



6.5.2. IQAC Report

Weblink : https://www.ametuniv.ac.in/naac/c634_PDP_Facultymembers.html

IQAC Report on Professional Development Programmes attended by faculty members (2015- 2020)

QUALITY INITIATIVES

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.

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.

Guest lecture on integrated approach for Maritime Research: Need of the Hour by Mr. Sivagnanam Balasubraman (capacity builder in integrated maritime research) on 13-



04-2017. This programme has been organized to create awareness about the interdisciplinary approach in maritime research.

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.

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.

LIST OF SPECIAL ACTIVITIES

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.

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.

As a post NAAC quality upgradation and sustenance activity, the IQAC has formulated detailed workplans, mode of operations and monitoring mechanisms of quality initiatives.



The IQAC has also obtained the plan of action on NAAC peer team report for the next one year from all the Departments.

The IQAC has collected the Self-evaluation Reports, Academic Performance Index of the Faculty members.

Besides, IQAC has conducted Academic and Administrative Audit in the University for the academic year 2016-17 involving External Experts of high academic repute.

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.

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 30th 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.

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.

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.

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

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

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 Kurban (Freedom Fortnight).

The IQAC has identified few open sources for the free downloading of e books related to various academic fields and was communicated to University departments on 23-09-2016 for effective teaching and learning.

IQAC has organized an Orientation Lecture on Modern Tools for Research Publications and Publication Metrics on 09-01-2017 by Mr Pranav Shukla of Elsevier.

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.

Faculty Members of the University were oriented to register with ORCID ID.



IQAC has conducted a total of five quality related academic events as listed in serial number 2.13 of this report.

IQAC has prepared the Annual Quality Assurance Report 2016-17.

Number of IQAC Meetings

Faculty	Non-Teaching	Alumni	Others	Total
4	2	2	2	10

Number of Seminar/Conference related to IQAC

International	National	State	Institutional level	Total
-	2	-	3	5



Plan of Action by IQAC/Outcome

Plan of Action	Achievements
The IQAC of AMET shall be reorganized as per the suggestions of NAAC Peer Team. The Peer Team suggested having 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 nergy 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



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	introduced. For example, the M.Sc., Marine Biotechnology programme has been provided with add and 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 methodology	Number of faculty with Ph.D., qualifications 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	Examination processes revised. Changes



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wide publicity	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



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	adopted village KanathurReddikuppan 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 cleanup programmes was most acclaimed one. University is conducting Extension and Community service events in collaboration with other government and nongovernmental 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 up-keeping the quality initiatives in the University through which more than 10 suggestions have been made and implemented.



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Centre's introduced in the academic year 2016-2017

S. No	Name of the Centre/Lab	Salient features
1	Nanophotonics Research Laboratory	<p>The Laboratory was developed with the fund raised by 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:</p> <ol style="list-style-type: none">1. Optical and thermal properties of SQDs and MNPs2. Visible light Photo catalysis3. Photo thermal techniques
2	Centre for Marine Science and Technology	<p>The Centre has been established with the funds raised by 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.</p>
3	Centre for Nanotechnology	<p>The Centre has been established with the financial support of AMET The Centre is doing advanced research on nanotechnology</p>



Major Reforms

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

University has sincerely implemented the CBCS system of teaching learning and evaluation in the University.

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 University has made provisions for achievers in Sports/Cultural and extracurricular events to have flexibility in Continuous Internal Assessments

University has made Objective type of questions as part of Internal Assessment System

Provisions are made to conduct and adopt online examinations for Continuous Internal Assessment System

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.



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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 any time before the end semester examinations.

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

University has made it possible for the students to obtain photocopy of valued answer sheets

University accepts the reports of Industrial Training/Industrial Projects as the Final Year Project as per the curriculum

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.

University encourages the External Examiners for valuations to the maximum of 75% and in some cases 100% of External Valuation is permitted.



BEST PRACTICES

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

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.

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 CO₂ 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 CO₂ per year.



**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.



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- ✓ 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
- ✓ Coastal 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

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.

There is also a wind mill station (near the ship-in-campus), which caters to the lighting needs in surrounding area

Give two best practices of the institution

- Study Abroad Programs
- Activity Based Learning

STUDY ABROAD PROGRAMS



OBJECTIVES

- ✓ 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 Maritime coast guard agency, the merchant navy training board and the international convention on standards of training, certifications and watch keeping for seafarers.

COURSES 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)

THE PRACTICE



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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.

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.

PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED

There is a constant need to upgrade our expertise and equipment's.



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

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

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 of 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 Centralized 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

FUTURE PLAN

1. To promote interdisciplinary research in marine and maritime studies



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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 Examinations and all departments
14. Student information centre- complete online student information system and attendance tracking
15. Participation in NSDC/ PMKVY skill development programs
16. Establishment of more Centre of Excellences for internship training and incubation projects
17. To develop DST- Inspire camp programs for school students
18. To explore the unique opportunities such as DST/WOS A- Women Scientist Fellowship



ANNUAL QUALITY ASSURANCE REPORT

2017-18

QUALITY INITIATIVES

1. A total of 12 student contests were organized during March 2013 by the IQAC in commemoration of AMET Silver Jubilee Celebrations.
2. Workshop on Teaching-Learning Practices with special reference to Course File Preparation and Maintenance. 25-04-2018; Shri Janakiraman Auditorium.
3. Workshop on Design and development of Curriculum based on AICTE model; 02-05-2018, Shri Janakiraman Auditorium.
4. A brainstorming session on design and development of curriculum in the prescribed template with reference to offering Professional and Open Elective Subjects on 08-05-2018 to enrich the curriculum under CBCS system
5. Special lecture on Innovation for Incubation; 27-02-2018
6. Workshop on web based resources for research; 23-05-2018
7. Workshop on Writing Techniques for Research scholars; 22-06-2018

SIGNIFICANT ACTIVITIES

1. 2016-17 during August 2018. It has been acknowledged by the National Assessment and Accreditation Council (NAAC).
2. IQAC has purchased URKUND; a Plagiarism Detection Software recommended by the UGC INFLIBNET and is used for the checking of plagiarism of research articles and PhD synopsis and manuscripts.
3. IQAC has established Executive Committee of the IQAC to meet and discuss the quality improvements in the University. Two meetings conducted during 2017-18.



