Goal 15 - Life on Land



Our Aim

In order to achieve the SDG 15 which aims to protect, restore, and foster sustainable use of terrestrial ecosystems, managing forests sustainably, battling desertification, halting and reversing land degradation, and promoting biodiversity conservation. AASTMT is a leading institution at the local, Arab and international levels, and has made an effort to achieve the following goals:

- 1- Educational and training programs with international standards for students to be aware of how to protect ecosystem and how to contribute sustainable use of land.
- 2- Waste management and plastic recycling policy.
- 3- Arranging initiatives like climutopia, stop food loss and waste and energy management.

Last Year Recorded

Worldwide

306

Egypt

7

Our Progress through 20/21

Teaching

Environmental Studies 1

https://aast.edu/pheed/show_course11.php?get_code=AR362

Engineering Geology

https://aast.edu/pheed/show_course11.php?get_code=CB361

Environmental & Sanitary Engineering

https://aast.edu/pheed/show_course11.php?get_code=CB532

Environmental Control and Energy in Buildings

https://aast.edu/pheed/show_course11.php?get_code=CB533

Special Topics in Environmental Engineering

https://aast.edu/pheed/show_course11.php?get_code=CB534

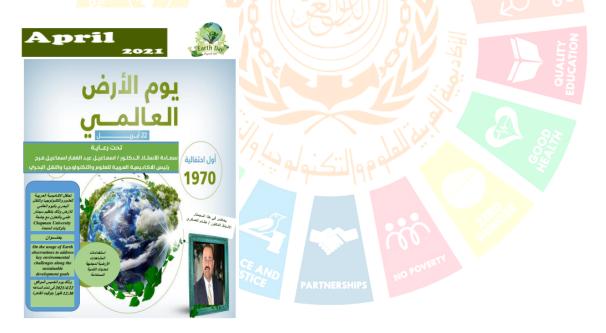
Virtual Environments

https://aast.edu/pheed/show_course11.php?get_code=CS453

Initiatives

1- World earth day

https://aastmtic2.aast.edu/sri/sdg15/15.3.5.pdf



2- Engineers for the future Egypt https://rayetmisr.com/30466-2/



3- climotupia



https://aast.edu/en/sdg/goals.php?menutab=22&unit_item=1213&page_id=12130000













4- prepare for green

https://aast.edu/en/news.php?unit_id=419&language=1&event=40&get_event_type=1



5- Go green

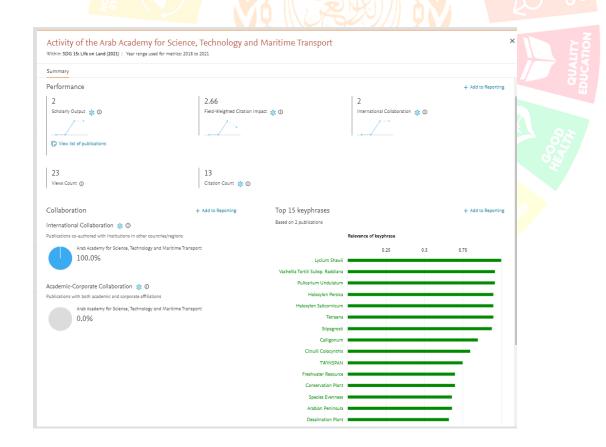
http://www.aast.edu/en/news.php?page=12&event=22&unit_id=531&language=1&get_event_typ_e=1





Research

https://aast.edu/en/sdg/goals.php?menutab=7&unit_item=1215&page_id=121500003



- High Level Renewable and Energy Efficiency Master Courses
- Knowledge exchange in sustainable Fisheries management and Aquaculture in the Mediterranean region

https://aast.edu/en/sdg/goals.php?menutab=10&unit_item=1213&page_id=121300007

Public Engagement

1- Symposium on the role of the media in raising environmental awareness and the "Be prepared for the green" initiative

https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.elmogaz.com%2F698920&psig= AOvVaw3Fn9R0hxf2OcmGZJAp77pg&ust=1667849102771000&source=images&cd=vfe&ved=0C AOQjRxqFwoTCLjcqJ2kmvsCFQAAAAAdAAAAAAAA



2- Ministry of Environment Honors the Academy

hhttps://aast.edu/en/csr/news.php?unit=1&event=3779&language=2

3- No plastic bags ttps://www.bing.com/search?q=google+translate&form=ANNTH1&refig=299ffe94c2824 07c87f59d1b69d4215c&sp=6&qs=AS&pq=google&sk=AS5&sc=10-6&cvid=299ffe94c282 407c87f59d1b69d4215c

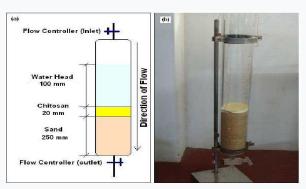
Case Study

Mention brief Details about one of the research or initiatives and then mention the output (Note: try to add statistics for any of the above points)

Synthesis and Characterization of Metal-Organic Frameworks in Petroleum Oil-Contaminated Wastewater

One of the research that utilizing in various environmental applications such as the treatment of industrial contaminated wastewater with carcinogenic heavy metals and microorganisms to achieve sustainable use of water and land and use of this water for agricultural irrigation. The aim of the research includes the preparation and characterization of metal-organic framework/composites. The hydrogel composite consist of [chitosan & 1-MOF (Metal Organic Framework 'Zirconium Chloride] and act as adsorbent.

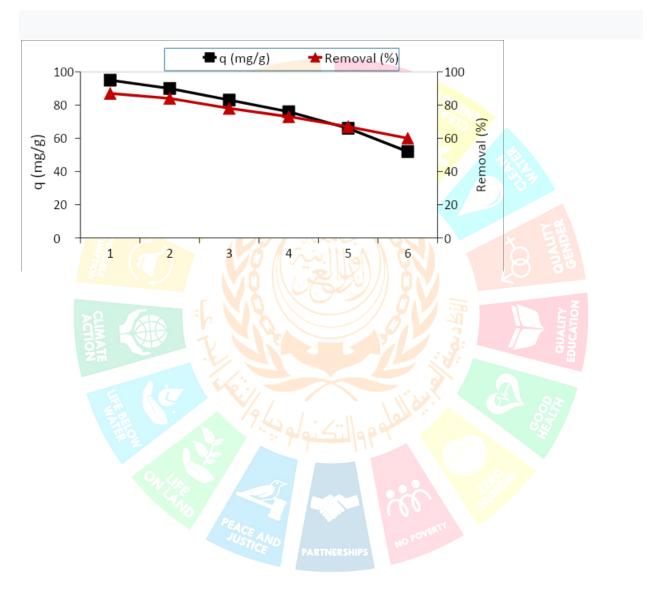




Results Reusability

The reusability of the adsorbent is a very important factor from an economic point of view since it affects directly on the production cost of adsorbents. In this study, the ability of the prepared CS-MOF (UIO-66-NH2) adsorbent to be reuse in the adsorption of heavy metal was studied via conducting the adsorption-desorption experiments as investigated. The results indicated that adsorbent still has good adsorption properties after conducting six repeated adsorption -desorption cycles. Where, the removal (%) of heavy metal still exceeded 60 % after six-cycles with maximum adsorption capacity reached 52 mg/g. This reveals that the developed adsorbent

beads could be used efficiently as a reusable and ecofriendly adsorbent for removing of ions from their aqueous solution.









This research won the second place in IEEE from special track and made it to the finals in India











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