; and iv) Flipped class for practicing activity based learning in the classroom

### Other ICT Technology Upgradation:

- 8 nos of Smart Rooms facilitated with audio, video, computer and wifi equipment for providing technology enabled learning ambiance
- Virtual Class room for providing connected and collaborative classrooms to eliminate geographical boundary limitation from learning. Video Conferencing facility with interactive mode is installed (A-View Software and hardware)
- Flipped Class room, a student centric learning strategy, which encourages activity based learning.

### 4.6 Amount spent on maintenance in lakhs:

ICT	Campus Infrastructure and facilities	Equipments	Others	Total
61.96 lakhs	1.82 Crores	3.20 Crores	3.56 Crores	8.60 Crores

## Criterion – V 5. Student Support and Progression

### 5.1 Contribution of IQAC in enhancing awareness about Student Support Services

IQAC is keen on enhancing the awareness about student support services. IQAC facilitates the following awareness services through specialized clubs and centres by advising, orienting and monitoring the Centres/Clubs.

- 1. The IQAC monitors and ensures that students are aware of and utilizing or participating in the student support cervices being offered in the University through an unique mechanism called Green Card. This Green Card entries are reviewed twice in an year by the IQAC through Academic
- 2. The opportunities for SC/ST students through SC-ST Cell
- 3. Making students aware about various avenues for the benefit of students through Equal Opportunity Cell. This cell also facilitates the scholarships and other benefits of students from underprivileged community and minority as well.
- 4. The Entrepreneurship Development Cell and Skill Development Centre organize awareness programmes and facilitation programmes for the career development.
- 5. Preplacement trainings, interview skills, attitude enhancement trainings and subject related training programme have been organised through Placement and Training cell.
- 6. Awareness about higher studies in foreign countries through workshops was conducted for students by University Centre for International Relations.
- 7. Coordinators of NSS, YRC, and ECO club gave awareness about the extension activities to the students.
- 8. Importance of sports, games and Yoga were explained to the students through AMET Sports Club.
- 9. A special Centre for Yoga and Human Excellence has been created for the benefit of students
- 10. Student Councelling Centre has been functional and more proactive in managing the emotional and behavioural issues of the students
- 11. The Central Library organizes user orientation programme to understand more about e-Journals, e-Books, NPTEL etc. during various periods for the benefit of students and research scholars.
- 12. Orientation programme gives awareness about the curriculum, syllabus, co-curricular, extracurricular, extension activities, and social activities.
- 13. A separate Students Grievance Cell is created and the members of the cell will be solved if the Students have any grievances with the support of the concern head of the department.
- 14. Special Coaching classes were conducted and which is support to the students who are academically weak.

The IQAC insists all the departments to incorporate the information about the availability of such services and facilities in the Hand Book / University Bulletin / Brochure made available to all the students every year. Further, the details are also available in the University's web site. Academic calendar including student support services were prepared and printed copies were distributed to all students.

Based on the outcome of the Academic Audit conducted by IQAC involving external experts, student feedbacks are obtained more frequently to support the student needs. Further, a new model for Continuous Assessment System also introduced.

The University's hallmark annual meets like Marine Traffic, Navinautics, AMET voyage, ICSOE, PETRAAMET, AMETUNISPO, and AMET Trophy through which awareness about the contemporary developments in the industry are created

### 5.2 Efforts made by the institution for tracking the progression

- 1. IQAC collects feedback on student support and progression from all the stakeholders periodically. Even feedback from employers and industry were also collected periodically and analyzed, action plant generated and implemented.
- 2. University has AMET Alumni Association (AAA alias A3) which proactively tracks the progress of Alumni. Every year during the first week of February, A3 Meet is organized. Alumni are invited and their experiences are being shared.
- 3. The alumni coordinators of the respective Departments are in touch with the Alumni through social media and track their progression.
- 4. Passed out students progression is tracked by the Placement & Training Cell.
- 5. Mentoring system to track and assist the student's progression in Academic and Placement. The improvement in placement over the years has been commendable.
- 6. The various academic and administrative bodies of the University helps motivate students in pursuing higher studies in abroad.
- 7. Progresses of the students were discussed in the class committee meetings.
- 8. The academic progresses of the students were communicated to parents through SMS after each continuous assessment test / Daily attendance / Semester results.
- 9. Root cause analysis for the poor performance of the students were analysed and action taken.
- 10. HODs and class mentors of the concerned department track the progress of the students.
- 11. Green card is maintained for each student to monitor their progress during their course.
- 12. Attendance, performance of continuous assessment and semester examinations are analysed and appropriate action taken.

## 5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
2704	287	154	152

(b) No. of students outside the state	1111
(c) No. of international students	47

	Men	Won	nen
No	%	No	%
3143	95.51	154	4.49

2016 - 2017						
General SC ST OBC MBC Physical Challenged Total						Total
1303	161	13	1329	491	-	3297

Demand ratio: 1: 2.6 Dropout %: 3.66

# 5.4 Details of student support mechanism for coaching for competitive examinations (If any)

Students are encouraged to write completive exams. The University offer coaching classes for NET, SET exam preparation, IELTS, TOEFL, GATE, GRE and GMAT training with the help of exports from outside.

No. of students beneficiaries	957

## 5.5 No. of students qualified in these examinations

NET	SET/SLET	GATE	CAT	IAS/IPS etc	State PSC	UPSC	Others
		1					

## 5.6 Details of student counselling and career guidance

## d. Counselling Cell

University has established an exclusive Counselling Cell with a full time Counsellor for offering assistance for the students those who feel down, or under stress or with other behavioural issues. Either students directly visit the councellor or as identified by the mentors, students who need emotional councelling are also directed to the Councelling Cell

## e. Student Support and Mentoring

- The University made elaborate arrangement for student support and monitoring. For every 30 students, one faculty member is appointed as a mentor. The progress of the students in academics, co-curricular and extracurricular activities is guided, counselled and monitored by the class mentor. Class mentor helps and supports the students in all aspects throughout their academic programme. The class mentor based on the interest of the students, they guide them in choosing the elective courses, preparing for competitive examinations, planning for higher studies etc.
- Personal guidance will be given on both academic and non-academic matters, to the students through mentoring in the department.
- The students are being mentored on several aspects like personal, physiological, social and Career advancement since the time of their admission.
- Arrear coaching classes, internship training, Implant Training, projects preparation, Mentoring, Mock Interview is conducted.