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4. IQAC has coordinated the Academic and Administrative Audit for the year 2017-18.
5. IQAC has organized 12 student contests as part of AMET Silver Jubilee Celebrations.
6. A Steering Committee with the FIVE members has been formed by the IQAC for undertaking pre-preparatory works for the application to NAAC Re-Assessment/Re- Accreditation. An exclusive office space has been created for the preparatory and planning works.
7. The IQAC has revised the student feedback proforma with more emphasis on curricular aspects, teaching learning process and resources. Student feedback were obtained, analyzed and reported to the Authorities and Academic Council.
8. A Steering Committee of the IQAC for Curriculum Enrichment has been established. The committee has prepared a common template for design and development of both UG and PG Curriculum with special reference to Engineering and technology disciplines in the University as per the AICTE model curriculum.
9. The Internal Quality Assurance Cell of the University has prepared and submitted University information for the National Institution Ranking Framework (NIRF) 2018 during December 2017.
10. In compliance with the suggestions of the UGC Expert Committee which visited the University during January-February 2018, the IQAC has created Student Online Grievance cum Feedback Portal in the Student Grievance page in AMET website.
11. IQAC has made available all the feedback forms of stakeholders (student, alumni, parents and employers) in the University website to enable online feedback of stakeholders.
12. IQAC has developed and implemented a detailed proforma for collecting feedback from Faculty.



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13. The Internal Quality Assurance Cell of AMET has prepared a proforma for proposal of academic events by the University Departments.
14. IQAC has prepared and submitted Compliance Report for the suggestions and recommendations of UGC and AICTE Expert Committee visited during January 2018.
15. IQAC has prepared and submitted the data for the IAMU Performance Indicators for Maritime Education and Training (PIMET), a global level study done by International Association of Maritime Universities (IAMU)

PLAN OF ACTION

Plan of Action	Achievements
Promotion of quality research culture in the campus	<p>Organized two workshops for promotion of quality research</p> <p>Formulated Academic Integrity Policy and governed the anti-plagiarism issues</p> <p>Procured and implemented the URKUND anti plagiarism software</p>
Strengthening the feedback system in the University	<p>The IQAC has revised and or formed new proforma for various stakeholder feedbacks such as student, faculty, alumni etc.</p> <p>All the feedback forms are now made available online.</p> <p>Feedback analysis and action taken reports are submitted in Academic Council.</p>
Enrichment of Curriculum and Syllabi	<p>AICTE has proposed model curricula for the professional course. IQAC has formed a Steering Committee of the IQAC for Curriculum Enrichment and created awareness for the need of curriculum enrichment to suit the dynamic changes in various spheres. AICTE curricula have been adopted in AMET.</p> <p>Curricula of the all the programmes were reorganized with more scope for open and core electives, courses on</p>



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	human values and ethics, valued added courses, more number of experiential learning contents in courses etc.
Commemoration of special days of national and international importance	University has extended the number of important days or commemorative days in remembrance of leaders, events and movements of national and international importance

NEW DEPARTMENT/CENTRE INTRODUCED DURING THE YEAR. IF YES, GIVE DETAILS.

The following new undergraduate departments were established

- Department of Mining to offer B.E., Mining Engineering (Approved by AICTE and UGC through joint visit during January-February 2018 and AICTE through formal Approval Process held during April 2018).
- Department of Food Processing Technology to offer B.Tech Food Processing Technology Engineering (Approved by AICTE and UGC through joint visit during January 2018 and AICTE through Approval Process held during April 2018).
- Department of AMET Business School has established a Maritime Commerce Unit to offer B.Com Logistics and Computer Applications programme (Approved by UGC through formal Expert Committee visit during January-February 2018)

FACULTY PARTICIPATION IN CONFERENCES AND SYMPOSIA

Type of activity	International	National	State
Attended	12	38	14
Presented	38	37	10
Resource person	6	3	5



SALIENT INITIATIVES ARE

University has adopted **FLIPPED CLASS ACTIVITIES** as one of the innovative teaching and learning method. Quiz, group discussions, activity based learning, video lectures, web assignments etc.

The ERP software of the University has been extended with additional features of *Learning Management System* which is developed exclusively for the University. University has uploaded relevant study materials, e books etc for enhancing the learning experience of the students.

Prof VBS Rajan Library in AMET has educated students to use the open digital repository **DSPACE** in which the University has uploaded, dissertations, video lectures, audio books, previous year question papers, study materials for higher studies preparation, soft skill development materials etc. Students are actively using the facility to augment their curricular needs.

INNOVATIONS AND BEST PRACTICES

AMET has started enhancing the role of technology in all the processes but more specifically in the teaching and learning process. This has created a positive impact among the learners who are now a technology loving generation.

Faculty members are given training and orientation for the effective usage of technology in teaching learning processes.

AMET has made tremendous efforts towards strengthening the quality research. It has established faculty empowerment strategies, research promotional activities such as giving incentives, identifying and promoting talents by giving awards, seed money and appreciations.



ACTION TAKEN REPORT

Plan of action decided	Action taken report
Enhancing the role of technology in teaching and learning process	<p>Centre for ICT enabled Education has been established.</p> <p>University has updated the entire curricula of all the programmes and syllabi with ICT features</p> <p>University has adopted <i>FLIPPED CLASS ACTIVITIES</i></p> <p><i>LEARNING MANAGEMENT SYSTEM</i> has been uploaded with relevant study materials, e books etc for enhancing the technology enabled learning experience of the students</p> <p>Students are encouraged and incentives are given for participation in e-learning modules such as NPTEL/SWAYAM.</p> <p>Prof VBS Rajan Library in AMET has educated students to use the open digital repository DSPACE</p>
Orientation of the Faculty Members towards for the effective usage of technology	A total of 11 programmes were organized which are listed in section 4.5 of this report



AMET

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Strengthening the Quality Research

Orientation Programmes were organized for upgrading the research potential of the Faculty and Research Scholars

University has given incentives both as monetary benefits, workload reduction etc to the Faculty who are doing quality research

Quality of research publications enhanced
As outcome,

- i. AMET has produced 897 articles in SCOPUS indexed journals during 2017-2018 (data from SCOPUS).
- ii. Citations have increased to 2334 numbers.
- iii. Three research projects have received government grants
- iv. H index of the University increased from 9 to 15



BEST PRACTICE 1: ORIENTING FACULTY MEMBERS FOR BETTER RESEARCH ACCOMPLISHMENTS WITH REFERENCE TO PUBLICATIONS

TITLE OF THE PRACTICE

Orienting Faculty Members for better research accomplishments

OBJECTIVES OF THE PRACTICE

1. To orient Faculty Members of the unique maritime education and training departments to publish quality research articles
2. To recognize the Faculty Members who produce better research accomplishment with special reference to publication of quality research articles

THE CONTEXT

Academy of Maritime Education and Training (AMET) was established during 1991 and declared as deemed to be University during 2007 under de novo category of the section 3 of UGC Act 1956. The University was accredited with Grade B by NAAC during 2015. There have been very few Higher Education Institutions involved in Maritime Education.

