Arab Academy for Science, Technology & Maritime Transport

Arab Academy
for Science, Technology & Maritime Transport

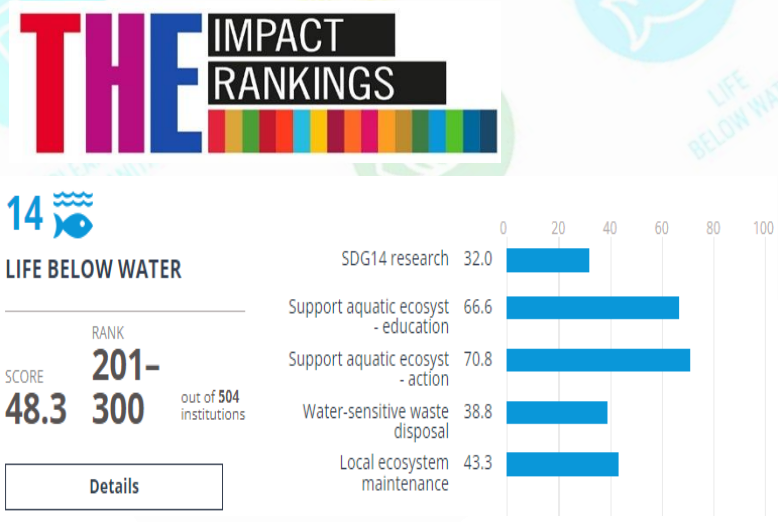
Report 2021/2022

SDG 14

Our Aim in 2021-2022

- AASTMT aimed to increase their staff research projects and community outreach activites regard supporting the aquatic life.

THE Impact Ranking Scores 2020-2021



SDG 14

LIFE BELOW WATER

The Arab Academy for Science, Technology, and Maritime Transport (AASTMT) demonstrates its steadfast commitment to Sustainable Development Goal 14 (SDG 14) by familiarizing its students with it and including the necessary knowledge within the related educational programs, Curricula, and specialized courses. Although SDG14 is supported widely within the AASTMT maritime educational sector, AASTMT firmly believes that SDG14 is not limited to the maritime sector and promoting it to all AASTMTs' campuses and colleges. This dedication fosters a motivated and professional workforce, aligning with SDG 14's principles.

Our Progress through 2021-2022

AASTMT Recycling Program

AASTMT perceives the unfavorable effect of plastic waste, from creation through to removal. Plastic contamination can destructively affect Aquatic life, and the College is looking to diminish plastic use and wastage nearby. The accompanying activities have been received to advance this point with staff and understudies:

Single-use plastics in catering (food bundling, dispensable coffee cups, cutlery) have been supplanted with compostable catering supplies in all College food outlets to lessen plastic waste nearby.

Reusable cups are given to AASTMT staff during staff acceptances to decrease single-utilize dispensable cup wastage. These can likewise be bought from grounds retail outlets, and limits are offered to clients when reusable cups are used. Single-use cups cause an extra charge to urge a transition to reusable cups.

Conferencing and Occasions use reusable crystals to serve water, killing waste from recently used plastic-filtered water. The group also produces cleaned water nearby, further diminishing waste by evading the need to purchase indispensable water bundling. Water stations have been introduced all through the grounds for use by understudies and staff to support bottle reuse.

AASTMT intends to keep diminishing waste by investigating new items and administrations to help decrease plastic utilization and waste. To achieve this, AASTMT adopted a garbage segregation strategy and has distributed categorized trash bins on all its campuses; the following pictures are from the Abu-Qir Campus.

AASTMT Recycling Program on AASTMT webpage

The College Regularly Represents Egypt In The Working Groups on Stock Assessment (Wgsa) Of Demersal Species (Wgsad) And Small-Pelagic Species (Wgsasp) That Are Organized By The General Fisheries Commission For The Mediterranean (Gfcm), Food And Agriculture Organization Of The United Nations

The recommendations of the WGSAs are being submitted to the Scientific Advisory Committee on Fisheries (SAC), which collects and assesses information on catches, fishing efforts, fleet capacity, and other data relevant to the conservation and management of fisheries.