#### • Mentoring System:

- A mentor will have a maximum of 30 students (MENTEES)
- The mentees will be attached to the same mentor for the entire course of study.
- The mentors shall meet the mentees regularly and record the outcome of the meetings.
- The mentors shall update the mentee's parents about the progress of the mentees.
- If a student violates the code of conduct, his/her mentor forwarded the complaints to the disciplinary committee

#### • Academic matters

The mentors shall also attend to the academic matters of mentees dealing with previous academic performance, internal assessment marks and semester results.

#### • Other area of care

The mentors shall also look into the following areas with regard to their mentees:

- Behavioural and discipline matters
- Physical health

- Achievements & Talents
- Extra, co curricular achievements

#### • Academics

- In the review meeting, immediately after the Internal Assessment tests and the semester results, the mentor shall appreciate the mentees who have performed well.
- The mentor shall interact with the mentees who have not done well or failed in the internals and advice them to improve their performance. The mentor shall extend all possible assistance to improve the academic performance of the mentee.

No. of students benefitted	2683
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## 5.7 Details of campus placement

	Off Campus		
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
42	2200	1620	120

## 5.8 Details of gender sensitization programmes

Gender Sensitization Cell of the University is organizing gender equality and gender sensitization programmes every semester. Some important programmes organized by the Cell are

- 1. 28/9/2016- Dr. Aranga Mallika, M.A, Ph.D- Director, Women studies, Ethiraj College was the resource person
- 2. National seminar attended by the coordinator.-Mrs.S.Gomathy attended a national seminar on "Gender Empowerment and development" in Hyderabad on 19<sup>th</sup> & 20<sup>th</sup> of October 2016.
- 3. On 23/2/2017, an awareness programme on gender champions and motivation by Mr.Lawrance Kannan for making the students aware of various legal proceedings when there is a mishap in the society.

#### 5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events				
State/ University level National level International				
136 10 27				
No. of students participated in cultural events				

State/ University level	National level	International
39	30	-

# 5.9.2 No. of medals /awards won by students in Sports, Games and other events

	State/ University level	National level	International level
Sports	27	80	15
Cultural	22	1	-

# 5.10 Scholarships and Financial Support

Category	Number of students	Amount
Financial support from institution	45	Rs 1025800
Financial support from government	345	Rs. 3127580
Financial support from other sources	11	550000
Number of students who received International/ National recognitions	International -1	-
international Trational Tecognitions	National -12	

# 5.11 Student organised / initiatives

	State/ University level	National level International leve	
Fairs	3	1	-
Exhibition	3	1	-

5.12 No. of social initiatives undertaken	7
by the students	

# 5.13 Major grievances of students (if any) redressed:

# Major grievances addressed during 2016-2017

Type of Grievances	No. of Grievances redressed			
Academic related issues				
Student Council of AMET has proposed to enhance the thickness of the grade reports issued	The issue was sorted out without compromising on the safety parameters of the grade reports			
Student Council of AMET has requested to provide the hard copy of the study materials which are now available only as soft copy in the University server	The hard copies of study materials also made available			
The Student Council of AMET has requested to conduct Instant Examinations for some of the end semester Examinations	Instant Examinations for a maximum of three Courses alone has been accepted and conducted			
Amenities and maintenance				
Students from AMET Business School – Regarding new water dispenser	Drinking water facility is made available in the ground floor Rabindranath Tagore Block			
Students from Hostel made grievance about Wi-Fi connection	The problem has been rectified and wi fi connection restored			
Hostel students informed about the acute water safety issue	The Reverse Osmosis plant was inspected; Water dispensing units were inspected; Microbiological and other safety analysis of water was done; Purity and safety of the drinking water was ensured. Additional safety measures were also taken in the RO Units.			

#### Criterion - VI

## 6. Governance, Leadership and Management

## 6.1 State the Vision and Mission of the Institution

#### Vision

"To sustain our identity as a leader in Maritime Education through progressive innovation in training, research and development that will render a brilliant future for our students and a transformative impact on the global society"

#### Mission

"To deliver technical knowledge and ethical values with uncompromising strides of excellence that will make our students employable, our faculty advance their knowledge, our staff achieve excellence and our alumni become global leaders"

## **Quality Policy**

Academy of Maritime Education and Training (AMET) is committed to provide highest quality in education and be the most preferred institution for pursuing marine and marine related courses.

This will be achieved by consistent focus on:

- Providing a conducive, vibrant, progressive and enriching learning environment
- Teaching Excellence and Research output
- Global outlook and engaging with the world through learning, teaching and research
- Attracting the best and the brightest students.
- Providing competitive advantage in gaining employment or further academic opportunities.
- Maintaining excellent links with commerce and industry both nationally and internationally.

Complying with all applicable requirements and continually improving the effectiveness of the Quality Management system.

#### 6.2 Does the Institution has a management Information System

#### Yes

The University has integrated software encompassing all the process in the University. The software maintains the entire student's history, academics, administration, faculty information, research status, examinations, inventory etc.

The system handles overall routine activities of the University. Reports are generated to evaluate the activities and help in decision making. This provides credibility and transparency to the evaluation system. In the current academic year, the following two functions are added to the existing software

- The question paper generation in the Examination module. As the question paper is set through the software, reliability increases and security is assured
- Reports for top management decision making.

The Administration module helps the management at all levels, from assistant managers to top executives. The reports are generated to help them evaluate their daily activities, make decisions, and track progress, attendance, circulars etc.

The Academic management module maintains the entire students details from their application entry, school mark sheets, scholarships, course materials, semester marks etc.

The Admission module integrates entire admission process from call enquiry, courses, applications etc.

The Examination module generates dummy numbers, mark entry, publishing of results, etc.

The research module helps in online status checking of Research Scholars.

The inventory module maintains stocks, purchase details, quotations, issue of goods etc.