Because of the inherent uniqueness, AMET has faced many constrains during NAAC, NIRF Rankings and other such common academic exercises. For example, the basic eligibility for Faculty Members of Nautical Science and Marine Engineering is not PG or PhD but the Certificate of Competency only. The Directorate General of Shipping (DGS) Government of India is the statutory/approving authority for maritime education in India.



DGS recognizes Faculty Members with high competency even without formal UG/PG or PhD upto the level of Associate Professors to teach maritime education. Since the Faculty resources are not from formal education system with formal research focus, AMET has planned to make systematic efforts to create a research ambience in the campus by organizing orientation programmes workshops, seminars, discussions and brainstorming sessions etc for the promotion of research which may ultimately lead to quality publications and other research accomplishments.

THE PRACTICE

1. AMET has intensified the number of orientation programmes and workshops or trainings related to promotion of quality research
2. AMET has established a separate section, Centre for Faculty Research Promotion with a Coordinator for these activities. The Coordinator is assisting in a systematic manner to orient the Faculty Members of the Departments which are relatively weak in research publication numbers
3. University provides publication charges, charges for analytical works for research and other expenses related to research and publication
4. In addition, University provides financial incentives for those who publish in reputed journals with impact factors. Thus, AMET has groomed its Faculty Members to get inclined towards research by giving all possible financial and intellectual supports which leads to relatively higher research accomplishments.



EVIDENCE OF SUCCESS

During 2008, AMET had produced only 5 publications in SCOPUS. It has increased to 235 during 2015 when AMET was assessed and accredited. By continuously upgrading the capacity of the Faculty Members and encouraging them with financial incentives, AMET has produced 897 articles in SCOPUS indexed journals during 2017-2018 (data from SCOPUS). At present, AMET has produced 1230 articles in SCOPUS indexed journals with 2334 citations.

During 2015, the h index of the University is 4 and now it has reached 16 (SCOPUS data) due to the best practices followed in the University for promotion of research.

PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED

Problem encountered	Resources Required/Plans engaged to rectify the problems
Finding of suitable Journals in some of the Unique domains such as Nautical Science	Interdisciplinary Journals have been identified and Faculty Members are oriented to publish interdisciplinary research

NOTES (OPTIONAL)

Moreover, Faculty members of AMET have filed and published 41 patents during 2014-2018. Besides, Faculty Members of AMET have received funded projects from government and private agencies and consultancy projects from industries worth several crores. Though maritime institutions like AMET deserve a separate assessment and accreditation pattern, it has not been considered so far. However, AMET has followed best practices for the improvement of research accomplishments as a measure for the promotion of quality metrics in research.



BEST PRACTICE 2: ENRICHMENT OF CURRICULUM FOR STUDENT CENTRIC LEARNING, INDUSTRY INTERACTION AND VALUE ADDITIO

TITLE OF THE PRACTICE

Enrichment of curriculum for student centric learning, industry interaction and value addition.

OBJECTIVES OF THE PRACTICE

1. To enrich the curricula and syllabi of all the programmes offered in the University to strengthen student centric learning methods
2. To enrich the curricula and syllabi for enhancing the industry interactions
3. To enrich the curricula and syllabi for value addition towards employability and skill development.

THE CONTEXT

Being a deemed to be University, AMET is involved in continuous improvement of the curriculum to match the needs of various stakeholders. Now, the focus of education witches over to student centric teaching and learning methods worldwide. Similarly industry interaction is also more important in this fast evolving technological society where the Industry interactions for the students even while they are studying professional programmes, improves their knowledge and enhance their confidence. Moreover, beyond the formal curriculum, value addition is also required to bridge the gaps in the curricular needs. Keeping above in mind, AMET has taken pivotal steps to streamline the existing curricula and syllabi of the all the programmes in the University for promoting student centric learning, industry interaction and value addition.



The Practice

Steering Committee of the IQAC for Curriculum Enrichment was formed and conducted brainstorming sessions for the enrichment of curriculum for promoting student centric learning, industry interaction and value addition.

IQAC has conducted workshops for curriculum enrichment and student centric teaching learning methods.

Student centric teaching methods are incorporated in the course delivery.

In every semester, it has been made that at least one unit in the entire course syllabi shall be completely delivered by an industry professional. This has formed the basis for students to get first hand interaction with industry professionals within their comfort zone. Industry visits and industry internships are part of the curriculum.

Value added courses are encouraged. It is made as part of the curriculum.

EVIDENCE OF SUCCESS

STUDENT CENTRIC TEACHING METHODS

University has adopted ***FLIPPED CLASS ACTIVITIES*** as one of the student centric teaching learning methodologies wherein teachers play as a facilitator. Quiz, group discussions, activity based learning, video lectures, web assignments etc., are taken up by the students themselves with the guidance of teachers. These activities are recorded in the lesson plan and course delivery documents.

ENHANCING THE INDUSTRY PARTICIPATION

For example, the Department of EEE had established a Centre of Excellence in On Board Ship Automation in the University along with an Industry, CDCE Automation. Students are getting trained in the state of the art recent technologies that



are happening in the industry. Industry professionals are also involved in delivering class room lectures and guest lecture, which are made as part of the curriculum.

VALUE ADDITION

The curricular gaps are filled with value added course. For example, the students of B.E. Mechanical Engineering are undergoing valued added courses such as Certificate course in CAD using CREO and Certificate course in CNC-Turning and Milling in association with National Small Industrial Corporation (NSIC), Govt. of India.

Problems Encountered and Resources Required

Problem encountered	Resources Required/Plans engaged to rectify the problems
Student enrolment for value added courses. University has not made it compulsory for enrolling value added courses.	1. Students are given incentives such as fee reduction for enrolment of value added courses 2. University provided logistical support without any additional fee for all the students who undergo such value added courses

NOTES (OPTIONAL)

The above three new initiatives which are proposed by the Steering Committee of the IQAC for Curriculum Enrichment has been found much useful for the students to make their learning a more participatory one while the entire curriculum has given them direct industry exposure and value addition.