Then, the SAC adopts the assessment of the status and trends of relevant populations of living marine resources, ecosystems, and fisheries-related human components, using the appropriate indicators and in relation to agreed biological and/or management reference points. In addition, A provision of independent advice made by the SAC to facilitate the adoption of recommendations concerning the sustainable management of fisheries and ecosystems at the regional and subregional levels, including relevant biological, environmental, social, and economic aspects, the ecosystem approach to fisheries, the impact of IUU fishing and the assessment of biological and ecological implications under different management scenarios.

Links to the last three meetings:

Report of the Working Group on Stock Assessment of Demersal Species (WGSAD) session on the assessment of deep-water red shrimp on FAO webpage

Report of the Working Group on Stock Assessment of Demersal species (WGSAD) on FAO webpage

Report of the Working Group on Stock Assessment of Small Pelagic species (WGSASP) on FAO webpage

Fisheries Technology Program (Undergrad)

Program Description

The department is a pioneer in the education of fishing vessels navigation and designing of fishing equipment that qualifies graduates to work on fishing vessels as alternate officers, to be responsible for navigational surveillance (after completion of ministerial requirements for practicing the profession) or fisheries observers on fishing vessels, also as fishery managers in fishing ports. The program is designed in accordance with the requirements of the STCW-F international conventions of 1978, amendments to STCW-F for 1995, and the requirements of the International Maritime Organization (IMO). Students receive marine uniforms and marine exercises can be conducted in regional and international waters.

College of Fisheries Technology & Aquaculture Technology (aast.edu) on AASTMT webpage

Master of Science Degree in Sustainable Management of Fisheries and Aquaculture (SMFA), Funded by the EU (Erasmus+ project) (Postgrad)

Program Description

Master of Science Degree in Sustainable Management of Fisheries and Aquaculture (SMFA), Funded by the EU (Erasmus+). The M.Sc. students have accomplished the program of student mobility and exchange within the framework of the EU-funded project FishAqu of Erasmus+. The students visited the University of Aveiro and the University of Palermo throughout the period from 8 to 17 May 2022.

College of Fisheries Technology & Aquaculture Technology (aast.edu) on AASTMT webpage

Master of Science Degree in Sustainable Management of Fisheries and Aquaculture (SMFA), Funded by the EU (Erasmus+ project) (Postgrad) on Social media

https://aast.edu/en/sdg/goals.php?unit_item=1214&page_id=121400009 on AASTMT webpage

Directing The Graduation Project Topics In The Relevant Specializations

On Sunday, 22 May 2022, during the AASTMT Industrial Advisory Committee (IAC) meetings, a group of students in the Department of Marine Engineering Technology of The College of Maritime Transport and Technology (CMTT) at the AASTMT headquarters in Abu Qir presented their graduation project. Its theme was a land-based ballast water management system in the presence of their supervising lecturers, namely engineer Mustafa Abdul Ghaffar and engineer Mohammed Shawky. The presenters were Khaled Hazaa, Mustafa Hisham Qisheh and Youssef Sami, Youssef Hamed, Mohammed Khalil, Walid Mohammed, and Bilal Amer. The students did an exciting presentation reflecting their efforts on the global environmental issues related to marine life preservation in line with UN SDG 14 direction. The audience praised the marine environmental research figures for the students' practical experience, and the project results were shared with the attendees.

Directing The Graduation Project Topics In The Relevant Specializations on AASTMT webpage

Community Engagement

Initiative: Antifouling Paints:Environmental Hazards and Alternatives (Abu-Qir Bay Fishermen Community Outreach Workshop)