## 6.3 Quality improvement strategies adopted by the institution for each of the following:

#### 6.3.1 Curriculum Development

Review of syllabus is done by Experts from National / International Universities. Feedback is collected from employees and alumni with reference to the need for amendment in the curriculum for respective courses. With much forethought and serious analysis the effective Choice Based Credit System (CBCS) with open electives were introduced to inculcate multi-disciplinary approach. The curriculum is revamped with the following salient features which were implemented as quality improvement strategy.

- Visit to a relevant industry for each course is made mandatory in the syllabus.
- Compulsory/Internship in the curriculum for each course (both UG and PG).
- Pre-placement training / soft skills and presentation training is included in the curriculum.
- Project work to be undertaken in a reputed organization is included in the curriculum.
- Electrical estimation and wiring, Maintenance of Marine Electrical equipment's are included in the revised curriculum.

### 6.3.2 Teaching and Learning

In order to enhance the teaching and learning process the **Faculty development programmes** were organized periodically by the University through various clubs and centres and are managed by the Human Resource Development Centre. Important events are listed below

- a. A Two Day Faculty Rejuvenation Programme on "High Impact Teaching Skills" organised by Internal Quality Assurance Cell, AMET University on 11<sup>th</sup>& 12<sup>th</sup> August 2016.
- b. Faculty development Programme on "**Teaching Methodology**" was organised on 25the November 2016. The speakers were experts from City of Glasgow College, United Kingdom, Dr. Nicola Crawfors, Faculty Director, Capt. Dleep Fotedar, Curriculum Head-Nautical Science, Mr. Mathew Steward, Curriculum Head-Marine Engineering.

Faculty members are regularly encouraged to participate in faculty development programs, conferences, seminars and workshops. This bridges the gap between the existing and latest conceptual/ practical knowledge and develops the teachers to be up-to-date in their knowledge base.

Every year newly joined faculty members for the maritime disciplines are facilitated to attend **Training for Trainers and Assessors (TOTA)** organized by Maritime Foundation of India with fullest sponsorship of the University (each one was sponsored Rs 12500)

Similarly, every year, the technical staff/instructors in the maritime discipline are facilitated to attend **Training for Instructors** (**TOI**) organized by Maritime Foundation of India, with fullest sponsorship of the University (each one was sponsored Rs 8000)

Duration	No. of Faculty/Instructor Attended	Total amount sponsored by the University
Trai	ning for Trainers and Assessor	rs (TOTA)
12 days 13 <sup>th</sup> June to 28 <sup>th</sup> June 2016	4	50000
12 days 5 <sup>th</sup> June to 17 <sup>th</sup> June 2017	9	112500
	Training for Instructors (T	OI)
5 days 13 <sup>th</sup> June to 18 <sup>th</sup> June 2016	2	16000
5 days 5 <sup>th</sup> June to 10 <sup>th</sup> June 2017	6	48000

In addition to the regular teaching learning process, the University implemented an **online student feedback** for each subjects, which helped the faculty to reconsider their actual mode of knowledge transfer towards the expected standards.

- Special attention is given to **foreign students** in order to improve the written and spoken English skills, through a separate entity on IELTS (International English Language Testing System) which is located within the campus with a dedicated faculty assigned for the same.
- **Soft skills and presentation** is included as a subject in all courses and credits are allotted in order to encourage all students to communicate in English and to learn the subjects **at ease.**
- **Slow** learners are identified though the Continuous Assessments Test (CAT) I & II. Special coaching is given with respect to each subject and they are guided to learn and improve in the consecutive assessment.
- Faculty members handling technical subjects are insisted to innovate into a practical oriented teaching pedagogy by way of field work, Industrial visits, mini projects, students seminar presentation on latest events etc.
- Regular **mentoring** by the class mentors also motivates the students to concentrate in their studies.
- Regular **library hour** is allotted in the timetable on a weekly basis and students are encouraged to utilise the library resources including the digital library.

#### 6.3.3 Examination and Evaluation

The Examination Scheme follows a continuous evaluation process. The student evaluation is based on internal and external components.

- The end semester examination question papers are set by external experts.
- The evaluation of end semester examination is done mostly by external examiners from other Institutions / Universities, where honesty and transparency is maintained.
- Results are published within 10 days after the each end-semester examinations.
- There is a grievance cell which attends to all the exam related grievances.
- Students can get the photocopy of the answer scripts to decide on their performance and then apply for revaluation.
- Final year students with maximum of 3 arrears are allowed to write INSTANT exam and clear the courses before the convocation

Continuous Internal Assessments (CIA) marks are sent to the parents as a measure to monitor their ward's performance.

### 6.3.4 Research and Development

The Ph.D Regulation of the University strictly follows the UGC PhD Regulations 2009 and updated in compliance with UGC PhD Regulations 2016.

- Selection of Research scholar- either full time or part time are based on entrance examination against a national level advertisement
- Course works are made mandatory. Research Methodology course is compulsory
- Doctoral committee meetings are held in the presence of External experts
- Progress reports are collected every six months and reviewed by the Doctoral Committee
- Publications (3 in SCOPUS indexed journals for new registratiosn after 2016 and before 2016, 2 in SCOPUS) are made as compulsory
- Conference participation is also made as compulsory
- Pre-Ph.d Viva Voce is enforced for strict adherence
- Thesis is evaluated by two examiners. Among two one is a Foreign Examiner
- Public Viva Voce is also conducted in the presence of one external examiners

Faculty members are motivated to publish articles in reputed journals with impact factor and indexed in SCOPUS, Thomson Reuter SCI etc.

- A Separate Coordinator for Faculty Research Development is appointed to facilitate the faculty PHD admission, publications and conference participations
- Repeated emphasis is given to all the faculty members on an one-to-one basis by the Vice Chancellor to improve research, to activate and motivate the faculty to register Ph.D, to publish Research Papers, to prepare Project Proposals, to present Papers in Conferences, etc. within a time-schedule.
- The University also provides required support in the form of getting expertise from Research Experts and by giving financial incentives to encourage the research activities in result-oriented manner.
- Management provided sufficient funds towards subscription for the Journals (both printed and on-line) and purchase of equipment, software and equipping all the Departmental Laboratories to meet out the requirement of the students and the Faculty Researchers.
- Besides, cost of publication, cost for manuscript preparation and incentives were also provided to the Faculty members for the promotion of research and development in the University

No of	No of articles	No of Articles in	No of articles in	Total amount
Faculty	produced by the	SCOPUS index	UGC listed	sponsored as
provided	Faculty		Journals	Incentive
incentives				
for				
publications				
59	Research Articles - 219 Conference papers- 59	126	93	Rs 775830

In order to inculcate the spirit of research among faculty, the University organized the following special sessions.