CONTRIBUTION TO ENVIRONMENTAL AWARENESS/ PROTECTION

AMET has created a Centre for Clean Campus and Environmental Awareness (CCCEA) for making the campus a plastic free campus. It also works towards making the campus greener by taking initiatives such as tree plantation, waste segregation and solid waste management etc. Students are also motivated and engaged in environmental awareness and protection activities through ECO Club. The University has conducted the following events towards creating environmental awareness and protection.

A plantation drive on “Do Plantation to Save Environment” was organized by the Department of Marine Biotechnology on 11-08-2017 as part of Mission Green AMET in association with Earth Smiles Trust, Chennai Dengue Awareness Programme was organized as a Street play by Fine Arts Club on 31-08-2017 Department of Marine Biotechnology and Department of Food Processing Technology organized “Seed ball preparation and dispersal event” on 07-09- 2017 as part of Mission Green AMET Department of EEE has organized a National Seminar on Recent trends in Renewable Energy in collaboration with National Institute of Wind Energy on 15-09-2017.

Department of Marine Engineering had distributed prizes to the Best House Keeping in a Swach Bharath Scheme on 05-10-2018 Department of EEE has organized a Clean India-Health India campaign on 13-10-2018 Environmental Audit and Energy Audit were conducted during January 2017 LEO Club of AMET has organized a special lecture on Protecting our Environment on 12-10-2017.

AMET ECOCLUB has organized two coastal clean-up programmes during July 2017 as part of The International Coastal Cleanup, an International event in collaboration with Ocean Conservancy, International Coastal Cleanup, Ocean Action Network Department of Marine Biotechnology and ECOCLUB has organized a tree plantation drive on World Environment Day (05-06-2017)



ANNUAL QUALITY ASSURANCE REPORT

2018-2019

Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Colloquium by AMET: Research Connect Forum on Doctorate Research-The ultimatum and Technical Writing for PhD scholars.	09-Nov-2018 & 1	45
Nature and Wildlife Photography Exhibition	10-Nov-2018 & 1	160
Workshop on promotion of Interdisciplinary Research	22-Nov-2018 & 1	30
Orientation Programme on Priority Areas for Quality Improvement	09-Sep-2018 & 5	50
Interactive Session on Bibliography and Citation Tools	28-Mar-2019 & 1	22
Professional Development Programme for Non-Teaching Staff	11-Jun-2019 & 1	35
Workshop on Outcome Based Education	28-Jan-2019 & 1	150



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Tree Plantation Drive In Commemoration Of World Environment Day 2018	05-Jun-2018 & 1	35
Interactive and hands-on training cum workshop on	20-Jul-2018 & 1	40
National Workshop On Workshop on E-Learning, MOOCS In Swayam /NPTEL And Personalized Education	22-Sep-2018 & 1	120

SPECIAL STATUS

Institution/ Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Academy of Maritime Education and Training	SIRO-Scientific and Industrial Research Organization	Department of Scientific and Industrial Research (DSIR)	2019 1046	0

Plan of Action	Achievements/Outcomes
Implementation of outcome based Education in the University	1. IQAC formed a separate committee i.e., Implementation and Monitoring Committee for OBE (IMCO) as a monitoring and implementing body for the OBE in



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	<p>the University</p> <ol style="list-style-type: none"> 2. One workshop, one brainstorming session and two orientation programmes on OBE were conducted 3. Three IMCO meeting were held to implement the OBE. 3. Forms and procedures for the OBE were prepared and circulated by the IQAC. 4. OBE has been implemented from the Odd Semester of 201819 and its effectiveness was assessed through Academic and Administrative Audit.
Promotion of the ICT Enabled Education in the campus by conducting FDPs and training programmes	<ol style="list-style-type: none"> 1. Number of Classrooms with ICT facilities have increased from 35 to 86 2. One National level workshop and two orientation programmes on ICT enabled education were conducted 3. 100% of the teachers are using ICT resources for teaching and learning purposes 5. 4. A total of 80 Video lectures were captured at Multi Media Centre and uploaded in LMS for student usage along with more



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	than 200 study materials
Promotion of a healthy and quality research culture in the campus	<ol style="list-style-type: none">1. Established AMET Research Connect Forum for discussing recent happening in Research. The ARCF has conducted six events in 2018-19.2. Conducted three workshops/orientation programmes for the promotion of research.3. Implemented the Academic Integrity Policy in the University to promote ethics in research.4. Funded research has increased. AMET has also sanctioned student projects and seed money for faculty. Altogether a total of 61 projects worth Rs 120.8635 Lakhs (INR).
Identification and promotion of priority areas for quality improvement and conducted orientation programmes for the same	The IQAC has identified Intellectual Properties, Student innovations and Start Ups in the Incubation Centres as the priority areas need improvement. Hence separate IPR Cell, Innovation Incubation Cell were established and activities were undertaken.
Formation of a Core to facilitate the	IQAC has formed a Core Working Group



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quality initiatives	which identified best practices and quality initiative all across the country. Salient initiatives have been undertaken in the University. For example, the CWG has identified the need of implementing the Outcome Based Education.
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QUALITY INITIATIVES

Year	Name of the Quality initiative	Date of conducting IQAC	Duration from	Duration to	Number of participants
2018	Interactive and hands-on training cum workshop on “Planning For Effective Teaching”	20/06/2018	20/06/2018	20/06/2018	40
2018	Workshop on E-learning, MOOCS in Swayam/NPTEL and Personalized Education	22/09/2019	22/09/2018	22/09/2018	120
2018	Colloquium by AMET Research Connect Forum on Doctorate Research- The ultimatum and	09/11/2018	09/11/2018	09/11/2018	45



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	Technical Writing for PhD scholars				
2018	Nature and Wildlife Photography Exhibition	10/11/2018	10/11/2018	10/11/2018	160
2018	Workshop on promotion of interdisciplinary research	22/11/2018	22/11/2018	22/11/2018	30
2018	Tree Plantation Drive in com Memoration Of world Environment Day 2018	05/06/2018	05/06/2018	05/06/2018	35
2018	Orientation Programme on Priority Areas for Quality Improvement	09/10/2018	09/10/2018	12/10/2018	150
2018	Interactive Session on Bibliography and Citation Tools	28/03/2019	28/03/2019	28/03/2019	22
2018	Professional Development Programme for	11/06/2019	11/06/2019	11/06/2019	35