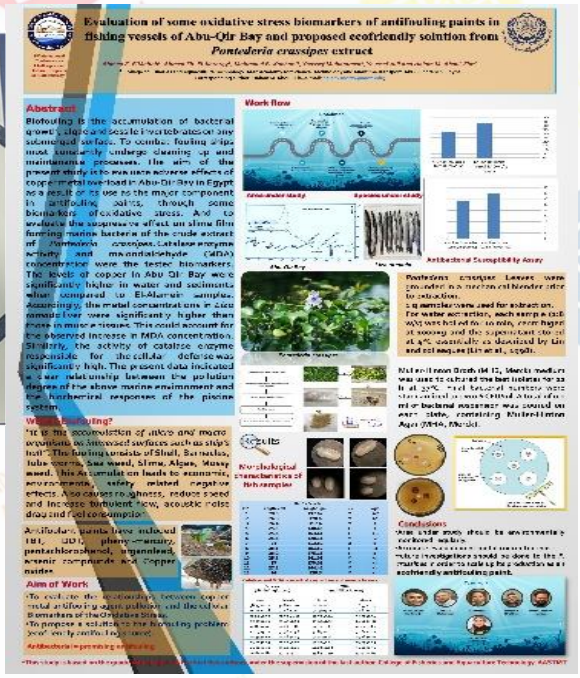
Biofouling is the accumulation of bacterial growth, algae, and sessile invertebrates on any submerged surface. To combat fouling ships must constantly undergo cleaning up and maintenance processes. Protecting boat hulls against biofouling is a compelling necessity, not only to prevent material corrosion and degradation but also to maintain the proper maneuverability of the boats, thereby ensuring safety at sea. Antifouling paints are widely used to counteract this problem, using toxic substances such as copper-containing paints, which negatively impact marine organisms. Raising the awareness of fishermen about this problem and encouraging them to use eco-friendly antifouling paints is of great importance; environmentally and economically.




Initiative: Antifouling Paints: Environmental Hazards and Alternatives (Abu-Qir Bay Fishermen Community Outreach Workshop) on AASTMT webpage

Initiative Scientific Output (The First International Conference of The Institute Of Genetic Engineering Research "Challenges And New Prospects In Biotechnology Sciences" At The City Of Scientific Research And Technological Applications)

Students at the College of Fisheries and Aquaculture Technology have participated in the First International Conference of the Institute of Genetic Engineering Research "Challenges and New Prospects in Biotechnology Sciences" at the City of Scientific Research and Technological Applications. That was evaluated as the best poster presented at the conference.



College of Fisheries Technology & Aquaculture Technology-Alexandria | AASTMT on AASTMT webpage

Overfishing Community Awareness

One of the main causes of the reductions in maritime wildlife populations is fishing. Fishing is not intrinsically harmful to the ocean, except fishing vessels overfish, which occurs when they take fish faster than the stocks can recover.

Globally, the number of overfished stocks has risen in the last 50 years, and the Food and Agriculture Organization of the United Nations estimates that a third of the world's assessed fisheries are currently overfished biologically. Bycatch, or the undesirable marine life caught when fishing for a different species, is directly related to overfishing. This is another major marine concern that kills hundreds of thousands of sea turtles, cetaceans, and billions of fish. The harm caused by overfishing extends outside of the maritime domain. Fish is the primary source of nourishment for billions of people worldwide, and

for millions more, fishing is their main source of income. A significant number of individuals who earn a living from fishing are striving to enhance global ocean resource management and conservation efforts. In order to improve fisheries management internationally, WWF collaborates with a wide range of stakeholders, emphasizing sustainable methods that preserve ecosystems while preserving livelihoods and guaranteeing food security.

For the previously mentioned, AASTMT as a leading university within the region; represented by the College of Fisheries and Aquaculture Technology, took the initiative to familiarize the local fishermen with the threats and adverse effects of overfishing.

Overfishing Community Awareness on AASTMT webpage

The College Organized A Scientific Symposium And A Workshop On The Damages Of Plastic In The "Be Prepared For Green" Initiative. 17th Jan 2022

The College Organized A Scientific Symposium And A Workshop On The Damages Of Plastic In The "Be Prepared For Green" Initiative. 17th Jan 2022 on AASTMT webpage

Events

MARLOG 11 20th -22nd March 2022

The conference theme was “Towards a sustainable blue economy”. Blue economy seeks to promote economic growth while at the same time ensuring the environmental sustainability of the oceans and coastal areas. Blue economy has diverse components, including established traditional ocean industries such as maritime transport, fisheries, and new fields, such as offshore renewable energy, seabed extractive activities, aquaculture, and marine biotechnology.

The conference topics were:

- Blue Economy Management Technology
- Innovative investments in the blue economy
- Blue economy: Maritime transport and Ports services
- Smart innovations for the blue economy
- Challenges and Opportunities of Blue Economy
- Blue Economy: Environmental Prospective.