- Special interaction on "Integrated approach for Maritime Research: Need of the Hour" by Mr. Sivagnanam Balasubramani (Capacity builder in integrated maritime research) on 13-4-2017.
- Interactive session on article writing and publications with (i) Prof. L. Kannan, Former VC- Thiruvalluvar University, (ii) Prof. J. Balakrishnan, Former VC, Periyar University, (iii) Prof. V. Balasubramanian, Department of Manufacturing Engineering, Annamalai University on 22-2-2017.
- A faculty development program on "Research-Research Proposal Winning research grant" by Dr. L. Kannan, Former Vice Chancellor of Thiruvalluvar University on 10-1-2017.
- A special session on "Copyright law: An overview" was organised on 26-4-2017 to mark the 'World book and copyright day' by Dr. E. Prema, Assistant Professor, VIT School of Law, VIT university, Coimbatore.
- A special session on "Plagiarism & copyright infringement" was organized on 28-4-2017 by Dr. Richa Tripathi, Information Resource Officer, Centre for Research & Consultancy, Hindustan University.

## 6.3.5 Library, ICT and physical infrastructure / instrumentation

#### Library:

The V.B.S. Rajan library of AMET University functions all the days with convenient access to the faculty, cadets, students and research scholars. The library caters to the needs of the users as it is well equipped with relevant books, journals, periodicals, study materials, previous years question papers, open access knowledge resources, E-newspapers, E-thesis, E-proceedings etc.

The library has implemented the following new facilities to the users.

- WEB-OPAC
- Mobile –OPAC
- SMS alert service
- Online book reservation.
- Self learning tutorial CDs
- Wi-Fi Connectivity.
- CCTV coverage
- 1000 Numbers e-journal article
- Digital conference alert service facilitating National, International conferences, seminars, workshops through e-communication to the faculties and research scholars.
- E-Reference Services through E-Mail. The resource centre helps the Faculty members, Research Scholars, Cadets and Students those requiring recent publications references or any specific Book references, international conference details etc. If the references are not available in AMET Library, the resource centre outsources the required data.

The following resources were added to the existing library resources.

- 31780 NPTEL video and Web Courses
- 580 Text books
- 100 Reference books
- 90731– e-book CDs
- 15703 e-journals
- 5 digital database
- 3800 book CDs
- 100 competitive exam books added to the existing lot.

A start-of-the art new library building is under construction for 22,000 square feet, to enhance and provide better environment to the users.

In order to cater to a standardised access and maintenance of the University library the following services are planned to be implemented in the near future

- Institutional repository (which will include all in-house publications also)
- RFID access

The following sessions/ progammes were organised to improve the user access.

- "J- Gate User orientation Training Programme" on 24-2-2017 by Mr. Ravi Shankar, Training Consultant, Informatics Publishing Limited.
- DELNET (Developing Library Network) free world e-book library trial services from 10.02.2017 to 10.3.2017.

#### **ICT**

The University has a well equipped information communication and technology services functioning continuously. The system is upgraded with the following additional facilities towards development on student progression and administrative efficiency.

- University website www.ametuniv.ac.in is updated to include the information required for the stakeholders of the University and the Public to access
- For Wifi access, the bandwidth is increased from 50 Mbps to 100 Mbps and Campus bandwidth is increased from 30 Mbps to 100 Mbps
- State of art Videoconferencing facility 2 Mbps link capacity is provided
- 25 systems are added to the Labs --- systems are upgraded
- 10 projectors are upgraded to higher configuration
- Content Filtering Firewall namely Sonic Firewall is installed to make the Internet bandwidth available uninterrupted
- Surveillance cameras 32 Nos are installed at strategic points and storage is increased to 12 TB to store two months data
- Backup Storage is increased by 1 TB
- Wifi coverage is increased by additional 25 access points in the Hostels
- Learning Management System (LMS) software package is installed for teachers and students towards E-learning content development, content distribution and Learning assessment
- 8 nos of Smart Rooms facilitated with audio, video, computer and wifi equipment for providing technology enabled learning ambiance
- Virtual Class room for providing connected and collaborative classrooms to eliminate geographical boundary limitation from learning. Video Conferencing facility with interactive mode is installed (A-View Software and hardware)
- Flipped Class room, a student centric learning strategy, which encourages activity based learning.

#### **Infrastructure:**

The University campus and the buildings are well maintained on a regular basis and are upgraded to maintain a standard academic atmosphere. Based on the requirements of each department and the needs of the students and cadets, modifications/ maintenance are done immediately. However the following additional facilities were constructed to cater to the academic fulfilment of the new courses which were introduced and students admitted for the same.

Newly established Class rooms – 29 nos

Newly Established Laboratories - 4

### 6.3.6 Human Resource Management

- 1. Faculty members and the non-teaching staff members are well taken care by providing scope for growth and career advancement. The faculty members are motivated to register Ph.D within the university and are encouraged to progress successfully by providing space and other facilitates whatever is requested by the individual.
- 2. Faculty members who are working under research/ funded projects are encouraged with monetary incentives.
- 3. Faculty members are permitted to be Doctoral Committee members, Examiners, Reviewers in other Universities and Institutions.
- 4. The University has a performance appraisal in place which monitors and encourages every individual and gives an opportunity to evaluate their self-appraisal and understand the appraiser's appraisal. Sufficient time is given to perform and prove themselves in case of low performers.
- 5. The human resources are well cared and their children too are given opportunity to utilize the University's facility during the summer by attending the summer swimming camp. There are welfare schemes in place which has shown encouraging psychological connect being developed between the staff and the management.

## 6.3.7 Faculty and Staff recruitment

Faculty and staff recruitment is done systematically by advertising in the leading and popular dailies all over India and in the University websites.

As per the departmental requirement and the number of admissions, the applications are scrutinized by the respective HODs.