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	Non-Teaching Staff				
2018	Workshop on Outcome Based Education	28/01/2019	28/01/2019	28/01/2019	150



BEST PRACTICES

BEST PRACTICE - 1

TITLE OF THE PRACTICE

Green Card System as an Effective Tool for Mentoring System

OBJECTIVES OF THE PRACTICE

1. To keep a track on the academic, co-curricular and Extra-curricular
2. To get a close monitoring with the students and get in touch with their academic, personal and other issues
3. Meet the students frequently and give inputs for subject queries and relative guidance for their career. The Context through the Green Card System, we would like to promote and achieve the following aspects
 - Monitoring the students' performance by the class advisor there Assisting students to reach the faculty in charge for the issues and problems faced by them.
 - To orient the students for examination and career guidance.
 - To Assess, promote and monitor student's individual progress and interpersonal skills in an efficient way.

Assess the student's area of interest, extra-curricular, co-curricular activities, sports activities and other personal interests and to monitor closely. The Practice Upon implementation of the GREEN CARD SYSTEM the faculty student was put in a 1:20 ratio and allocated individually and allowed to closely monitor the student activities by properly documenting all the individual records like continuous assessments performance, exam performance, sports participation, cultural participation, extra-curricular, co-curricular activities, NSS, NCC participation and club activities like red cross, , gender sensitization, etc., the student leave records, parent and guardian



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details, hosteller/day-scholar details, like on the whole data base of the individual was to be maintained by the assigned faculty and documented inside the green card of the particular student. There is a specially designed card known as GREEN CARD has been used for this purpose in the activity the student can approach the particular faculty allocated for them at any point of time for any sort of guidance. The faculty has to meet the given set of 20 students mandatorily once in a week individually to listen to his feedback or grievance or any such form difficulty faced and the positive comments about subjects handled, curricular doubts and guidance in studying, reason for absentia, participation in off campus activities and his performance in exams, guidance for placements, higher studies, competitive exams etc., and closely monitor and record in the individual GREEN CARD of the corresponding student.

Evidence of Success the GREEN CARD SYSTEM was considered to be a grand success as it was found that the students shared their thoughts and comments to the faculty they are associated as they were met every week. The students showed interest and they came up their suggestions and the faculty too counselled and mentored the students regarding their continuous performance progress as a result of which many slow learning students got proper support and guidance to advance their academic records by clearing the arrears, increasing their CGPA, getting guidance in placement related activities and moral support and guidance for getting themselves prepared for higher studies or preparing for competitive examinations. Apart from academics the students were also able to show interests in co-curricular and extra-curricular activities and other personal interests and talents in which the individuals were able to find a chance to express themselves and exhibit their talents on stage and express themselves in front of others. Those students who have capability interests in research and project related activities were provided with proper support to bring out their ideas through various segments like smart India hackathon, students seed money for projects, etc., and use the available research facilities and testing facilities.



Problems Encountered and Resources Required; The system was implemented successfully and students found a way of betterment in their expertise but one aspect that was a way to hinder the progress which was identified to be the time factor. Meeting the students allocated in the ratio of 1:20 to closely monitor the students and system was success in this aspect and changes were noted after implementing the system. But the students could not find time to meet the concerned faculty in charge in person and share their valuable suggestion. Hence this issue was escalated to the higher authorities of the institution for the unavailability of time for meeting the faculty and sharing their comments and the authorities found it a valid confession and the time fact to could hinder the room for improvement. Then it was decided to extent the university working hours for thirty minutes which is meant exclusively for this particular GREEN CARD SYSTEM and the faculty and student meet individually to counsel and mentor them for continuous improvement process.

BEST PRACTICE – 2

TITLE OF THE PRACTICE: CASH INCENTIVES FOR ORIENTING FACULTY MEMBERS FOR BETTER RESEARCH ACCOMPLISHMENTS

OBJECTIVES OF THE PRACTICE

1. To orient Faculty reference to publication of quality research articles The Context AMET has been Members of the unique maritime education and training departments to publish quality research articles by giving cash incentives.
2. To recognize the Faculty Members who produce better research accomplishments with special decaled as deemed to be University during 2007 under de novo category of the section 3 of UGC Act 1956. Because of the inherent uniqueness, AMET has faced many constrains during NAAC, NIRF Rankings and other such common academic exercises. The Directorate General of Shipping (DGS) Government of India is the statutory/approving authority



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for maritime education in India. DGS recognizes Faculty Members with high competency even without formal UG/PG or PhD up to the level of Associate Professors to teach maritime education. Since the Faculty resources are not from formal education system with formal research focus, AMET has planned to make systematic efforts to create a research ambience in the campus by organizing orientation programmes workshops, seminars, discussions and brainstorming sessions etc. for the promotion of research which may ultimately lead to quality publications and other research accomplishments. While there are many incentive systems are there, AMET has taken up the CASH INCENTIVES as the way to appreciate and to promote Faculty in getting more research accomplishments.

- Practice – 1 is AMET has intensified the number of orientation programmes and workshops or trainings related to promotion of quality research.
- Practice –2 is AMET has established a separate section, Centre for Faculty Research Promotion. With a Coordinator for these activities
- Practice 3 is University provides publication charges, charges for analytical works and incentives for publications.
- Practice 4 is AMET also facilitates faculty to attend FDP, Seminars, Workshops to gain hands on experience, Conferences with financial assistance and on other duty leave (OD).
- Practice 5 is Research Collaborations are encouraged with OD leave, workload reduction and financial incentives.
- Practice 6 is the Faculty with research accomplishments are awarded suitably.
- Practice 7 is Seed money has been provided to the faculty members. Thus, AMET has groomed its Faculty Members to get inclined towards research by giving all possible financial and intellectual supports.