MARLOG 11 20th -22nd March 2022 on AASTMT webpage
MARLOG 11 20th -22nd March 2022 on AASTMT webpage

IAMU AGA21 26th -28th October 2021

The 21st AGA and IAMUC 21 were hosted by the Arab Academy for Science, Technology, and Maritime Transport (AASTMT), in the beautiful city of Alexandria, Egypt. The theme of the AGA21 IAMUC is “Innovation and Sustainability of Maritime Industry in the Scope of **Blue Economy and Green Concept**”.

The 21st Annual General Assembly (AGA 21) is the International Association of Maritime Universities (IAMU) annual meeting. The IAMU Conference (IAMUC), held annually as part of the AGA, brings together experts and official representatives of IAMU member universities from all over the world to discuss, exchange, and share recent progress and future trends in maritime education, training, research, and other matters within the scope of IAMU.

IAMU AGA21 26th -28th October 2021 on AASTMT webpage

Participation of College Students In The Workshop And Competition Of The Climate Protection Initiative

Students at the College of Fisheries and Aquaculture Technology won the first three places in the Climate Protection Initiative competition. 27-28 Feb. 20

Participation of College Students In The Workshop And Competition Of The Climate Protection Initiative on AASTMT webpage

Participation in the UN Food for All summit in Dubai EXPO-2022

The inaugural Food for Future Summit & Expo and Global Agtech Expo saw 60+ world leaders, 150+ influential speakers, the world's top startups, innovators, and food revolutionaries unite to collectively inspire new Agtech and food tech solutions through innovative thinking, multi-disciplinary expertise, and collaborative action. The AASTMT team led by our student Moamen Sobh has presented Egypt at the UN – FAO – Enactus unique competition held on the 24th of February 2022. They provided two products that made an impact under the umbrella of Mycotech. Mycobrick, which is an organic building material. Mycobrick is classified as class A fireproof; it has no reliance on fossil fuel and is 60 times lighter than conventional brick. MycoPottain, a biodegradable pot that can be used in decoration, help plant nurseries and farmers in the transportation of the tiny seed from the pot to the soil; in addition, it can be used as a fertilizer for the soil after removing the paint and grinding it and friendly for the aquatic life if runoffs went to the sea.

Participation in the UN Food for All summit in Dubai EXPO-2022 on AASTMT webpage

AASTMT Staff participation in "ENI CBC Plastic Busters CAP e-Course on Marine Litter Monitoring and Mitigation."

Marine litter, the vast majority of which is made of plastics, is globally acknowledged as a major environmental and societal challenge of our time. The Mediterranean is one of the most affected seas by marine litter worldwide, originating primarily from shoreline activities. Therefore, its effective management requires a relevant instrument of Integrated Coastal Zone Management (ICZM) that should be embedded into local development planning. The proposed project will capitalize upon and effectively transfer available knowledge and tools from 5 projects that address the entire management cycle of marine litter - from monitoring and assessment to prevention and mitigation. The project's comprehensive, multilevel, and strategic approach will facilitate the efforts of decision-makers and stakeholders in effectively dealing with marine litter towards good environmental status in the Mediterranean. The COVID-19 pandemic has worsened the situation as the use of single-use plastics (SUP) such as gloves and masks has increased, threatening to stall and even reverse the progress achieved with regard to SUP which account for up to 50% of beach litter.

Thank you for attending the Plastic Busters CAP e-course!

Thomais Vla...MIO-ECSDE)
to Vlachogianni (MIO-ECSDE)
Today, 15:54

Dear Colleague,

Thank you very much for attending the **ENI CBC Plastic Busters CAP e-course on marine litter monitoring and mitigation**, which took place on the 17th and 19th of January 2023.

We are delighted to have received 391 registrations from all over the world and we thank you all for your attendance and positive feedback.

You can access the e-course's recordings, presentations and resource packs here.

Please take a few minutes to fill out the satisfaction survey here; your feedback will help us improve the content and organisation of future e-courses.

It has been a great pleasure seeing you online! We hope you found the e-course useful and constructive and we look forward to e-seeing you again!