A panel of interviewers interview the applicants. The panel consists of the Vice Chancellor, Registrar, Head of the department, and an external expert in the relevant subject.

Selection process is strictly as per the UGC norms.

41 teaching faculty and 44 administrative/technical staff have been recruited in the past two years.

#### 6.3.8 Industry Interaction / Collaboration

The Industry interaction/ collaboration is accomplished by every department by continuously attracting with delegates from the industry for conferences, seminars, workshops and for special lectures. The University mission is fulfilled by providing a framework for organizing and expanding its industry - University collaborations by enhancing students teaching-learning, curriculum development etc. Regular interactions are

held between industry partners to assess and maintain quality and improve standards of the university. The individual department's strategic objectives are met by means of the following.

- Industry representatives as board of studies member.
- National/ International conferences are organized by inviting industry practitioners as resource persons.
- Student's interactions are organized by inviting industry practitioners as guest speakers.
- Student projects/ internships are compulsorily done at an organization of repute.
- Students are taken for industry visits/ port visits on a regular basis.
- The regular training sessions are given to BE. Marine cadets at BHAVANI, Kalpakkam where they get practical industry exposure as part of their High Voltage and Switch gear course.

The University has collaborated with various industries for specific application oriented activities for the growth and development of the academics. Few prominent MOUs are given below.

- On 19-4-2016 signed an MOU with Institute of Charter and ship brokers of Maritime Industry, UK to render mutual beneficial programs.
- On 30-3-2016 signed an MOU with Sify Technologies Limited as collaborative Endeavour in conceiving, developing, implementing & evaluating the modern ICT tools for the teaching learning for 5 years.
- On 15-7-2016 with Tennex consulting Pvt Ltds to utilize the services in creating a
  Business plan & a project report leading to submitting the application to NITI
  AAYOG that will enable the 'client to establish AJAL incubation centers that are
  affiliated to and obtain sanction of the proposal grant in aid from NITI AAYOG

The University also has inclined to work on research collaborations by interacting with the industry and the following on-going projects are in progress successfully.

- "Women On Board of Directors And Their Impact On Corporate Governance And Corporate Social Responsibility" funded by Indian Council of Social Science Research (ICSSR)
- "Visible Light driven Photo catalyst membrane for Textile Industry" funded by Department of Science and Technology (DST- SERB), New Delhi.

### 6.3.9 Admission of Students

Awareness about the programmes offered in the University is done through print advertisements, hoardings, and representations in job fairs all over India etc. Students are admitted through Merit, Entrance test and Personal Interviews. Admissions are strictly based on the eligibility criteria fulfilment.

The followings scholarships are introduced in the admission procedure.

- Scholarship for first graduates,
- Scholarship for single parent,
- Scholarship for single girl child,
- Scholarship for Ex-Servicemen's children

S.No	Scholarship	2016-17
1.	Meritorious Scholarship	7
2.	First Graduate	19
3.	Single Parent	2
4.	Single Girl Parent	1
5.	Excellence in Sports	-
6.	Ex-Servicemen's children	3
7.	Management Scholarship	20

Fee concessions are given to students who continue their PG studies after completing the UG studies in the University. Faculty and student references are given due weightage for the admission.

#### 6.4 Welfare schemes for

## Teaching staff:

- Free Transportation ( to & fro)
- Free breakfast
- Tea/ coffee (FN break and AN break)
- Lunch (subsidized rate)
- In-campus Medical and healthcare facility.
- Casual leave, Earned leave and medical leave facility

- Maternity leave for female faculty.
- Accidental insurance scheme
- Employee provident fund scheme
- DAYCARE centre
- YOGA centre
- Fee concession for the children's admission.
- Annual tour for 3 days

## Non- Teaching staff:

- Free Transportation ( to & fro)
- Free breakfast
- Tea/ coffee (FN break and AN break)
- Lunch (subsidized rate)
- In-campus Medical and healthcare facility.
- Casual leave, Earned leave and medical leave facility
- Maternity leave for female faculty.
- Accidental insurance scheme
- Employee provident fund scheme
- DAYCARE centre
- YOGA centre
- Fee concession for the children's admission.
- Loan & salary advance
- Annual tour for 3 days

### Students:

- All students are covered under Accidental insurance scheme
- Wi-Fi in the campus and hostel.
- Gym for Boys and Girls available inside the University campus.
- Hospital and ambulance facility
- Bank ATM, stationary shop, Cafeteria, Café -Coffee day available inside the campus.

6.5 Total corpus fund generated	Rs 10 lakhs

6.6 Whether annual financial audit has	Yes	No
been done	<b>√</b>	

## 6.7 Whether Academic and Administrative Audit (AAA) has been done?

Academic audit and administrative audit is conducted regularly in the individual departments with an external expert. Structured proforma is used to collect information from University Departments as per NAAC guidelines. The Department data then sent to External Experts of International Repute for review. Then the experts are invited to the University to individual Departments and audit is conducted. Audit findings are documented. Departments would then prepare an action plan based on audit findings to rectify deficiencies if any or undertake opportunities for improvement. The Action Taken Report also collected, reviewed and documented. Consolidated reports are submitted and approved by the authoritative bodies of the University.

Audit Type	External		Internal		
	Yes/No	Agency	Yes/No	Authority	
Academic	Yes	External Experts appointed by the Vice Chancellor based on IQAC nomination DNV GL also involves in Academic Audit as part of ISO certification	Yes	IQAC and Internal Auditors of ISO system	
Administrative	Yes	DNV GL	Yes	Administration	

### 6.8 Does the University/Autonomous College declares results within 30 days?

	Yes	No
For UG Programmes	<b>√</b>	
For PG Programmes	<b>√</b>	

# 6.9 What efforts are made by the University/Autonomous College for Examination Reforms?

- 1. The Centre for Curriculum Development has conducted a workshop on Curriculum Development in CBCS Framework on 21st April 2017 which has concluded several reforms in examinations with reference to CBCS system
- 2. University has sincerely implemented the CBCS system of teaching learning and evaluation in the University.
- 3. University has made Continuous Internal Assessment System as part of evaluation which carries an average of 40% of the marks required for the completion of course and earn required credits