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Evidence of Success During 2008, AMET had produced only 5 publications in SCOPUS. It has increased to 235 during 2015 when AMET was assessed and accredited. By continuously upgrading the capacity of the Faculty Members and encouraging them with financial incentives, AMET has produced 897 articles in SCOPUS indexed journals during 2017-2018 (data from SCOPUS). At present, AMET has produced 1230 articles in SCOPUS indexed journals with 2334 citations. The quality research work as well as the collaborative research work by the faculty has been drastically increased by 200 in the past five years as well as the quality of the journals published by the faculty have increased in a very rapid level. The numbers of articles published by the faculty members have rapidly increased by 250 in the past five years which accounts to a very dynamic improvement of the institution. During 2015, the h index of the University is 4 and now it has reached 16 (SCOPUS data) due to the best practices followed in the University for promotion of research. Similarly the number of citations were also increased drastically in the past five years to 150 which indirectly implies that the quality of the research publication of the faculty members have improved a lot. Problems Encountered and Resources Required Finding of suitable Journals in some of the Unique domains such as Nautical Science Interdisciplinary Journals have been identified and Faculty Members are oriented to publish interdisciplinary research Notes (Optional) Moreover, Faculty members of AMET have filed and published 41 patents during 2014-2018. Besides, Faculty Members of AMET have received funded projects from government and private agencies and consultancy projects from industries worth several crores. Though maritime institutions like AMET deserve a separate assessment and accreditation pattern, it has not been considered so far. However, AMET has followed best practices for the improvement of research accomplishments as a measure for the promotion of quality metrics in research.



INSTITUTIONAL DISTINCTIVENESS

The maritime and marine related degree programmes as well as allied degree programmes are also offered in few other premier institutions of India separately through specialized Centre's. However, AMET is the only educational Institute in India to offer maritime and marine degree programmes and doctorate programmes less than one roof. The University is in the process of transforming skill based maritime domain into knowledge based domain by creating and offering innovative and unique degree programmes at undergraduate, post graduate and doctorate levels. These disciplines cascading from ship design, ship construction, navigation, ship operation, ship maintenance, port planning and maintenance, marine life sciences, shipping business, logistics and maritime commerce etc are being offered at one place have the advantage of providing multidisciplinary exposure of highly unique disciplines. Because of the inherent uniqueness, the University is having the greatest advantage of creating finest intellectuals in maritime and marine disciplines at the same time have the disadvantage of being scaled by common yardstick. The unique nature of the programmes and studies in the University causes distinctive workforce, activities and student genre. The International Association of Maritime Universities headquartered at Tokyo, Japan has been conducting PMIET Ranking as survey and listed AMET as one of the top 7 maritime Institutions in the world in Teaching, Research and overall grading for the past two consecutive years. Likewise, AMET receives A1 Outstanding Grade in Maritime Disciplines for the past five consecutive years in the Common Inspection Programme of the Directorate General of shipping (the regulatory and approving body for maritime programmes). These unique assessment and accreditation tools help AMET to get realistic ranks because of its distinctiveness in being a global maritime hub.



HIGHLIGHTS OF THE UNIVERSITY

- AMET has established Maersk Centre of Excellence with a support of world shipping giant AP Moller Maersk
- AMET is the First member from India in International Association of Maritime Universities (IAMU)
- AMET has been ranked as the Best Institute in the Teaching Excellence and Research Contribution among maritime Universities in the world as evaluated by the PIMET Ranking of the IAMU for the past two years
- AMET has also been privileged to have the prestigious award of “A-1 Outstanding Grade” from the Directorate General of Shipping continuously for the past five years
- The University has filed and published 42 Patents and 133 Books with ISBN were published by the Faculty Members from various departments of the University with different reputed Publishers.
- AMET has so far published 2535 research articles in highly reputed SCOPUS / UGC indexed Journals with a h index of 19
- AMET has produced 63 Doctorates in marine and related studies
- AMET has 16 government funded projects with total grant of Rs 10.23 crores
- AMET has adopted five coastal villages through Unnat Bharat Abhiyan and spearheading the Swachh Bharat related activities in and around.
- All the Departments involve in extension and social outreach activities for the cleaner environment, better living and uplifting of coastal villages
- Future Plans of Actions for Next Academic Year To get NAAC Accreditation with A Grade (with a CGPA more than 3.6) which will facilitate AMET to start Off Campuses and Offshore Campuses
- AMET is progressively marching towards getting established as an International Maritime Knowledge Hub by expanding its all-academic, research and outreach activities in the chosen fields



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- To attract highly qualified and experienced personnel for faculty positions for imparting quality education and skills and motivating them to do research with excellent financial compensation in a congenial working environment.
- To enhance laboratory facilities with state-of-the-art equipment and advanced technological tools for teaching and research purposes.
- To reach out to industries, research laboratories and academic institutions around the world for collaboration and joint research programmes for identifying and finding solutions to technical and technological problems.
- To concentrate on the environmental concerns plaguing the earth due to industrial activities and deliver mitigation efforts.
- To reach out to the community through various programmes for awareness, involvement and participation to usher in a better society.



ANNUAL QUALITY ASSURANCE REPORT

2019-20

QUALITY INITIATIVES

Item/Title of the Quality initiatives by IQAC	Date & Duration	Number of participants/ beneficiaries
International Online Faculty Development Programme on Course Planning and Delivery through online	25-May-2020 & 1	164
International Online Faculty Development Programme on Strategies to improve the Citation Metrics and Research Impact.	15-May-2020 & 1	128
Webinar on The Crux of Online Teaching for Low Internet Bandwidth.	24-May-2020 & 1	162
Workshop on NAAC Accreditation and Assessment Processes- Overview	15-Feb-2020 & 1	123
Workshop on Web Based Resources for Research	27-Nov-2019 & 1	36
Special Lecture on Research Methodology for Marine Science and Technology	15-Nov-2019 & 1	42
Special Lecture on The Art of writing	12-Jul-2019 & 1	25



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Research Articles		
Special Lecture on Importance of Research and Research ethics	22-Nov-2019 & 1	28
Workshop on E Content Development for MOOC platforms	26-Nov-2019 & 1	112
Special Lecture on Introduction to research Methodology	29-Nov-2019 & 1	24

LIST OF SPECIAL STATUS

Institution/ Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Academy of Maritime Education and Training	Atal Ranking of Institutions on Innovation Achievements (ARIIA)	Ministry of Education, Govt. of India	2020 365	0
Academy of Maritime Education and Training	National Institutional Ranking framework (NIRF)	Ministry of Education (formerly MHRD) Government of India	2020 365	0



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Academy of Maritime Education and Training	Comprehensive Inspection Programme (CIP)	Directorate General of Shipping (DGS) Govt. of India Through DNV GL (Norway)	2020 365	0
Academy of Maritime Education and Training	Performance Indicators in Maritime Education and Training (PIMET)	International Association of Maritime Universities (IAMU), Japan	2020 365	0

ACTION TAKEN BY IQAC

Plan of action	Achievements/Outcome
To establish forms and procedures to sustain quality ambience in the University	IQAC has created forms and procedures for feedback from stakeholders, digital home based internship evaluation & submission and Students Scholarship form etc.
To create and sustain a vibrant research atmosphere in the campus	IQAC has formed a committee to identify the good publication and suggest incentive to the faculty member who published that paper.