Best regards,

On behalf of the organizers,

PLASTIC BUSTERS CAP, MIO-ECSDE, UNISI & WES

Thomie

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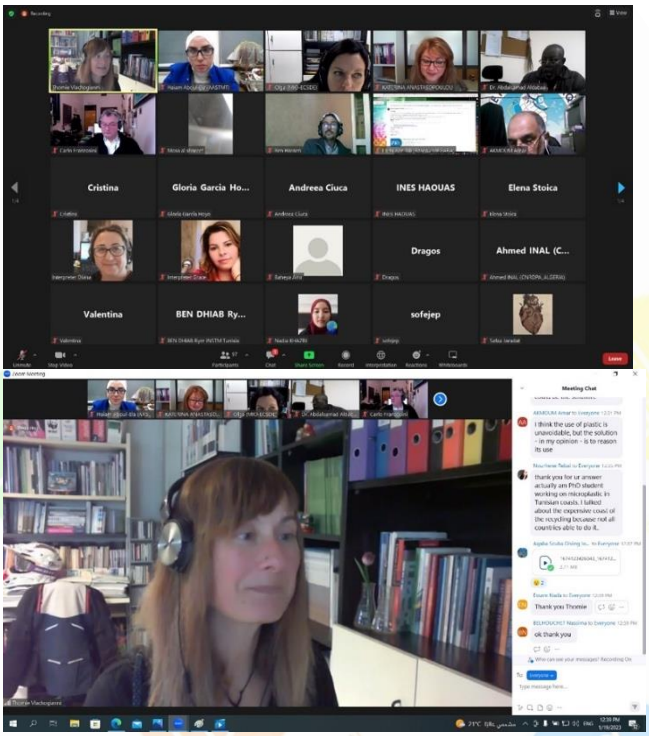
Thomais Vlachogianni | Senior Policy & Programme Officer
PhD. Environmental Chemist & Ecotoxicologist
Mediterranean Information Office
for Environment, Culture and Sustainable Development
The Mediterranean NGO Federation
12, Kyrristou street 105 56, Athens, Greece
0030-210-3247490 (ext. 211)
Reach out to us!
Website, Facebook, Twitter, LinkedIn



AASTMT Staff participation in "ENI CBC Plastic Busters CAP e-Course on Marine Litter Monitoring and Mitigation." on Social media

AASTMT Students Representing Egypt In The UN Ocean Conference Youth And Innovation Forum