- 4. University has made provisions for achievers in Sports/Cultural and extracurricular events to have flexibility in Continuous Internal Assessments
- 5. University has made Objective type of questions as part of Internal Assessment System
- 6. Provisions are made to conduct and adopt online examinations for Continuous Internal Assessment System
- 7. Course teachers are permitted to conduct a minimum of three tests for the students before the commencement of end semester examinations so as to ensure that all the students have appeared at least two CIA tests.
- 8. If a student misses all the CIA or part of the CIA due to participation in the University/ State/ National/ International level sports events, re-test can be conducted anytime before the end semester examinations.
- 9. Model examinations are conducted for 100 marks by following the examination and question paper pattern of the End- Semester Examination and this is a part of Continuous Internal Assessment System
- 10. University has made it possible for the students to obtain photocopy of valued answer sheets
- 11. University accepts the reports of Industrial Training/Industrial Projects as the Final Year Project as per the curriculum
- 12. The passing requirement for a student in a course is determined statistically based on the analysis of the marks obtained both in CIA and ESE. However, no minimum in CIA is fixed for overall pass.
- 13. University encourages the External Examiners for valuations to the maximum of 75% and in some cases 100% of External Valuation is permitted

6.10 What efforts are made by the	
University to promote autonomy in the	NOT APPLICABLE
affiliated / constituent colleges?	

### 6.11 Activities and support from the Alumni Association

The AMET Alumni Association (A3) functions effectively and has been a source the growth and development through their respective departments.

- The alumni association meeting is held once in every year on first Saturday of February.
- Alumni are included as a member of Board of Studies (BoS) at departmental level.
- Alumni constantly support and strengthen the university in campus placement, providing resource persons for conference, seminars and workshop.
- The Second year MBA students of AMET Business School visit Dubai every year and Alumni Meet is held at Dubai every year.

- o The AMET Alumni Association financially supports the following programmes/initiatives in the University for supporting students and enhancing their career prospects Earn While You Learn Programme where students are engaged in support services at their leisure time and generating their income
- o **Entrepreneurship Development Cell** is fully funded by the AMET alumni association which promoted the career prospects of the students

## 6.12 Activities and support from the Parent – Teacher Association

- The student's details and progress in curricular, co-curricular, extension and career development are recorded in a Green card individually along with the attendance and performance of students in internal and external exams
- The Green card meeting which is a Parent teachers meeting is conducted twice in a year. The parents meet the mentor and concerned HOD with the report.

## 6.13 Development programmes for support staff

- The support staff are encouraged to acquire higher degrees and are given on-duty facility to attend contact classes and examinations.
- Training programmes are conducted on time management and file management
- Support staff are encouraged to attend conference and workshops.

#### 6.14 Initiatives taken by the institution to make the campus eco-friendly

The Campus spread area is surrounded by plants and trees and is consciously maintained. The University has an active ECO club which sensitizes the students' community with various awareness programmes.

The eco club organised a Plantation drive on 23-4-2016, where students planted 50 saplings within the gaps where-ever space was available inside the campus.

The following eco-friendly activities are place and maintained regularly.

- A herbal garden is available within the campus.
- Utility of waste water for gardening purpose
- Implementation of effective protocol for waste disposal.
- Use of bio-degradable materials for generating compost.
- Sensitising the students to conserve electricity.

#### **Criterion-VII**

## 7. Innovations and Best Practices

7.1. Innovations introduced during this academic year which have created positive impact on the functioning of the Institution. Give Details:

#### 1. Innovative community oriented program:

An innovative course called, Diploma in Fisheries Engineering is introduced in collaboration with Indian National Centre for Ocean Information Services (INCOIS), Govt of India, Hyderabad, to uplift the socially backward students /economically weaker students / fisherman community.

### 2. Carbon emission neutrality:

Efforts take for carbon emission neutrality – A 10 KW solar power panel is installed at the roof top of the Rabindaranath Tagore block of AMET University. The Plant is generated more than 22,000 units of electricity and 22,000 kg of CO<sub>2</sub> is saved. This power is used to cater to the partial load requirement of the block. The system is equipped with remote data logger and the information pertaining to generation can be accessed from anywhere. An additional 20 KW solar power plant is initiated and will be functioning from August 2017 which in turn saves approximately 50,000 kg of CO<sub>2</sub> per year.

# 7.2. Provide the Action taken Report (ATR) based on the plan of Action decided upon at the beginning of the year:

#### Diploma in Fisheries Engineering

BOS meeting conducted with eminent scientist from INCOIS, NIOT and RMD.
 Based on the suggestions curriculum and syllabus framed for the conduct of 6 months diploma course.

### Objectives of the Course

➤ Customized programme to meet the need of the fishermen to develop fisheries / entrepreneurship.

- To cater to the needs of Fisheries Sector to improve fish production of Kanathur and nearby areas.
- To supply professionally qualified manpower to cater to the needs of the fishermen community viz, understanding of geography of sea, Safety measures in Fishing; Maintenance of Boats; Understanding and forecasting the weather conditions.

## Scope of the Programme

- Evolving and improving fish processing techniques and machinery to preserve quality and to avoid wastage of fish.
- Design of fishing crafts, fishing gears and fish traps for improving fishing operations.
- Application of electronic gadgets in navigation, sea safety and fishing.
- Training on Communication Equipment
- Costal engineering management.
- Understanding Internet based weather forecast and storm for safety in fishing
- Repairing of machinery for fishing
- Safety measures in Fishing and Effective marketing strategy

## Use of Renewable Energy

- 1. A 10w solar panel is installed to meet out the demands of B-Block at AMET University. Additional 20kw panel will function from August 2017, which will meet out the energy requirement of admin block of AMET University.
- 2. There is also a wind mill station ( near the ship-in-campus), which caters to the lighting needs in surrounding area

## 7.3 Give two best practices of the institution

- i. Study Abroad Programs
- ii. Activity Based Learning

## 1. Title of the practice: Study Abroad Programs

### a) Objective

- > To develop competency required to enable student to carry out his duty as engineer officer in merchant navy.
- ➤ To satisfy all the requirements laid down Martine coast guard agency, the merchant navy training board and the international convention on standards of training, certifications and watch keeping for seafarers.