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	Incentives to the faculty who publishing Books and incentives for other research activities.
Continuing the regular works of the IQAC to promote the overall quality of the University	Established AMET Research Connect Forum for discussing recent happening in Research. The ARCF has conducted Eight events in 2019-20. Conducted Five workshops/orientation programmes for the promotion of OBE. Implemented the Academic Integrity Policy in the University to promote ethics in research. Funded research has increased. AMET has also sanctioned student projects and seed money for faculty. Altogether a total of 177 industry projects worth Rs 632 Lakhs (INR).
Prioritizing the ranking works such as NIRF, Swachata Ranking etc	NIRF Rank achieved first time under Engineering Category
Spearheading the preparative works for the NAAC Re-Accreditation	IQAC formed a core working group which works on each criterion for NAAC Re-Accreditation. One workshop, one brainstorming session and two orientation programmes on NAAC parameters were conducted. Forms and procedures for the OBE were prepared and circulated by the IQAC.
To implement and monitor the	The IQAC has arranged almost 5 FDP



Outcome Based Education	programmes on OBE which includes COPO Mapping, Course attainment and Basics of OBE
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BEST PRACTICES

INTERNAL QUALITY ASSURANCE CELL (IQAC) AMET BEST PRACTICES 2019-20

BEST PRACTICE 1

Cash Incentives for Encouraging Faculty; members for healthier research accomplishments

OBJECTIVES OF THE PRACTICE

1. To orient Faculty Members of the unique maritime education and training departments to publish quality research articles by giving cash incentives.
 2. To recognize the Faculty Members who produce better research accomplishments with special reference to publication of quality research articles
- The Context Academy of Maritime Education and Training (AMET) was established during 1991 and declared as deemed to be University during 2007 under de novo category of the section 3 of UGC Act 1956. The University was accredited with Grade B by NAAC during 2015. There have been very few Higher Education Institutions involved in Maritime Education. Because of the inherent uniqueness, AMET has faced many constrains during NAAC, NIRF Rankings and other such common academic exercises. For example, the basic eligibility for Faculty Members of Nautical Science and Marine Engineering is not PG or PhD but the Certificate of Competency only. The Directorate General of Shipping (DGS) Government of India is the



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statutory/approving authority for maritime education in India. DGS recognizes Faculty Members with high competency even without formal UG/PG or PhD up to the level of Associate Professors to teach maritime education. AMET has planned to make systematic efforts to create a research ambience in the campus by organizing orientation programmes workshops, seminars, discussions and brainstorming sessions etc. While there are many incentive systems are there, AMET has taken up the CASH INCENTIVES as the way to appreciate and to promote Faculty in getting more research accomplishments.

- The Practice 1 is AMET has intensified the number of orientation programmes and workshops or trainings related to promotion of quality research.
- The practice 2 is AMET has established a separate section, Centre for Faculty Research Promotion with a Co-ordinator for these activities. The Co-ordinator is assisting in a systematic manner to orient the Faculty Members of the Departments which are relatively weak in research publication numbers
- The practice 3 is University provides publication charges, charges for analytical works for research and other expenses related to research and publication.
- The practice 4 is In addition, University provides financial incentives for those who publish in reputed journals with impact factors.
- The practices 5 is AMET also facilitates faculty to attend various forms of technology enrichment activities like Faculty Development Programmes, Seminars, Workshops to gain hands on experience, Conferences to present their research work in a open platform to other experts of the research domain, etc.
- The practice 6 is the faculty who are attending these kind of technology enhancement programme are provided with on duty to



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participate in such programmes and given financial assistance towards registration fees and travel allowance in some special cases.

- The particles 7 is faculty who excel in research work by doing collaborative research with other institutes or universities are given with special considerations like on-duty to progress research work, reduction in individual workload of the faculty members, financial support for testing and experimental facilities.
- The particle 8 is Faculty those who excel in the research works are periodically awarded for the renowned academic year research excellence.
- The particle 9 is AMET always encourages the faculty in facilitating collaborative research with other institutes/organisation in order to bring quality research.
- The particle 10 is Seed money has been facilitated to the faculty members in order to bring out new innovations and projects in the respective domain to progress quality research work in the institution.
- The particles 11 is Special incentives and awards has honoured to the faculty who excel the research work and get government or private external organisations research projects grants sanctioned to the faculty name in the institution.
- The particles 12 is those faculty who are involved in government research projects are relaxed from the teaching work load in order to facilitate quality and on time delivery of the research work.
- The particles 13 is Those faculty who are awarded by the external organisations or institutes for the excellence in teaching learning works or research work or in any other related field are honoured by AMET in order to encourage them as well as to motivate other faculty members Thus, AMET has groomed its Faculty Members to



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get inclined towards research by giving all possible financial and intellectual supports which leads to relatively higher research accomplishments. Evidence of Success During 2008, AMET had produced only 5 publications in SCOPUS. It has increased to 235 during 2015 when AMET was assessed and accredited. By continuously upgrading the capacity of the Faculty Members and encouraging them with financial incentives, AMET has produced 897 articles in SCOPUS indexed journals during 2017-2018 (data from SCOPUS). At present, AMET has produced 1230 articles in SCOPUS indexed journals with 2334 citations. The quality research work as well as the collaborative research work by the faculty has been drastically increased by 200 in the past five years as well as the quality of the journals published by the faculty have increased in a very rapid level. The numbers of articles published by the faculty members have rapidly increased by 250 in the past five years which accounts to a very dynamic improvement of the institution. During 2015, the h index of the University is 4 and now it has reached 16 (SCOPUS data) due to the best practices followed in the University for promotion of research. Similarly the number of citations were also increased drastically in the past five years to 150 which indirectly implies that the quality of the research publication of the faculty members have improved a lot. Problems Encountered and Resources Required Problem encountered Resources Required/Plans engaged to rectify the problems finding of suitable Journals in some of the unique domains such as Nautical Science

- Interdisciplinary Journals have been identified and Faculty Members are oriented to publish interdisciplinary research Notes (Optional) Moreover, Faculty members of AMET have filed and published 45 patents. Besides, Faculty Members of AMET have received funded



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projects from government and private agencies and consultancy projects from industries worth several crores. Though maritime institutions like AMET deserve a separate assessment and accreditation pattern, it has not been considered so far. However, AMET has followed best practices for the improvement of research accomplishments as a measure for the promotion of quality metrics in research.