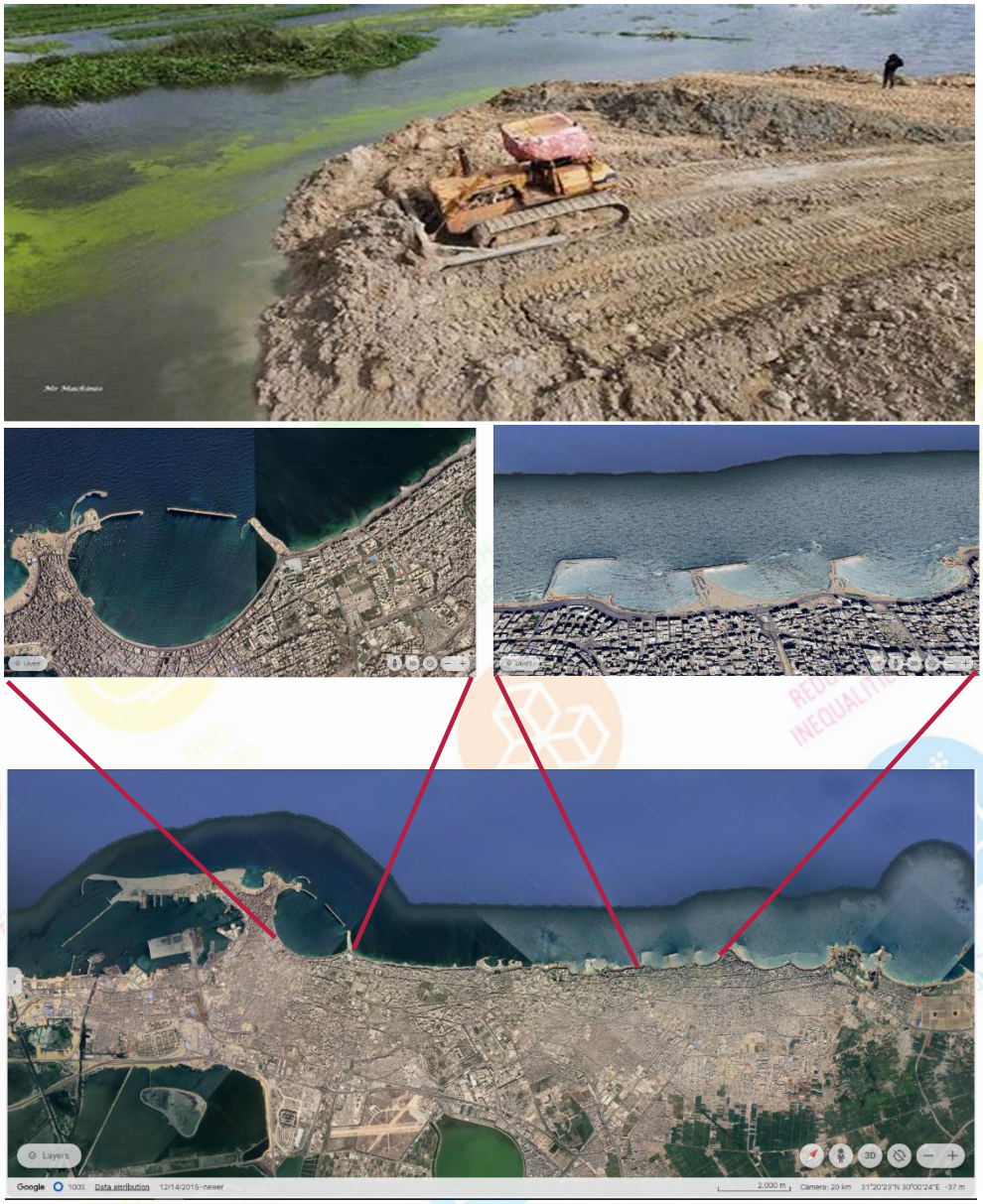
Between June 24-26, 2022, the governments of Portugal and Kenya and the UN Global Compact organized the UN Ocean Conference Youth and Innovation Forum. Two of the AASTMT students were presenting Egypt in the forum. The Forum was an opportunity for youth to contribute to SDG 14 in alignment with the 2022 UN Ocean Conference theme: Scaling up ocean action based on science and innovation for implementing Goal 14: stocktaking, partnerships, and solutions. The Forum was a platform for ocean action and implementing youth-led solutions at scale to address the SDG 14 target. The Forum sought to advance and inspire interdisciplinary thinking to address ocean challenges.

https://aast.edu/en/sdg/goals.php?menutab=16&unit_item=1214&page_id=121400005 on AASTMT webpage

Initiative: "Existence of Harmful Algal Blooms along Alexandria coast: A mitigation strategy"

Since 1998, the Alexandrian coast has undergone a series of engineering modifications. These changes have had an impact on the water quality, phytoplankton productivity, and diversity, in addition to the topography of the coast. In order to prevent erosion and build new beaches, preventive wave breakers were constructed in 1998. Shallow, somewhat big, semi-closed lagoons formed as a result. These lagoons become an ideal habitat for algal blooms because of their shallow depth and partial stagnation of their waters. Around 2010, the corrective strategy was subsequently implemented to lessen the negative consequences of the earlier coastal alterations. Over the course of the two periods, the phytoplankton's standing crop and composition completely changed. Internal tourism suffered financial losses due to this bloom.

A major problem along the Alexandria shoreline is beach erosion. Accordingly, the coast was subjected to coastal engineering modifications in order to reduce erosion and establish new recreational beaches. The coastal modifications were done without a preliminary impact assessment and led to negative effects. Semi-closed artificial lagoons were established, and a green tide was formed for the first time along these lagoons due to their shallowness and increase in nutrient concentrations. Corrective measures had to be taken to mitigate the negative effects.



https://cms.aast.edu/contenttemp.php?page_id=121400028 on AASTMT webpage