## b) Course offered

- ➤ BBA Shipping and Logistics (in collaboration with Plymouth University, UK)
- ➤ BE Naval Architecture and Offshore Engineering (in collaboration with University of Strathclyde, Glasgow, UK)
- ➤ Higher national diploma in Marine Engineering (in collaboration with City of Glasgow College, UK)
- ➤ Higher national diploma in Marine Engineering (in collaboration with city of South Tyneside college, UK)
- ➤ Higher national diploma in Nautical sciences (in collaboration with city of Glasgow college, UK)
- ➤ Higher national diploma in Nautical sciences (in collaboration with city of South Tyneside college, UK)

## c) The Practice

■ The Higher National Diploma (HND) in Marine Engineering and Nautical Science is a 2 year programme conducted in collaboration with the City of Glasgow College and South Tyneside College, UK. In this programme, the students complete the first year in AMET and the second year in UK. The syllabus is based on the IMO convention and the examinations are conducted by the UK Colleges which also evaluate the performance of the students.

## d) Evidence of success

These courses serve the vital needs of the shipping industry and allied Industries, to supply quality manpower. They serve to update the skills of even seasoned mariners by giving them specialized inputs. Based on the training/inputs given by AMET, the authorities concerned issue completion certificates.

#### e) Problems encountered and Resources required:

There is a constant need to upgrade our expertise and equipments.

## 2. Title of the practice: activity based learning

## ICT infrastructure:

The effective usage of ICT infrastructure in AMET for Educations is initiated by conducted NPTEL courses, smart class rooms, virtual class rooms, flipped class room, learning management system with digitized learning contents and WIFI connectivity.

## Value added training programs:

In our university value added training programs are conducted in collaboration with industries in order to improve the skills and knowledge of the students. Some of the programs are listed below

Sl.No	Name of the Certificate Course	Offered by	y	
	On Board Ship Automation by CDCE school of	Department	of	EEE
1	Automation in association with Ministry of Small	(Marine)		
	and Medium Enterprises, Govt .of India			
2	How to make Gadgets and Robots- by Electronics	Department	of	EEE
2	Platform Research (EPR) Lab	(Marine)		
3	One credit course- Instrumented Safety Systems -	Department	of	EEE
3	by Yokogawa India Ltd	(Marine)		
	Condended Codificate and DDIMANEDA		of	Naval
4	Conducted Certificate course on <b>PRIMAVERA</b> . <b>ORACLE</b>	Architecture	&	Offshore
	ORACLE	Engineering		
5	High Voltage Safety and Switch Gear – Operational	Department	of	Marine
	Level Course	Engineering		
6	High Voltage Safety and Switch Gear -	Department	of	Marine
U	Management Level Course			

7	Conducted two Certificate courses in association with National Small Industrial Corporation (NSIC), Govt of India	Department of Mechanical Engineering
8	Certificate course in Quality Control and Quality Assurance with ABTRI Biotech Private Limited, Chennai	Department of Marine Biotechnology
9	Certificate Course in Waste Management Systems with Enervy Enviro Services Private Limited, Chennai	Department of Marine Biotechnology

## Training for maritime training cadets (programmes approved by the DGS)

- The University has introduced a unique programme with Industry Collaboration "Maersk sponsored BE (Marine Technology)". In fact, this programme encompasses admission with placement, wherein the cadets are admitted based on Maersk's standards, groomed jointly by AMET and Maersk and finally placed with the latter at the end of the programme.
- Marine cadets are trained in actual boating in Buckingham Canal, at the vicinity of the Campus. AMET has three fibre boats for this purpose.
- 'Ship in Campus' established with an investment of Rs.5.5 crores, is a replica of a real ship, built in the University Campus, with the installation of all on-board machineries. The cadets are given hands-on-training in the ship in campus, creating ship like conditions on the main engine, auxiliary engines, boiler, pumps, valves, etc. The cadets carry out operational routines and maintenance of all these.

#### 7.4 Contribution to environmental awareness/protection

#### The University conduct Green audit of the Campus

The University fulfills all the regulatory requirements in terms of environmental compliance. The green audit was carried out by a competent agency to assess the effectiveness of our green initiatives.

The University maintains a green belt in the campus covered with trees, bushes, other plants, flower pots and grass lawns to ensure that the campus is eco-friendly, with the natural eco-balance of the area.

The University has a regular scheme of planting trees annually and has planted 200 trees in the Campus this year and 200 saplings have been donated to a nearby government school.

The AMET University Eco Club is an initiative taken up by staff and students to create awareness about various environmental issues.

- The ECO Club comprising 300 students is guided by a Faculty who is in charge of green initiatives in the Campus, with the support of the Civil Department.
- The Eco Club conducts various programs every year to promote awareness about the environment and the imperative need for conserving the resources of the Planet Earth.
- Members of the Eco Club sensitize the people of the neighborhood about their role in protecting the environment for a better future.

## The steps taken by University to make the Campus Eco-friendly

## Energy conservation:

An Energy audit was carried out by a competent agency, to assess the effectiveness of energy-saving initiatives in the campus.

For energy conservation, following measures have been taken

- 158 LED lights have been fitted in the campus in VOC Block and Library. More number of LED lights will be fitted as a step towards energy efficiency.
- Similarly, energy efficient measures are adopted in using other electrical appliances like fans and air conditioners.
- To provide uninterrupted electricity, the following facilities have been created:
  - a. 3 Diesel Gen set stations with 600, 500 and 125 KVA capacities
  - b. 2 Transformers with 450 KVA and 110 KVA
  - c. UPS are positioned in 30 locations all over the campus
- Students are educated and made responsible for switching off fans, lights and air conditioners at the end of the class.
- Stickers about the conservation of energy have been exhibited in all the classrooms.
- In addition, floor / building supervisors have been appointed exclusively to check and ensure that there is no electricity wastage in the campus.
- Our buildings have been constructed to capture maximum natural light and thus energy is conserved.