BEST PRACTICE – 2

Community Based Extension Activities to Improve the Socio Awareness and Quality Environment by Ametians

OBJECTIVES OF THE PRACTICE

1. To make the eco-friendly Environment as much as possible.
2. To encourage the students to understand the Reality of life
3. Meet the public and educate them to understand the social responsibility. The Context Through the outreach programme the University encourages the students and staff to
 - Understand the real life of the people
 - Assisting the public to understand the importance of environment
 - To orient them in ban on plastic, Keeping the surrounding clean and healthy and other hygiene problems
 - Creating green environment
 - To closely monitor all the student activities with many faculty and encourage them to do more social service.



THE PRACTICE

To implement the outreach programme, University requested each faculty should take part in at least one community service and one extension activity per academic year along with students. These activities properly documented by the faculty. Apart from faculties' extension activity, NSS NCC students are also doing community service and extension activities. Most of the faculties got appreciation from Non-governmental organizations which are also part of those activities. Upon implementation of the system the student mind set totally changed and got a confidence that I can express my thoughts, solve problems grievances which would be faced by public in a positive way. In this system the students came up with all their suggestions because all are responsible for the change in the society. Depending upon the nature of the comments given by public documented the valid and noteworthy comments were properly escalated till the higher authority in order to take necessary action to keep the society environment friendly. The student forum periodically revises the extension activities along with the staff co-ordinates. Evidence of Success The Outreach was considered to be a grand success as it was found that the students shared their thoughts and energy along with the faculty in helping the society whenever the opportunity given to them. The students showed interest and they came up their suggestions and the faculty too mentored the students while doing the service. In this academic year alone 184 awards and recognition received for extension activities from Government and other recognized bodies by our faculties. Some of the activities like Cleaning of children's Park and planting of trees, Awareness rally on Corona Virus, Women safety with Kavalan app and Awareness Campaign on personal health and good habits etc., Students participating in extension activities with Government Organizations, Non-Government Organizations and programmes such as Swachh Bharat, Gender Issue, etc. during the year. Problems Encountered and Resources Required The system was implemented successfully and students found a way of betterment in their expertise but one aspect that was a way to hinder the



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progress which was identifying Non-Governmental organization to participate in the activity. Institutional Distinctiveness *DISTINCTIVENESS OF THE UNIVERSITY* Academy of Maritime Education and Training deemed to be university is conducting maritime and marine related degree programmes as well as allied degree programmes. However, AMET is the only educational Institute in India to offer maritime and marine degree programmes and doctorate programmes under one roof. The University is in the process of transforming skill based maritime domain into knowledge based domain by creating and offering innovative and unique degree programmes at undergraduate, post graduate and doctorate levels. These disciplines cascading from ship design, ship construction, navigation, ship operation, ship maintenance, port planning and maintenance, marine life sciences, shipping business, logistics and maritime commerce etc., are being offered at one place have the advantage of providing multidisciplinary exposure of highly unique disciplines. The International Association of Maritime Universities headquartered at Tokyo, Japan has been conducting PMIET Ranking as survey and listed AMET as one of the top 7 maritime Institutions in the world in Teaching, Research and overall grading for the past two consecutive years. Likewise, AMET receives A1 Outstanding Grade in Maritime Disciplines for the past five consecutive years in the Common Inspection Programme of the Directorate General of shipping (the regulatory and approving body for maritime programmes). For the first time in the world, AMET has established Maersk Centre of Excellence with a support of world shipping giant AP Moller Maersk. These unique assessment and accreditation tools help AMET to get realistic ranks because of its distinctiveness in being a global maritime hub.



HIGHLIGHTS OF THE UNIVERSITY

- Conferred with the status of “Deemed to be University” under Section 3 of the UGC Act 1956 during 2007
- All the maritime programmes of the University are approved by Directorate General of Shipping (DGS) Government of India
- All the technical programmes of the University are approved by the All India Council of Technical Education (AICTE) while others are approved by the University Grants Commission
- AMET is the First member from India in International Association of Maritime Universities (IAMU)
- AMET has been ranked as the Best Institute in the Teaching Excellence and Research Contribution among maritime Universities in the world as evaluated by the PIMET Ranking of the IAMU for the past two years
- AMET has also been privileged to have the prestigious award of “A-1 Outstanding Grade” from the Directorate General of Shipping continuously for the past five years
- AMET has been accredited by National Assessment and Accreditation Council (NAAC)
- Around 15,000 of our passed out graduates occupy exalted positions in Shipping Companies and maritime related areas all over the globe
- The University has filed and published 45 Patents and 221 Books with ISBN were published by the Faculty Members from various departments of the University with different reputed Publishers.
- AMET has so far published 3022 research articles in highly reputed SCOPUS / UGC indexed Journals with h index of 22.
- AMET has produced 63 Doctorates in marine and related studies



FUTURE PLANS OF ACTIONS FOR NEXT ACADEMIC YEAR

INTERNAL QUALITY ASSURANCE CELL (IQAC) AMET FUTURE PLANS FOR THE ACADEMIC YEAR 2019-20

- To get NAAC Accreditation with A Grade (with a CGPA more than 3.6) which will facilitate AMET to start Off Campuses and Offshore Campuses
- AMET is progressively marching towards getting established as an International Maritime Knowledge Hub by expanding its all-academic, research and outreach activities in the chosen fields
- To attract highly qualified and experienced personnel for faculty positions for imparting quality education and skills and motivating them to do research with excellent financial compensation in a congenial working environment.
- To enhance laboratory facilities with state-of-the-art equipment and advanced technological tools for teaching and research purposes.
- To reach out to industries, research laboratories and academic institutions around the world for collaboration and joint research programmes for identifying and finding solutions to technical and technological problems.
- To concentrate on the environmental concerns plaguing the earth due to industrial activities and deliver mitigation efforts.
- To reach out to the community through various programmes for awareness, involvement and participation to usher in a better society.