### Water Management /Harvesting

- Rain water harvesting system has been installed in all the buildings. Soak pits are provided in all the buildings of the Institution including hostels.
- Adequate quantity of potable water is supplied through a central Reverse Osmosis Plant. The plant has the capacity to meet our standard consumption of approximately one lakh litres/day.
- Quality of the drinking water is tested once in 3 months by a Government approved agency i.e. SMS Labs Service Agency, Chennai

## Hazardous / E waste and other Waste Management

- The E wastes are properly disposed off through official agencies. The old batteries of UPS, Generators, Inverters, etc., are given to the Government approved agencies under 'buy back' scheme.
- Minimization of the use of servers and computers by having Centralised data centre for effective resource sharing.
- "Say No To Plastic" campaign is being conducted.

#### Paper Waste Management:

- Under the scheme "Wealth Out of Waste" (WOW), (an ITC's initiative), paper wastes like stationery and paper cups are disposed through ITC. The University also has a paper shredder.
- Minimization of paper usage by adopting on-line communications by using emails, University website, Google documents and networking.

## Disposal of other wastes

- The Department of Chemistry uses very dilute solutions in its labs which are flushed with water.
- From the workshop, scrap is removed periodically by the approved contractors.

#### Sewage Treatment Plant

- There is a sewage treatment plant functioning in the Campus with 530 KLD flow rate per day. It uses Fluidized bed bioreactor technology.
- The treated water is used for gardening and flushing in the rest rooms. The plant is maintained through Annual Maintenance Contract. The quality of treated water is certified by NABL accredited labs.

#### 7.5 Weather environmental audit was conducted?

Yes	No
✓	

## 8.6 Any other relevant information the institution wishes to add (like SWOC)

- a) During the past quarter century year of dedicated service of maritime education, training and research, the University, has emerged as a top and most preferred institution in India for marine and maritime studies. The University has made the following accomplishments and continuing towards excellence in the same.
  - i. Shaping the skill based marine and maritime training into knowledge based education and research.
  - ii. Undertaking research and development activities with specialized research centres and departments by involving experienced maritime experts
  - iii. Extension of research and social outreach activities for the sustained development of coastal community
- b) AMET has an International Board of Advisors comprising 10 members drawn from prestigious Maritime Corporations of countries including Norway, Angola, Singapore, Hong Kong and Japan, who guide and advise on all aspects right from curriculum framing, course content, introduction of latest cutting edge technologies etc.

## c) The Strengths, Weaknesses, Opportunities and Challenges (SWOC)

## **Strengths**

- AMET is the first Maritime University in India, established to promote post-graduate programs and research activities in marine and marine related subjects as well as in emerging areas of excellence.
- AMET is renowned for maritime capacity building
- AMET is having significant enrolment of foreign students across ten nations.
- The intellectual resource of AMET, our Faculty are having a wide range of industrial experience
- It has the state-of-art infrastructure for maritime studies, to name a few, Ship-in-Campus and Full mission Ship Simulator.
- AMET is the only Maritime University in India to become a member of the International Association of Maritime Universities.
- AMET is consistently acknowledged by the significant placement of its students, with major shipping companies, in various capacities.
- The University has been awarded Grade A1 (Outstanding) as per the comprehensive inspection programme guidelines of the Directorate General of Shipping and so certified by DNV-GL which is a Premier Certification Authority. Recently accredited by NAAC with B Grade
- University is committed to serve the society by enhancing the Institutional Social Responsibility initiatives through a thematic programme HEED

#### Weaknesses

- University PG enrolments are comparatively lesser.
- Enrolment of more girl students in UG programmes is still a hurdle

## **Opportunities**

- Ever since the inception, University is progressing and expanding its intellectual capital. This is having an International significance.
- Being a global player and moving well along with the Industries, University enters into many collaborations and MoUs.
- Almost every discipline in the maritime domain is being taught/trained/researched at AMET which makes it as a one stop solution for maritime studies.
- University is promoting allied courses in maritime studies such as Harbour Engineering and Naval Architecture.

### Challenges

- Newly formed maritime educational institutes.
- Yearlong perception between the comparative prospects of maritime and professional courses.
- General opinion about the riskiness in the maritime profession pose a major challenge towards the selection of maritime education
- Since the maritime teaching, training and research is more specialized the investment expenditures escalates year by year

### 8. Plan of Institution for next year:

- 1. To promote interdisciplinary research in marine and maritime studies
- 2. To promote the research accomplishments of the University by enhancing faculty participation in research, increasing the capacity for full time research, increasing the quality and quantity of research publications, patents
- 3. To enhance the University Industry interactions
- 4. To enhance teaching learning experience in the University by appropriately upgrading the infrastructure, teachers capacity and quality
- 5. To increase the ICT infrastructure
- 6. To enhance the contributions of HEED programme
- 7. Accreditation by NBA and ABET for suitable Department
- 8. Recruitment of world class faculty members
- 9. Energy conservation Addition of solar panels and roof top wind mills, Installation of solar street lamps in the campus, solar heaters in mess, canteen and hostels to minimize energy consumption in the campus.
- 10. To introduce the relevant examination reforms
- 11. Implementing semester abroad program in more Departments
- 12. Creating Innovation centers to promote lateral thinking of students

- 13. Digitalization of library, Hostel, Controller Of Examination and all departments.
- 14. Student information centre- complete online student information system and Attendance Tracking
- 15. Participation in NSDC/ PMKVY Skill development programs
- Establishment of more Centre of Excellences for internship training and incubation projects.

Signature

- 17. To involve in DST INSPIRE camp programs for school students
- To explore the unique opportunities such as DST/ WOS A- Women Scientist fellowship

Signature of the Coordinator, IQAC

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## **Abbreviations:**

AMET - Academy of Maritime Education and Training

DGS - Directorate General of Shipping

CAS - Career Advanced Scheme

CAT - Common Admission Test/Continuous Assessment Test

CBCS - Choice Based Credit System

CE - Centre for Excellence

COP - Career Oriented Programme

CPE - College with Potential for Excellence

DPE - Department with Potential for Excellence

GATE - Graduate Aptitude Test

IQAC - Internal Quality Assurance Cell

NET - National Eligibility Test

PEI - Physical Education Institution

SAP - Special Assistance Programme

SF - Self Financing

SLET - State Level Eligibility Test

TEI - Teacher Education Institution

UPE - University with Potential Excellence

UPSC - Union Public Service Commission

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